

Your Excellencies ministers of African member states

Excellencies representatives of UN-ECA, UNESCO, WIPO, AUC

Honorable head of the delegates of the member states

Respected host of the city of Marrakech

Ladies and gentlemen

It gives me a great pleasure and honor to get invited to present the outcomes and key messages from the AfriSTI Forum representing my country EGYPT in the capacity of Egypt as the current Chair of the African Union.

It was such a wonderful experience to witness a great maturity of African minds throughout 8 sessions full of fruitful and constructive discussions on the role of STI to fulfill the SDGs.

Please allow me to present the context and recommendations of the forum:

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Key Messages from the First “Africa STI Forum (AfrISTI Forum) for the SDGs”

Marrakech, Morocco

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1. Context:

The first African Regional Science and Technology Forum () was organized on 16 April 2019 following the resolution 960 (LI) of 15 May 2018 of the Conference of Ministers. The resolution called upon the Economic Commission for Africa (ECA), the African Union Commission and other partners, to take all steps necessary to organize on a regular basis a multi-stakeholder forum on science, technology and innovation as an input into the work of the Africa Regional Forum on Sustainable Development. This resolution is based on the General Assembly resolution 70/1 of 25 September 2015, adopting the outcome document of the United Nations summit for the post-2015 development agenda: Transforming Our World: the 2030 Agenda for Sustainable Development.

The Agenda contains the 17 Sustainable Development Goals and 169 targets, of which 48 targets refer to “technology” or mostly relate to technology and innovation¹. For instance, Goal 17 Target 8 is to “fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology”. The Technology Bank for Least Developed Countries is now established in Turkey.

Organization and participation

AfriSTI Forum was organized by ECA and the Department of Science and Technology (DST) of the Republic of South Africa in collaboration with the African Union Commission and hosted by the Government of the Kingdom of Morocco. The joint organization of the inaugural AfriSTI Forum by ECA and DST underscores the close relationship between the two to advance the frontiers of STI and science and technology policy in Africa to transform the continent and achieve the targets of the SDGs and the Aspirations of African Union Agenda 2063.

The Executive Secretary of the United Nations Economic Commission (ECA), Ms. Vera Songwe, was represented by Ms. Karima Bounemra Ben Soltane, the Director of the UN Institute for Development Planning (IDEP), Dakar, who delivered an opening statement.

The Forum was attended by a number of Members States, non-governmental organizations and UN system Funds and Programmes including UNESCO and WIPO. Egypt and Ethiopia were represented by Ministers. I am also pleased to inform you that the first STI Forum attracted more participants than expected. The room assigned was not only fully packed but remained so for the entire day. The link door to the adjoining meeting room was opened to accommodate participants. It is encouraging to see the immense interest, dedication and importance attached

¹ United Nations (2016) Global Sustainable Development Report 2016, Department of Economic and Social Affairs, New York.

to the role of STI in today's world, as demonstrated in our highly engaging and fruitful discussion from 9:00 till 20:00 O'clock the day before yesterday.

One notable innovation of the Forum was the full integration of young African innovators into the programme. Nearly every session began with an innovator presenting his/her innovation and explaining how the innovation was contributing to the achievement of the SDGs in general and the SDG under review in particular. The innovations ranged from portable solar systems and safer cooking technologies to community managed ICT mesh networks that offer unlimited internet for about US\$ 2 per month. These innovator presentations not only provided context to the discussions but also enriched them.

The theme of the African Regional Forum on Sustainable Development, "Empowering people and ensuring inclusiveness and equality" shaped the discussions and outcomes of the AfriSTI Forum. Overall, the Science, Technology and Innovation Forum can serve a parameter for measuring progress towards the achievement of the SDGs targets insofar as the more a society is transformed, the more technology it uses and produces and the better are the indicators of social and economic progress,

The Forum can also serve as platform for identifying:

- (a) Effective approaches, mechanisms, strategies and policies for applying science, technology and innovation to development in Africa;
- (b) Technological options that will likely have a greater impact on efforts to achieve the Sustainable Development Goals;
- (c) Opportunities for scaling up actions to apply science, technology and innovation at the regional, national and local levels;
- (d) Potential barriers to applying science, technology and innovation in Africa and ways to overcome them.

Structure

The Forum was structured into eight major sessions, five of which focused on each of the Sustainable Development Goals under review this year by the United Nations General Assembly (Goals 4, 8, 10, 13 and 16). A session focused on SDG 17, which although not under review this year, intersects with all the SDGs that are under review. The sessions explored how technologies, especially technologies developed in Africa, can contribute to the achievement of the SDGs and Agenda 2063. Despite data limitations, emerging opportunities presented by science, technology and innovation that Africa can take advantage of to achieve the SDGs, and some of the key barriers that need to be overcome in order to scale up technology diffusion and actions were highlighted.

2. Key outcomes

The Forum affirmed STI as a key means of implementation of the SDGs and the Agenda 2063. It also affirmed that Africa's development challenges should be a trigger for innovation and their solution represents enormous resource that can be harnessed to develop the continent. It further affirmed that the technologies to achieve the SDGs under review are being produced in Africa and should be explored.

There were several recommendations, which fall in a few broad issues as follows:

A. Infrastructure for STI development.

The Forum agreed that inadequate infrastructure (both hard and soft), including research infrastructure was a fettering the contribution of STI to the achievement of the SDGs. This inadequacy confers advantages to some and can deepen inequalities. Several countries in their presentations submitted that adequate provision of hard and soft infrastructure for research, development, innovation and entrepreneurship was key to enabling STI to accelerate the achieved of the SDGs. Hard infrastructure includes laboratories, libraries, observatories (e.g. STI observatories for AU and Egypt), key projects (e.g. the Square Kilometer Array of South Africa) etc. Soft infrastructure refers to skills, knowledge systems and other intangibles (e.g. intellectual assets) that compliments and enhances the effectiveness and efficiency of hard infrastructure. Currently, Africa has limited infrastructure for R&D and should be investing more in this area.

