Approved for tabling.
SNA
2/4/15

REPUBLIC OF KENYA

PARLIAMENT OF KENYA LIBRARY
PARLIAMENT OF KENYA LIBRARY

15 APR 2015
PAPER LAID

KENYA NATIONAL ASSEMBLY

ELEVENTH PARLIAMENT

2015

Paper Laid
By Hon. J. Kamau, Chairperson,
Dept. Committee on Energy,
Comm. & Information On
15.04.2015 (Afternoon)
MW

THIRD SESSION

THE DEPARTMENTAL COMMITTEE ON ENERGY, COMMUNICATION AND INFORMATION

REPORT OF THE 2014 INTERNATIONAL TELECOMMUNICATION CONFERENCE (ITU) HELD IN DOHA –QATAR FROM 6TH -11TH DECEMBER 2014

Clerk's Chambers
Parliament Building
Nairobi

March 2015

Table of Content

1.0 PREFACE

Hon. Speaker,

On behalf of the Members of the Departmental Committee on Energy, Communication and Information, and pursuant to the provisions of Standing Order No. 216, it is my pleasure to present to the House the **Committee's Report** *of the International Telecommunication Union 2014 held in Doha, Qatar from 6th-11th December 2014.*

The Departmental Committee on Energy, information & Communication is one of the twelve Departmental committees of the National Assembly established under *Standing Order 216* whose mandates are as follows pursuant to the *Standing Order 216 (5)* which outlines functions of the Committee as being:

a) To investigate, inquire into, and report on all matters relating to the mandate, management, activities, administration, operations and estimates of the assigned ministries and departments;

b) To study the programme and policy objectives of ministries and departments and the effectiveness of their implementation;

c) To study and review all the legislation referred to it;

d) To study, access and analyze the relative success of the ministries and departments measured by the results obtained as compared with their stated objective;

e) To investigate and inquire into all matters relating to the assigned ministries and departments as may be deemed necessary, and as may be referred to it by the House or a Cabinet Secretary;

f) To vet and report on all appointments where the Constitution or any law requires the National Assembly to approve, except those under Standing Order No.204 (Committee on appointments); and

g) To make reports and recommendations to the House as often as possible, including recommendations of proposed legislation.

In accordance with Second Schedule of the Standing Orders, the Committee is mandated to consider fossil fuels exploration, development of energy, production of energy, maintenance and regulation of energy, communication, Information and broadcasting.

a) Information Communications Technology (ICT) development and management

2.0 COMMITTEE MEMBERSHIP

Committee was constituted by the House in May, 2013 comprising of the following Members:

1. The Hon. Jamleck Kamau, EGH, MP.....Chairperson
2. The Hon. Jackson Kiptanui, MP .....Vice –Chairperson
3. The Hon. Mohammed Elmi, MP
4. The Hon. James Rege, MP
5. The Hon. (Eng) Nicolas Gumbo, MP
6. The Hon. Mithika Linturi, MP
7. The Hon. Aburi Mpuri, MP
8. The Hon. Aramat Lemanken, MP
9. The Hon. Athur Papa, MP
10. The Hon. Banticha Abdullahi, MP
11. The Hon. Daniel Kazungu, MP
12. The Hon. Esther Gathogo, MP
13. The Hon. Fathia Mahbub, MP
14. The Hon. James Lomenen, MP
15. The Hon. Joe Mutambu, MP
16. The Hon. Junet Sheikh, MP
17. The Hon. Kanini Kega, MP
18. The Hon. Mary N. Mbugua, MP
19. The Hon. Mati Munuve, MP
20. The Hon. Zebedeo Opore, MP
21. The Hon. Nicholas Ngikor, MP
22. The Hon. Onesmus Njuki, MP
23. The Hon. Rachael Amolo, MP
24. The Hon. Roba Duba, MP
25. The Hon. Ndungu Gethenji, MP
26. The Hon. Vincent Musau, MP
27. The Hon. William Kisang, MP
28. The Hon. Richard Tongi, MP
29. The Hon. Moses Kuria, MP

The Energy, Communication and Information Committee got its invitation through the Communication Authority of Kenya and the Ministry of Information Communication and Technology to attend the International Telecommunications Union Plenipotentiary Conference.

3.0 OBJECTIVES OF THE CONFERENCE

The Conference objectives were as follows:

- To create awareness and expert opinion on the major trends redefining the industry of ICT
- To expose leader, legislators and Policy makers to products, solutions and investment opportunities.
- To promote visibility and a voice on a highly relevant global stage ICT management.
- To explore the potential of emerging technologies to the fortunes of emerging economies.

3.1 The Committee Nominations

The Committee nominated the following Members to attend the conference on its behalf.

1) Hon. Aramat Lemanken, MP –**Leader of Delegation**
2) Hon. Fathia Mohabub, MP
3) Hon. Moses Kuria,MP

The delegation was accompanied by **Mr. Amos K. Sikweya** as the Secretary of the Delegation.

