DATA TAMASHA
REPORT
4-6th DEC 2019

dLab
Tanzania Data Lab

Contents

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

INTRODUCTION

About the event

From 4th to 6th December 2019, Tanzania Data Lab (dLab) held the DATA TAMASHA event, which had been organized in collaboration with different partners including Media Space. DATA Data Tamasha (Swahili for Data Festival) is a biennial flagship event of Tanzania Data Lab that brings together data and innovation ecosystem stakeholders from Tanzania, Africa, and across the globe to showcase best practices and share experiences on how data and data driven innovations can contribute towards inclusive sustainable development.

The 2019 DATA TAMASHA was another success of the dLab event due to its liveliness amid dialogues, panel discussions, presentations, interactive sessions, exhibitions and public outreach activities involved diverse profile of participants. The event was held at Tanzania DataLab premises locate at College of Information, Communication and Technology, University of Dar es Salaam.

Themes

The main theme for the year 2019 was **'The Power of Data for Inclusive Sustainable Development**.' Sub-themes of the events were as follows;

1. Women in Data Science
2. Emerging technology and Data
3. Optimizing the use of Citizen Generated Data
4. Data Literacy

Day one of the event was exclusively focus on the Women in Data Science Sub-them, this was crucial due to the fact that, it was the same day that dLab was launching Dar es Salaam Chapter on Women in Data Science Network (WIDs) as part of the global network which was established at Stamford University

Objectives

The main objective of the DATA TAMASHA 2019 was to bring together diverse groups and profile of people from all over the world with different interest, expertise, use caes on data and innovation to raise, discuss and provide recommendations on data-related issues for future action.

Participation

More than 700 people registered for Data Tamasha 2019 and those who participated came from Tanzania, Kenya, U.S.A, Finland and Uganda; and included media experts; data experts; representatives of CSOs; representatives of international organization; journalists; higher education students; ICT experts; and government representatives.

For those who did not manage to participate physically, they were engaged through dLab social media channels

Sponsors

1. DAY ONE SESSIONS – 4 December 2019

Day one session was focusing on promoting Women to engage in Data Science, to support that, the Dar es Salaam Chapter of Women in Data Science was launched. In all session's presenters, speakers were only female as part of the empowerment process, however male were there to support and contribute to the discussion.

Opening

Speakers
- o Mahadia Tunga – dLab/WIDS Ambassador
- o Dr. Mussa Kisaka – Principal College of ICT,UDSM
- o Rachel Boma – Program Specialist - UN Women Tanzania
- o Inmi Patterson – Chargé D'affaires, US Embassy
- o Guest of Honour

Moderator: Khalila Mbowe & Lilian Madeje

Remarks by Mahadia Tunga – Women In Data Science (WIDs) Ambassador
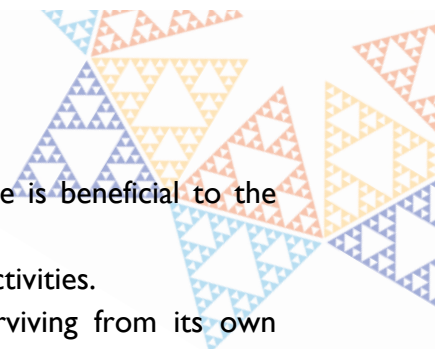
Remarked that:
- » As one of the founder of dLab, she welcome all participants to Data Tamasha 2019
- » Statistics indicate career in computer science for women has been declining not only in Tanzania but also globally.
- » Female enrollment at the college of ICT is only 30 percent.
- » The only level with 50/50 female enrolment is primary school.
- » For different reasons, only one third of girls graduate at secondary school level, meaning 2 out of 3 drop out of school.
- » DATA TAMASHA is a flagship event to celebrate data, began in 2016 at the University of Dar es Salaam (UDSM) under the data collaborative supported by PEPFAR.
- » Data Lab was established in 2018 as a sustainability vehicle of three projects (i.e Data Zetu, Data for Local Impact Innovation Challenge and Tanzania Datalab) which were supported through joint partnership between Millenium Challenge Corporation and Presidential Emergency Funds for Aids relief. Tanzania Data lab name was remain in use as organization name.

Recommended that:
- » There is need to attract and encourage more women in technology and data related fields.
- » Make use of data for inclusive SDG along with innovation and research.
- »

Remarks by Dr. Kisaka - Principal , Collegoe of ICT, UDSM

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

- » Remarked that the decision to hold the event at the ICT College is beneficial to the college, as it will make it more known.
- » Pointed out that UDSM is hosting dLab as a contribution to their activities.
- » Stated that a new phase began in August 2018 where it is surviving from its own activities and they organize events and a lot of capacity building on data science to young women.
- » The college offers Master in Data, the only such programme in Tanzania and perhaps East Africa; and they receive many applications.
- » Stated that the collaboration between the UDSM and dLab is meant to recognize the marathon of data in Tanzania.
- » Mentioned that dLab is working together with NBS to strengthen and promote use of data in Tanzania, and not reinventing the wheel; and that DATA TAMASHA is meant to showcase data use for development.

Remarks by UN Women Country Representative, delivered on behalf

- » Commended the event organizers for providing such an important platform to show and discuss the importance of data in our lives and for women to display their work.
- » Remarked that DATA TAMASHA activities will be essential for achieving SDGs and closing the gender gap in technology.
- » Remarked that gender statistics is an essential component of UN Women's work and lack of data has promoted gender stereotype.
- » Stated that it is critical to have more women working in the data spaced.
- » Expressed that less than 30% of women in the world are researchers as only a few of them pursue the science pathway. In 2011, only 24% of women in Tanzania enrolled in science fields.
- » Urged participants to take advantage of the event to forge partnerships as data impacts all the people.
- » Recommended creation of inclusive data sector and the need to influence key decision makers to increase gender data quality.
- » Called for the need to design programmes to address inequalities and disparities.
- » Recommended more women to be involved in data collection and provision of more gender data.
- » Urged stakeholders to adhere to ethical issues in order to come up with data that do not endanger women.
- » Remarked that data experts should inspire and encourage women and girls to pursue studies in data science.
- » Urged stakeholders to work together to close the gap in science and promote women's empowerment.
- » Called upon the private sector to collaborate with UN Women to promote gender equality and women's empowerment.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

Keynote Speech by Immi Patterson – Chargé D 'Affaires, US Embassy

- » Used the platform to launch the Women in Data Science (WiDS) Dar es Salaam Chapter in Tanzania stressing that it is an opportunity for Tanzania women to engage more in the area of Data Science.
- » Noted that healthy educated people are key and a foundation for development.
- » Indicated that since formation of dLab and the last event, there has been notable progress and hope to see dLab growing further and contribute more to their country.
- » Stated that she is not fond of seeing girls undervalued and indicated that they are undervalued since the moment they are born, including in Tanzania.
- » Girls in many places, including Tanzania, are forced to miss school because of menstruation.
- » Noted that there is a need to take better care of girls and create an environment for them to thrive.
- » Generation of data is dependent on freedom of expression; hence, this freedom must be safeguarded.
- » Education is very essential and a key determinant of the type of life one wants to live.
- » Stated that U.S Embassy, through PEPFAR, is delighted to have participated in launching the Tanzania Data Lab; and encouraged anyone with innovative ideas that will make a difference in the society to reach out to the U.S Embassy for partnership and support.
- » Noted that the world is full of people who are well educated, but we need to do more in terms of innovation.
- » Also noted that innovation is the only way a country can make real progress, citing the U.S.A as an example. However, innovation requires people to be free to think and express themselves freely.
- » Expressed that failure is part of innovation and we should keep on trying until we get it right.
- » Stated that the event provides a forum for researchers and data stakeholders to come together and share experiences and knowledge.
- » Recommended for countries to invest more in research.
- » Urged stakeholders to be critical and never accept anything, especially on the internet, as it comes with a high price.
- » Urged stakeholders to be conscious of the messaging relayed to children when talking of access to data.
- » Urged stakeholders to get the message to women, as they are the key players.
- » Indicated that there is a need to identify women in the team and encourage them to grow.
- » Indicated the need to take better care of girls so that they become participants in the economy, instead of subjecting them to GBV.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

1.1. Women in Innovation

This session included presentations and panel discussion.

Presentation: Innovation that has Impacted Agriculture
Presenter: Caroline Maumba - Overview of Carvy Crafts- Founder.

Caroline Maumba made a short presentation about her agricultural app called Mucci box, which helps to manage irrigation farming. The innovation has positively impacted agriculture, enabling one to participate in the farming process without having to be physically there. The app is meant to assist farmers to revolutionize agriculture and gain new knowledge about farming. She confirmed that the application can easily be installed in a mobile phone; and added that the app can automate a pump used in irrigation farming. The app also allows a farmer to create a schedule on when the water is pumped onto their farm and estimate the amount of water needed.

Ms. Maumba indicated that she worked on her idea with a team of experts and finally managed to come up with the app, which has managed to demonstrate in different forums, including the Sabasaba Trade Fair. Some of the challenges that she has faced during ther product development includes; high prices of the; lack of support system dedicated to female founders; and limited family support in terms of the prospects of the business.

Presentation: Jamii Dashboard

Anitha Martin, the founder of Jamii Dashboard, made a short presentation about her innovation. The innovation focuses on addressing adolescents and youth, as well as sexual and reproductive health problems. It is a web-based integrated platform where one can access disaggregated data, useful in designing appropriate interventions. The platform collects data from adolescents and youths and provides key information on sexual and reproductive health. For instance, the platform indicates that 31 percent of adolescent and youth are aged 10-24. It also indicates that a growing number of them engage in sex without protection with limited access to services and limited data to help in intervention.

Regarding how the platform came to be created, Ms. Anitha Martin noted that it began as an idea, then she saw a call for proposal, applied and created a team of 3 women and 1 man to create the platform. She acknowledged that she received support, training and mentorship from dLab. Through realizing of her idea, she also mentioned different challenges that she faced including negative perception on the work she does, as she is usually told by men and some women that she would never make a good wife as she spends too much time developing her systems. She also mentioned that some men in the field see her as a threat. Other challenges include limited number of computers for and adolescents and youth in rural areas, which are essential in facilitating her project. Required support: coaching and mentorship on business development, and marketing, financial support of USD 20,000 to scale up in 1 district and 1.500,000 USD to scale the program countrywide.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

Panel Discussion: **Are women less innovative?**

Speakers
- o   Rosalynn Mworia – Vodacom Tanzania
- o   Kelli Hynes – Director CRS Tanzania
- o   Anitha Martin – Grassroot Innovator
- o   Iku Lazaro – Ndoto Hub
- o   Iren Mlola – FSDT

Moderator: Dr. Blandina Kilama & Marjolun Wilmink

The main objective of the session was to enable innovative women coming from different background and experience in the innovation ecosystem to share their experiences on data and science and to inspire upcoming female innovators.

1.1.1.   Key Issues and Points
Key Issues raised by the panelists
- »   Women are equal or better when it comes to innovation. The only problem is that they are exposed to fewer opportunities compared to men.
- »   Women in rural areas are also very innovative, when given a chance.
- »   Women are more intuitive, think quicker, are patient, and try to find solutions with limited resources.
- »   Women are better in social innovation.
- »   Given their day-to-day problems and experiences, women are better positioned to think quicker on their feet.
- »   o?
- »   Women actually manage their lives in a very informal way and are very good at savings, managing their livelihood, be able to engage in small businesses and take kids to schools.
- »   Access: the data has not been able to match the story of women being more innovative than men.
- »   A girl child faces more challenges that hinder effective realization of her right to education than a boy child, including menstruation – which causes her to miss school.