B. Financing of R&D.

Successful deployment of STI as a means of implementation depends on adequate financing. Participants underlined that most African countries are not investing in STI as evidenced by the fact that most are yet to meet the African Union goal of investing at least 1% of their GDP in research and development. The continent's average expenditure on R&D is estimated at about 0.5% of GDP – far from the global average of 2.3% of GDP. This has several consequences such as over-dependence on R&D funding from abroad and on foreign expertise, and disconnection between domestic needs and research agenda. If STI is to fulfil its role as a means of implementation in Africa, then governments and the emerging globally large African privately-owned firms must intensify their efforts to popularise R&D and innovations and make much efforts with commensurate funding. The Forum encouraged countries to create science and innovation funds as a means to finance R&D.

C. Governance of science, technology and innovation

The governance of innovation was underlined as fundamental to enabling STI to prosper and contribute effectively and efficiently to the building of inclusive and equitable societies. It was underlined that good governance is important in ensuring that technology is applied in a fair manner, funding for STI is not abused, inventors and innovators are adequately protected, acknowledged and rewarded, and research ethics and safety are not sacrificed in the hunt for success, markets and profits. The Forum proposed the creation of a digital portal for STI and urged Member States to strengthen the AU African Observatory on science, technology and Innovation (AOSTI).

D. Building technical competencies in research and innovation

It was recognized that African has made commendable effort in building technical competencies in research and innovation but that this is not at a rate sufficient to enable the continent to address its challenges and use STI to build inclusive societies. Africa has only a handful of universities in the top 1000, R&D institutions with technology transfer offices and technology hubs with skilled manpower and national fund managers with the necessary experience to bring innovations and start-ups to market. Participants therefore emphasised that Africa needs to scale up the building of technical competencies of its research, innovation and

entrepreneurship support institutions. These are needed to manage and grow academic institutions, research centres, incubators, innovation hubs and technopoles and/or innovation cities.

3. Cross-cutting issues.

Local solutions for local challenges

It was emphasised and demonstrated that Africa should first look inwards for local solutions to local challenges before turning to the wider world for assistance. Local solutions for local challenges was emphasized. This should include explicit strategies to stimulate local inventions, innovation production, sales, consumption of locally produced technologies. Incubators and start-ups should be promoted as a matter of strategy and policy, with appropriate regulatory environment and an intellectual property rights regime that is sufficiently supportive. Data are needed to inform value chains to enable countries to exploit and improve their strengths while managing their weaknesses.

Trade and competitiveness

Participants noted that STI can advance intra-Africa trade. They also noted that the soon-to-come-into-effect African Continental Free Trade Area (AfCFTA) can provide added impetus for technology and innovation not only to drive Africa's growth and competitiveness, but it can also promote equity and inclusiveness. Digital trade is rising on the continent and will rise even more when the AfCFTA comes into force. Technology, such as digital identification platforms and digital payments systems will be important in this new world of intra-Africa trade as drivers. Frontier technologies such as artificial intelligence and Internet of Things present new opportunities for governments to create inclusive, fair and equitable societies. African Governments need to put in place policies to ensure that the application of these technologies will not widen and deepen existing inequalities or create new ones.

Private Sector and Intellectual Property

Participants recognized the leading role of the private sector in scientific research, commercialization of creating innovative solutions to tackle many problems. The Forum also recognized the possible positive role that a strong IP regime can play in spurring innovation. They underscored that an adequate or optimal intellectual property rights regime and a conducive environment for private sector growth are pre-requisites for innovation and technologies to be deployed in a manner to contribute to inclusive and equitable growth. Countries are encouraged to do their utmost to protect innovations and inventions by Africans and such protection should apply to indigenous knowledge, geographical names etc. African countries were encouraged to look into the WIPO database to identify technologies now in the public domain that they can use to grow their economies in a fair and equitable manner. They were also encouraged to enhance the contribution of private higher education institutions to scientific output and innovation and to strengthen the strategic relationship between the public and private sectors in the innovation ecosystem.

Peace and security

Participants acknowledged that the absence of peace and security can deepen inequalities and create social tensions. They recognized the dangers posed by ICT and the Internet in the

generation and dissemination, practically at zero marginal cost of “Fake News” and other dangerous materials. But they also applauded the fact that technologies are enabling expansion of coverage of national identification systems as well as supporting civil and vital registration and free and fair elections in Member States. They emphasized that to the extent that technologies fulfil these roles effectively, they will help reduce conflicts and violence which are important drivers of inequality and exclusion.

Youths and women

Youths and women outnumber men but remain poorly utilized resources on the continent. In an aging and male dominated world, their perspectives are needed and important if Africa wishes to become a true global pole for growth. This entails that all policies and initiatives mainstream youths and women. The Forum called on African governments and organizations to take all necessary measures to increase the participation of African women in technology and STI.

Regional collaborations

African countries have smaller markets, limited STI resources and small industrial bases. Intra-African collaboration is key and can be supported by continental portals for skills, infrastructures and policies that can enable collaborations. International collaboration, south-south collaboration can also be important instruments for enhancing the role of STI to address Africa’s many unique challenges.

Conclusion

Participants applauded the Forum and encouraged ECA to continue to organize it as a means of identifying African technologies (and other technologies) appropriate for meeting the targets of the SDGs and Agenda 2063.