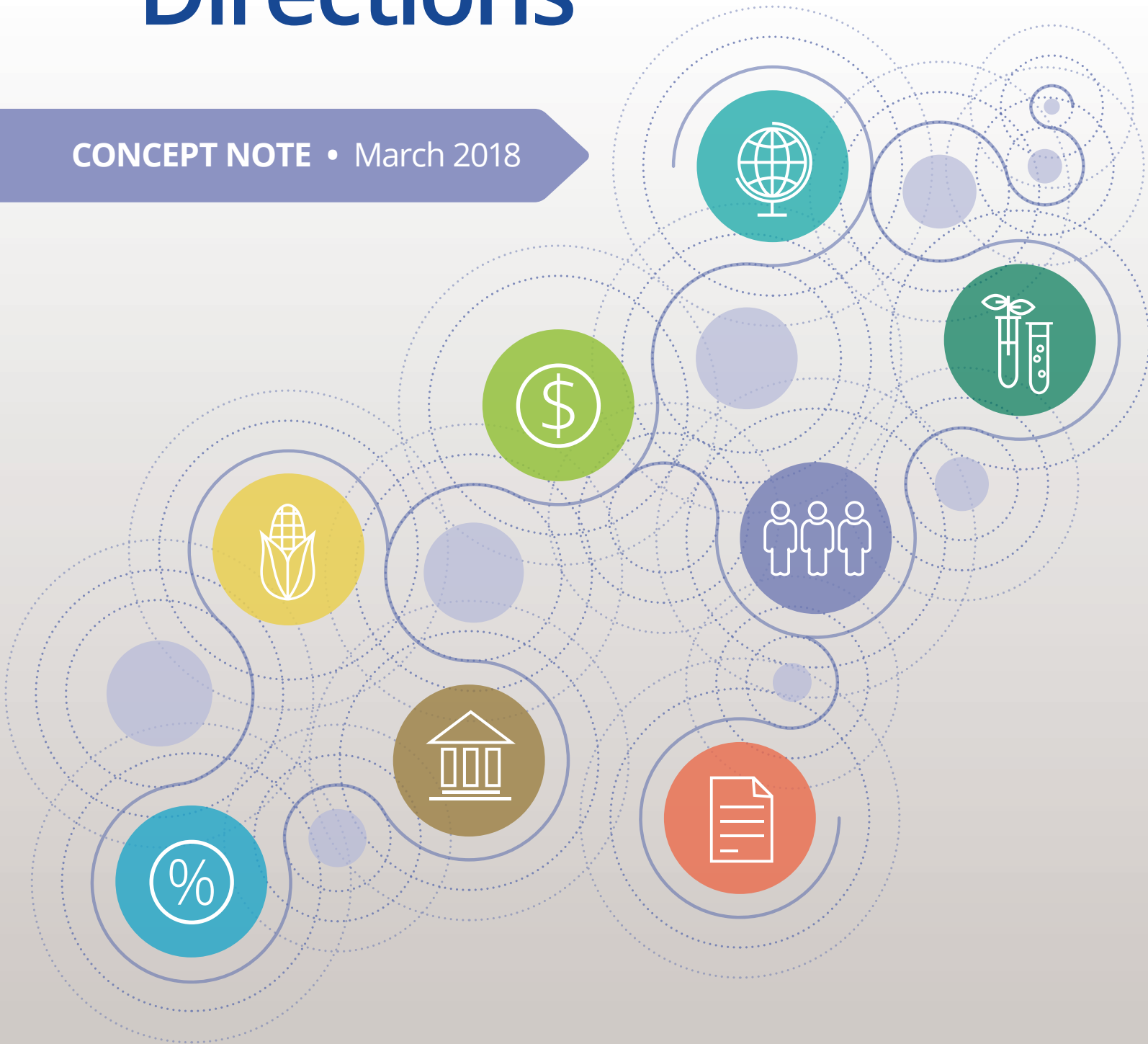


# Future Strategic Directions

CONCEPT NOTE • March 2018





# Overview

**AGRICULTURAL SCIENCE AND TECHNOLOGY INDICATORS (ASTI)** is globally recognized as the trusted source of agricultural research statistics and analyses for the developing world. ASTI's database currently spans more than three decades and covers nearly 90 countries. Without ASTI, reliable knowledge and information on the structure, status, funding, and focus of agricultural research performance in low- and middle-income countries would be completely lacking; comparative analyses across countries and regions—and globally—would not be possible; and valuable knowledge of the dynamics of change over time would be foregone.

