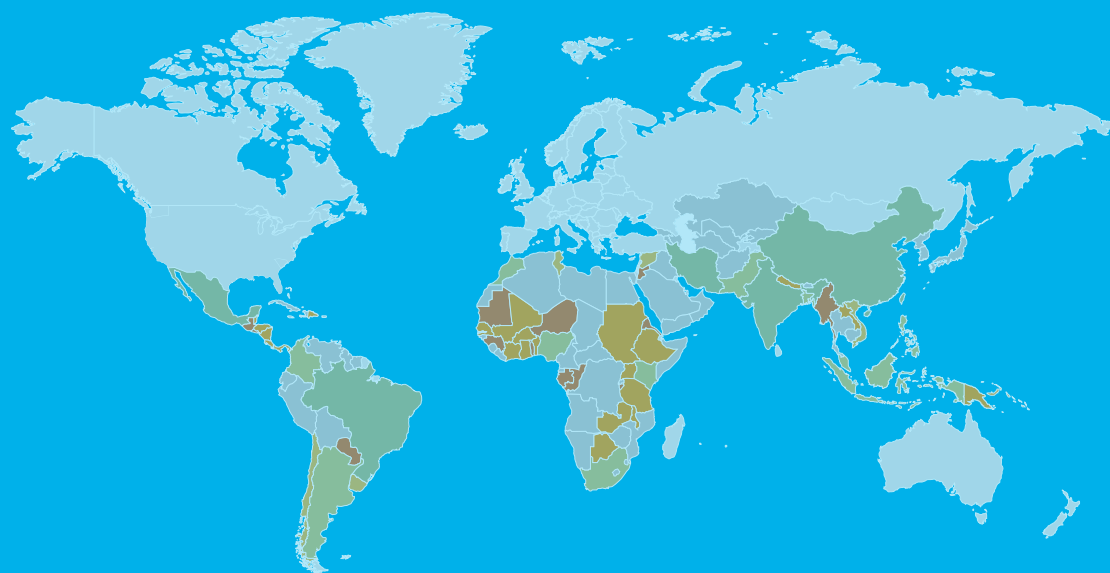


# A Guide to Using ASTI's Website

[www.asti.cgiar.org](http://www.asti.cgiar.org)

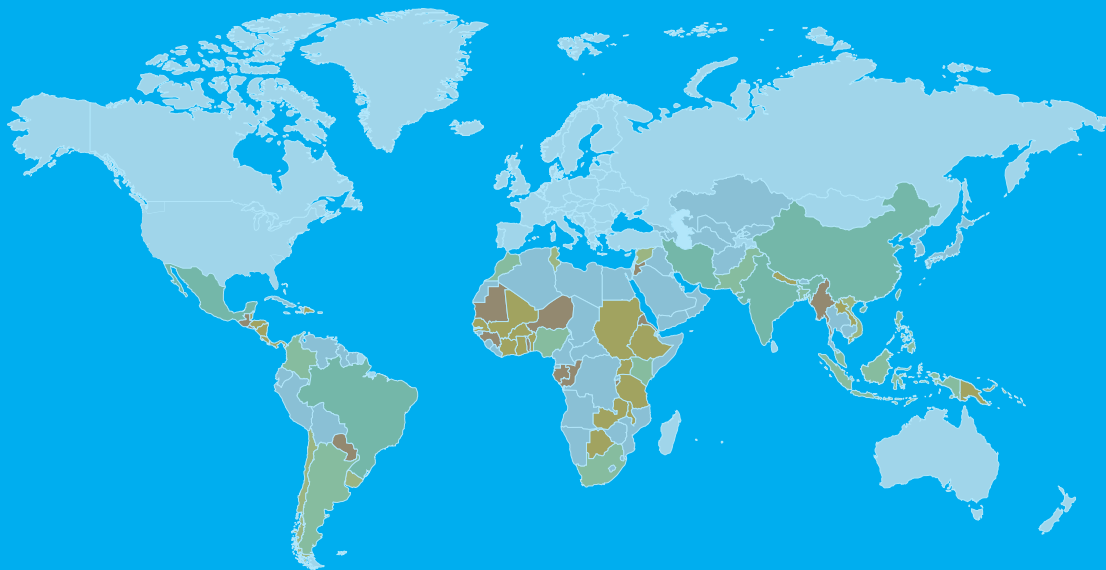


September 2010

Check it out!

At ASTI's website you can gain easy access, not only to the many outputs ASTI produces, but also to a wide range of additional background data, trends, updates, and other information on agricultural research and development systems in low- and middle-income countries.