Key Issues raised during Q & A and plenary discussion
- »   There is a difference between men and women when it comes to writing. Men tend to overlook things during the writing process.
- »   46% of Vodacom management officials are women.
- »   Need to use the centric approach to problem solving.
- »   We need true commitment from both men and women in order to effectively promote women's empowerment and nurture their innovative instincts.
- »   Youth must be innovative and act now instead of waiting for permission or blessings of leaders and parents.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

» The issue of context is vital in innovation.
» Youth should not be discouraged by challenges they face in innovation, instead keep pushing forward and seeking relevant support. However, most importantly they must believe in themselves in order to succeed.
» Need to have legislators and minister responsible for education and technology to address some of the issues raised.

1.1.2. Recommendations
» Youth and women to take measures to ensure policies articulate financial inclusion.
» Use available data to find solutions to problems in the society.
» Be data-driven in everything.
» Women should seek an opportunity to amplify their voices in innovation.
» Women should innovate for women, as solutions that will come will not benefit only them but the rest of the world.
» Women should design solutions not only for women but also for men.

1.2.   The Role of Women in Data Science in the Industrial Era
This session included a short presentation and a panel discussion.
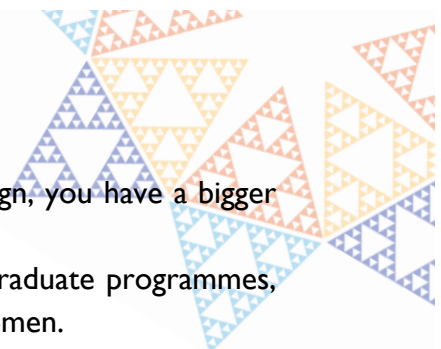
Speakers
o   Jocye Ndambi – USAID
o   Mahadia Tunga – dLab
o   Vanesa Kisowile – Sahara Ventures
o   Nina Kayhko – Resilience Academy/Turku University
o   Hellen Maziku – COICT
o   Sydney Garfinkel – MCC/DCLI – M&E

The main objective of the session was to enable innovative women to share their experiences on data and science and to inspire upcoming female innovators.

1.2.1. Key Issues and Points
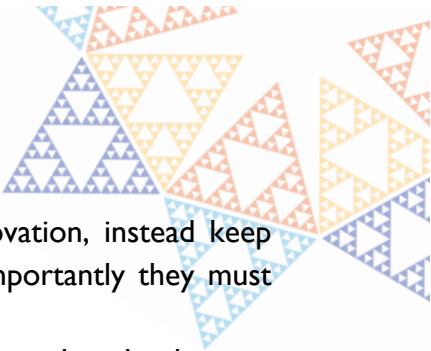» There is a lack of evidence, research and data about women existing in the economic sectors and that is quite challenging.
» MCC is motivating a generation of women interested in investing in viable economic potentials.
» Fourth industrial revolution is more of soft skills, creative and critical thinking which women have it built in them. Thus, women have an advantage in the fourth industrial revolution.
» Confidence is the first challenge for women in getting into business. (they I don't know if I can do it) is a setback, working our personalities and how we see ourselves.   One needs to believe in oneself before they can go to the outside perspective.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

» Girls tend to come with very good designing skills. If you can design, you have a bigger platform.
» Statistics on girls' enrollment are not looking good. In the undergraduate programmes, only 10 percent of students enrolled in ICTand data science are women.
» The role of dLab is to change perceptions.
» The role of dLab is also to encourage more women to join the data agenda.
» Data Lab works with local government authorities with youth as focal point. They have a curriculum for training on data literacy at the grassroots level and start with regions that are more disadvantaged.

1.2.2. Recommendations

» Need to create more safe spaces like dLab where girls can take part in data and innovation with the company of their parents. This will enable parents to see what their female children are doing and encourage them.
» The government, developing partners and private sector need to put more investment on ICT training from early childhood and primary schools to encourage more girls to enroll in data science.
» Need to instill the love for science to children from early age, exposing them to science and what it can do to solve problems in the society. This will help to create passion in them.
» Need to create inclusive environment to help women and girls grow and enable men to understand that it is okay to have a powerful woman as a wife.
» Need to train students to be critical thinkers and people eager to find solutions.
» Need to improve communication skills, as it is key. If female innovators cannot communicate their programmes, they remain at a disadvantage. DLab has a specific item on soft skills, and these skills are needed to sell their technical skills.
» Need to encourage each other, having a platform where women can network online, share experiences, and discuss issues on science and engineering. They can also mentor each other online.
» Need for innovation initiatives not to leave behind persons with disabilities.
» Need to reach out to more people in rural areas, as they need the solutions the most and that is where majority of Tanzanians reside.
» Need to assign mentors to children who have innovative ideas.
» Girls and women are encouraged to attach themselves to a company or hub that deals with technology to gain experience and kick start their career in ICT and science.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

1.3.   The Future is Female

This session included short presentations and discussion.

Speakers
- o   Chepkemoi Magdaline – ELDO Hub
- o   Vicensia Fuko – MediaSpace
- o   Tulinagwe Mwampanga – Youth Activist
- o   Christina Mariki – PEPFAR Scholar 2019
- o   Upendo Mchome – PEPFAR Scholar 2018

Moderator: Fatuma Fernandes
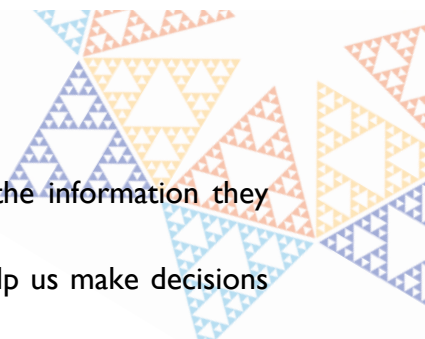
1.3.1.   Key Issues and Points

» Media Space promotes innovation in media as the media landscape has been changing and the role of the media has become so powerful.

» The media is the right partner to ensure no one is left behind and use it to tell the story.

» When talking on SDGs we mean bringing solutions that do not jeopardize the future and have to see how female are incorporated in the future.

» It is the role of journalists to bring about and engage the community to speak about whatever challenges the community face.

» The role of women in the newsroom or the content is a subject for discussion.

» The media all over the world has been echoing voices of the few.

» The future has more opportunities for women to engage in data science.

» Data science is a combination of science and statistics. It is a new thing in our society.

» For the better of the community, the decision maker and other stakeholders should not do anything or decide anything without data. If you have enough data at hand, it will help in making decisions at different levels.

» Opportunities made available by data science include business, statistics, employment, youth empowerment and achieving SDGs.

1.3.2.   Recommendations

» Need to inspire more young women and girls to take science subjects to increase the number of women in the science industry.

» Encourage female teachers to make children feel that they are some role models to look up to; and bring female scientists and to talk to and inspire female students.

» Need to translate data so that a common *mwananchi (citizen)* can understand, not just present it.

» Need to engage journalists to understand how they can verify data and share information through social media platforms.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

> » Need to help the public understand the importance of verifying the information they receive.
> » The society and women should look beyond data and use it to help us make decisions or be in decision-making platforms.
> » Encourage women to vie for leadership positions. We really need to be at the decision-making table for the future to be female.

1.4.   Women Lead Data Driven Innovation

This session included presentations and discussion from some of the successful women innovators. The objective was to inspire others and how that it is possible as women to innovate and engage with data to create an impact.

Speakers
- o   Khalila Mbowe – Rise Up
- o   Anitha Martin – Jamii Dashboard
- o   Linda Mlunde – Smart Growth Diary
- o   Rahma Musoke - Monitoring and Evaluation Officer at the Benjamin William Mkapa Foundation

Moderator: Tayamika Mattao

Presentation by Khalila Mbowe
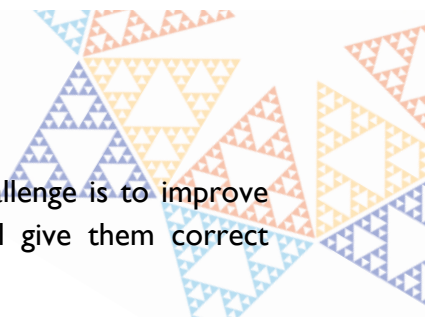
Ms. Khalila Mbowe made a short presentation about the Beautiful You Initiative. This project creates digital and physical platforms for open dialogue on the issues that closely affect young girls, inspires them to share their challenges and empowers them to collectively drive solutions. It promotes cross-age group dialogue on key issues affecting the dreams of the Tanzanian girl child as well as connects young girls to relevant experts. The presenter noted that the Beautiful You Initiative connects girls to opportunities that would build their personal and professional capacity to fulfill their dreams. The project has created Africa's first, girls-only, digital safe space and community for any young girl with a dream called Rise Up.

Presentation by Anitha Martin

Ms. Anitha Martin, founder & team lead for the Jamii Dashboard, made a presentation about the dashboard, a web-based integrated platform where one can access disaggregated related to knowledge, attitude and practices of adolescents and youth aged 10-24 on issues around sexual reproductive health. The platform has inbuilt tools that collect data from adolescents and youth as they access it through Jitambue Challenge, peer to peer interactions and chat with mentors. Collected data is then summarized in an easy to use dashboard.

The Jitambue Challenge is an age-categorized quiz that helps adolescents assesses themselves by answering questions appropriately tailored for each age-group category. These questions are based on 5 topics: Growth and Sexual Maturation, Gender Based Violence, Sexually

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

Transmitted Infections, Contraception, and Parenting. The aim of this challenge is to improve these adolescents' knowledge, attitude and practices in a way that will give them correct information through performance scores.

The Peer-to-Peer Interaction section is a safe online space where adolescents can interact with peers in their respective age-group discussion forums.

The Chat with Mentors section offers adolescents trustworthy mentors who are ready and willing to listen and help them through their troubles by having in-depth discussions; through one to one or asynchronous communication.

So far, the program has been a success, having 2460 users who have visited the dashboard and 212 adolescents and youth from rural areas participating in the *Jitambue Challenge*. The platform has also generated interests from community leaders and NGOs by enabling them to attain disaggregated data that will aid them in designing Social Behavior Change in their target communities. Additionally, the program has facilitated the utilization of computers in several schools.

Presentation by Dr. Linda Mlunde

Dr. Linda Mlunde is the Smart Growth Diary Project Manager, Consultant at Fabstech Ltd and Implementation Science Tanzania, and Honorary lecturer at MUHAS. The objective of her presentation was to illustrate how a mobile application has been used to reduce stunting in Tanzania, by giving mothers nutritional advice based on the nutritional status of her child. This mobile application is called the Smart Growth Diary. It works by analyzing the child's data with an intelligent system that is set to give results based on the Input Nutritional Guideline (Infant and Young Child Feeding, Tanzania Food Composition Tables, WHO Child Growth Standards). Mothers or caregivers who have access to smartphones are recruited from clinic attendances, then introduced to it. After the introduction process, they are required to register to the application to begin using its features. Currently, this solution is being tested in 5 health facilities in Temeke municipality. So far, 2700 children from Mbagala Rangi Tatu Hospital, Mbagala Round Table Health Center, Chamazi Dispensary, Consolata Sisters' Dispensary, and Tambuka Reli Dispensary have managed to register to this system.

