



Food and Agriculture
Organization of the
United Nations

SUSTAINABLE
DEVELOPMENT
GOALS



AFRICAN COMMISSION ON AGRICULTURAL STATISTICS

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4–8 December 2023
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AFCAS 28
LEVERAGING
DATA & STATISTICS
FOR AGRIFOOD
SYSTEMS
TRANSFORMATION
IN AFRICA

AGENDA ITEM 7:

Agricultural Science and
Technology Indicators (ASTI)



AFRICAN
COMMISSION ON
**AGRICULTURAL
STATISTICS**



Agenda item 7:

- 1) INTRODUCTORY REMARKS – José Rosero Moncayo, Director of FAO Statistics Division
- 2) PAPER PRESENTATION: “*Agricultural Science and Technology Indicators: Institutionalization and new national data collection approach*” – Hernan Daniel Muñoz, Statistician FAO Statistics Division
- 3) SHARED EXPERIENCES: Lessons learned from intergovernmental dialogues - David Babalola, National Bureau of Statistics of Nigeria
- 4) ROUNDTABLE DISCUSSION: Recommendations on key issues for ASTI’s institutionalization roadmap

Agricultural Science and Technology Indicators (ASTI)

Institutionalization and new national
data collection approach

Presenter: Hernán D. Muñoz – FAO Statistics Division





Introduction

- 1) Background: The importance of Science, Technology and Innovation (STI) for Agriculture
- 2) ASTI program integration into FAO: challenges and opportunities
- 3) The transition towards a more institutionalized and sustainable process
- 4) Conclusions and recommendations
- 5) Questions and invitations to AFCAS member countries



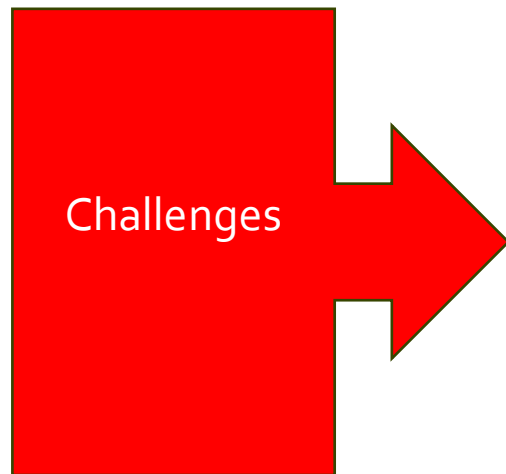
SCIENCE, TECHNOLOGY AND INNOVATION (STI) FOR AGRICULTURE

- FAO Science and Innovation strategy → facilitating solutions to agrifood systems through STI
- Agricultural research investment impacts:
 - Enhancing agricultural productivity
 - Reducing poverty and hunger
 - Addressing climate change impacts
- Quantitative data are essential to inform the decision-making processes (e.g. R&D investment, capacities and outputs)
- R&D data collection challenges:
 - Large number of diverse institutions (government, education, non-profit, and private)
 - Funding from multiple sources (gov. budgets, donors, private sector, product sales, etc)
- In Africa, ASTI data has been a key input at the National and Regional level



Agricultural Science and Technology Indicators (ASTI)

The program faced several challenges in the past, thus the integration into FAO' emerges as an opportunity to revitalize and propel it to new levels of success.