[www.asti.cgiar.org](http://www.asti.cgiar.org)



# 1. ASTI's Homepage

3. Access interactive data and graphics using the ASTI Data Tool (see page 3)

4. Access information on specific countries (see page 8)

5. Access all of ASTI's publications (see page 9)

Choose to view the website in French or English

6. Stakeholders can provide data here (see page 9)

Information on special events and publications

Find the latest country-level information

Download key publications

2. Learn more about ASTI (see page 2)

Stay up to date with the ASTI Blog and ASTI Facts

The screenshot shows the ASTI (Agricultural Science & Technology Indicators) homepage. The header includes the ASTI logo, the title 'Agricultural Science & Technology Indicators', and a tagline 'Internationally comparable data on agricultural R&D investments and capacity in developing countries'. A language selector for 'français' is in the top right. A search bar is also present. The main navigation bar includes links for Home, About ASTI, Data & Graphics, Countries, Publications, and Provide Data. The 'Home' link is circled in red. Below the navigation bar, there are three main featured sections: 'About ASTI' (with an image of hands holding a plant), 'ASTI data tool' (with an image of hands holding seeds), and 'In focus' (with an image of a person in a lab). Each section has a brief description. Below these are two columns of content: 'ASTI Blog' with a list of recent news items and a 'Subscribe to ASTI updates' button, and 'Latest Country Resources' with a list of countries (Uganda, Mauritius, Eritrea, The Gambia, Zambia, Benin, Niger, Kenya, Ghana, Guinea, Madagascar, Sierra Leone, Senegal). At the bottom, there are 'ASTI Facts' with a world map and a key finding, and 'Key Publications' with a list of recent reports and their download links. The footer contains copyright information and links for contact, updates, site map, and FAQ.

**ASTI** Agricultural Science & Technology Indicators

Internationally comparable data on agricultural R&D investments and capacity in developing countries

français

Search

Home About ASTI Data & Graphics Countries Publications Provide Data

**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

**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

**ASTI Blog**

- Outcomes of ASTI-STEPRI study grab media headlines in Ghana
- Eritrea increases its agricultural R&D capacity in a climate of decreasing donor support
- ASTI data cited in "Can Science Feed the World?"
- Mauritius continues to spend more than 4 percent of its agricultural GDP on agricultural research

Subscribe to ASTI updates

**ASTI Facts**

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

**Latest Country Resources**

- Uganda
- Mauritius
- Eritrea
- The Gambia
- Zambia
- Benin
- Niger
- Kenya
- Ghana
- Guinea
- Madagascar
- Sierra Leone
- Senegal

**Key Publications**

Public Agricultural R&D Investments and Capacities in Developing Countries: Recent Evidence for 2009 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 IFPRI Discussion Paper (PDF 2.5M) Summary brief: (PDF 334K)

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

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## 2. About ASTI

The screenshot shows the ASTI website interface. The header includes the ASTI logo, the text 'Agricultural Science & Technology Indicators', and a tagline 'Internationally comparable data on agricultural R&D investments and capacity for developing countries'. A navigation bar contains links for Home, About ASTI (highlighted with a green circle), Data & Graphics, Countries, Publications, and Provide Data. A search bar is located on the right. The main content area is titled 'ABOUT ASTI' and contains several paragraphs of text. On the left side, there is a sidebar with a list of links under the heading 'More About ASTI'. A callout box points to the 'About ASTI' link in the navigation bar, stating 'Discover further background information about ASTI, its history, partners, and donors'. Another callout box points to the 'More About ASTI' sidebar, stating 'Access information on ASTI's staff and contact details'. A third callout box points to the 'Data Procedures and Methodology' link in the sidebar, stating 'Learn about ASTI's data procedures and methodologies'. A fourth callout box points to the 'Download the ASTI brochure' link in the sidebar, stating 'Download the ASTI brochure'. A fifth callout box points to the 'Frequently Asked Questions' link in the sidebar, stating 'Frequently asked questions are answered here'. The main content area includes a photograph of hands holding a plant, a list of bullet points under the heading 'ASTI's recent work has primarily focused on the following activities', and a paragraph about the Bill and Melinda Gates Foundation grant.

**ASTI** Agricultural Science & Technology Indicators  
FACILITATED BY IFPRI

Internationally comparable data on agricultural R&D investments and capacity for developing countries

Home **About ASTI** Data & Graphics Countries Publications Provide Data

**ABOUT ASTI**

Facilitated by the International Food Policy Research Institute (IFPRI), Agricultural Science and Technology Indicators (ASTI) is a comprehensive and trusted source of information on agricultural research and development (R&D) statistics. ASTI compiles, analyzes, and publicizes data on institutional developments, investments, and capacity trends in agricultural R&D in low- and middle-income countries worldwide.

ASTI has published a broad set of country briefs and regional synthesis reports that describe general human and financial capacities in agricultural R&D at national, regional, and global levels, while at the same time providing comparative data on agricultural R&D performance across countries and regions.

ASTI's methodology is unique in that it combines first-hand data from a wide range of agricultural R&D agencies in low- and middle-income countries with relevant, secondary data on high-income countries for comparative purposes.

ASTI's recent work has primarily focused on the following activities:

- initiating national survey rounds in Sub-Saharan Africa, Latin America and the Caribbean, the Asia-Pacific, and the Middle East and North Africa;
- developing and maintaining a comprehensive, user-friendly website offering access to primary data sources; and
- building a network of national and international partners to facilitate data collection efforts and the dissemination of outputs.

In mid-2008, the Bill and Melinda Gates Foundation awarded ASTI a sizeable three-year grant that has enabled the initiative to update its existing set of science and technology indicators; explore potential supplementary indicators; and upgrade its website to enhance performance, broaden the provision of online data and information, and foster partnerships with key stakeholders.

