UN Big Data Regional Hub for Africa

Government of Rwanda

8th International Conference on BIG DATA & Data Science for Official Statistics BILBAO 2024

Understanding the Role of the UN Regional Hub on Big Data and Data Science for Africa in advancing the work on official statistics

Bilbao, Spain, June, 2024

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Overview

- Background
- Mission and objectives
- Achievements
- Upcoming events
- Current Partnerships and collaborations
- Challenges and opportunities
- Way forward

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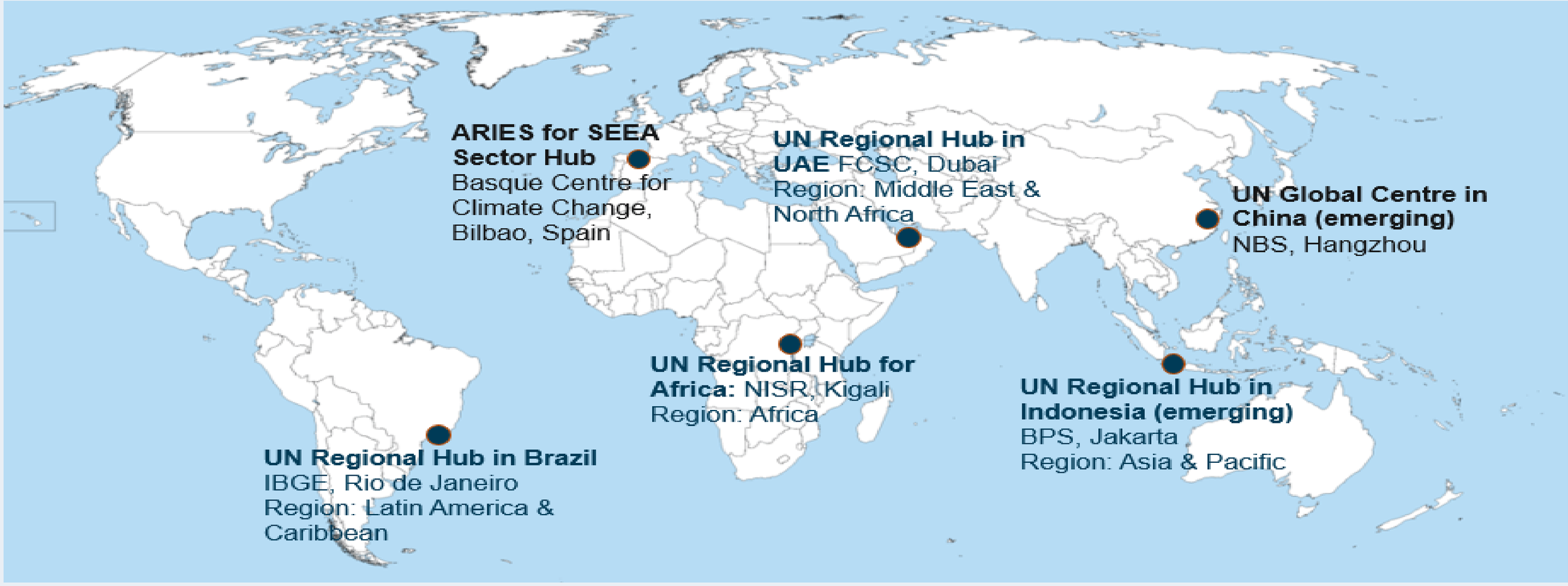
UN Regional & Global Hubs



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UN Regional Hubs – what are they?

Identification of & focus on region specific big data needs

UNGP – Provides environment & shared platform for regional collaborations & developments

Focus on the training & development needs for the region – workshops, webinars, Newsletters, etc