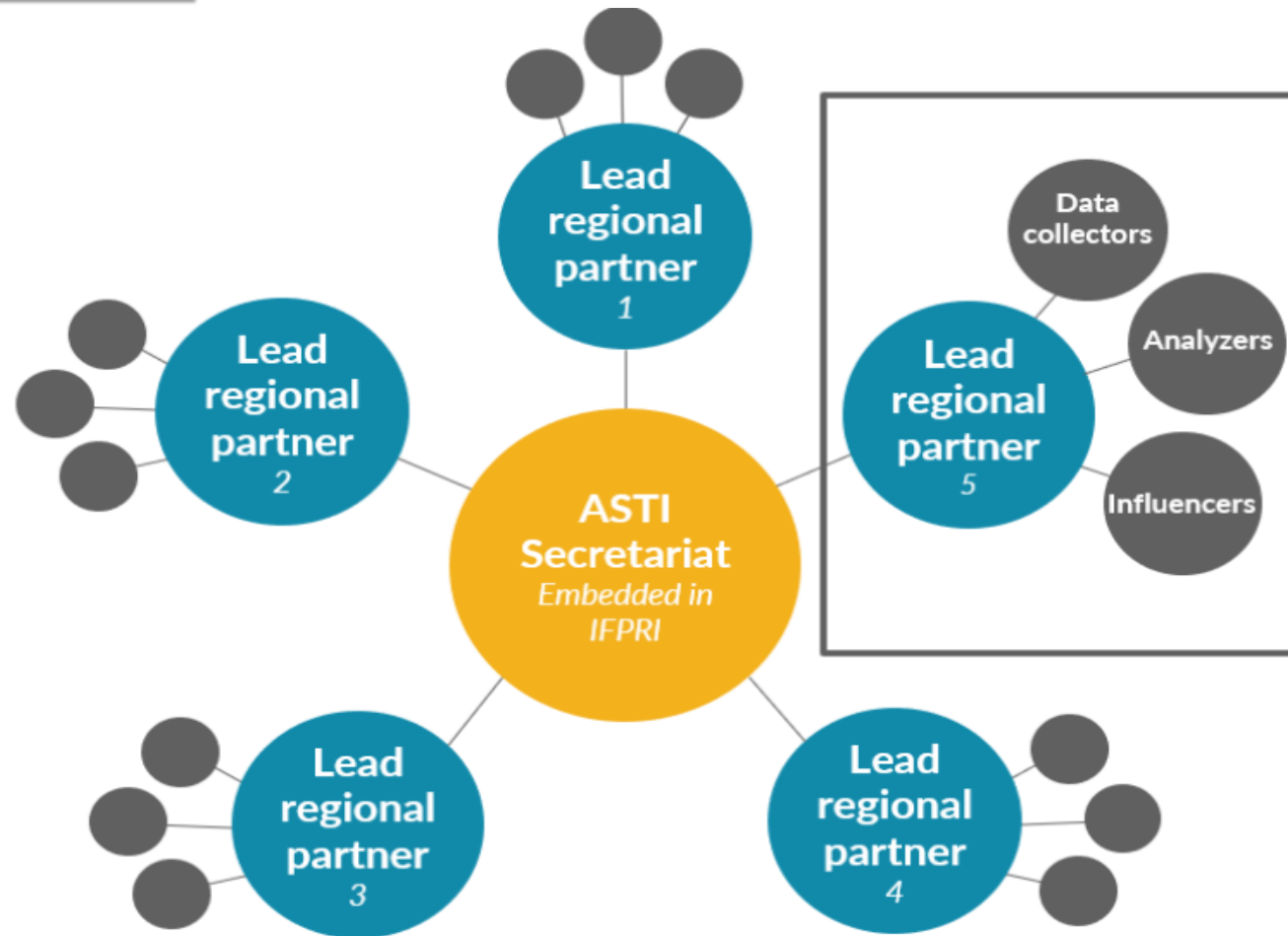
- Funding constraints
- Data quality standards
- Data collection frequency
- Geographic coverage



- Quality assurance framework
- Country engagement
- Broaden the scope
- Institutionalization
- Data collection mandate
- Dissemination platform