4.0 ACKNOWLEDGMENT

The delegation is grateful to the Honourable Speaker and the Liaison Committee for authorizing the visit, as well as the office of the Clerk for providing the necessary logistical and technical support. The delegation also wishes to express its appreciation to the Ministry of Foreign Affairs; the staff of the Kenya Embassy in Doha for all the support given before and during the visit.

The Committee also acknowledges the Communication Authority of Kenya and the Ministry of Information Communication and Technology for working in close partnership with the Committee to enhance knowledge and the digital agenda of the country.

Hon. speaker,

It is my pleasant duty and privilege, on behalf of the Committee to table this report pursuant to provisions of the National Assembly **Standing Order 199.**

Signed: .....

THE HON. JAMLECK KAMAU, EGH, MP
Chairperson, Departmental Committee on Energy, Communication and Information

Date
.....2/4/2015

5.0 THE INTERNATIONAL TELECOMMUNICATION UNION

5.1 Introduction

ITU Telecom World is the global platform for high-level debate, networking and innovation showcasing and knowledge-sharing. It is focused on the current massive disruption of the ICT sector, and its implications for the industry and the world. ITU Telecom World 2011 in Geneva marked the event's 40th anniversary following its debut in 1971. Established as the leading exhibition and forum for the global ICT industry, it brings together public and private representatives to collaborate and engage in high-level dialogue on the major challenges facing the sector.

In 2011, ITU Telecom World moved from its traditional exhibition-based show to focus on knowledge-sharing, networking and consensus building. That year also saw the move to an annual event in rotating geographic locations, with ITU Telecom World 2012 hosted in Dubai, UAE and ITU Telecom World 2013 in Bangkok, Thailand.

As part of ITU's mandate to extend the benefits of ICTs to all the world's inhabitants, a significant part of revenues generated by ITU Telecom World events is transferred each year to the ICT Development Fund (ICT-DF). The ICT-DF provides seed funding for specific ICT development projects, primarily in the least developed countries, Small Island developing states, landlocked developing countries and countries with economies in transition. Through its work, ITU Telecom is proud to contribute meaningfully to the development of ICTs worldwide to address critical world socio-economic challenges. The parallel Conference sessions included:

- The Young Innovator Forum
- The Digital Dividend and The Internet of Things
- Convergence of Broadcasting and Broadband
- Networks in the Cloud
- Broadband Rollout in Emerging Economies - What comes next?
- Big Data for Development
- Leadership Summit on the future
- How Governments can prepare for a "Hyper-connected future

6.0 CONFERENCE SESSIONS

Summary of the deliberations

6.1 The Young Innovator Forum

The Young Influencers Day on **Sunday, 7th December, 2014** consisted of two afternoon sessions providing a platform for young people to contribute to relevant discussions. Young participants also attended other ITU Telecom World 2014 sessions throughout the day, mixing with influential audience and exploring the show floor.

The first of the two sessions was an informal workshop on how ICTs can tackle topical challenges. This was followed by a panel session, jointly organized with Global Shapers Doha Hub, entitled **what are the Driving Forces for Innovation and Social Change?**

The Start-Up Day took place on **Tuesday, 9th December**, at the Demo Space in the Innovation Space, dedicated to empowering young innovators to take their projects to the next level. The focus of the day was on financing and investment, including how to reach out to investors and what to be aware of when doing so. By bringing together innovators from all over the world and other programmes, it was a demonstration and a commitment to the power of collaboration and knowledge-sharing in changing the future for the better.

This Forum was attended **Mr. Amos Kiangwe** the Clerk of the Committee and the secretary to the delegations.

6.2 Digital Dividend and the Internet of Things

The discussion rotated around transition to digital TV frees up very valuable spectrum that can be used for the development of broadband communications. But the transition requires political decisions as well as technical and economic decisions. It has considerable impact on the cultural development of societies. Societal impacts must be taken into account when taking decisions on the new digital economies that involve not only human connectivity but also embrace the internet of things. Digital

economies have a huge potential for growth, for job creation, and for the reduction of inequalities. But while there is enormous potential to reduce the divide between the have not's and the haves, the connected and the not connected, if the transition is not managed properly by governments it could increase inequalities even more. This forum was attended by all members of the delegation.

6.3 Convergence of Broadcasting and Broadband

Technology developments are providing radical new possibilities for broadcasting. The combination of LTE-Broadcast service delivery using a good coverage spectrum could be revolutionary. eMBMS-enabled LTE-Broadcast is potentially a game changer, freeing up capacity for mobile network operators as it enables much more efficient delivery of video streams to multiple (unlimited) users, enterprise and consumer applications. However the business models are not yet mature or understood and the devices ecosystem is very small. Existing broadcasters have a different perspective. The key concerns included How realistic are proposals to close digital terrestrial TV networks and move them onto the mobile networks? How will the competitive positioning between fixed and mobile network operators and cable operators evolve? Would cross-sector consolidation make sense? How will video over LTE impact the broadcast and mobile industries? The forum was attended by the **Hon. Aramat Lemanken.**

6.4 Networks in the Cloud

Mobile cloud networks combine mobile communications with computing to run network functions in the cloud, enabling new business models at the inflection point between mobile and internet technologies. Running mobile network functions in the cloud reduces costs, and provides elasticity, scalability, on-demand provisioning, calibration and better performance.

