

Communicating Agricultural Science and Technology Indicators: Lessons Learned

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Agricultural S&T Indicators (ASTI) initiative
IFPRI-Rome office

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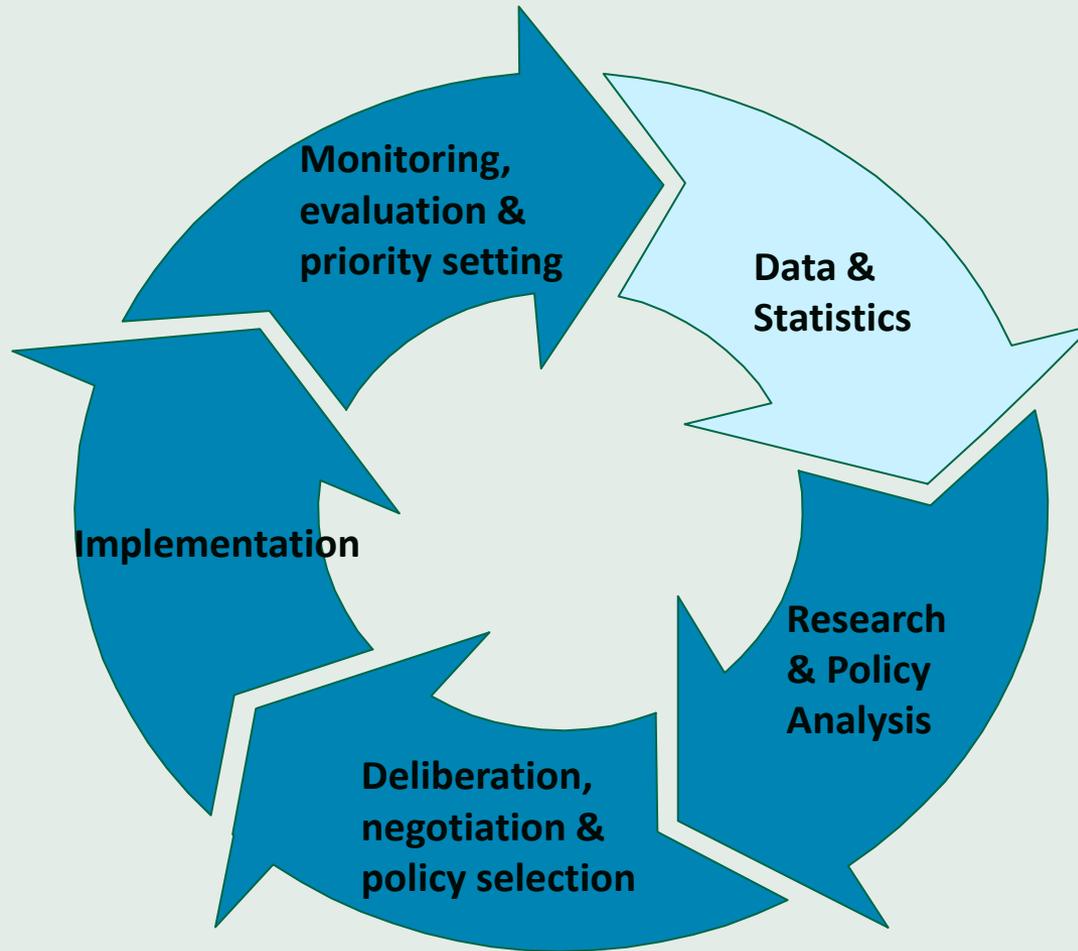
Background – ASTI initiative

- Collects and analyzes primary data on institutional developments, investments, and capacity in agricultural R&D in developing countries
- Institutional survey rounds covering government, higher education, nonprofit (and private for-profit) R&D agencies
- Collaborative network with large number of national, regional, and international partners
- Data collection is on a region by region basis

ASTI data can inform:

- understanding of the contribution of agricultural S&T in promoting agricultural growth
- understanding of the current status and direction of national agricultural research systems in developing countries
- measuring, monitoring, and benchmarking the performance, inputs, and outcomes of agricultural S&T systems

ASTI Data in the Context of Agricultural S&T Policy



Challenges

ASTI information is provided at the global, regional, and national levels, meaning that it can be applied to a wide range of agricultural policy issues.

- How to communicate to a diverse set of stakeholders?
- How to enhance the relevance of ASTI information for national policymakers and R&D managers?