**More About ASTI**

- The ASTI Team
- ASTI Products
- Workplan for 2008–11
- In-Country Partners
- Donor Support
- The History of ASTI
- ASTI Data in the Context of Agricultural S&T Policy
- Data Procedures and Methodology
- Frequently Asked Questions
- Contact ASTI

Download the ASTI brochure:  
PDF 150K

Discover further background information about ASTI, its history, partners, and donors

Access information on ASTI's staff and contact details

Learn about ASTI's data procedures and methodologies

Download the ASTI brochure

Frequently asked questions are answered here

### 3. Data and Graphics: ASTI's Data Tool

ASTI's Data Tool provides access to key data in ASTI's database and offers various features through which to visualize and compare data either at a glance or in-depth. The tool comprises three display panels: **MAP A SUBJECT**, **VIEW SNAPSHOT DATA**, and **PLOT TWO INDICATORS**. The

display panels are accessed by clicking the blue, horizontal bars. Data can be downloaded by clicking the **EXPORT DATA** tab. A further tab **ABOUT THIS TOOL** provides access to details about the Data Tool and where to email comments and questions.

The screenshot shows the ASTI Data Tool interface. At the top, the logo 'ASTI Agricultural Science & Technology Indicators' is displayed, along with the tagline 'Internationally comparable data on agricultural R&D investments and capacity for developing countries'. Below the logo is a navigation bar with tabs: 'Home', 'About ASTI', 'Data & Graphics' (highlighted with a green circle), 'Countries', 'Publications', and 'Provide Data'. A search bar is located to the right of the navigation bar. Below the navigation bar, there are three main sections: 'MAP A SUBJECT', 'VIEW SNAPSHOT DATA', and 'PLOT TWO INDICATORS'. To the right of these sections are two tabs: 'EXPORT DATA' and 'ABOUT THIS TOOL'. The main content area shows a large image of hands holding coffee beans, with the text 'ASTI data tool' and 'VERSION 1.0' overlaid. A 'loading...' indicator is visible in the bottom left corner of the main content area.

**MAP A SUBJECT**  
A world map display and chart to show time-series data

**PLOT TWO INDICATORS**  
A bubble chart to map two indicators changing over time

**EXPORT DATA**

**ABOUT THIS TOOL**

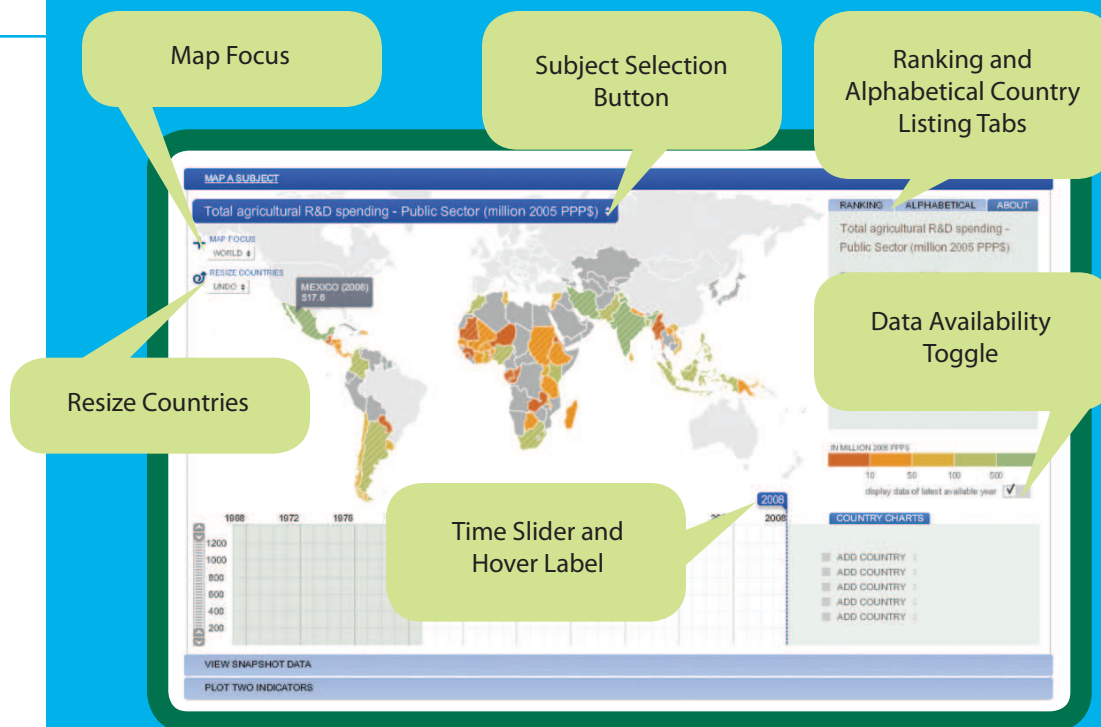
**VIEW SNAPSHOT DATA**  
Key country data presented in a bar chart