Presentation by Rahma Musoke

The objective of the presentation was to explain how the Benjamin William Mkapa Foundation, in collaboration with Tanzania Data Lab, use technology to reduce delays in health care seeking that led to maternal and neo-natal deaths. Ms. Rahma Musoke noted that significant number of child mortality cases in the country result from preventable, treatable diseases such as malaria, pneumonia, and diarrhea. Other contributors such as inequities in accessing and using health

services, and insufficient health-education knowledge played a significant role in child mortality as well.

To reduce maternal and child mortality, BMF in collaboration with Tanzania Data Lab designed a tool to reduce delays in seeking health care within communities. This product is used by Community Health Workers and assists them in making decisions judging from symptoms different patients portray. Depending on the symptom, Community Health Workers will be able to refer the patient to the appropriate healthcare facility by sending them a message containing a referral name and number. Once the facility in charge is informed, they will respond after the patient arrives at their facility for further treatment. This tool is called the CHAID TOOL (Community Health Assistant Information and Decision Making). It is a combination of a questionnaire prepared and designed by BMF-Women and the ODK Tool installed by Tanzania Data Lab.

So far, the tool has been successful in assisting Community Health Workers increase the number of referrals. Moreover, an increased number of women are attending clinics, and delivering at the appropriate healthcare facility.

1.4.1. Key Issues and Points

» Difficulties for women within society exist due to the negative internal conditioning that is a result of similar trends in suppressive upbringing from these girls' family background, environment, structural factors, community, and group influence.

» Negative internal conditioning produces a negative external manifestation (an expression of self to the surrounding world) thus landing girls and women at the nesting place of failed dreams.

» Assisting adolescents and youth to stay smart and make responsible decisions is of utmost importance due to the several challenges they face on a daily basis.

» Adolescents and youth from rural and urban areas are encouraged to utilize web-based platforms to find solutions to their problems as well as inspiration.

» One in three children in Tanzania under 5 years of age is stunted. Smart Growth Diary mobile application provides a solution to this problem.

» Significant number of child mortality cases in the country result from preventable, treatable diseases such as malaria, pneumonia, and diarrhea. Technology can help to reduce child mortality.

1.4.2. Recommendations

» Encourage adolescents and youth to make positive use of the Internet, taking advantage of the existing online platforms to find solutions to their problems and advance their careers.

» Need for increased investment in technology in the health sector to help save lives and improve provision of health services.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

1.5.   Women in Geo-Spatial Data

This session included a speech, presentations and discussion.

Speakers
- o   Dr. Mercy Mbise – COICT
- o   Dorotha Deus – UDSM
- o   Theofrida Maginga – SUA
- o   Khariya Massoud – SUZA
- o   Sanna Maki – Turku

Moderator: Nina Kayhko (Associate Professor University of Turku, Finland)

Speech by Ms. Nina Kayhko

Ms. Nina Kayhko, the Associate Professor University of Turku based in Finland, provided a background on GEO-ICT project, noting that it had been running for the past three and a half years. The project involves 5 Universities, one in Finland (TURKU) and 4 in Tanzania (namely UDSM, ARU, SUA, SUZA and UTU) which together have formed an initiative called Resilience Academy. She further explained that their major goal is to build capacity for young and senior experts so that they can deliver better services and GEOSPATIAL-ICT skills for the young future experts. She also said they have been working on building a new curriculum for this in Tanzania in areas such as Data Science, Environmental Science and Curriculum in Geomatics and Geo-informatics. The project has created an opportunity to learn to all representative members of the mentioned universities by attending short courses and doing curriculum design together. The project also established the Laboratory at the College of ICT.

With the initial support from World Bank, resilience academy will support and equip youth with the relevant tools, knowledge and skills to enable them to address the world's most pressing urban challenges and promote resilient urban development involving the Governments of Tanzania and Zanzibar. She further noted that local universities have been helping to bridge the existing data gap, especially among university students, reducing shortage of education in Dar es Salaam; and that the initiative is helping to create a new generation of data experts.

As Resiliency Academy, when we currently speak of data science, we talk of how technology and data taken into practical usage to bring an impact to the society. It shows how innovation can help to solve challenges in the society. She concluded her speech by inviting 5 ladies namely Dr. Mercy Mbise from COICT, Dorothea Deus from UDSM, Theofrida Maginga from SUA, Khairiya Masoud from SUZA and Sanna Maki from Turku University who are the members of resiliency academy to show case and share some of the opportunities, learnings and practical experience in the Data Science.

Presentation by Mercy Mbise - Lecturer from the University of Dar es Salaam (COICT)

Ms. Mercy Mbise made a short presentation on Student internship and industrial training services. She gave an overview and shared some background information on the internship opportunity, which enables students to be placed under industrial training partners and engage in data collection at community level; and data collected in stored in the Climate Risk Database (CRD). During the internship students are exposed to Digital Geospatial Skills and participate in mapping. The collected data is used for decision-making. She noted that the skills and knowledge gained through the programme include training; community engagement; data collection tools; drone and innovation; thematic mapping; household survey; data quality control; and server administration. She added that they work in teams, combining students with background in Geography and Information Communication Technology (ICT).

Presentation by Theofrida Maginga from the Sokoine University of Agriculture

Ms. Theofrida Maginga gave a brief overview of the initiative (Resilience Academy) and explained the details with regards to the composition of the team working on it. She also explained how the collected data is stored in the databases, including the Climate Risk Database, and how people can get access to the stored information and use the data for decision-making or planning an intervention. She noted that there are more than 50 digital data sets accessible to anyone; where students managed to undergo industrial training. She added that they have managed to acquire more than 150 students, trained in data management skills in industrial training around the year 2019 in July. They also put emphasis and trained students on visualization of data where 260 students had participated in a data visualization challenge.

Presentation by Ms. Dorothea Deus - Senior Lecture at ARDHI University

Ms. Dorothea Deus started by taking the participants through a mini research conducted with the geospatial data sets to examine the environment around Mt. Kilimanjaro. She highlighted different data types and sources used in conducting the mini research and explained the need for adoption of policies that encourage use of geospatial data.

Presentation by Khairiya Mudrik Masoud from SUZA

Ms. Khairiya spoke briefly about artificial intelligence and machine learning through satellite images. She noted that artificial intelligence is a capability of a machine to imitate an intelligent human being while as, machine learning is subset of artificial intelligence. She explained about artificial intelligence, its capabilities and how to use data obtained through it.

Presentation by Sanna Maki from Turku University

Ms. Sanna Maki noted that curriculum alignment in skills development is important to enable a student to be able to do tasks such as managing and analyzing data; evaluating quality of data and solutions; working with real data; and engaging in solving real world problems. She noted of the gap between students and professionals in need of merging through communication, collaboration, and curriculum alignment.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development
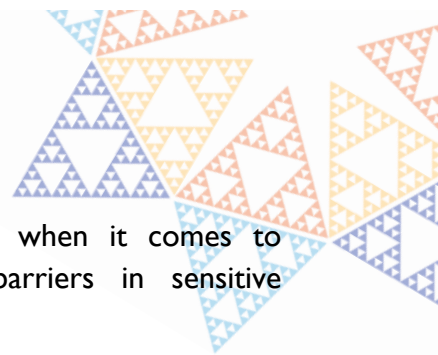
1.5.1. Key Issues and Points

» Female students have an edge over their male counterparts when it comes to interacting with community members and have breaking barriers in sensitive communities.
» A gap between students and professionals.

1.5.2. Recommendations

» Encourage young women and girls to take advantage of available opportunities to make strides in technology and innovation.
» Need to bridge the gap between students and professions, to enable students to gain the relevant skills and knowledge from the professionals.

1.6.   Women Led Data Science

This session included presentations and discussion.

Speakers
o Frida Moshiro – PEPFAR SCHOLAR 2018
o Leyla Liana – MLINDE GAME
o Karen Kimami – NIOKOE
o Dr. Joseline Kaganda – DATA & NUTRITION

Moderator: Tayamika Mattao

Presentation by Dr. Joseline Kaganda from USAID
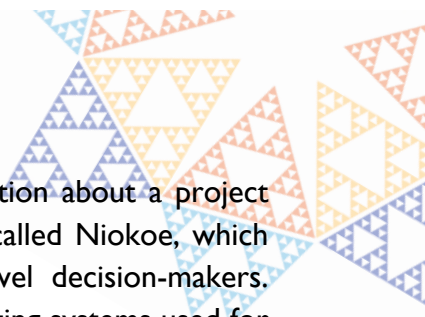
Dr. Joseline Kaganda made a presentation about data and nutrition. She noted that nutrition-related data is very important as it contributes to combating and ending poverty and malnutrition in line with relevant SDGs. She noted that Tanzania has a multisector nutrition plan in place, used by all stakeholders. She insisted that addressing malnutrition is key in reducing stunting, which is not only detrimental to a child's health but also their mental health as it affects their brain. She noted that raising awareness on nutrition is very important for health; and that most people do not know what to eat to make them healthy or about children, what food has nutrients that a child needs the most for growth and development once they have stopped breastfeeding. She also noted that the national nutrition survey and other nutrition-related surveys are essential in planning evidence-based interventions. She then went on to emphasize on the importance of data, noting that it is even needed at family level.

Presentation by Frida Moshiro and Emma Sebastian

These presenters made a short presentation about their problem driven group and how they provide a solution to data inaccuracy. They have developed a tool data accuracy-checking tool, which has helped JHPIEGO in finding errors in data collected in five regions of Tanzania.

Presentation by Karen Kimami from Genesis Development Limited

Ms. Karen Kimami from Genesis Development Limited, made a presentation about a project called Niokoe. The Niokoe project has developed an electronic system called Niokoe, which analyses and visualizes substance abuse data relevant to community-level decision-makers. According to Ms. Karen, the system incorporates a database from the existing systems used for collecting and storing drug abuse data from multiples sources, including NGOs rehabilitation centres and health facilities. She mentioned that the data can be used to improve efficiency of efforts to target HIV/AIDS prevention, testing and treatment services. It also helps to raise HIV risk awareness and reduce HIV prevalence among people who use injection drugs. Other features in the system include a comprehensive curriculum module on substance abuse in both primary and secondary schools seeking to enlighten students and neutralize the influence of peer, media pressure in influencing students into substance abuse.

Presentation by Basilisa Mvungi

Ms. Basilisa Mvungi made a presentation about an application called Mlinde Game App. She noted that the app is a mobile game application that seeks to improve players' knowledge of HIV/AIDS and generate data about players' decisions that can be used to target behavior change solutions. It is story-based game, in which the main character experiences risk behaviors. She noted that the project is currently being piloted in Dodoma Municipality in Dodoma Region with the support of MCC-PEPFAR through DLIIC. She added that the goal is to reach 200,000 young people, especially adolescent girls. She also stated how they have managed to monitor the impact of the app.

1.6.1. Key Issues and Points

» Most people do not know what to eat to make them or children healthy, what food has nutrients that a child needs the most for growth and development once they have stopped breastfeeding.

» The national nutrition survey and other nutrition-related surveys are essential in planning evidence-based interventions.

» Stakeholders need to collectively make data-informed decisions throughout the process. Whoever collects data must ensure they contribute to the bigger picture.

» Data is a continuous process because we all want to learn new things.

» Technology is changing and so is data, hence the need to implement content specific and strengthening the program.

» We need data even at family level.

1.6.2. Recommendations

» Need to intensify efforts to raise awareness about nutrition

1.7.   Data 4 Agriculture

This session included presentations and discussion.