What to communicate?

Time-series
data across
countries,
regions,
and at the
global level

Agricultural R&D investments and capacity

Institutional arrangements affecting agricultural research

Agricultural R&D funding levels and donors

Degree levels of agricultural researchers

Female participation in agricultural R&D

Focus of agricultural R&D - crops, livestock, or other area

Wide range of stakeholders at the national, regional, and international level



Vehicles: Publications

Country briefs

Data fact sheets

Regional and
global analyses of
agricultural R&D
investments

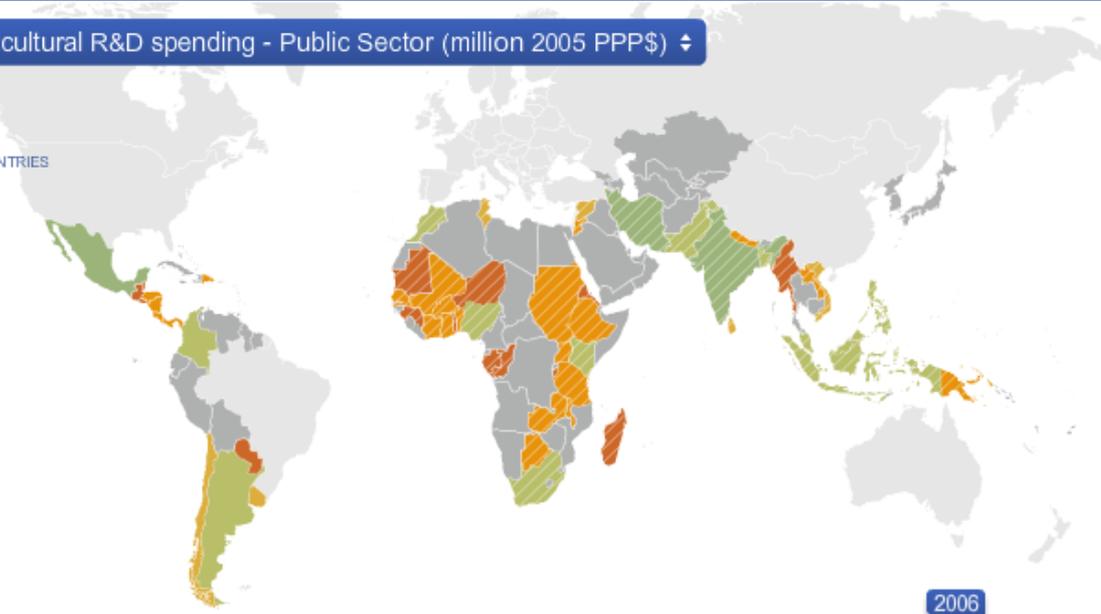
In-depth analyses
of trends
underlying key
ASTI indicators

MAP A SUBJECT

Total agricultural R&D spending - Public Sector (million 2005 PPP\$) ▾

MAP FOCUS
WORLD ▾

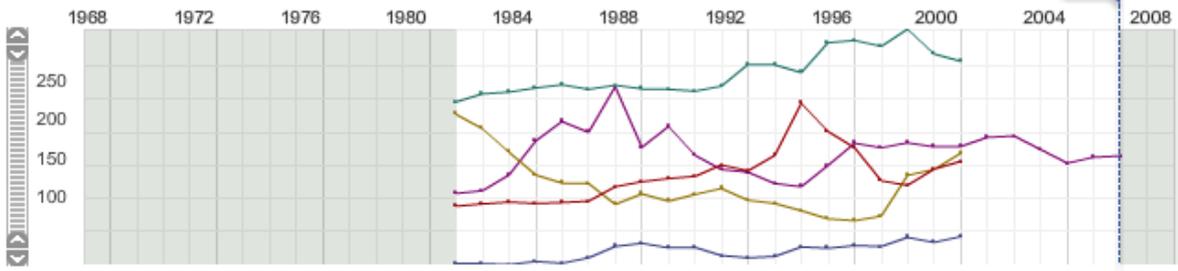
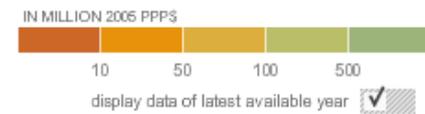
RESIZE COUNTRIES
UNDO ▾



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Total agricultural R&D spending - Public Sector (million 2005 PPP\$)