# MAP A SUBJECT

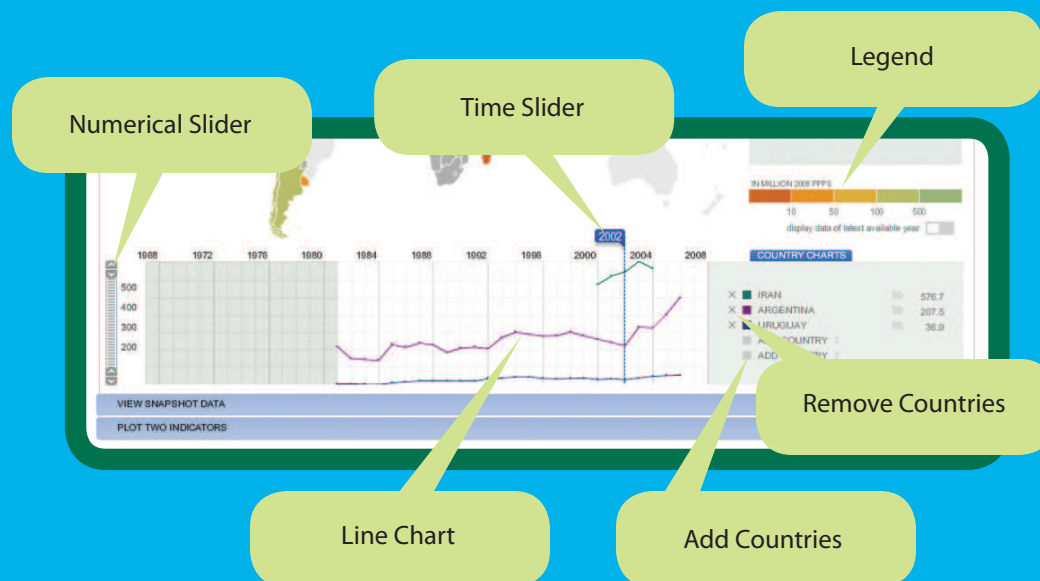
The tool opens by default in **MAP A SUBJECT**, with an indicator already selected. Its title and unit are displayed on the **Subject Selection** button. You can hover your cursor over the map to view data for each country, and drag the **Time Slider** to see data for different years. ASTI's database does not contain data for every year for every country. Nevertheless, to show different countries in one map, some countries may appear in a hatched pattern. This indicates that earlier data than the year selected with the **Time Slider** were used. You can de-select this option using the **Data Availability** toggle. With this option, de-selected countries without data in a selected year will display in gray (indicating "no data"). In all cases, the year of the data is mentioned in the **Hover** label on the **Time Slider**. Use the tabs to view countries either by rank or in alphabetical order. Use the scroll bar to see the entire list.

The **Map Focus** option allows you to zoom in on a region. The map will only display the region, and the ranking shows only the countries in that region. To go to another region or to return to the world map, use **Map Focus** again. The **Resize Map** button resizes all countries relative to their weight in a data set, thereby revealing proportions among countries. For example, when looking at Total public agricultural R&D spending in Latin America, resizing the map will make it visually evident that the country with the highest spending is Brazil, compared with significantly smaller spending by Argentina, and even smaller spending by Colombia. You can choose different indicators to resize. Use **Undo** in this menu to return to the regular map.

The **Line Chart** provides a visual representation of time series data for the chosen subject. You can add a country to the chart by clicking on the country in the map or by using the **Add Country** buttons in the country charts. You can remove a country from the chart by using the **X** sign to the left of the country names. Use the **Numerical Slider** to the left of the screen to zoom in on the value range if you want to look at data points that are close to each other. You can also use the **Time Slider** in combination with the map. Dragging the **Time Slider** over the chart will reveal the corresponding map for each year.



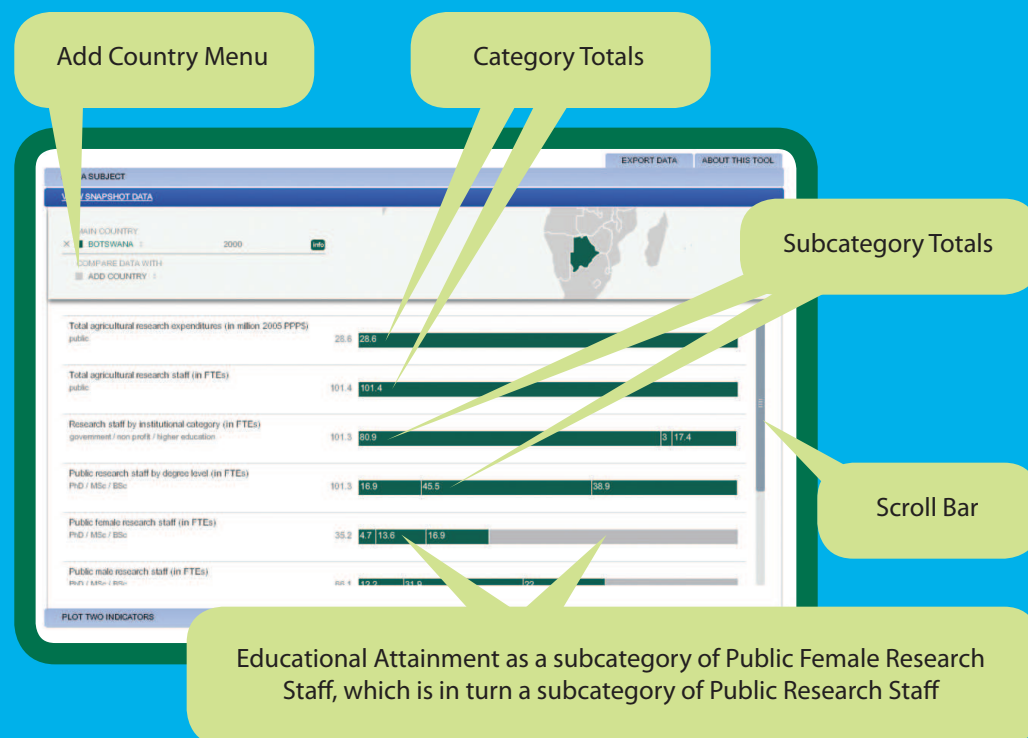
## 2. Data and Graphics: ASTI's Data Tool