It was said that operators need to invest in research and human capacity, innovating to create value in-house on this new platform, developing new apps and protocols without being locked in to equipment manufacturers.

This is said to be a unique opportunity to create sustainable telcos in the future that embrace services, software, cloud computing and cloud networking. The key concerns

were is this pie in the sky? Will data security issues destroy the prospects for deployment of networks in the cloud? This Forum was attended by Hon. Fathia Mohabub, MP.

6.5 Broadband Rollout

Emerging economies, what comes next? To answers that pertinent question, it was reported that provisioning of broadband connectivity is just the start. How broadband is utilised determines the benefits it can bring and this is particularly important in emerging economies. Major concern is whether the governments should play a pivotal role in how best to utilise broadband? If so, what should their role be and what should be their priorities – e-learning, e-health, e-government? How much do we understand about what happens when people are introduced to the internet for the first time? Should controls be introduced? How can emerging economies benefit most from broadband? This forum was attended by both delegates.

6.6 Big Data for Development

Discussions were around how Companies have increasingly relied on business analytics to extract value from the large volumes of computer-readable and analyzable data in their possession. For example, telecom operators are using these techniques to identify customers likely to exit so as to manage churn. Big data for development (BD4D) sought to apply these techniques to big data held by both government and private entities to answer development-related questions.

Given low levels of "datafication" of transactions and records in developing countries, analysis of credit-card use or even social-media use is unlikely to yield coverage approaching all as in developed countries.

Mobile transaction-generated data (including Call Detail Records or CDRs) are an exception. Because they can yield information on movement of people, they have great potential to inform urban and transportation planning and to improve government-service delivery, possibly replacing conventional surveys. Much value can be extracted from psuedonymized historical data, which have minimal privacy implications. Other insights are being extracted. For example, analysis of reload

behaviour can identify areas of high economic activity and also indicate slowdowns or upticks in the overall economy. The session will discuss ongoing research and identify remaining challenges.

6.7 Leadership Summit on the Future

The Leadership Summit was aimed at leaders at the highest level from government, regulatory bodies and the full spectrum of industry companies seeking insight and understanding on the realities and potential of the near future in the ICT industry, and in society.

This is information and knowledge-sharing was vital to forming local, national and regional policies, strategies and models relevant to our near future –and dependent on individual business, political and cultural context.

The Leadership Summit for the Future was designed as an immersive experience using multi-media presentations, demonstrations and discussion, with the goal of engaging and inspiring the audience through a mixture of:

- Keynote speeches from thought leaders, visionaries and futurists
- Provocative interventions on future scenarios
- Live, real-time technology demonstrations
- Forum discussions with interactive debate, audience voting and question and answer sessions.

This forum was one of the highly attended forums with the Kenyan delegation participating in debates led by the Cabinet Secretary for Information Communication and technology Dr. Fred Matiang'i.

6.8 A "Hyper-Connected Future"

The next two decades will see society, business, Government and the lives of individuals being transformed beyond all recognition by a powerful set of interconnected forces and developments, characterised by ultra-fast communication, widespread adoption of robotics and artificial intelligence and the 'internet of life' – embedding connected sensors and intelligence in everything from roads to our

clothing. At the same time business and industry sectors will reshaped through new business models, advanced manufacturing techniques such as 3D and 4D printing, synthetic biology, grown structures and a multi-sensory and highly immersive internet. The number and complexity of resulting issues for policy makers is growing all the time and the pace of change is quickening.

Discussions were concerns with what are the critical actions and options for governments to ensure they are preparing society for the impact of developments shaping the next two decades? How can we create the foundations for the sectors of the future, encouraging innovation and facilitating entrepreneurship? How can we equip society for radical advances in human health and life expectancy, rethink the education system to meet the changing learning needs of all age groups, or develop new economic models to accommodate the rise of behaviours such as barter, resource sharing and free cycling.

7.0 CONFERENCE RESOLUTIONS

i. The Conference resolved that technology has now reached a pivot point where exponential leaps in machine intelligence, interfaces and design are certain, hence the need for Government intervention though policies and regulations.

ii. The combination of big data, social media, mobile broadband and cheap mobile devices as well as rapid advances in machine learning, semantic understanding, artificial intelligence and robotics will change our society, culture and economics forever therefore the need to work together in the international font.

iii. Technological unemployment seems like a certainty, privacy as we know it may be of thing of the past, robots will become the new normal and smart even self-learning technology is already appearing in many consumer products therefore the need for consumer protection and privacy policies.

8.0 WAY FORWARD

The next issues to be explored are about where will this technological development take us by 2020? Will augmented humans become normal? What are the benefits for society and people, and what may some of the unintended consequences be? Will we need regulation to deal with tremendous new possibilities? Who will define what is allowed and what is not? If the so-called singularity is near, and if indeed 'technology has no ethics' and 'software is eating the world', what will happen to still-linear humans in a rapidly technologies world? That discussion will be taken to the next ITU.