Big data = Big ideas

Asia and the Pacific statistical community share their experiences in Malaysia at the 62nd International Statistics Institute World Statistics Congress

This Stat Brief is issued without formal editing. It is prepared by Gemma Van Halderen, Director, ESCAP Statistics Division. Views expressed herein do not necessarily reflect that of ESCAP or any UN agency.

What is a Statistician? A statistician is someone who uses mathematical techniques to analyze and interpret data and draw conclusions. Although they work mostly in offices, they may travel in order to supervise surveys or gather data. And in August 2019, travel they did – two and a half thousand of them, to the 62nd International Statistics Institute World Statistics Congress.

Hosted by the Department of Statistics Malaysia, the Congress was an opportunity for statisticians gather a special type of data – data on what is happening in the international statistical profession. And the most prevalent data being shared were experiences in the use of big data.

The UN Economic and Social Commission for Asia and the Pacific, or UNESCAP, organized a special topic session at the Congress to share data on Asia and Pacific experiences with the use of big data for official statistics. Experiences from Thailand, Nepal, Philippines and China were shared with a packed audience. Chaired by Australia, the presentations covered experiences of big data and national statistical systems, as well as the use of big data in the production of official statistics.

Presenters, discussant, chair and organizer of Special Topic Session on Using Big Data for Official Statistics – The Asia and Pacific Experience gather with audience members at the 62nd ISI World Statistics Congress, Malaysia, August 2019.

Highlights from Asia and the Pacific

Thailand

Ms Hataichanok Puckcharern, Inspector-Controller from the National Statistical Office of Thailand, discussed the use of big data for official statistics in Thailand.

Ms Puckcharern shared the government-wide importance given to big data in Thailand, especially to improve efficiency in public administration and citizens' quality of life. Evidence of this importance can be seen through the establishment of a National Committee on Driving Policy Operation for Utilizing Big Data, Data Center and Cloud Computing with the Deputy Prime Minister as President. Twenty Permanent Secretaries of all government ministries of Thailand are part of the National Commission, and the

Director-General of the National Statistical Office is assistant secretary.

The National Statistics Office is responding to the government's priority. The Office has conducted a study and improved the laws related to the management of statistical systems and also implemented Thailand Statistical Master Plan at the agenda base level, Function Base and Area Base in order to drive the use of big data.

Nepal

Mr Suman Raj Aryal, Director General of the Nepalese Central Bureau of Statistics discussed accommodating big data into the Nepalese Statistical System.
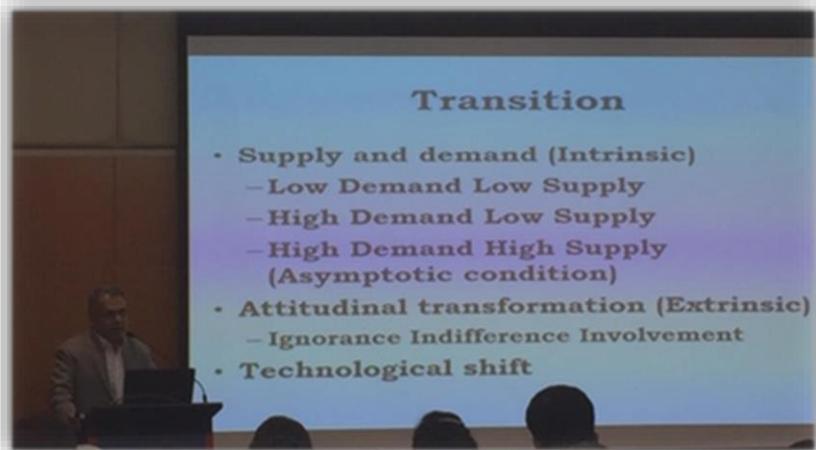
While the intellectual discourse on big data has been introduced into the Nepalese Statistical System, Mr Aryal shared the discourse is not widespread amongst data producers and users. Big data is not yet officially used as a data source for official statistics in decision making but big data has been explicitly recognized as a complementary source of data in the 2018-2023 National Strategy for the Development of Statistics in Nepal.

Mr Rayal reminded the audience that irrespective of the data source, big data by its very nature can be very difficult to

handle in countries where statistical infrastructure itself is not adequately built. Big data needs, on the one hand, a huge amount of investment to mine and process, and legal and social acceptance from the State and citizens respectively on the other. Mr Rayal shared the Nepal Central Bureau of Statistics has introduced digital data into its proposed new Statistics Act and expects its inclusion will open a door for the entry of big data into the Nepalese National Statistical System.

China

Ms. Jiang Shu, Director, Big Data Research Office of the Research Institute of Statistical Sciences of the National Bureau of Statistics of China shared China has abundant data resources, a large big data market and an increasingly mature big data ecosystem.

The National Bureau of Statistics of China has made an all-out effort to promote the application of big data. For example, it has been using big data technologies to increase data sources for official statistics, verify existing statistical data, and transform traditional statistical methods; it has been pushing for increased data connectivity, providing guidance for big data application, and carrying out big data research. Big data has also been applied in key statistical areas of the National Bureau of Statistics of China.

Philippines

Mr Candido K. Astrologo, Jr, from the Censuses and Technical Coordination Office of the Philippine Statistics Authority shared how to use big data to measure SDG 9.1.1 by a Rural Access Index.

Mr Candido J. Astrologo, Jr., from the Philippines Statistics Authority, got down into the detail and shared how to use big data for one of the 232 globally agreed indicators in the Sustainable Development Goal or SDG indicator framework. SDG 9.1.1. (*Proportion of the rural population who live within 2 km of an all-season road*) measures the share of a country's rural population that lives within 2 km of an all-season road. The indicator is a tier II indicator, meaning methodologies are being developed and tested. The Philippines shared their experiences in testing a methodology using geospatial boundaries, gridded population data from WorldPop and road network map data. They also shared how the indicator will help policymakers in the Philippines to manage investments in road sector and to formulate rural transport programs and strategies to boost agricultural growth and reduce poverty.

Discussant

Mr Ronald Jansen, Chief of the Data Innovation Branch in the UN Department of Economic and Social Affairs Statistics Division, acted as discussant for the four presentations. Mr Jansen is the secretariat of the UN Global Working Group on Big Data for Official Statistics, and shared the UNSD initiatives on building Big Data capabilities, and the UN Global Platform to provide a collaborative digital environment, global data assets, services and access to experts.

Audience participation

There was a lot of interest in Asia and the Pacific's experiences with big data for official statistics. Attendance was high, and there was standing room only for some.

A summary of the session from the organiser of the session, Ms Gemma Van Halderen, the Director of the UNESCAP Statistics Division is available here through this Web TV recording https://youtu.be/eDlJFNNFSac.

Immediately prior to the ISI, over 100 participants gathered at a Symposium on Data Science and Official Statistics jointly organised by the Statistics Divisions of the UN Department of Economic and Social Affairs and UNESCAP, and the UN Global Working Group on Big Data for Official Statistics. Seen here on day one of the Symposium. Outcomes and presentations from the Symposium can be found on https://www.isi2019.org/symposium-on-data-science-and-official-statistics/

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