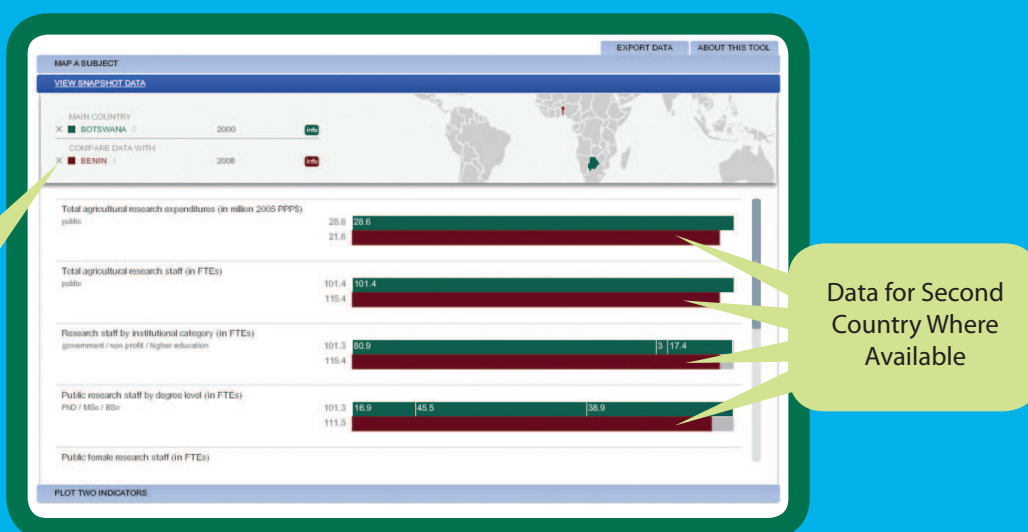
# SNAPSHOT DATA

The **SNAPSHOT DATA** panel provides key data for a country and allows you to compare those data with data from another country. Choose a country with the **Add Country** button. The bars in this chart show the totals for each category, as well as data for possible subcategories. A full bar represents the total. The number is shown at the left side of the bar. If subcategories are available, these are displayed as segments of the total bar, with their respective data displayed in the segment. If main categories, such as *Public Female Research Staff*, constitute a percentage of another total—in this case, *Public Research Staff*—the bar length represents this percentage. Educational Attainment subcategories within *Public Female Research Staff* become segments within this shorter bar. Use the **Scroll Bar** to view all data. To return to a blank page, de-select a country by clicking the box with the cross, or click on the country name in the menu to replace the selected country with another.

Use the **Second Add Country** menu to compare the snapshot data with those of another country. Red bars will show the data of the second country. Note that data for the second country will only be displayed when available.



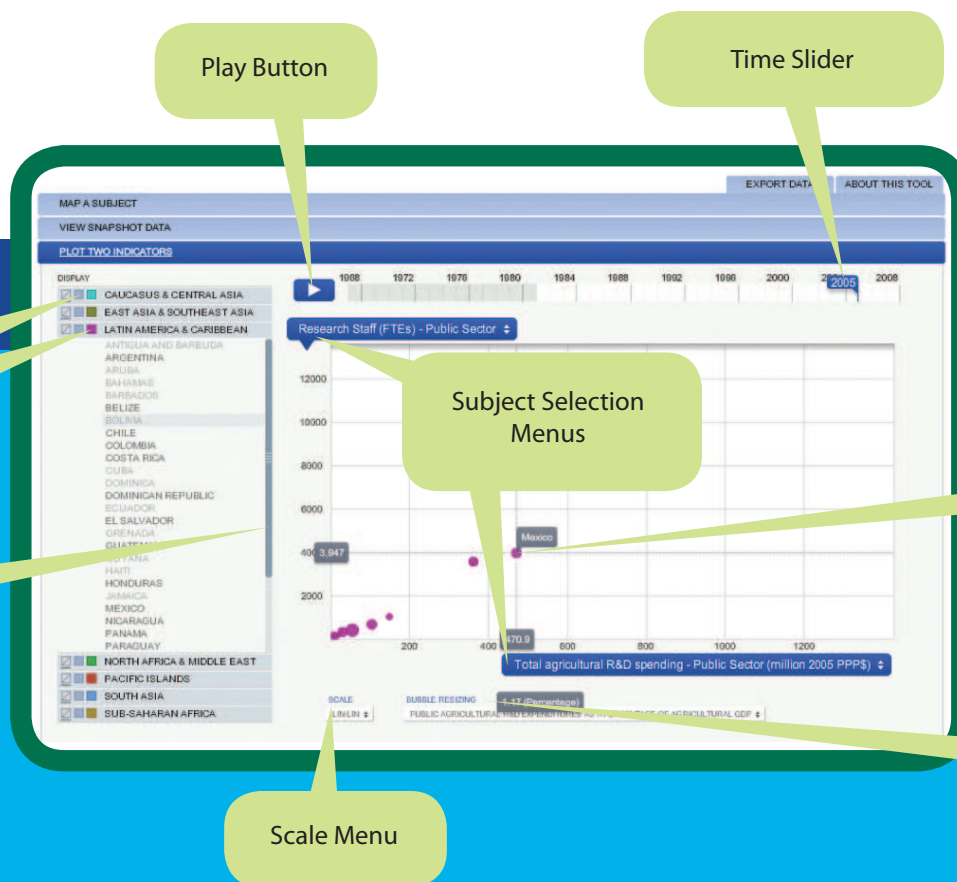
## 2. Data and Graphics: ASTI's Data Tool



