RAMOUDANE OROU SANNOU

Environmental Economist & Data Scientist

I am an Environmental Economist with a skillset encompassing analytical and quantitative abilities. My 5+ years of research and consulting experience spans diverse fields, including development economics, sustainability science, and impact assessment methods. I have contributed to and managed development research projects in 4 international organisations with a deep-rooted passion for leveraging data science to generate valuable evidence to enable informed decision-making.

CONTACT

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EXPERTISE

Functional:
- Environmental policy & regulation
- Sustainability strategy development
- Sustainability assessment
- Econometrics
- Machine learning & statistical modelling
- Analytics / data visualisation
- Monitoring & evaluation

Industry:
- Government / Public sector
- Climate-smart agriculture
- Agri-food & land use
- Sustainable production & consumption
- ESG Reporting
- Circular economy

COMPETENCIES

- Communication & presentation
- Project management
- Stakeholder engagement
- Problem solving
- Teamwork

LANGUAGES

- French — native
- English — fluent [C2]
- German — professional [B1]
- Arabic — basic [A1]

EDUCATION

- **Technical University of Dresden | PhD in Integrated Management of Environmental Resources**
  Germany | 05/2021 – 08/2024 | Chair of Environmental Management and Accounting

- **Frankfurt School of Finance & Management | Certified Expert in Sustainable Finance**
  Germany | 03/2023 – 09/2023

- **Technical University of Dresden | Postgraduate Diploma of Environmental Management**
  Germany | 01/2018 – 07/2018 | *Best Paper Award*

- **University of Parakou | M.Sc. & B.Sc. in Rural Economics & Sociology**
  Benin | 10/2011 – 07/2017 | *Honors*

WORK EXPERIENCE – EMPLOYMENT

- **United Nations University | Researcher at the Institute for Integrated management of material Fluxes and of Resources (UNU-FLORES)**
  Dresden | 05/2021 – present

  My research delves into the intricate interplay between temporal, spatial, economic, and environmental dimensions of sustainability, providing valuable insights for measuring social sustainability to achieve the SGDs.

  Key achievements:
  - Successfully completed the manuscript of an upcoming scientific paper in a prestigious journal, utilizing panel data regression to analyze the impact of a large-scale land restoration innovation on food security.
  - Authored a scientific paper published in a leading peer-reviewed journal, employing qualitative content analysis and machine learning techniques to extract pertinent social sustainability indicators from extensive literature.
  - Advancing the Institute's implementation plan through effective management of my research project focusing on the development of resilient agri-food systems and the enhancement of sustainability assessment methods.

- **United Nations Population Fund (UNFPA) | Data Fellow - International Specialist**
  Ouagadougou | 09/2019 – 04/2021

  Played a pivotal role in UNFPA's research & development activities on Civil Registration and Vital Statistics (CRVS). Through comprehensive analyses, I successfully unravelled the proximate determinants of vital events' registration and produced several invaluable knowledge products concerning vital statistics in Burkina Faso. My contributions significantly strengthened the understanding of CRVS systems and their impact on public health and policymaking, ultimately paving the way for evidence-based solutions and improvements in vital event registration processes.

  Key achievements:
  - Automation of Birth Registration Analysis: Developed an efficient R code to automate the generation of tables and graphs showcasing the completeness of birth registration, facilitating accurate reporting and the understanding of birth registration patterns.
  - Statistical Modeling for Birth Registration: Utilized advanced statistical modelling techniques to predict the effects of maternal age and usual residence on birth registration and certificate detention in West and Central African countries.
  - Training in R for National Statisticians: Delivered comprehensive hands-on training sessions on R programming to 10+ statisticians from the National Statistics Offices of Morocco and Burkina Faso
  - Roll-out of digital birth registration technology with private sector partner iCivil: Supported the successful deployment of iCivil, a cutting-edge technology for systematic birth, marriage, and death registration. By overseeing the implementation of mobile applications, computer software, and a data server, I facilitated streamlined data generation and improved registration processes, contributing to the registration of over 3000 births in 6 months from 3 pilot villages.