Provide advice, consultancy & support role for NSOs in region

Collaboration, knowledge exchange & shared challenges – across borders

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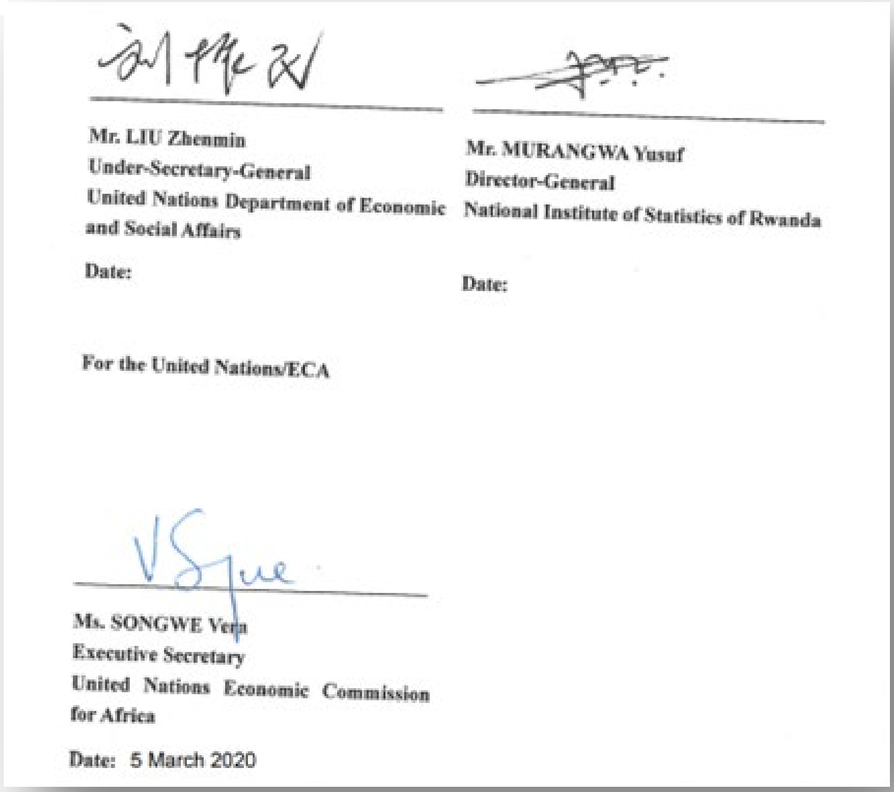
- The UN Regional Hub for Africa is a collaboration between the National Institute of Rwanda (NISR) and the United Nations Economics for Africa (ECA).

- The partnership is established via a Memorandum of Understanding (MOU) with the UN Department of Economic and Social Affairs (UNDESA).



Mr. LIU Zhenmin
Under-Secretary-General
United Nations Department of Economic and Social Affairs

Date:

Mr. MURANGWA Yusuf
Director-General
National Institute of Statistics of Rwanda

Date:

For the United Nations/ECA

Ms. SONGWE Vera
Executive Secretary
United Nations Economic Commission for Africa

Date: 5 March 2020

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Mission

The mission of the Hub is to support Member States in effectively using alternative data sources, applying appropriate data science tools and techniques for their use in providing credible and insightful statistics.

Objectives

1. **Facilitation of projects**: Aid the facilitation of cross-border collaboration projects that seek to apply big data, alternative data sources, and data science, to complement official statistics and fill data gaps for SDG indicators

2. **Sharing of knowledge:** Provide knowledge on newly developed methods, algorithms and tools, via webinars, seminars and the UN Global Platform

3. **Provision of training**: Provide training in the use of big data and data science for the community of official statisticians in Africa

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Focus areas/ Workstreams

1. Advocacy/Leadership
2. Capacity Building
3. Research
4. UN Global Platform

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Organizational Structure

- Steering committee
- Advisory board
- Programme Management Unit
- Project teams

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Achievements

June 2021: Recruitment of Big Data Department: NISR (Kigali)

June 2021 (Virtual): International Workshops on Big Data & Data Science (All Member States): to discuss challenges faced by National Statistical Offices (NSOs) in modernization and identify areas of collaboration on scalable projects in Africa.

September 2021 (Virtual): Virtual training on Data science leadership

- Virtual training on Data science leadership
- Data Science Core and Advanced Skills training
- Data Science Awareness creation and Advocacy

Jan 2022: EXPO2020: “Mobilizing big data and data science for SDGs”, contributor (Dubai)

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Achievements

June 2022: Taking Forward the Regional Hub for Big Data for Africa (Kigali, with 4 NSOs)

Aug – Dec 2022: Hub's steering committee meetings (virtual, August and December)

Ag 2022: Publication: Regional assessment of institutional readiness for using Big Data and Data science in Official Statistics.