# PLOT TWO INDICATORS

The **PLOT TWO INDICATORS** panel allows you to compare two indicators using a bubble chart. Two indicators are pre-selected by default. Use the **Subject Selection** menu to change subjects. Hovering over a **Data Circle** will show you the values on both axes, as well as the value for the indicator used for the circle size. The **Time Slider** indicates the year displayed; drag it along the timeline to select different years or use the **Play Button** to view consecutive years as an animation. Countries are grouped by region in the menu and appear in pale gray when no data are available. You can hide countries within a region by selecting

the box with the diagonal line. You can also choose to color the circles or have them appear in gray by selecting the appropriate display boxes. You can choose linear and logarithmic axes using the **Scale** menu. Choose LINLIN to make both axes linear, LOGLOG to make both logarithmic, LINLOG to make only the vertical (y-axis) linear, or LOGLIN to make only the horizontal (x-axis) linear. The size of country circles can reflect different indicators. The **Bubble Resizing** menu offers you a number of available indicators.



## 2. Data and Graphics: ASTI's Data Tool

# EXPORT DATA

The **EXPORT DATA** tab provides access to data and images, and allows you to create tables. Selecting the tab will open a popup window. The top section of this window, **Current Selection**, provides images of all the maps and charts you composed using the tool. Make your selections using the **Download** buttons, then either save the files or copy and paste the selections into Word, PowerPoint, or other programs. In the second section of the popup window, **Create Table**, you can query the database to create a table. Select countries, categories,

indicators, and years using the respective panels. At least one item in each panel must be selected. More than one country or year can be selected by clicking on each item. Clicking again on a selected item will de-select it. In the "Categories" and "Indicators" panels, only one item can be selected at a time. Under **Available Data** you will see whether data are available for your selection and can **Preview** it if you choose. Select **Download** to save the data to disk as an Excel file. Use the **Clear** button to make another selection.

Current Selection

Download Buttons

Create a Table

Choose Countries,  
Categories,  
Indicators, and Years

## 2. Data and Graphics: ASTI's Data Tool

Save Data as an  
Excel File

Available Data

Clear Data Button

Preview Data Button

**EXPORT DATA**

**CURRENT SELECTION**

MAP: Total agricultural R&D spending - Public Sector (million 2005 PPP\$)  
focus: World, 2006 [DOWNLOAD .png]

LINE CHART: Total agricultural R&D spending - Public Sector (million 2005 PPP\$)  
2006 [DOWNLOAD .png]

SNAPSHOT DATA: Main country: Botswana  
Compared to: Benin [DOWNLOAD .png]

BUBBLE CHART: X-axis: Total agricultural R&D spending - Public Sector (million 2005 PPP\$)  
Y-axis: Research Staff (FTEs) - Public Sector [DOWNLOAD .png]

**CREATE TABLE**

**COUNTRIES**

- CAUCASUS & CENTRAL ASIA
- EAST ASIA & SOUTHEAST ASIA
- NORTH AMERICA & CARIBBEAN
- NORTH AFRICA & MIDDLE EAST
- SOUTH ASIA
- SUB-SAHARAN AFRICA
- Algeria
- Angola
- Antigua and Barbuda
- Argentina

**CATEGORIES**

- Agricultural R&D Spending in million 2005 PPP\$
- Agricultural R&D Spending in million 2005 PPP\$
- Agricultural Research Focus
- Agricultural Research Funding Sources

**INDICATORS**

- Total agricultural R&D spending - Public Sector (million 2005 PPP\$)
- Total agricultural R&D spending - Government Sector (million 2005 PPP\$)
- Total agricultural R&D spending - Higher Education Sector (million 2005 PPP\$)
- Total agricultural R&D spending - Non Profit Sector (million 2005 PPP\$)
- Total agricultural R&D spending - Private Sector (million 2005 PPP\$)