Speakers

- Neema Njama – Feed the Future
- Haikael Mandari – Feed the Future
- Lightness Meena – NAFAKA
- Faith Patrick – ENGINE

Moderator: Jacqueline Maleko

Presentation by Neema Njama

Ms. Neema Njama made a short presentation about Feed the Future's *Mboga and Matunda* project, a four-year nutrition sensitive project that focuses on increasing productivity and profitability on horticulture. She noted that the project began in January 2017 and is due to complete in January 2021. Through project, farmers also receive training and are connected to experts and other stakeholders in the agricultural sector. She insisted on the importance of data and accurate information in agriculture, vital for making informed decisions and increasing productivity.

Presentation by Haikael Mandari
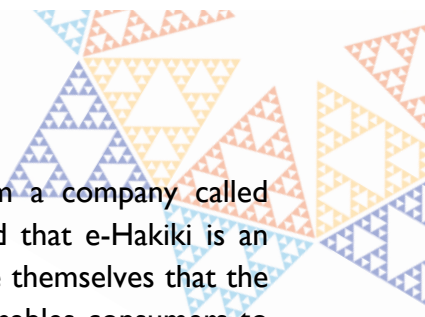
Ms. Haikael Mandari made a short presentation about the Advancing Youth Activity, an initiative funded by Feed the Future and USAID. She noted that the initiative's aim is to help young people aged 15 to 29 to enhance their employability, business savvy, leadership skills, and participation in civic life. The young people also get an opportunity to be exposed to various opportunities, including employment opportunities. She added that the programme encourages young people to use health data and services to make better choices in their lives. She emphasized on what she called 3 Ls (livelihood, leadership and life skills) and IP (partnership), which are the focus of the programme. She also spoke about use of data to make decisions and indicated that youth aged 15-24 have less access to assets or resources, compared to those aged 25 years and above. She added that in terms of mobility, the male youth have more access to the market compared to the female.

Presentation by Faith Patrick

Ms. Faith Patrick made a short presentation about ENGINE, one of the programmes under the Feed the Future Tanzania project. ENGINE stands for Enabling Growth through Investment and Enterprise Program, a four-year activity funded by USAID through Feed the Future and implemented by the International Executive Service Corps (IESC). Ms. Faith Patrick stated that ENGINE seeks to improve business environment in both Tanzania Mainland and Zanzibar; and support investment in agricultural regions of Mbeya, Morogoro, and Iringa, as well as Zanzibar. In Zanzibar, she noted, Feed the Future has been working with the Office of the Chief Government Statistician to support business formalization survey, seeking to determine why most business in Zanzibar are not formalized.

Presentation by Fatma Fernandes

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

Ms. Fatma Fernandes made a presentation about e-Hakiki. She is from a company called Quincewood Group Limited, based and operating in Tanzania. She noted that e-Hakiki is an electronic verification technology that can be used by customers to assure themselves that the products they have bought are genuine. She added that the technology enables consumers to verify the legitimacy of the agro-input products on a mobile phone; and that the technology is free. She shared some videos of testimonies made by farmers on the usefulness of the technology. She stated that e-Hakiki would help to prevent farmers from making losses, as they will now be able to verify the seeds they buy, avoiding fake ones.

Presentation by Lightness Meena

Ms. Lightness Meena made a presentation about NAFAKA, a programme under the Feed the Future Initiative that seeks to promote technological innovation. She noted that the programme primarily targets women and youth in the rice and maize market systems, seeking to improve technologies and agricultural practices, leading to increased productivity and improved nutrition. She added that the programme is implemented in Iringa, Mbeya, Songwe and Morogoro Regions. She also highlighted the research design and ways of adaptive management for research.

1.7.1. Key Issues and Points

» The biggest problem we have in agriculture is lack of correct data.
» Correct data and accurate information are essential for making informed decisions and increasing productivity in the agricultural sector.
» One should not engage in any business without conducting a research first and having in place a simple business plan and strategy.
» It is important for a person to be a member of relevant associations and link with the right people in the markets in order to be successful in agricultural business.

1.7.2. Recommendations

» Increase investment in agriculture and generating and making available data related to agriculture.
» Need to conduct through research/market survey before engaging in business.
» Women and girls should become members of associations or organisations that can help them grow in the field of technology and innovation.

1.8.   Presentations: Girls and Data

This session included presentations and discussion.

Speakers
o   Zaituni Alli (Vodacom) - Code like a Girl
o   Dr. Fatuma Simba (Lecturer, CoICT UDSM) - Smart Girls
o   Rehema Sanga - Data 4 Her

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

Moderator: Somoe Mkwachu

Presentation by Zaituni Ali

Ms. Zaituni Ali made a presentation about Vodacom's global coding program called Code Like a Girl. The program seeks to foster female participation in science, technology, engineering and mathematics (STEM) and was introduced after seeing that female participation in STEM was falling. The program is the largest international classroom-based global coding program that aims to equip girls with coding skills, which are increasingly becoming an important set of skills, even outside the technology space. Ms. Zaituni Ali informed participants that Vodacom has been using the program to improve diversity in the company and increase the number of females in its digital space and leadership positions. She also noted that in Tanzania most girls and young women are less willing to take the route of technology in their studies, while boys and young men are more willing to give it a go. However, if given the opportunity and encouragement, girls and young female students can do coding and be successful; and that is why Vodacom has introduced Code Like a Girl to encourage girls to embrace technology and coding. She noted that female students aged 14 to 18 are subjected to a one-week training, which is conducted in collaboration by Vodacom, Tanzania DataLab and previously Dar Teknohama Business Incubator (DTBI). The workshop covers basic knowledge of computer languages and development programmes such as HTML, CSS, GitHub and Bootstrap. She noted that so far, 351 girls have received training and the plan for 2020 is to train about 451 girls. Some of the trained girls become program ambassadors and provide support by training other girls. Girls who under the training are also exposed to the opportunity of internship at Vodacom, enabling them to gain the relevant work experience which will help them in the job market in the future.
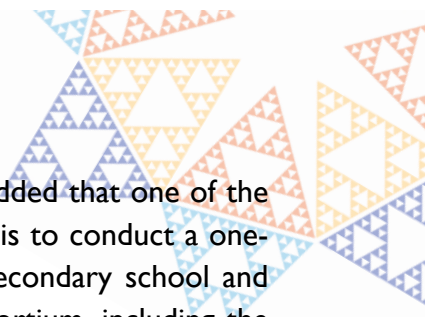
Presentation by Rehema Sanga

Ms. Rehema Sanga made a presentation about Data 4 Her, a programme launched in 2019 by Tanzania Datalab, seeking to train individuals on using data for decision-making, management, negotiation and pitching skills. Women and young girls are the target for the programme, empowering them to interpret data and use it to make informed decisions. Ms. Rehema Sanga shared two success stories of the programme, one involving Kivule Integrated Child Development Program and the other involving Kivule Youth Football Challenge. The aim of sharing these success stories was to stress on the importance of conducting research to obtain relevant data to be used in solving a problem or create solutions. In the first success story, a survey was conducted to find out why parents in Kivule were reluctant to send their young children to nursery school. In the second case, the issue was regular medical checkup, especially among boys and men. The challenge was successfully conducted in Kivule.

Presentation by Dr. Fatuma Simba

Dr. Fatuma Simba made a presentation about Smart Girls, an initiative aimed at encouraging and empowering girls and young women to pursue studies and careers in the field of ICT. She

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

noted that there are very few girls who pursue ICT-related studies. She added that one of the measures taken to encourage more girls and young women in this regard is to conduct a one-day capacity building session that involved 90 participants, including 73 secondary school and higher education students. Another initiative made is formation of a consortium, including the University of Dar es Salaam ICT Incubator, Youth for Children Innovation Hub, Tanzania Data Lab and the ICT Commission of Tanzania to celebrate the International Girls in ICT Day and create a competition on ICT for girls. The International Girls in ICT Day is an initiative backed by the International Telecommunication Union (ITU) member States to create a global environment that empowers and encourages girls and young women to consider studies and careers in the growing field of information and communication technologies. Dr. Fatuma Simba expressed that the competition involves government and private secondary schools and the task is to design a solution to a problem in the children's communities. She also mentioned some of the challenges in implementing the competition activity, the major challenge being lack of ICT infrastructure at schools.

1.8.1. Key Issues and Points
» Data can help save lives and is essential in bringing about change in our communities by helping us creating relevant solutions.
» Very few girls pursue ICT-related studies.
» Girls and young women need encouragement and empowerment to pursue studies and careers in the field of ICT.

1.8.2. Recommendations
» Persons and children with disabilities should not be left behind in the ICT endeavor.
» Increase internship opportunities for girls and young women to improve their ICT and innovation skills and gain that important work experience.
» Intensify efforts to encourage girls to pursue ICT-related studies/course.

1.9. Gender Statistics: Where We Are and Where We Want to Be
This session included a panel discussion on gender statistics.

Speakers
o Tayamika Mattao -dLab
o Khadija Mkocha - College of ICT UDSM
o Happiness Maruchu: Head of Programs TGNP

Moderator: Dr. Blandina Kilama

1.9.1. Key Issues
» Data that we generate is as meaningful as how we analyze it.
» Stop fighting for equality and fight for equity.
» Change starts at home in terms of what things a child is exposed to.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

- » We have been making progress as a country to make some gender disaggregated data in the statistics.
- » We still have a gap in correlating data in the formal and informal sector.
- » There is limited data to show on whether we are making progress. Data scientists should look at it as an opportunity.
- » TGNP has done some small-scale surveys on women in positions and wants to determine their number in their construction industry to bridge the gender data.
- » A lot of women are not in the field because of bias.
- » Girls have a lot of chores to attend to when they get home from schools, hence less time to study.
- » We need to have gender policies at workplaces.
- » Programmes like Code Like a Girl are essential in increasing the number of women in the ICT field and reducing gender gap in innovation and technology.
- » There is lack of gender budgeting.
- » We keep leaving persons with disabilities behind when talking of gender data.
- » Government schools have ICT courses but no computers in schools.

1.9.2. Recommendations
- » Need to close the gender gap in data.
- » We should not fight the system but rather work with it and bring up girls who do things differently to make the changes that we want to see.
- » Need to break the gender biases around women participation in data science field and engineering science.
- » The information should be accessible; it is not just about data availability but also accessibility and how to use it to create solutions.
- » Need to increase involvement of persons with disabilities in the ICT and data initiatives.
- » Invest in early childhood education and exposed pupils and students to computers in schools at an early age.
- » Need to address a misconception that science subjects are for boys.
- » Need to acknowledge role of women in development, including in ICT development.

1.10.   Closing

Day One Sessions ended with some few key points raised to promote data generation, use and access. The major points were the need to invest in early childhood education and for change to start at family; need to invest in pro-data policies and ensure sustainability of data-related programmes; and inclusion of persons with disabilities in the ICT and data initiatives. A the end of the day, participants especially young girls have seen how it is possible to be a Data Scientists and make a difference to your community as was shown by energetic data scientist who presented in different sessions.

2. DAY TWO SESSIONS – 5 December 2019

2.1. Regulatory and Legal Environment on Innovation

This session included a discussion and panel discussion around the regulatory and legal environment on innovation. Before the panel started, Mr omar Bakari from dLab gave a key note speech to stimulate the panel discussion. He shows how Tanzania Innovation Ecosystem has grown and and emphasized on the need to have a national strategy on supporting Innovation. He finished his key note by saying that, we have ben missing a lot of opportunities because of not been innovative and believe innovation is only for business community and forget public sector.

