SCIENCE, TECHNOLOGY, AND INNOVATION FOR THE POST-2015 AGENDA – AN AFRICAN PERSPECTIVE *

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1) INTRODUCTION

- The aim of this short presentation is to look at African perspective in the context of STI post-2015 agenda. It is well known that one main objective of UNCTAD is to assist developing countries, especially the least developed ones (many of which are in Africa) to integrate beneficially into the global economy through various methods including technical assistance, supporting intergovernmental concensus building, increased access to sustainable use of ICT, training and capacity building.

- The post-2015 agenda emphasizes inclusive and sustainable development including such crucial issues as health, renewable energy, agriculture, food security, advanced manufacturing, and urbanization.

- While the global economy was estimated in 2013 to have a growth rate of 2.1% and is expected to grow at the rate of 3.0% in 2014, and 3.3% in 2015, IMF reported that around 2010, six of the fastest growing economies in the world are in Africa – Angola 11.1%, Rwanda, Chad, Ethiopia Mozambique and Nigeria (between 7.6% and 8.9%). So there is some hope for pockets of countries in Africa in terms of economic growth. Nevertheless, Africa faces many daunting challenges – poverty, health, population growth and urbanization, food security, nutrition challenges, water and sanitation etc. It is therefore very good news that UNCTAD post-2015 agenda is focusing on some of these challenges.

2) THE AFRICAN PERSPECTIVE

i) SUSTAINABLE AGRICULTURE AND FOOD SECURITY

- Agriculture is the cultivation of animals, plants, fungi and other life forms for food, fibre and other products used to sustain life (ILO 1990). Out of the developing world's 5.5 billion people, 2.6 billion live in households involved in Agriculture and 1.5 billion live in other households (World Bank 2007). It is only in Sub-Saharan Africa and South East Asia that the proportion of people living in rural areas is still more than 50%. Agriculture plays a big role in world economy and hence in African economy.

Food security is concerned with the challenge of food accessibility and availability and the challenge is increasing with increasing urban population. STI methods have been playing big roles in tackling these challenges and lowering costs to the population in developed countries. But many countries in Africa have farmers who are poor because they their methods of production, harvesting, storage, marketing are rather traditional. So, there will be need as part of the 2015 agenda to help Africa focus more on the use of STI methods in food production, storage, marketing etc.

ii) HEALTH

- In Africa, health is seriously underfunded. There is high child and infant mortality rate. Abject poverty and malnutrition also results in poor health. There is need also to intensify research in some areas in order not to lag too much behind the developed countries e.g. stem cell research, cancer research etc. There are pockets of these going on the continent but capacity building in these and other areas have to be intensified. UNCTAD and other International Organizations can help in various ways including capacity building.

iii) RENEWABLE ENERGY

- It is well known that the industrialized world has been relying on, for its existence, fossil fuel that are also responsible for a lot of land, water, air pollution beyond the CO_2 emissions resulting in climate change. It is also well known that there are now concerted efforts to invest in renewable energy resources e.g. solar, wind, that are clean and will not run out. Africa must join in the global effort to use these renewable energies and will need help of the international community for capacity building to get a critical mass of researchers in this field.

iv) CLIMATE CHANGE

- In Africa, Climate change has many negative consequences – health – thermal stress leading to cardio-vascular and respiratory diseases; inadequate food availability, extreme weather conditions like floods and drought etc. There are pockets of research centres, conferences and training programmes devoted to this field in Africa but there is more need for capacity building to get a critical mass of specialists.

v) ADVANCED MANUFACTURING

- This involves the use of science and technology for the manufacturing of products or producing technologically complex products using high-tech design skills. An advanced manufacturing technology is a computer-controlled or micro-electronics-based equipment used in the design or manufacture a product. Again, Africa is yet to be fully conversant with this process and so, there will be need for a lot of capacity building to get a critical mass of specialists.

vi) INFORMATION TELECOMMUNICATIONS TECHNOLOGY (ICT)

- In Africa, there has been tremendous growth in access to the internet and mobile penetration. Africa has an estimated 63% mobile penetration and 16% internet access rate. Mobile broadband penetration increased from 2% in 2010 to 11% in 2013. However Africa south of the Sahara still has the lowest internet and mobile penetration rate.

Africa still lags behind in the more recent developments of wireless technologies and wireless broad bands .There is also need for ECA, UNCTAD, etc in co-operation with the African Union Commission to continue to implement the Tunis Agenda for the information society.

vii) URBANIZATION

3) THE ROLE OF THE AFRICAN ACADEMY OF SCIENCES: (AAS)

a) ABOUT AAS

- AAS , founded in 1985 is a honorific society that recognizes Africa's achievers in Science , Technology and other fields. It currently has 280 fellows from 36 African countries. The goal of AAS includes the strengthening of Science and Technology capacity on the continent. For more information - see www.aasciences.org.

b) SOME CONFERENCES, WORKSHOPS recently ORGANIZED BY AAS RELEVANT TO THE GENEVA MEETING

- (with TWAS) Capacity Building in Cell biology and Regenerative Medicine. November 11-13, 2013
- (with TWAS) Three workshops on African Perspectives on Solar Geo-engineering ,Senegal June 2012, South Africa November 2012, and Ethiopia, January 2013.

c) AAS AND OTHER COLLABORATING ORGANIZATIONS

- TWAS - The World Academy of Sciences.
- NEPAD - New Partnership for Africa's Development
- AUC - Africa Union Commission
- DFID - (Department of International Development, UK)
- CIRCLE - Climate Impact Research Capacity and Leadership.
- IFS - International Foundation for Science
- IOCD - International Organization for chemical Sciences for Development