UN Global Working Group on Big Data for Official Statistics Briefing

1. Achievements since the last GWG meeting

i) Report on Earth Observations data for official statistics

The key future deliverable for the UN Satellite Imagery and Geo-spatial data Task Team is a report about the use of satellite imagery, referred to as earth observations, data for producing official statistics. The report is currently in a polished draft stage under review by the Task Team members and will be completed in December 2016. It will be used as an input into the UNSC report to be submitted by the Global Working Group on Big Data for Official Statistics in 2017.

The content of the report has been driven by the direction given by UNSD for Task Teams to produce a set of guidelines that include:

- Introduction that provides the Motivation and makes the Business Case, including Modernisation of Official Statistics and monitoring the 2030 Sustainable Development Agenda through the Sustainable Development Goals (SDGs).
- Data sources – description and explanation, as well as scope of the guidelines
- Statistical domains with methodology and applications
- Concluding section with further work to be done

The report includes an introduction which describes the business case for using big data for official statistics to monitor the 2030 agenda, information about sources of earth observations data, methodologies for producing statistics, outlines of the Task Team's pilot projects and guidelines for practitioners exploring the use of EO data for the first time. The pilot projects described in the report are:

- Pilot Study Proposal for the application of satellite imagery data in the production of agricultural statistics (Australian Bureau of statistics).
- UNSD - Skybox Commodity Inventory Assessment (Google).
- Preliminary Analysis of Climate Scenarios to Improve the Environmental Characterization of Various Climatic Regions in Mexico (INEGI, Mexico)
- Use of satellite images to calculate statistics on land cover and land use (DANE, Colombia).

ii) Methodology workshops

Through collaboration with ABS on the Satellite Imagery and Geo-spatial Data Task Team, Kerrie Mengersen and James McBroom from ACEMS QUT are developing a hands-on workshop to teach methods for using earth observations data to produce statistics. The training uses earth observations data of crops to showcase a range of methodological techniques, focusing on state-space methods. The aims of the workshops are to provide participants with practical tools, techniques and programs to apply to their own statistical projects. The workshops will be held in Canberra, Australia 4-6 October, Chiba, Japan 3-5 November 2016 and Colombia in early 2017.

The strong working relationship between the Task Team members and academia is another achievement which will continue to benefit stakeholders into the future as more work is done to use big data for official statistics.

2. Topics being presented at the Conference

Day 2: Crop production statistics using satellite data – James McBroom (QUT, Australia)

Day 3: Big Data for SDG – SDG 6 – Arnold Dekker (CSIRO, Australia)

3. Future work plan for the Task Team

After presenting the methodology workshops in Australia and Japan in 2016, to continue to share the training in Latin America in 2017 and potentially other locations if there is identified demand.

The Task Team will also continue to support the future directions of the Global Working Group as determined from the Dublin conference.

4. Acknowledgements

The Task Team chair, Dr Siu-Ming Tam from the Australian Bureau of Statistics (ABS), would like to thank members of the Satellite Imagery and Geo-spatial Data Task Team who have provided comments on the draft report, and the authors of the different chapters, including Arnold Dekker, Alex Held and Flora Kerblat from the Commonwealth Science and Industrial Research Organisation (CSIRO) Australia, Kerrie Mengersen and James McBroom from ARC Centre of Excellence for Mathematical & Statistical Frontiers (ACEMS) Queensland University of Technology (QUT), Australia, Sandra Rodriguez from the Colombian National Administrative Department of Statistics (DANE), and Hannes Reuter from Eurostat, Luxembourg. The chair also recognises the contributions of Sybille McKeown and Jacinta Holloway from the Australian Bureau of Statistics (ABS).