Speakers
- o Dr. Emmanuel Manasseh – TCRA
- o Samson Mwela – ICT Commission
- o Prof. Mohamed Sheikh – COSTECH
- o Jumanne Mtambalike – Sahara Ventures
- o Edward Anderson – World Bank

Moderator: Agapiti Manday

2.1.1. Key Issues and Points
» ICT has a big role to promote and support development of innovation. Development of ICT is very powerful and cuts across many sectors.
» The economy is enabled by ICT and the Government has a big role to play, as it is the major user of ICT. Every sector is using ICT to integrate in their social economic development.
» Broadband is key to support realization of innovation.
» Policy and legal environments play a big role when it comes to progress in ICT.
» If we are to achieve the middle-income country industrial economy by 2025, innovation is the key.
» In Tanzania ICT has transformed the society, with most payments now made through mobile electronic transactions. 95 percent of electricity bills are paid through mobile money.
» ICT and innovation are inseparable.
» Access to broadband services is not enough; we need innovators to come with solutions to solve our problems.
» Good collaboration between the Government and various stakeholder has made it possible for the country to progress in ICT.
» COSTECH's primary role is to promote science, technology and innovation.

» Tanzania is in the top ten in Africa in terms of innovation.
» Establishing innovation hub is okay but most of them do not have permanent staff.
» 65% of hubs have access to internet while as over 30% do not.
» Tanzania has robust policies on ICT and has some guidelines in place for grassroots innovators.
» Innovation and technology are essential in achieving SDGs and we cannot develop the world in the future we want without it. They are essential weapons and a necessity for Africa.
» If you have a digital business, the cost to run it is normally very low.
» Job creation comes from SMEs. We need to find ways to unleash the SMEs economy and identify opportunities.
» There is a huge opportunity in mobile money economy.
» The taxation of mobile economy is not very healthy. It is taxed at a rate equivalent to tobacco and alcohol. The Government needs tax, but it should not be milking the goose.
» There is a market in Tanzania but how we unleash the entrepreneurs and innovators is very important.
» Data Protection Act will soon be enacted and it involves all sectors, and covers key issues such as data security and privacy.

2.1.2. Recommendations
» Need to know who makes regulations and how they are made, to put us in a better position to identify gaps.
» Need for a platform to test new innovations.
» Need for a more friendly policy and legal environment to widen the space for innovators to create solutions and promote their growth.
» Need for cross-sector collaboration, bringing aboard innovators, as they have a critical role to play in development.

2.2.   Artificial Intelligence – Contemporary Applications, Challenges and Opportunities
This session included presentations and panel discussion centered on artificial intelligence.

Speakers
o Steen Lee – Rotunda Solutions
o Dorica Mugusi & Immaculate Mwanja – OMDTZ
o Essa Ali – Parrot AI
o Ally Junior Salim – Dr. Elsa
o Deograthius Mzurikwao – XSENSEAI

Moderator: Jumanne Mtambalike

Presentation by Jumanne Mtambalike

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

Mr. Jumanne Mtambalike, founder and CEO of Sahara Ventures made a short presentation about Sahara Ventures' work around artificial intelligence and key players in artificial intelligence in Tanzania. He noted that the mission of Sahara Ventures is to build an innovation eco system in Tanzania. He also mentioned that they organize and hold events that seek to promote innovation and technology, including Sahara Sparks events. He also mentioned some key innovation hubs and artificial intelligence players such as Buni Hub, Ndoto Hub, nLab, dLab and Stick Lab. He also mentioned some key and old players in artificial intelligence and ICT field, including COSTECH, DTBI, UDSM COICT and SEEDSPACE. Mr. Jumanne Mtambalike also mentioned that Sahara Sparks provides an opportunity to meet with government officials and discuss about digital platforms and on how technology can help to boost national economy. He concluded by noting that artificial intelligence will have a very positive impact in Africa in terms of impacting most crucial sectors such as education, agriculture and health.

Presentation by Steven Lee

Mr. Steven Lee from Rotunda Solutions also made a presentation around data and artificial intelligence. He noted that Rotunda Solutions' focus is on solving problems by creating solutions, including through technology. He also talked about the importance of data analytics and problem-centric approach to creating solutions. He encouraged people to start identifying and addressing the problems, they see in their community, guided by the right tools, including data and artificial intelligence. He also expressed that true innovation can only happen in an environment that accommodates inclusivity, collaboration and diversity. He said that if there are people with different backgrounds and experiences, then there will be different ideas and much better content will be made.

Presentation by Essa Mohamed Ali

Mr. Essa Mohamed Ali from the Tanzania Artificial Intelligence Lab spoke about importance of data and artificial intelligence. He noted that the Lab's aim is to build a strong AI community and eco-system in Tanzania through knowledge, resources, experience sharing, and provide homegrown solutions to our challenges. The goal is to bring everyone aboard and create a collaborative community that is ready to look at the problems that exist within our society and use the tools we have at our disposal to solve them.

Presentation by Ally Junior

As the project lead of Dr Elsa, he mentioned that Dr. Elsa is a data-powered, smart telemedicine and health service tool that aims to improve the national state of health through affordable, inclusive and high-quality access to health expertise.

He noted that the tool supports care providers in making diagnoses through smart insights, powered by data and artificial intelligence, and delivering health services directly to patients through a telemedicine platform. He spoke of how people use data provided by Dr. Elsa to improve health services; and noted that Dr. Elsa is a data driven intelligent health assistant for

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

healthcare providers. He also mentioned a challenge of data being scarce and underscored the importance of invest on its availability and management

Presentation by Deograthius Mzurikwao

Mr. Deogratius Mzurikwao made a presentation about XsenseAI, a company that provides data-driven solutions using the artificial intelligence. He noted that through AI, health services are made accessible and available to every person, including PWDs. He noted that they build models, which can perform analysis and classification of healthcare data in real time.

2.2.1. Key Issues

» Availability of data is key for artificial intelligence.
» True innovation can only happen in an environment that accommodates inclusivity, collaboration and diversity.
» Trainings on technology and AI are provided in other areas outside Dar es Salaam, including at University of Iringa, Ifakara Innovation Hub and ANZA in Arusha.

2.2.2. Recommendations

» Need to create homegrown solutions for problems we face.
» Need for more trainings on AI.
» Need more investment on availability and management of data

2.3.   Data Roadmap

This session was a panel discussi.on to share experience of key partners who have been putting their efforts in supporting enhancing the subnational –data ecosystem.

Speakers
    o   Mr. Kasheto – Kyela Statistician/TAMISEMI
    o   Victor Ohuruogu – GPSDD
    o   Benjamin Charago – Open Institute

Moderator: Omary Bakari

The entire panelists recognize and value the importance of investing at the sub-national level to make sure data use is enhanced at local level. The panelist agreed that if there is weak data ecosystem at sub-national level, the effect on quality of data at nation level is high.

2.3.1. Key Issues and Points

» We need more and quality data at sub-national level to support the implementation of the SDGs.
» We need more timely data and robust data that allows us to see how what is happening and help us to make evidence based decision.
» There should be coordinated efforts at sub-national level to support the changes we all want to see in terms of resources.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

» Begin with people at the grassroots level, identifying problems and creating solutions.
» Government leaders need to be trained on data and how they can use it to make decisions.
» Data roadmap can help investors know where to focus their investments.

2.3.2. Recommendations

» It is essential to build the capacity of local government authorities who collect primary data from community members.
» Considering Kyela Data road map is the firs one in Africa, other players can use it as a the living document and improve it for future use
» Developing partners should support development of data road map in each district to streghen both sub-national and national data ecosystem.

2.4. Sustainable Approaches in Improving Data Literacy

This session involved a discussion around improving data literacy, especially the gaps that hinder improvement.

Speakers
   o David Karunda – PATH
   o Hassan Mtenda – PATH

Moderator: Auson Kisanga

2.4.1. Key Issues

» Low Literacy level on data (its importance, collection, analysis, dissemination and usage) globally at all levels (Government, academia, Press, CSOs).
» Low literacy level on risks and mitigation factors on data security and privacy (data users)- social media, data collection applications.
» Insufficient resources for data and research related work.
» Shortfalls/loopholes in the legal frameworks, creating hurdles to people who want to collect data, research and engage in innovation.
» Shortage of data in all sectors (demand is higher than supply) (National Bureaus of Statistics are overwhelmed) especially on specific data (PWDs, women in formal and informal sector)
» Little involvement of data stakeholders in law and regulations making.
» Language barriers in dissemination of data.
» Slow pace in Internet connections in rural areas.
» Low number of girls and women in data science and research at the global level.
» Prevalence of gender stereotype due to lack of data (adolescent girls undervalued).
» Lack of risk assessment during the innovation stage.

2.4.2. Recommendations
» Need to increase involvement of stakeholders in making of laws and regulations governing data generation and use.
» Increase access to internet, especially in rural areas.
» Intensify efforts to encourage more girls to pursue data science and research courses.
» Increase pace of generation of data.

2.5. Unlocking Geo-Spatial Data for Development
This session included a presentation on geo-spatial data for development, followed by panel discussion.

Speakers
o Ephraim Danford -D4D
o Dr. Godfrey Justo – COICT
o Julia Seifert - FSDT
o Benedict Mugambi – NBS

Moderator: Dr. Kenneth Mubea – GPSDD

The session began with a short speech from Dr. Keneth Mubea from GPSDD, who welcomed the audience and briefed them on the session's topic, before introducing the panelists/speakers. He then welcomed the presenter, Mr. Benedict Mugambi from the National Bureau of Statistics, to make a short presentation on geo-spatial data, to be followed by a panel discussion.
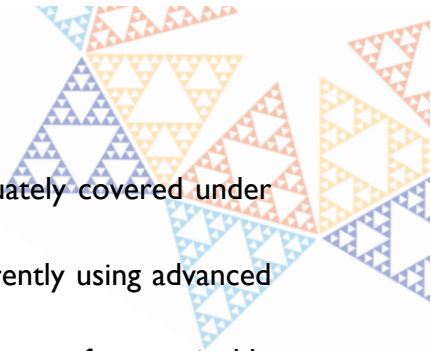
Presentation by Mr. Benedict Mugambi
Mr. Benedict Mugambi started his presentation by stating that there is a regional data cube and analytically ready satellite data that supports sustainable development in Africa. He explained that the data cube provides analytically ready data across decades allowing for easily accessible geospatial analysis on key issues. He further explained that the initial focus of the data cube was on algorithms to address priorities identified by GPSDD partners across 5 countries, which are Ghana, Kenya, Senegal, Sierra Leone and Tanzania. He noted that the data and statistics that people get are not realistic, but the Government is looking for a way to work together with other stakeholders for getting improved and quality data. He added that NBS was in the process of collecting different types of data for consumers to use and the data would be made available to the public soon. He also mentioned that the GPSDD had been used to determine where the informal sector activities in Dar e Salaam are concentrated. He concluded his presentation by stating that geospatial data is essential for national, cultural and economic development, as well as for effective decision-making.

2.5.1. Key Issues and Points
» Working together to identify data and determine data quality.
» NBS does not have the capacity to produce all the required data.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

- » COICT offers Master in Data Science and geospatial data is adequately covered under the programme.
- » Tanzania has made great strides in terms of using technology, currently using advanced technology to quickly assess land and water use, e.t.c.
- » Use of geospatial data in the informal sector and agriculture is important for sustainable development.
- » Geospatial technology is essential in telling us where the data comes from.
- » There is a challenge of the time taken to collect the data, some of the data being outdated the moment it is collected.
- » The Bank of Tanzania has built a mobile application called FSR Collect, which captures, stores and analyses data on all financial services access points. FSR stands for Financial Services Registry.
- » Geospatial data has gained more relevance in recent years, which is why it is also considered to be essential in achieving SDGs.
- » We use geospatial data in our day to day activities, sometimes without even knowing it, for instance when we use Uber service and google maps app.
- » There is challenge in the community on skills related to map reading. It is critical to provide map literacy trainings to community level

2.5.2. Recommendations
- » Need to incorporate map literacy training in curriculums.
- » Need to encourage and instill the spirit of reading in young people and engage them on Geospatial data.
- » Need to work closely with NBS to develop, promote and unlock geospatial data, because together we can go further.