Total agricultural R&D expenditures (including salaries, operating costs, and capital costs) by the government, higher education, and non-profit sectors combined in million purchasing power parity (PPP) dollars of the year 2005



COUNTRY CHARTS

×	COLOMBIA	152.4
×	ETHIOPIA	48.7
×	NIGERIA	156
×	KENYA	145.3
×	SOUTH AFRICA	274.5

[VIEW SNAPSHOT DATA](#)

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About ASTI

The Agricultural Science and Technology Indicators (ASTI) initiative compiles, analyzes, and publicizes data on institutional developments, investments, and capacity in agricultural R&D at national, regional, and global levels... [read more](#)



ASTI data tool

The ASTI timeseries database provides access to agricultural R&D indicators for developing countries in tabular format (for OECD countries, please refer to the S&T indicators provided by the OECD).



In focus

[ASTI consultation round on supplementary indicators](#)

[Project on gender-disaggregated capacity indicators](#)



The **share of low and middle income countries in global agricultural R&D spending has gradually increased over the past decades**

In 2000, low and middle income countries accounted for 43% of global agricultural R&D spending

ASTI Facts

Latest Country Resources

- Argentina
- Chile
- Guatemala
- Panama
- Mexico
- Paraguay

Key Publications

Public Agricultural R&D Investments and Capacities in Developing Countries: Recent Evidence for 2000 and beyond. Note prepared for GCARD 2010: [\(PDF 210K\)](#)

ASTI presentation at GCARD 2010: [\(PDF 722K\)](#)

Women's Participation in Agricultural Research and Higher Education: Key Trends in Sub-Saharan Africa, 2009 [\(PDF 334K\)](#)

Mobilizing Financial Resources for Agricultural Research in Developing Countries: Trends and Mechanisms. GFAR Briefing Paper, 2009 [\(PDF 557K - download from GFAR website\)](#)



Increasing ASTI's policy relevance

- Regional, sub-regional links and partnerships to enable a decentralized data collection system with stronger ownership by national and regional partners.
- Capacity building activities – establish a clear set of standards and definitions.
- Sponsor more in-depth studies of agricultural S&T indicators that analyze underlying trends and issues.
- Establish analytical capacity to address S&T policy questions critical to the development of effective national agricultural research systems.

Lessons Learned

- Cannot assume that data is used simply because it is available – need to communicate the data to stakeholders.
- Communication should not be one-way only – should encourage feedback and input
- Working with national and regional partners is essential in data collection and dissemination.
- Tailor and present data in various formats and venues to target different stakeholders.
- Communication should not be an afterthought.

Please visit www.asti.cgiar.org

ASTI Agricultural Science & Technology Indicators
Internationally comparable data on agricultural R&D investments and capacity for developing countries

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- Latest Countries**
- Argentina
 - Chile
- Key Publications**
- Latin America and the Caribbean: Trends, ASTI (PDF, 185K)
 - Measuring Agricultural Research Global Indicators: Underlying Data for FTEs
 - Agricultural R&D Cap Asia Pacific Region: 2000 Synthesis (PDF, 332K)

ASTI Agricultural Science & Technology Indicators
Internationally comparable data on agricultural R&D investments and capacity for developing countries

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MAP A SUBJECT

VIEW SNAPSHOT DATA

MAIN COUNTRY: NIGERIA 2000

COMPARE DATA WITH: ADD COUNTRY

Total agricultural research expenditures (in million 2005 PPP\$)	199	196
Total agricultural research staff (in FTEs)	1351.0	1351.0
Research staff by institutional category (in FTEs)		
government / higher education	1351.0	1351.2
Public research staff by degree level (in FTEs)		
PhD / MSc / BSc	1351.0	142.7
Public female research staff (in FTEs)	290.0	152.3
Public male research staff (in FTEs)	1061.0	155.8

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MAP A SUBJECT

Total agricultural R&D spending - Public Sector (million 2005 PPP\$)

EXPORT DATA **ABOUT THIS TOOL**

RANKING **ALPHABETICAL** **ABOUT**

Total agricultural R&D spending - Public Sector (million 2005 PPP\$)

Total agricultural R&D expenditures (including salaries, operating costs, and capital costs) by the government, higher education, and non-profit sectors combined in million purchasing power parity (PPP) dollars of the year 2005

10 50 100 500
display data of latest available year

COUNTRY CHARTS

- ADD COUNTRY
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