**YEARS**

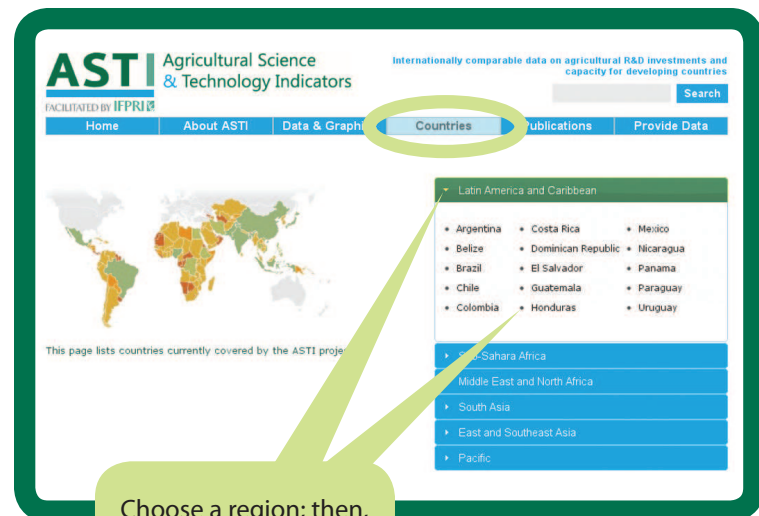
- 2008
- 2007
- 2006
- 2005
- 2004
- 2003
- 2002
- 2001
- 2000
- 1999
- 1998
- 1997

**AVAILABLE DATA**

- \* Bangladesh: Data available 1981 - 2002
- \* Bhutan: Data not yet available
- \* India: Data available 1981, 1985 - 2003
- \* Maldives: Data not yet available

[CLEAR] [PREVIEW] [DOWNLOAD Spreadsheet file] [Close]

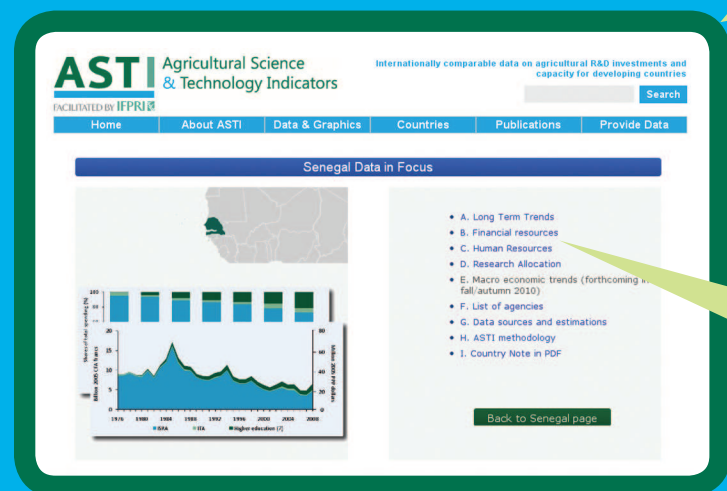
# 4. Information by Country



Choose a region; then, select a country

Sample Country: Senegal ▶

## ▼ ASTI Data in Focus



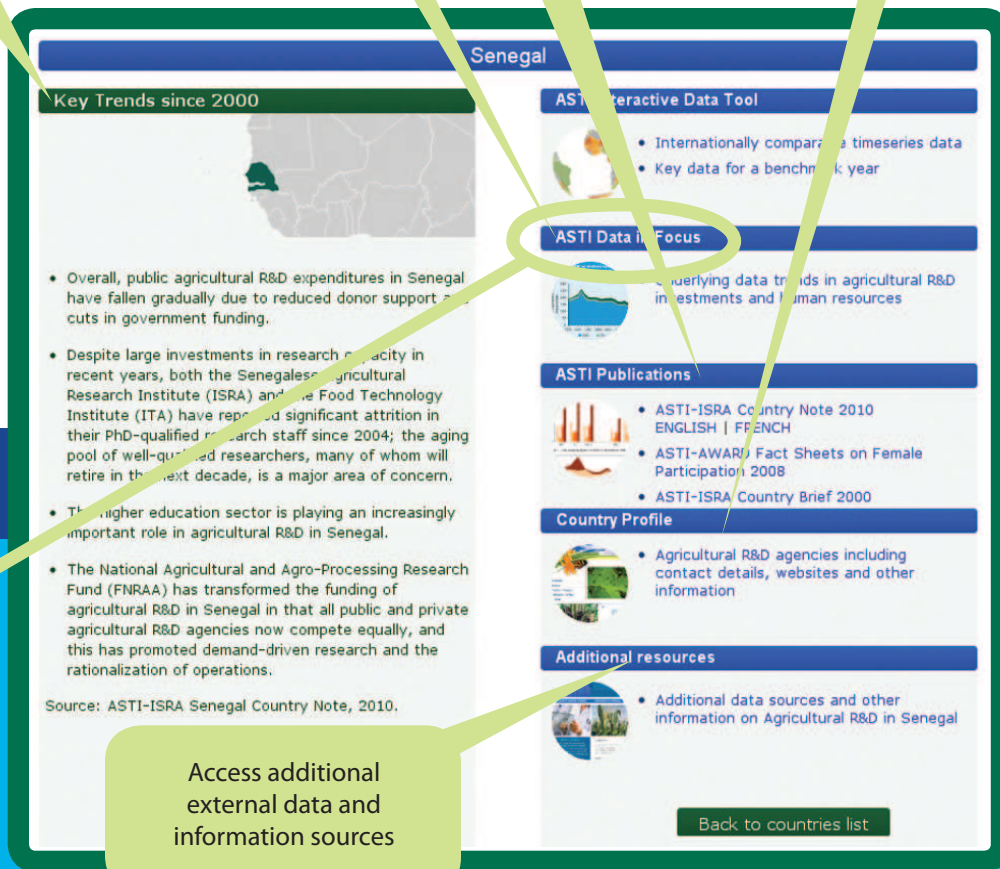
Choose from additional background data on (a) long-term trends, (b) financial resources, (c) human resources, (d) research allocation, (e) macroeconomic trends (forthcoming), (f) a list of agencies with websites and contact details, (g) data sources and estimations, (h) ASTI's methodology, and (i) the relevant Country Note in pdf format. You can choose to view the information on the web, or download specific sections in pdf format.