2.6.   Data Privacy & Security

This session involves panelist who have huge experience in developing countries including Africa and developed countries. It facilitates the discussion around emerging technology and security of people and organization.

Speakers
- o Steven Lee – Rotunda Solutions
- o Reggie Rusan – Simpletec Solutions
- o Diamond Carvalho – Mwema Advocates
- o Samson Mwela – ICT Commission
- o Steven Lwendo – Basix East Africa

Moderator: Vicensia Fuko

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development
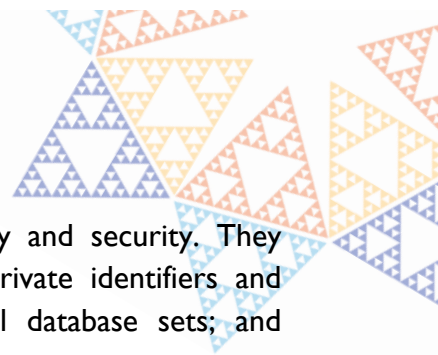
2.6.1. Key Issues and Points

» Anonymization techniques are essential in ensuring data privacy and security. They include data masking (hiding data with altered values); using private identifiers and numbers instead of using one's name; data swapping; artificial database sets; and rearranging data sets.

» Data leaks occur when people do not understand what they have and give access to all the information. Data leaks occur little by little.

» Data security is purely a necessity and we must treat and handle the data carefully and sensitively. Whether it is private or government data, you do not want it to fall in the wrong hands. It is both a safety and privacy issue.

» Most people tend to waive their privacy for convenience, putting their data at risk.

» Charging phones at public facilities or on someone's device also puts one's data at risk, as does using free public or private Wi-Fi to conduct transactions or access emails.

» Tanzanians need to know that they do not have digital rights in the digital world, as they are not in control of how their data are used.

» If you see a free app, you should remember you are paying it with your data.

» Hacking is a real threat out there, as there are hackers everywhere.

» There is no data protection law in place yet/No-comprehensive law to protect data users in Tanzania.

2.6.2. Recommendations

» Need to effectively conduct data risk management.

» It is important for one to read the terms and conditions before installing apps or agreeing to be part of an online platform.

» Citizens ought to start to value and protect their data.

» Need to empower citizens with knowledge so that they know the value of their data.

» Teach children from an early age about the importance of protecting their data.

» Encourage children and people to make positive use of the internet.

» The Government should make sure the rights of their citizen on data use is protected, and at the same time facilitate innovation to take place.

2.7. Mobile Data for Social Good

This session was conducted in the form of a panel discussion. The session focused on how mobile data can be used for social good and sustainable development.

Speakers
  o TCRA
  o VODACOM
  o PULSE LAB KAMPALA

Moderator: Davis Adieno - GPSDD

2.7.1. *Key Issues and Points*

»   The challenge is on how to harness mobile data for sustainable development.

»   The technology required to harness data is a big challenge in many countries.

»   There is shortage of experts who can efficiently mine data.

»   Another challenge relating to mobile data is difficulty in determining whether a person possess more than one mobile phone.

»   Access to data is also a challenge and sometimes the data obtained falls short of the information required.

2.7.2. *Recommendations*

»   Need to remove politicization of access to data and the bureaucracy associated with it.

»   Mobile company and regulators should facilitate access to the mobile data while observing the ethics and rights of their citizens

»

2.8.   Driving Change and Innovation

This session included a keynote speech and a panel discussion.

Speakers

o   Sosthenes Sambua – Diligent Consulting

o   Carol Ndosi – Launchpad Tanzania

o   Reggie Rusan – Simpletec Solutions

o   Terrence Clark – Rotunda Solutions

o   Steven Leen – Rotunda Solutions

Moderator: Dr. Joseph Mushi

Keynote Speech by Athumani Ali from Education Development Trust

The keynote speech dwelt on the importance of innovation and how it can bring about positive change in the society. Among other things, Mr. Athumani Ali noted that the biggest resource in the society is human; hence need to invest in them, particularly investing in their education. He stated that data plays a key role in every stage of innovation and added that innovation is a habit and one does not need to be a genius to be innovative. He added that innovation is a deliberate and strategic decision. Mr. Athumani Ali further noted that no matter how best an innovation is, if people do not accept it then it is meaningless. Innovation has to be understood by the end user. In concluding his speech, he called upon participants to emulate from the best practices that have worked well in other countries such as Rwanda and Singapore.
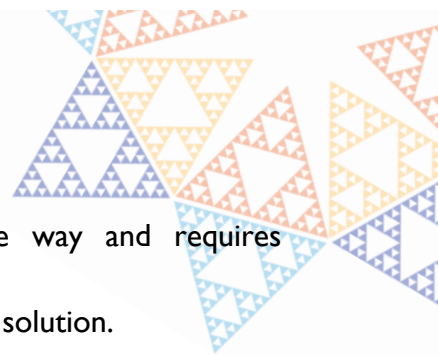
2.8.1. Key Issues and Points
» Driving change is not a one-day thing. It is a collaborative way and requires determination and thinking to achieve what is not achievable.
» Identify a problem, establish the cause of the problem and design a solution.
» As one innovates, they look into multiple solutions.
» Leaders at the top need to determine and measure success.
» Innovators have the opportunity to take the data and repackage it to find solutions.
» Technological capabilities many times exceed the capacity.
» Doing good work has some rewards.
» Innovation should not just be about technology, but also about transformation - transforming lives, businesses, making life better every day.
» Encourage those who want to pursue the field and build the vision as you have the voices, which can be heard when you have evidence and skills.

2.8.2. Recommendations
» Need to inculcate change from the household level.
» Need to create the environment where people can come and talk about ideas.
» Need to focus on early child education.
» The public needs to understand the social value of data.
» Need to combine innovation and analytics in creating solutions.
» We need to invest on strengthening the innovation ecosystem and make sure

2.9.   Closing
Day sessions were closed with some words of appreciation from Dr. Blandina Kilama and Ms. Lucy Minja. Participants and the organisers were hailed for actively participating and conducting the event respectively. Two resolutions were also adopted. The first resolution was to hold DATA TAMASHA event annually; and the second is to organize and hold regional DATA TAMASHA in Nairobi, Kenya.

3. DAY THREE SESSIONS – 6 December 2019

3.1.   Day Two Recap
Day Three of DATA TAMASHA 2019 began with a recap on Day Two sessions, facilitated by dLab. The recap highlighted key issues that were discussed on day two and how do they link to Women in Data Science session on day one.

3.2.   Role of Citizen Generated Data
After recap, parallel sessions continued at different venues. The session on the role of citizen-generated data included a panel discussion involving speakers below.

Speakers

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

- o Lilian Mtende – NBS
- o Karen Bett – GPSDD
- o Linah Ngumba – Kenya National Bureau of Statistics
- o Innocent Maholi – OMDTZ
- o Benjamin Charagu- Open Institute in Kenya
- o David Salyelo- Nairobi, Kenya

Moderator: Aidan Eyakuze

3.2.1. Key Issues and Points
» Citizen-generated data was not given much recognition initially but has now gained more relevance as government officials and statisticians in different parts of the world are now appreciating such data as they represent the voices of the people.
» Citizen generated data are data that people or organizations produce to monitor, demand, or drive change on issues that affect them, such as water, health and security issues, e.t.c.
» Citizen-generated data compliment data collected by the government and non-government institutions.
» Citizen-generated data can be used as an educational tool to enhance or promote literacy.
» Accuracy and quality assessment are needed in generating citizen-generated data.
» Citizen-generated data can be obtained through different methods, including surveys, consultation and focus group discussions.
» Citizen-generated data contributes to achieve SDGs, including through creating new relationships and public spaces, as well as improving the capacity of States to detect issues.
» Citizen-generated data enables governments to know what citizens really need, their priorities and essentially enable citizens and policy makers make informed decisions.
» Citizen-generated data can also be very useful in improving social services.
» NBS cannot collect all data that is needed; hence other stakeholders should assist by collecting data than can be useful to the Government, as long as they adhere to the relevant data collection standards.
» NBS will develop guidelines for collection of citizen-generated data.
» Collecting citizen-generated using papers is outdated and time consuming. Using a mobile phone is now an easier way to collect such data, but security measures must be put in place to combat hacking and other threats.
» There are still many data gaps on key issues affecting people's welfare.

3.2.2. Recommendations
» Need to conduct quality assurance before releasing data.
» Need to promote use of mobile phones to collect citizen-generated data.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

» The government through NBS should finalize the guideline for citizen generated data generation to complement what is missing in the official statistics

3.3.   Utilizing Data to Drive Financial Inclusion

No one leave behind is critical to attain SDGs goals and among other things Financial Inclusion is key. This session share some of the successful interventions that has been done in the country leaded by FSDT.

The session was moderated by Mr. Elvis Mushi from FSDT and the following are the highlights;

3.3.1. Key Issues and Points
» Majority of organisations are in the early stages of data analytical capability.
» Only 0.5% of the world's data is currently utilized.
» Although many people do not used available data driven change, there are also obstacles such as limited access or denial of access to data.
» There is a problem of inability to effectively communicate data among stakeholders.
» Proper visualization is very important in communicating data.
» NBS constantly strives to improve its data collection and management.
» Collecting data is essential to know what customers' concerns and perceptions about a product are and improving business practices.
» Data collection helps to improve designs, products and market reach.
» Data generation is essential for developing meaningful policies and driving financial inclusion.

3.3.2. Recommendations
» Need to improve access to information.
» Improve accuracy, readability and quality of data.
» Improve communication of data and use appropriate tools to communicate such data.
» NBS has plenty of data, people are encouraged to use the data that can easily be accessed through its website.

3.4.   Data Storytelling and Future of Journalism, Reggie Rusan – Simpletec Solutions

This session included a short presentation about data storytelling and future of journalism, made by Reggie Rusan from Simpletec Solutions, followed by a discussion.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development
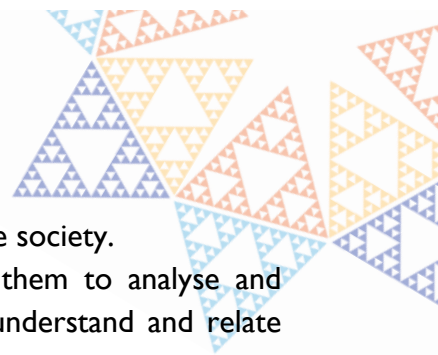
3.4.1. Key Issues ad Points

» Journalists must understand the role of data in driving change in the society.
» Journalists must possess and develop analytical skills to enable them to analyse and present data in a simpler language so that ordinary people can understand and relate such data to their daily lives and activities.
» Journalists must move with the technological advances and innovation, including making use of the online platforms and social media to share information.
» Not every storyline is true, hence need to verify the story.
» The world needs more and quality data to support implementation of SDGs.

