Fact: Agricultural R&D spending is nearly twice as volatile in Africa as it is in the Asia-Pacific or in Latin America and the Caribbean, largely because African countries are highly dependent on ad hoc and short-term donor funding.

ASTI is active in over 70 countries in Africa, Asia, and Latin America and the Caribbean. Currently the initiative is in the process of transitioning from what was, essentially, ad hoc data collection to a sustainable institutionalized system of data compilation, synthesis, and analysis at regular intervals. A set of decentralized national and regional focal points has been established to facilitate this process, enhance ownership of the data, and stimulate further advocacy and analysis at the national level. This transformation will initially focus on South Asia and Africa south of the Sahara, but will be expanded to other regions over time if funding allows.

Fact: China, India, and a number of the larger, more advanced middle-income countries have fueled accelerated growth in global public agricultural R&D spending since 2000.
The Agricultural Science and Technology Indicators (ASTI) initiative, facilitated by the International Food Policy Research Institute (IFPRI), is a comprehensive and trusted source of information on agricultural research and development (R&D) systems across the developing world.

Working with a large network of country-level collaborators, ASTI conducts primary surveys to collect data from government, higher education, nonprofit, and private agricultural R&D agencies. After analyzing the resulting raw data, ASTI publishes quantitative and qualitative information and trends on funding sources, spending levels and allocations, and human resource capacities, at both country and regional levels. ASTI's data and analysis constitute a powerful decisionmaking resource for national and regional research managers, policymakers, donor organizations, partners, and other stakeholders.

**Quantitative Indicators: ASTI's Building Blocks**

- Institutional infrastructure, arrangements, and changes affecting agricultural R&D
- Agricultural R&D financial data
  - spending by cost category
  - funding by source
- Agricultural R&D human resource data
  - researchers and support staff by degree and gender, researchers by age
- Research focus by commodity and thematic area

**Tools, Products, Outreach: ASTI's Outputs**

ASTI has published a broad set of reports and briefs analyzing national, regional, and global agricultural R&D trends over time. ASTI's work is disseminated through

- a variety of datasets accessible via ASTI's interactive data tool;
- an interactive website offering publications, datasets, country profiles, news, and updates;
- workshops, seminars, and outreach events;
- presentations at local and regional forums, conferences, and meetings; and
- contributions to reports by organizations such as the World Bank, Food and Agriculture Organization of the United Nations (FAO), Organisation for Economic Co-operation and Development (OECD), and others.

**Making a Difference: ASTI Impacts**

- ASTI data and analyses are instrumental in keeping policymakers informed about levels of, changes in, and comparisons among agricultural R&D investments. They are also used in advocating for funding with government and donor agencies.
- The surveys build national-level capacity in data collection methods, analysis, and management, among other skills and expertise.
- ASTI has been cited in numerous influential reports, including 2012's G8 accountability report and G20 Interagency Report.
- National, regional, and international organizations use ASTI data in their planning and decisionmaking processes.
- National and regional partner institutions use ASTI's data on the participation of women in agricultural R&D to promote the recruitment and promotion of female researchers and research managers.

**ASTI's Objectives**

- To provide high-quality, up-to-date datasets on agricultural R&D
- To conduct ongoing analysis of its agricultural R&D datasets
- To communicate the results of its analysis to promote advocacy and support policymaking
- To build national and regional capacity for both data collection and data analysis

**Fact:** With over 60 percent of its scientists under the age of 40 years, Cambodia's pool of agricultural researchers is among the youngest worldwide, contrasting sharply with many West African countries, where many researchers are approaching retirement age.

**Fact:** The Indian Council of Agricultural Research (ICAR) employs over 2,000 PhD-qualified researchers, whereas Burundi's Agricultural Science Institute (ISABU) employs just 1.

**Agricultural R&D Data Is Important**

Quantitative information is fundamental to understanding the contribution of agricultural science and technology (S&T) to agricultural growth. Indicators derived from such information allow the performance, inputs, and outcomes of agricultural S&T systems to be measured, monitored, and benchmarked. These indicators assist S&T stakeholders in formulating policy; setting priorities; and undertaking strategic planning, monitoring, and evaluation. They also provide information to governments, policy research institutes, universities, and private-sector organizations involved in public debate on the state of agricultural S&T at national, regional, and international levels.