Read and download ASTI's Data In Focus series

Access additional information on agricultural R&D agencies including contact details etc.

Review key country trends

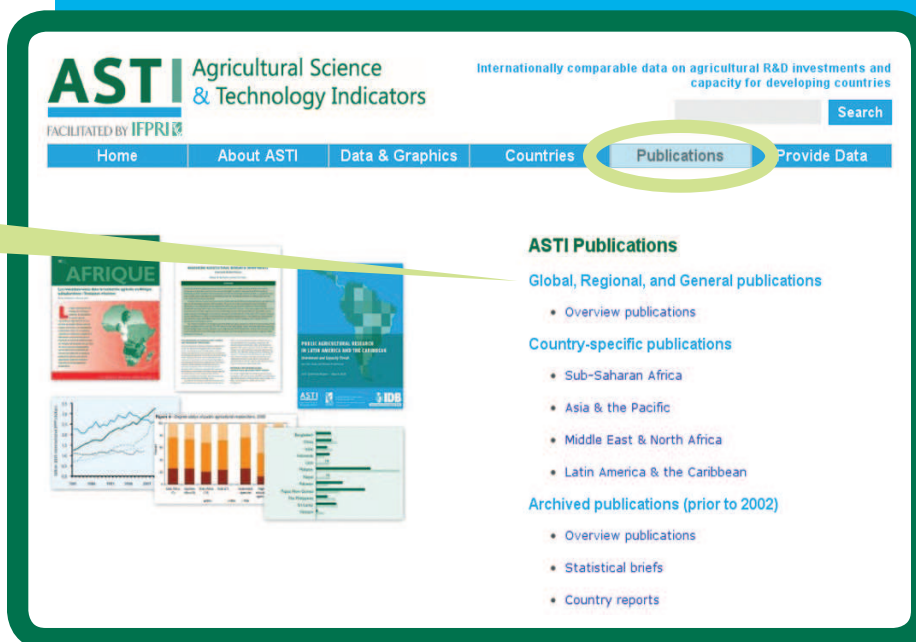
Review and download publications on the relevant country



Access additional external data and information sources

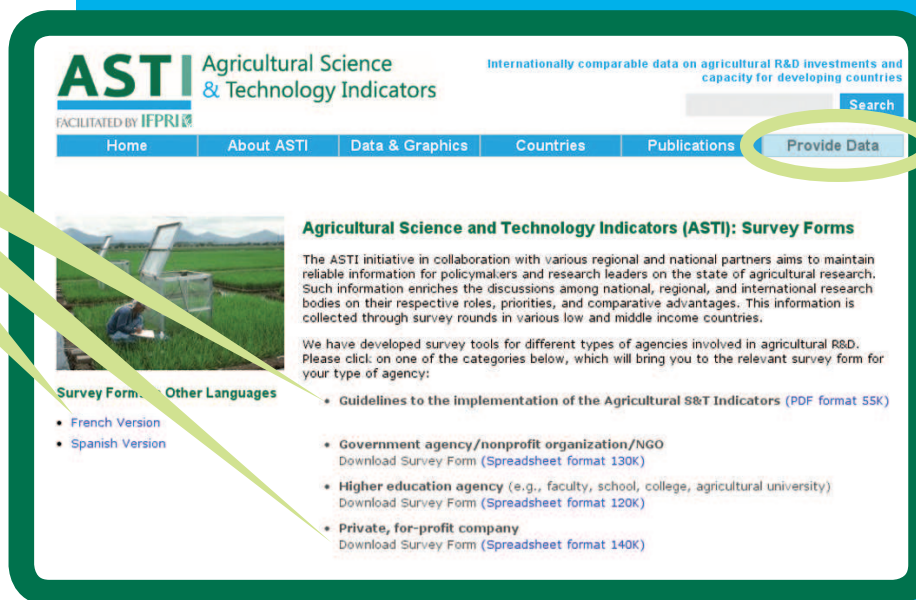
## 5. ASTI Publications

Access global, regional, country-level, and other archived publications



## 6. Provide Data

Access ASTI's survey forms, along with guidelines for implementing the survey



[www.asti.cgiar.org](http://www.asti.cgiar.org)

## IFPRI-ROME

Agricultural Science and Technology Indicators (ASTI) initiative

c/o ESA, Food and Agriculture Organization (FAO)

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