3.4.2. Recommendations

» Need to engage journalists to enable them to understand how they can verify data and how they can easily share information through social media.
» Need to engage the public about the importance of verifying stories.
» Need to present data in a manner that a common *mwananchi* can also understand. For instance, presenting data in percentage only can leave some of the people behind in terms of understand what the data is saying.
» It is important for people to understand the importance of data and how it can impact their lives.

3.5.   Impact of Data Driven Innovators and Use of Stories

This session included presentations and discussion around the impact of data driven innovation and use of stories. It creates an opportunity to share some of the innovations that has happened in Tanzania and the impact has created.

Presenters/Pannelists came from the following organisations
   o FSDT – Data Disrupt Toolkit
   o Phamalinks – MUHAS
   o Afyabox
   o Tanzmed
   o NIP
   o NIAJIRI

Moderator: Agapiti Manday

3.5.1. Key Issues and Points

» Most data are lost because they are not properly stored and there is a challenge of not using digital platforms to store data.
» Pharamalinks was developed to provide convenience and increase productivity in buying and selling of essential medicines and medical supplies.
» Most mechanisms for accessing data are not easily understood.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

» In innovation, the first step is conducting research to understand who your competitors are, in the sense that you need to know is a similar product or service is already out there. Then one needs to learn what that product or service is missing that they can provide.

3.5.2. Recommendations

» Need to improve access to relevant information and data for citizens.
» Mechanisms put in place to provide access to data must be easy to use.
» Need to focus on sustainability of one's innovation and knowing the value of the product they are bringing to the market.
» Conduct market surveys to enable an innovator to know what people's perceptions about the product or service are so that they can make necessary improvements.

3.6.   Adapt and Goal Tracker Demonstration

This session involved a demonstration on the Adapt and Goal Tracker, made by Alexandra Silfverstolpe (DATA ACT Lab) and Rose Michael (NBS). The moderator, Charles Bundu, noted that the session would be about sustainable development, showing how NBS is working towards SDGs and how different indicators can be tracked. Alexandra Sifverstolpe from Data Act Lab noted that the goal tracker tool visualizes gaps and opportunities in implementation of goals, enabling stakeholders to see which areas need to be strengthened and what resources are needed. She also emphasized on the importance of transparency and accountability.

3.6.1. Key Issues

» All collected data is monitored through different plans implemented by the Government, including the 5-year Development Plan.
» It is very important to track indicators, as they can tell us if we are achieving goals or not and enable us to revise strategies.

3.6.2. Recommendations

» Transparency and accountability are very important in generating and managing data.

3.7.   Closing

The three-day DATA TAMASHA 2019 ended with some closing remarks, delivered by Ms. Ruth Minja from NBS. She started by thanking the event organisers, commending them for a job well done. She then noted that NBS is grateful and excited to be part of the event and is committed to work with other data stakeholders to ensure the event is sustainable. She called upon the participants to take home and work on some key points raised during the different sessions that took place during the event and participate in generation of quality data, which are essential for development and decision-making. She called upon the data stakeholders to adhere to the relevant standards and guidelines on generating or collecting data. Lastly, she insisted on

the quality of data produced, noting that while data production has increased, quality of most data remains a key concern.

KEY QUOTES AND MESSAGES

- » "The Data that we generate is as meaningful as how we analyze it," Dr. Blandina Kilama, REPOA
- » "When things are right for adolescent girls, we are in a good country," Madam Immer Patterson Charge De Affairs', US Embassy in Tanzania.
- » "Technology and innovation is the only way, it is not a luxury but a necessity for Africa to move on," Edward Anderson, World Bank.
- » "There is no privacy on THE internet." Panelist
- » "If you give up your freedom for security or information for convenience then you are signing for that," a Panelist
- » "Citizens are very vulnerable to social media.   Empower them with knowledge to know the value of their data," a Panelist.
- » **"**Safety is yes or no, citizens ought to start to value their data," a Panelist.
- » "Be critical not to accept everything, especially on the internet, as it comes with a high price." Immer Petterson
- » Data can help save lives and is essential in bringing about change in our communities by helping us creating relevant solutions.
- » Girls and young women need encouragement and empowerment to pursue studies and careers in the field of ICT.
- » Need to increase involvement of persons with disabilities in the ICT and data initiatives.
- » Need to adhere to data collection guidelines and standards.

KEY RECOMMENDATIONS

Recommendation 1: Invest in capacity building in data and science as well as innovation from early child education, primary, secondary, tertiary, community all way to the higher level. (Incorporate curriculum on ICT, Computers).

Recommendation 2: Invest in capacity building on data security and privacy- mitigation factors (at all levels).

Recommendation 3: Data Stakeholders should allocate more resources for Data collection, Analysis, Technology, Research and Innovation. **(Convene meetings, workshops and roundtable discussions with decision makers).**

Recommendation 4: Create friendly legal framework to promote Citizen Generated Data, Innovation and Research.

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

Recommendation 5: Encourage/invest in Citizen Generated Data to complement the shortage of data.

Recommendation 6: Involve relevant stakeholders when enacting laws and creating regulations on data collection, use and research. (TCRA**, COSTECH, NBS, KBS, etc.).**

Recommendation 7: Disseminate timely and quality data in a language that majority can understand.

Recommendation 8: Involve and invite major players such as Google, Facebook to invest in internet connections in rural areas- (broadband services).

Recommendation 9: Create Safe Spaces for girls to practice innovation.

Recommendation 10: Inspire women and girls to pursue studies in data, mathematics and science.

Recommendation 11: Invest in early childhood education in computer science and innovation.

Recommendation 12: Data should be relevant to address problems within the community.

Recommendation 13: Invest in mentoring and coaching of girls in science and research from women who have excelled in the field.

Recommendation 14: Correlate gender disaggregated data in statistics in terms of number of women in formal and informal sector.

Recommendation 15: Involve Women and girls, special groups (PWDs) in the data collection process.

Tamasha 2019 Programme

04ᵀᴴ DEC ————————————— WEDNEDSAY

0800 - 0900HRS	REGISTRATION

0900 - 0955HRS

OPENING

MAHADIA TUNGA - **dLab/ WIDS AMBASSADOR**
PROF. WILLIAM A. L. ANANGISYE - **VICE CHANCELLOR, UDSM**
HODAN ADDOU - **UN WOMEN TANZANIA**
INMI PATTERSON - **CHARGÉ D' AFFAIRES, US EMBASSY**
GUEST OF HONOUR

MODERATOR (S) : KHALILA MBOWE & LILIAN MADEJE   VENUE : AUDITORIUM

1000 - 1130HRS

WOMEN IN INNOVATION

1. ROSALYNN MWORIA - **VODACOM TANZANIA**
2. KELLI HYNES - **DIRECTOR CRS TANZANIA**
3. ANITHA MARTIN - **GRASSROOT INNOVATOR**
4. IKU LAZARO - **NDOTO HUB**
5. IRENE MLOLA - **FSDT**

MODERATOR (S) : DR BLANDINA KILAMA & MARJOLIJN WILMINK   VENUE : AUDITORIUM

1130 - 1150HRS	BREAK & GROUP PHOTO

1150 - 1300HRS

THE ROLE OF WOMEN IN DATA SCIENCE IN THE INDUSTRIAL ERA

1. JOYCE NDAMBI - **USAID**
2. MAHADIA TUNGA - **dLab**
3. VANESSA KISOWILE - **SAHARA VENTURES**
4. NIINA KÄYHKÖ - **RESILIENCE ACADEMY/ TURKU UNIVERSITY**
5. HELLEN MAZIKU - **COICT**
6. SYDNEY GARFINKEL - **MCC/ DCLI-M&E**

MODERATOR (S) : CAROL NDOSI   VENUE : AUDITORIUM

@dLabTz @DataTamasha   #DataRevolutionTz #DataTamasha2019 #ThePowerofData

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

04TH DEC

1300 - 1400HRS	LUNCH

1400 - 1530HRS

THE FUTURE IS FEMALE

1. CHEPKEMOI MAGDALINE - **ELDO HUB**
2. VICENSIA FUKO - **MediaSpace**
3. TULINAGWE MWAMPANGA - **YOUTH ACTIVIST**
4. CHRISTINA MARIKI - **PEPFAR SCHOLAR 2019**
5. UPENDO MCHOME - **PEPFAR SCHOLAR 2018**

MODERATOR (S) : FATUMA FERNANDES   VENUE : AUDITORIUM

1400 - 1530HRS

WOMEN LED DATA DRIVEN INNOVATION

1. KHALILA MBOWE - **RISE UP**
2. ANITHA MARTIN - **JAMII DASHBOARD**
3. LINDA MLUNDE - **SMART GROWTH DIARY**
4. SAIDA MZEE - **SUZA**
5. DR. HAPPINESS WILBROAD - **BMAF**

MODERATOR (S) : ANNA MUSHI   VENUE : MZIZIMA HALL

1400 - 1530HRS

WOMEN IN GEO-SPATIAL DATA

1. DR. MERCY MBISE - **COICT**
2. DOROTHEA DEUS - **UDSM**
3. THEOFRIDA MAGINGA - **SUA**
4. KHAIRIYA MASSOUD - **SUZA**
5. SANNA MÄKI - **TURKU**

MODERATOR (S) : NIINA KÄYHKÖ   VENUE : KILIMANJARO HALL

04TH DEC ———————

1530 - 1630HRS

WOMEN LED DATA SCIENCE PRODUCTS

1. FRIDA MOSHIRO - **PEPFAR SCHOLAR 2018**
2. LEYLA LIANA - **MLINDE GAME**
3. KAREEN KIMAM - **NIOKOE**
4. DR. JOSELINE KAGANDA - **DATA & NUTRITION**

MODERATOR (S) : TAYAMIKA MATTAO   VENUE : AUDITORIUM

1530 - 1630HRS

DATA 4 AGRICULTURE

1. NEEMA NJAMA - **FEED THE FUTURE**
2. HAIKAEL MANDARI - **FEED THE FUTURE**
3. LIGHTNESS MEENA - **NAFAKA**
4. FAITH PATRICK - **ENGINE**

MODERATOR (S) : JACQUELINE MALEKO   VENUE : KILIMANJARO HALL

1530 - 1630HRS

GIRLS AND DATA

1. CODE LIKE A GIRL
2. SMART GIRLS
3. DATA 4 HER

MODERATOR (S) : SOMOE MKWACHU   VENUE : MZIZIMA HALL

1630 - 1730HRS

GENDER STATISTICS: WHERE ARE WE AND WHERE WE WANT TO BE

1. RUTH MINJA - **NBS**
2. TAYAMIKA MATTAO - **DLAB**
3. ZAITUNI KAIJAGE - **COICT**
4. LILIAN LIUNDI - **TGNP**
5. ANNA MUSHI - **FSDT**

MODERATOR (S) : DR. BLANDINA KILAMA   VENUE : AUDITORIUM

1800 - 1900HRS

DATA TAMASHA DINNER AND NETWORKING EVENT (BY INVITATION)

@dLabTz @DataTamasha   #DataRevolutionTz #DataTamasha2019   #ThePowerofData

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

05TH DEC ————————————— THURSDAY

0830 - 0900HRS	REGISTRATION & DAY ONE RECAP

0900 - 1030HRS

KEYNOTE: JIM YONAZ - DPS

REGULATORY & LEGAL ENVIRONMENT ON INNOVATION

1. DR. EMMANUEL MANASSEH - **TCRA**
2. SAMSON MWELA - **ICT COMMISION**
3. MARJOLIJN WILMINK - **HDIF**
4. AMOS NUNGU - **COSTECH**
5. SOSTHENES KEWE - **FSDT**
6. JUMANNE MTAMBALIKE - **SAHARA VENTURES**
7. EDWARD ANDERSON - **WORLD BANK**