IT SKILLS

Data analysis:
- Python   advanced
- R   advanced
- SQL   good
- Excel   advanced

Visualization:
- ggplot2   advanced
- Matplotlib   advanced
- Tableau   good
- PowerPoint   advanced

Other:
- ArcGIS
- Google Earth Engine
- Microsoft Planetary Computer

PUBLICATIONS

- **Orou Sannou, R.**, Kirschke, S., Günther, E., 2023. Integrating the social perspective into the sustainability assessment of agri-food systems: A review of indicators. Sustainable Production and Consumption. https://doi.org/10.1016/j.spc.2023.05.014

- **Orou Sannou R., et al.** (*forthcoming*), Large-scale Innovation in Agri-food Systems for Food Security: Evidence from the Great Green Wall Initiative Countries. Under review in Global Food Security

CERTIFICATES (SELECTION)

- Manage Impact Evaluations (World Bank)
- Strategic Planning/Results-based Management (University of Wolverhampton)
- Project Management (TU Dresden)
- Data Scientist with R (DataCamp)
- Statistician with R (DataCamp)
- Data Science with Python (IBM)
- Social & Economic Networks Analysis and Modeling (Stanford University - Coursera)

HOBBIES

- Reading novels
- Cooking
- Hiking
- Fitness

Dresden, 27/07/2023
Ramoudane Orou Sannou

- **African Union Commission | Researcher at the Human Resources, Science & Technology Department**
  Addis-Ababa | 08/2018 – 08/2019

  Contributed to several projects involving research and data analysis to enable senior management to develop policies and programs on youth development at the continental level.

  Key achievements:

  - State of African Youth Report 2019 (SoAYR) : Led a team of 14 Researchers in drafting the State of African Youth Report 2019, demonstrating exceptional skills in data collection, centralization, analysis, and visualization. Successfully gathered and analyzed data from 55 African countries, presenting insightful indicators that provided a comprehensive understanding of youth-related issues across the continent.
  - Shaping the "1 million Youth by 2021" Initiative: Played a crucial role in shaping the African Union Commission's (AUC) "1 million Youth by 2021" initiative. Conducted a rigorous feasibility study and performed data analysis and visualization on multiple development indicators, providing essential evidence to support strategic actions aimed at empowering and uplifting 1 million youth across Africa.
  - Development Data Management: Initiated and efficiently managed the AUC's development-related data and data visualization central hub on the Humanitarian Data Exchange (HDX) web platform. This ensured seamless data access and visualization, facilitating evidence-based decision-making and fostering collaboration among various stakeholders.

WORK EXPERIENCE – FREELANCE

- **The Commonwealth Secretariat | Data Science Consultant**
  Home-based | Multiple assignments since 2022

  Delivered workshop sessions on data science and its applications in development research at Commonwealth Data Science and Innovation Workshops across the Caribbean and Africa.

- **International Fund for Agricultural Development (IFAD) | Research Analyst at the Independent Office of Evaluation**
  Home-based | 04/2021 – 09/2021

  Played a key role in the sub-regional evaluation of IFAD operations in 6 fragile countries in West Africa (G5 Sahel Countries plus Northern Nigeria). Conducted comprehensive desk reviews of 100+ project reports, performed data collection, analysis, visualization, and generated insightful reports.

- **Numbers and People Synergy (NAPS) | Data Science Consultant**
  Home-based | Multiple assignments since 2019

  Executed data cleaning and batch calculations to impute missing values, ensuring cross-country comparability of indicators in various Youth Development Indices (e.g., Pakistan, Australia, ASEAN, African Union, Sports & SDGs, etc.).

VOLUNTEERING

- **World Food Forum (WFF) | Young Scientist**
  Home-based | 05/2023 – present

  Providing the World Food Forum (WFF) with scientific evidence and technical expertise for effective implementation of initiatives targeting agrifood systems transformation in alignment with the Sustainable Development Goals (SDGs).

- **Global Reporting Initiative (GRI) | Subject Matter Expert**
  Home-based | 01/2023 – 02/2023

  Conducted peer review of the French translation of the GRI 13 Sector Standard on Agriculture, Aquaculture, and Fishing.

- **International Association of students in Agricultural and related Sciences (IAAS) | Africa Regional Director**
  Multiple countries | 12/2016 – 01/2018

  Successfully devised and executed a strategic plan, establishing new IAAS chapters across Senegal, Burkina Faso, Cameroon, Burundi, Tanzania, and South Africa.