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Guest-Editorial

Special Issue: Official statistics in Africa

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1. Introduction

This extra supplemental issue to Volume 36 (2020) of the Statistical Journal of the IAOS (SJIAOS), dedicated on official statistics in Africa, comes at the heels of the corona virus pandemic (COVID-19), which has ravaged the economies of the world. It has affected the core assets including human capital. It has revealed the vulnerability of the systems across the globe including those of the first world economies, and Africa has not been spared. A number of sectors, including statistics, have been affected. In many cases at the peak of COVID-19, a number of statistical offices halted their activities due to COVID-19 containment measures put in place by respective government authorities to manage the pandemic. Data collection which is largely conducted through face-to-face stopped in a number of countries because both the data collector and the respondent demanded to be protected from the infection of the disease. The year 2020 is likely to be the year with few reliable national statistical indicators since most of the national statistical programmes have been affected by the progressing spread of the virus. The question is, how are statisticians going to measure and manage post COVID-19 as the saying goes "if you can't measure, you can't manage it'. The situation demonstrated the challenges most of the national statistical systems face in Africa, inter alia, poor information and communication technology infrastructure and inadequate laws to support modern means of collecting and managing data. The data governance mechanisms are not suitable and robust enough to address the current data economy, especially in the wake of a crises.

While commendable progress has been made over the last three decades or so in the statistical development of most countries in Africa, there remain a number of challenges. A number of countries still employ traditional methods and techniques, use traditional sources of data and statistical laws are outdated - for some. They do not embrace the modern ways of doing statistical business in the data economy. The potential of Big Data has not been fully tapped to complement the traditional sources. Equally, while all national statistical systems adhere to international requirements as laid in the UN Fundamental Principles of Official Statistics and other frameworks such as the African Charter on Statistics, they still fall short in timeliness of dissemination requirements. Most data are released with a lag and sometimes as much as two years or more, and when they meet the requirement timeline for dissemination, data is not published or disseminated in the right format or on the right platform for easy access. These issues need to be addressed if the national statistical offices have to remain relevant as authorities in coordination of statistics in countries. They also have to collaborate with other actors in the statistical landscape; the private sector, academia, NGOs/CSOs and other stakeholders including development partners to leverage on their potential and capacities. This will help not only to improve the statistical process but also to transform into a digitalized statistical system. The COVID-19 pandemic has demonstrated that digitized systems are more effective in collecting and managing data from different sources in a short space of time to inform and devise policy interventions.

2. Zambia IAOS conference

The COVID-19 pandemic affected the undertaking of various statistics events including the 17th Interna-

tional Association for Official Statistics Conference and 3rd International Statistical Institute Regional Statistics Conference (IAOS-ISI-conference) which were scheduled to be held during the period 19th–21st May 2020 in Livingstone, Zambia. The joint event under the theme for the 2020 IAOS-ISI Conference is "*Better Lives 2030: mobilising the power of data for Africa and the world"* had interested several paper and poster presenters, a total of 253; 60% of them from Africa and Least Developing Countries.

The preparations were fairly advanced – the Scientific Programme Committee had reviewed all submitted proposals and selection made for those considered for presentation at the conference. Unfortunately, due to the progressing of COVID-10 across the globe and the travel restrictions imposed by countries, it was not possible to hold the conference. After evaluating several announcements and directives on COVID-19 by the Ministry of Health of Zambia and the Zambia Statistics Agency with the directive of the Ministry of National Development Planning, it was decided to postpone the Zambia 2020 IAOS-ISI Conference to mid-2021. This was a lost opportunity to have the papers and posters presented at the conference. The presenters have since been informed and advised that papers and posters will still be valid at another occasion when a new date is determined. The conference which will be hosted in the tourist capital city of Zambia, Livingstone is the second IAOS conference in Africa but the first to be hosted by a national statistical office of an African country. For more information please see the link: http://2020-iaos-isi.zamstats.gov.zm/.

3. Focus of this extra issue of the Statistical journal

This extra issue on official statistics in Africa covers a wide range of areas and seeks to demonstrate some of the research work conducted in Africa to support and contribute to the body of knowledge on statistical development not only to Africa but also to the global pot. The intention was to have all the papers presented at the Zambia 2020 IAOS-ISI Conference in May 2020 but for the purpose of this extra issue of the Journal only a few have been considered.

This issue of the Journal focuses on 15 papers, which discuss and argue on a number of issues, such as future statistics in Africa, methodologies of specific indices; bridging the gap between official statistics and theoretical statistics; data science skills; statistical literacy and data stewardship; factors affecting students' achievement; statistics that leave no one behind; geographically weighted regression; adaptive cluster sampling; leveraging on big data; exploring the use of the earth observation and data science; achieving good health; using cartoon videos to survey children; spatial-temporal modeling patterns; estimation of small area; food balance sheets; and strata boundary determination.

A number of these papers speak to the issues the African Statistical System is trying to address, i.e. the need to transform national statistical systems through modernization and use of new technologies, especially with the impetus of increased demand for data at all levels including the citizenry. The pandemic has come with opportunities for strengthening statistical production and development using modern technology and innovative approaches. Transformation will require a holistic approach but in a phased fashion. It requires systematic, coherent, coordinated and multi-sectoral approaches to statistical development. For national statistical offices to be functional and relevant, they will be expected to work and identify "*trusted*" partners who have the capacity, appropriate analytic tools and willing to transfer skills to country counterparts. This means collaborating with the private sector, academia, non-government organizations and other data enthusiasts. Most of these are already employing the concept of Big Data, use of earth observation, data science tools etc. The data science concept and machine learning will be critical in transforming African Statistical System in order to be at par with other regions.

Pivotal to the modernization of statistical systems in Africa, is the data governance and in particular, the statistical legislations governing the collection, management and data sharing. The legislation should provide for an enabling environment in which other actors in addition to national statistical offices play a role in the statistical data value chain. Like in many developing regions, the statistical landscape is diverse, dynamic and replete with many actors, making it very difficult to have data protection laws, which can effectively be reinforced, especially in the digital economy. It requires to regularly update the laws to ensure adherence to data privacy for instance, which is not easily attainable. The situation requires flexible and adaptive approaches.

Going forward, the future of official statistics is very bright especially if complemented with the non-traditional approaches, embracing of Big Date, use of data science principles and modern techniques. Collaborative efforts working with partners and other stakeholders and appropriate injection of resources will be paramount to the success of national statistical offices

in order to be resilient and continue producing quality and timely data. Political commitments should translate into *action* and thereby investing more in statistics, like any other asset.

Let me conclude by saying that I hope the data enthusiasts and other readers interested in the statistical development in Africa will enjoy reading this extra issue of the Journal, which presents some of the papers that will be presented at the Zambia 2020 IAOS-ISI Conference postponed to mid-2021. I encourage them to attend. I also thank the authors of the papers both presented in this Journal and those that are not for taking their precious time to write, without whom this extra issue would not have been possible. I look forward to meeting each one of them at the conference. My gratitude also to the 2020 IAOS conference Scientific Programme Committee. This issue would not exist without their commitment.

Finally, I want to register that the views and opinions expressed in this editorial do not represent or reflect the position or policy of the United Nations Economic Commission for Africa.

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