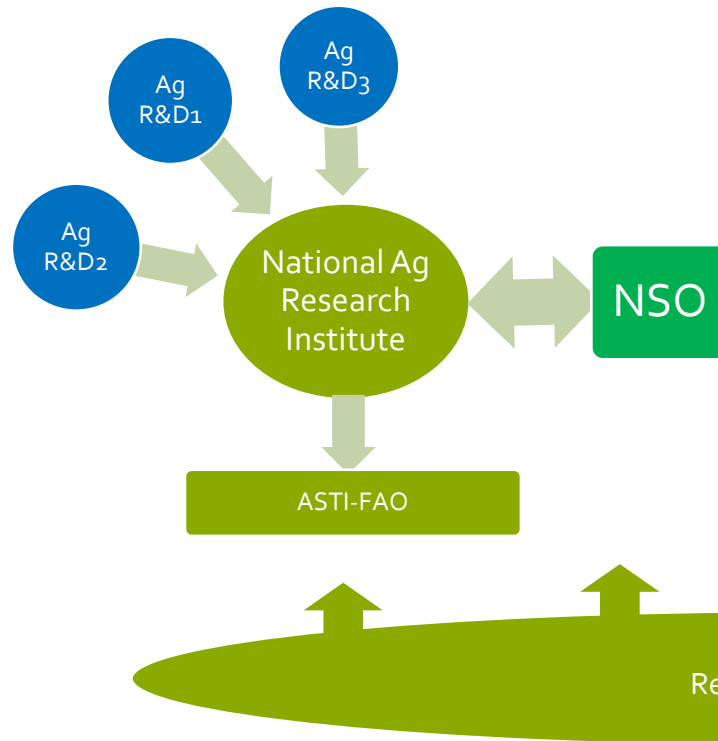
ASTI former data workflow



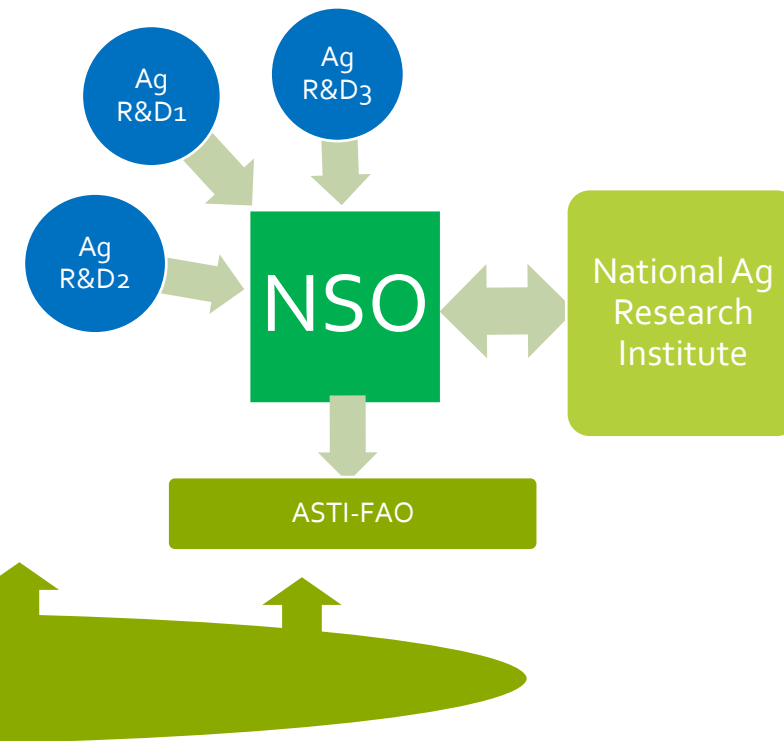


New data collection approach (fit-for-purpose)

MODEL A



MODEL B





TOWARDS A MORE INSTITUTIONALIZED AND SUSTAINABLE PROCESS

Tier 1: Core aggregates

Investments and human resource capacities variables will be collected through FAO questionnaires administered on an annual basis (i.e. total spending, total researchers)

These data will be included in FAOSTAT

Tier 2: Detailed and granular variables

A comprehensive questionnaire will be distributed every 3-5 years to collect a more in-depth detailed indicators (e.g. gender, commodity focus, research outputs, etc.)

These data will be included in STI platform



Conclusion

The new data collection approach aims to integrate ASTI into NSS mechanisms for:

- ✓ National validation of the data
- ✓ Enhance country ownership
- ✓ Clear data collection mandate

The role of NSOs are crucial as they:

- Play a leading role in the NSS
- Enforce statistical standards and hold expertise
- Potential ASTI users for building related statistics (SNA, capital stock, productivity)
- Normally ensure higher response rates to FAO questionnaires
- Capacity building partner



INVITATIONS TO AFCAS MEMBERS:

- ✓ *Acknowledge the transition process towards a more institutionalised and sustainable ASTI program*
- ✓ *Support ASTI activities in the region. FAO will conduct special capacity building activities for which the national statistical authority will be considered as key partner*
- ✓ *Integrate their National Agriculture Research Institutes into their National Statistical System and conduct data quality assessments, or statistical quality certifications where applicable, on ASTI data*
- ✓ *Initiate national dialogues to establish fit-for-purpose models and enhance country ownership. FAO is seeking opportunities to pilot the new data collection approach in selected countries in the region*



QUESTIONS TO AFCAS MEMBERS:

- 1) Which statistical operations in your NSS do you think can be related, strengthened and/or complemented by the information generated by ASTI?
- 2) What considerations guide your transition from non-official to official statistics, as well as the inclusion into the National Statistical System (NSS)?
- 3) What elements of a quality assurance framework do you deem most relevant in this respect?
- 4) Are National Agriculture Research Institutes part of your National Statistical System? If not, how should they proceed to be included?
- 5) What are your thoughts on the new data collection approach, i.e. a clear official ASTI data collection mandate as part of the NSS?

Thank you for your attention!

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