MODERATOR (S) : CAROL NDOSI   **VENUE : AUDITORIUM**

1030 - 1100HRS	HEALTH BREAK

1100 - 1245HRS

ARTIFICIAL INTELLIGENCE - CONTEMPORAL APPLICATIONS, CHALLENGES AND OPPORTUNITIES

1. STEVEN LEE - **ROTUNDA SOLUTIONS**
2. DORICA MUGUSI & IMMACULATE MWANJA - **OMDTZ**
3. ESSA ALI - **PARROT AI**
4. ALLY JUNIOR SALIM - **DR. ELSA**
5. DEOGRATHIUS MZURIKWAO - **XSENSEAI**

MODERATOR (S) : JUMANNE MTAMBALIKE   **VENUE: KILIMANJARO HALL**

05TH DEC ———————————————— THURSDAY

1100 - 1245HRS

DATA ROADMAP : PANEL DISCUSSION

1. RUTH MINJA - **NBS**
2. MR KASHETO - **KYELA STATISTICIAN/ TAMISEMI**
3. VICTOR OHURUOGU - **GPSDD**
4. WORLD BANK
5. AL KAGS - **OPEN INSTITUTE**

MODERATOR (S) : OMARY BAKARI   VENUE: AUDITORIUM

1100 - 1245HRS

SUSTAINABLE APPROACHES IN IMPROVING DATA LITERACY

1. DAVID KARUNDA - **PATH**
2. HASSAN MTENGA - **PATH**

MODERATOR (S) : AUSON KISANGA   VENUE: MZIZIMA HALL

1245 - 1345HRS   LUNCH

1345 - 1525HRS

UNLOCKING GEO-SPATIAL DATA FOR DEVELOPMENT : PANEL DISCUSSION

1. EPHRAIM DANFORD - **D4D**
2. DR. GODFREY JUSTO - **COICT**
3. KENNETH MUBEA - **GPSDD**
4. BOT
5. BENEDICT MUGAMBI - **NBS**

MODERATOR (S) : VICTOR OHURUOGU   VENUE: KILIMANJARO HALL

@dLabTz @DataTamasha   #DataRevolutionTz #DataTamasha2019 #ThePowerofData

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

05TH DEC

1345 - 1525HRS

DATA PRIVACY & SECURITY: PANEL DISCUSSION

1. STEVEN LEE - **ROTUNDA SOLUTIONS**
2. REGGIE RUSAN - **SIMPLETEC SOLUTIONS**
3. DIAMOND CARVALHO - **MWEMA ADVOCATES**
4. SAMSON MWELA - **ICT COMMISSION**
5. STEVEN LWENDO - **BASIX EAST AFRICA**

MODERATOR (S) : VICENSIA FUKO

VENUE: AUDITORIUM

1345 - 1525HRS

THE ROLE OF DATA AND INNOVATION TOWARDS HIV/AIDS EPIDEMIC CONTROL

1. JHPIEGO
2. TACAIDS
3. NACP
4. NACOPHA
5. JULIANA ALOYCE - **WAMATA**
6. JOHN CHARLES - **PACT**

MODERATOR (S) : PEPFAR TZ

VENUE: MZIZIMA HALL

1530 - 1700HRS

MOBILE DATA FOR SOCIAL GOOD

1. DR. EMMANUEL MANASSEH - **TCRA**
2. RACHEL SIBANDE - **DIAL**
3. TIGO
4. VODACOM
5. PULSE LAB KAMPALA
6. GSS/ VODAFONE GHANA

MODERATOR (S) : DAVIS ADIENO

VENUE: KILIMANJARO HALL

@dLabTz @DataTamasha   #DataRevolutionTz #DataTamasha2019   #ThePowerofData

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

05TH DEC ——————————————— THURSDAY

1530 - 1700HRS	KEYNOTE : ATHMAN ALI - EDUCATION DEVELOPMENT TRUST

DRIVING CHANGE IN INNOVATION

1. SOSTHENES SAMBUA - **DILIGENT CONSULTING**
2. CAROL NDOSI - **LAUNCHPAD TANZANIA**
3. REGGIE RUSAN - **SIMPLETEC SOLUTIONS**
4. TERRENCE CLARK - **ROTUNDA SOLUTIONS**
5. DR. BEATRICE LYIMO - **COSTECH**
6. STEVEN LEE - ROTUNDA SOLUTIONS

MODERATOR (S) : DR. JOSEPH MUSHI   VENUE: AUDITORIUM

1530 - 1615HRS

DATA COLLABORATIVE FOR LOCAL IMPACT

1. SYDNEY GARFINKEL - MCC DCLI M & E
2. FREDRICK RUTAHINDRWA - dLab M & E
3. TELESPHORE KANGA - DCLI COTE D'IVOIRE M & E

MODERATOR (S) : AUSON KISANGA   VENUE: MZIZIMA HALL

1615 - 1700HRS

RESPONSIVE DATA USE FROM USAID PRESENTATION BY EPHRAIM DANFORD

MODERATOR (S) : LILIAN MADEJE   VENUE: MZIZIMA HALL

@dLabTz @DataTamasha   #DataRevolutionTz #DataTamasha2019 #ThePowerofData

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

06TH DEC ———————————— FRIDAY

0830 - 0900HRS	HEALTH BREAK

0900 - 1015HRS

ROLE OF CITIZEN GENERATED DATA

1. RUTH MINJA- **NBS**
2. KAREN BETT - **GPSDD**
3. OMAR SEIDU - **GHANA STATISTICAL SERVICES**
4. LINAH NGUMBA - **KENYA NATIONAL BUREAU OF STATISTICS**
5. AL KAGS - **OPEN INSTITUTE**
6. INNOCENT MAHOLI - **OMDTZ**

MODERATOR (S) : AIDAN EYAKUZE   VENUE : AUDITORIUM

1015 - 1045HRS	HEALTH BREAK

1045 - 1145HRS

DATA PARTNERSHIPS

1. SYDNEY GARFINKEL - **MCC/ DCLI-M&E**
2. DAVIS ADIENO - **GPSDD**
3. DR. HENRY MWANYIKA - **PATH**
4. RUTH MINJA - **NBS**

MODERATOR (S) : STEPHEN CHACHA   VENUE : KILIMANJARO HALL

1045 - 1145HRS

DATA DISRUPT TOOLKIT

1. FSDT

MODERATOR (S) : ELVIS MUSHI   VENUE : AUDITORIUM

1045 - 1145HRS

DATA THROUGH ART & PHOTOGRAPHY

1. TUNUKIWA DAUDI - TBI
2. IMANI NSAMILA - INDEPENDENT PHOTOGRAPHER

MODERATOR (S) : KHALILA MBOWE   VENUE : MZIZIMA HALL

@dLabTz @DataTamasha   #DataRevolutionTz #DataTamasha2019 #ThePowerofData

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

06TH DEC ——————————————— FRIDAY

1145 - 1300HRS	**UTILIZING DATA TO DRIVE FINANCIAL INCLUSION**
	1. FSDT
	2. NATIONAL FINANCIAL INCLUSION FRAMEWORK
	3. NMB
	4. JAMII INSURANCE
	MODERATOR (S) : ELVIS MUSHI **VENUE : KILIMANJARO HALL**

1145 - 1300HRS	**KEYNOTE : REGGIE RUSAN - SIMPLETEC SOLUTIONS**
	DATA STORYTELLING AND FUTURE OF JOURNALISM
	DATA, STORYTELLING AND BEYOND
	1. MIHAYO WILMOR - **MEDIASPACE**
	2. WINNIE KAMAU - **FREELANCE JOURNALISTS**
	3. JOYCE SHEBE - **CLOUDS TV**
	4. OSCAR MANGULA - **NBS**
	MODERATOR (S) : VICENSIA FUKO **VENUE : AUDITORIUM**

1145 - 1300HRS	**INNOVATION CLINIC : PITCH Q & A SESSION**
	1. COLLIN GUMBU - **dLab**
	2. HAJI DACHI - **INTEGRATED MANAGEMENT LIMITED**
	3. SHARON NSULE - **SMARTLAB**
	4. DR HELLEN MAZIKU - **Y4C**
	5. TULINANGWE MWAMPANGA - **YOUTH ACTIVIST**
	MODERATOR (S) : JEBRA MATOGORO **VENUE : MZIZIMA HALL**

1300 - 1400HRS	LUNCH

@dLabTz @DataTamasha   #DataRevolutionTz #DataTamasha2019   #ThePowerofData

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

06TH DEC ——————————— FRIDAY

1400 - 1530HRS	THE ROLE OF DIGITAL HEALTH IN SUPPORTING & PROMOTING DATA USE : PANEL DISCUSSION

1. TUMAINIEL MACHA - **MOHCDGEC**
2. SULTANA SEIFA - ᴇ**GA**
3. NEEMA RINGO - **PATH**

MODERATOR (S) : WALTER NDESANJO   VENUE : KILIMANJARO HALL

1400 - 1530HRS	**WORKSHOP**

DATA STORYTELLING: DLAB & MEDIASPACE

MODERATOR (S) : MAHADIA TUNGA   VENUE : MZIZIMA HALL

1400 - 1530HRS	**IMPACT OF DATA DRIVEN INNOVATIONS & USE STORIES : PRESENTATIONS**

1. FSDT - DATA DISRUPT TOOLKIT
2. PHARMLINKS - MUHAS
3. AFYABOX
4. TANZMED
5. NIPO
6. NIAJIRI

MODERATOR (S) : AGAPITI MANDAY   VENUE : KILIMANJARO HALL

1530 - 1630HRS	**WORKSHOP: APPLICATION OF AI FOR RAPID ANOMALY DETECTION IN THE INSURANCE/BANK INDUSTRY**

1. HUNTER MOORE - ROTUNDA SOLUTIONS
2. STEVEN LEE - ROTUNDA SOLUTIONS

VENUE : MZIZIMA HALL

@dLabTz @DataTamasha   #DataRevolutionTz   #DataTamasha2019   #ThePowerofData

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

06TH DEC ———————————————————— FRIDAY

1530 - 1630HRS

CITIZEN GENERATED DATA IN ACTION

PRESENTATIONS

1. TWAWEZA
2. HAKI ELIMU
3. UNICEF U-REPORT
4. EDT

MODERATOR (S) : OMAR BAKARI   **VENUE : AUDITORIUM**

1530 - 1630HRS

ADAPT AND GOAL TRACKER DEMONSTRATION SESSION

1. ALEXANDRA SILFVERSTOLPE (DATA ACT LAB)
   AND RUTH MINJA (NBS) - GOAL TRACKER
2. SARUNI NJIPAY (NBS)

MODERATOR (S) : CHARLES BUNDU   **VENUE : AUDITORIUM**

1630 - 1700HRS

CLOSING

dLab
NBS
COSTECH
ICT COMMISSION
GUEST OF HONOR

MODERATOR (S) : KHALILA MBOWE & LILIAN MADEJE   **VENUE : AUDITORIUM**

KEY:

- THEME 1: WOMEN IN DATA SCIENCE
- THEME 2: EMERGING TECHNOLOGY ON DATA
- THEME 3: OPTIMIZING THE USE OF CITIZEN GENERATED DATA
- THEME 4: DATA LITERACY
- WORKSHOP/ SKILLS BUILDING SESSIONS
- BREAK

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development

DATA TAMASHA 2019
The Power of Data for Inclusive Sustainable Development