Oct 2022: Introduction of the Hub to all Heads of NSOs – Africa Statistical commission 2022– Side event (Addis Ababa, October)

Nov 2022: 7th International Big Data conference: presenter (Indonesia, November)

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Achievements

2022: International workshops on big data and data science to discuss NSOs challenges in modernization and areas of collaboration on projects scalable in Africa (follow-up physical workshop)

2022: UN Hackathon 2022: Organizing committee member

2022: Training on python for Member States

March 2023: Launched the first NSO collaborative project on Web scraping Prices for the CPI (Kigali, 5 NSOs)

May 2023: Data innovation Lab Workshop: Host and presenter (Kigali)

June 2023: Developed the webinar series' programme

April - Nov 2023: Hub's 2nd steering committee meetings

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Achievements

July 2023: Outcomes & learning from the first collaborative project on web scraping prices for CPI (African countries)

Jul 2023: Webinar Using web scraping technique to collect data for the production of the Consumer Price Index (CPI)

July 2023: 64th World Statistics Congress: “Unleashing the Data Revolution in Africa: Will Africa be the next epicentre of the data revolution?”, presenter (Ottawa)

Aug 2023: Launched the United Nations Regional Hub for Big Data and Data Science in Africa (Kigali)

Sep 2023: Webinar Automatic Occupation Coding Tool

October 2023: Hub Progress Review for 2022-2023.

2023: Webinar Using big data and data science for producing and disseminating the CPI

Achievements

Nov 2023: UN Datathon 2023: Organizing committee member and satellite location host (Kigali)

November 2023: Assessing NSOs capacity for using Big Data and administrative records for official statistics (Addis Ababa, with eight NSOs)

Nov 2023: Use cases of Mobile Phone Data (MPD) for Official statistics

Dec 2023: International Webinar on Earth Observations for Agricultural Statistics (EO-STAT)

Feb 2024: Opportunities and Challenges of Using MPD for Official Statistics

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Achievements

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Feb 2024:Post-Enumeration Survey Workshop (Addis Ababa, with six NSOs)

19th March 2024: Stats Talk-Africa: Understanding the Role of the UN Regional Hub on Big Data and Data Science for Africa in advancing the work on official statistics

21st March 2024: Dynamic Population Mapping Using Mobile Phone Data

11th April 2024: From Mobile Phone Data to Transport and Commuting Statistics

May 2024: Leveraging Mobile Phone Big Data for Information Society Statistics: Successes, Challenges, and Future Direction: Part-1

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Upcoming Events

June 2024: Leveraging Mobile Phone Big Data for Information Society Statistics: Successes, Challenges, and Future Direction Part-2

July 2024: Promoting the use of the UNGP

July 2024: Competencies and capacity development. Training tools and products available to NSOs

August 2024: Data Science Campus International Development

https://ecastats.uneca.org/regionalhub/Events

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Partnerships and Collaborations

National Statistical Offices (NOSs) in Africa

UK Data Science Campus

Bank of Italy

Statistics Poland

United Nations Food and Agriculture Organization (UNFAO)

UN Regional and Global Hubs

UN -Task Teams

World Bank

United States Census Bureau (USCB)

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Partnerships and Collaborations

Office for National Statistics (ONS)

African Development Bank (AfDB)

East African Community (EAC)

United Nations Population Fund

African Institute of Mathematical Sciences

East Africa Training Centre

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Challenges and Opportunities

Challenges

- Data access, particularity those held by the private companies and tech companies
- Infrastructure - Managing and processing Big Data
- Ethical and privacy concerns
- Resources both human and financial
- Skills gap

Opportunity

- Sharing of Experiences with other regional hubs and NS
- Willingness of partners to work with the hub
- Leveraging both NISR and UNECA platforms
- Regular capacity development programs

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Way forward

Promoting the Hub further: We want to raise the Hub's profile and ensure that all African NSOs know of its existence and how to gain access to the offerings.

Keen to develop a "data science community" through offering trainings, projects and mentoring options to NSOs and individuals.

We will continue to take advantage of Conferences and regional meetups to promote the Regional Hub, and keep involving different NSOs in future workshops

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CONTACT US

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THANK YOU!!!!!!

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