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CONFERENCE OF EUROPEAN STATISTICIANS

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Geneva, 14-15 October 2018

For discussion and recommendations

Item II (b) of the Provisional Agenda

COMMENTS ON THE IN-DEPTH REVIEW OF USE OF SATELLITE IMAGERY / EARTH OBSERVATION TECHNOLOGY IN OFFICIAL STATISTICS

Prepared by the Secretariat

The note provides the comments from the UNECE Secretariat as input to the in-depth review of satellite imagery / earth observation technology in official statistics prepared by Canada, Mexico, Austria and Eurostat (ECE/CES/BUR/2018/OCT/3).

I. INTRODUCTION

1. The note is based on an internal discussion in the UNECE Statistical Division on 9 October 2018, and taking into account experiences of other recent CES work, including the growing partnership with the international geospatial community.

2. The in-depth review paper prepared by Statistics Canada, INEGI (Mexico), Statistics Austria and Eurostat provides an excellent overview of the opportunities and challenges that satellite and earth observation data bring to official statistics.

II. COMMENTS

3. UNECE notes that whilst satellite image data have been used in some countries for many years, particularly for agriculture statistics, the rise of artificial intelligence and machine learning techniques increases the potential for a much wider use of this data source. Recent practical examples include the use of satellite data for statistics on climate change, poverty, migration, hazardous events and disasters, and for planning and verifying population and housing census data. The use of satellite images to get information about areas of countries not controlled by the national government, or otherwise unsafe for ground-based data collection, was also noted.

4. The use of satellite and earth observation data requires certain capabilities, which are not yet present in many national statistical offices. UNECE could play a role in facilitating capacity development and dialogue between the relevant organisations at the national and international level. This would be in-line with both the UNECE Statistical Capacity Development Strategy (ECE/CES/2018/10/Rev.1), and the collaboration agreement between UNECE and UN-GGIM: Europe (ECE/CES/2018/13), both approved by the CES in June 2018.

5. The role of satellite and earth observation data as a key part of national data infrastructures was recognised. This implies a need to negotiate with the earth observation

community at both the national and international levels to ensure the availability of suitable data, and to better understand how to use, process and interpret satellite and earth observation data.

III. CONCLUDING REMARKS

6. UNECE supports the conclusions and recommendations in the paper, particularly that satellite and earth observation data offer new possibilities for many areas of official statistics, not least for statistics on the Sustainable Development Goals.

7. UNECE considers that this topic could benefit from a wider discussion. The proposed seminar on "New Data Sources" at the 2019 CES plenary session might provide a suitable opportunity for a first exchange. Alternatively, this in-depth review could be a candidate for the "substantive discussion on a selected statistical area" (item 9(b) of the Provisional Agenda) at that plenary session.

8. In either case, it is likely that further, and more wide-ranging discussions would be needed. The proposed joint plenary session of the CES and UN-GGIM: Europe in 2020 could provide a suitable forum to provide strategic direction, based on further preparatory work by a group of experts drawn from both communities.

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