In the current climate of population growth, climate change, and shifting diets, it is vital to be able to track the funding, functioning, and impact of agricultural research in order to improve efficiency, promote evidence-based decisionmaking, and demonstrate impact. The comprehensive information and resulting knowledge ASTI contributes to this process is unique, however, ASTI must continue to evolve in order to increase its impact within a complex environment of priority-setting, funding allocation, and policymaking.

In formulating its future strategy, ASTI recognizes that its long-term sustainability and impact ultimately depend on countries taking ownership of their national data, and that more focus is needed on effective data analyses and creative outreach activities to ensure that targeted messages are incorporated into national and regional decisionmaking processes. For these reasons, the cornerstones of ASTI's strategy for the 2018–2022 period will be to create a multistakeholder platform that will support (i) sustainable national level data collection; (ii) demand-driven collaborative data analyses and research; and (iii) a diverse set of delivery mechanisms to inform policy, ultimately driving new requests for data and analysis in a self-sustaining cycle of evidence-based knowledge creation. Main steps for the creation of this platform are to:

1. Devolve the functions of data collection, processing, and provision, giving countries and regional organizations ownership of datasets and responsibility in data management

2. Expand and diversify ASTI's network of partners with the goal of:
  - Supporting the devolution of data collection, processing, and provision
  - Enhancing the response to stakeholders' needs
  - Facilitating and supporting effective partnerships for research and analysis
  - Accessing avenues through which targeted messages can be channeled into decisionmaking processes
3. Transform the role of the International Food Policy Research Institute (IFPRI) to:
  - Provide technical assistance and quality assurance in the areas of data collection, analysis, and outreach
  - Coordinate a research agenda on issues related to agricultural research investments and human resource capacities, and their implications for productivity, economic growth, and development
  - Build national and regional capacity in the areas of data collection, analysis, and outreach

## Context

Research agencies in developing countries have used ASTI's data and analyses extensively to demonstrate the challenge of underinvestment in agricultural research and to advocate for increased funding. Similarly, governments, donors, and international organizations have based their agricultural research investment and policy decisions on ASTI's data and analyses (Box 1). As a global public good, ASTI requires sustained support, yet few of its key national level beneficiaries have the resources to contribute—whether directly or indirectly—to the initiative's funding. As a result, ASTI has largely depended on bilateral donor agencies, multilateral developing institutions, and charitable foundations as the major source of its financing.

ASTI has received continuous funding support from the Bill and Melinda Gates Foundation since 2008, with supplementary funding from a variety of additional sources including the Inter-American Development Bank; the Australian Centre for International Agricultural Research; Global Affairs Canada; the Economic Research Service of the United States Department of Agriculture; the CGIAR Research Program on Policies, Institutions, and Markets; the Regional Universities Forum for Capacity Building in Agriculture; and the World Bank.

These donors have enabled ASTI to update and expand its set of agricultural research and development indicators, automate its systems of data collection and reporting, develop interactive data dissemination tools, foster partnerships with key stakeholders, expand the initiative's analytical component, and enhance its outreach for increased grassroots impact.

In recent years, ASTI has focused on enhancing the accessibility and dissemination of its outputs to increase their impact on funding decisions related to national

## Box 1. The Uptake of ASTI's Evidence

An external review of ASTI conducted in 2014, *Assessment of the Relevance, Quality, and Utility of Agricultural Science and Technology Indicators (ASTI) Policy Data and Analyses for Phase II, 2012–2014*, concluded that the initiative's data and analyses had provided an effective platform, allowing policymakers to track countries' agricultural research progress over time. The review further stated that the uptake of ASTI's outputs had, to a large extent, resulted from ASTI's advocacy in engaging with regional platforms and organizations. Some examples of the ways in which ASTI's data and analysis have been used to date, and continue to be used, are detailed below.

- ASTI data and analyses play an important role in informing debates surrounding the Comprehensive Africa Agriculture Development Programme.
- Bilateral and multilateral donors, foundations, and other development partners use ASTI data and analyses as evidence for their funding decisions. For example, ASTI data informed the World Bank's development of its regional African agricultural productivity programs.
- ASTI evidence has played a crucial role in informing national level policymakers and research managers, supporting them in their own assessments of their agricultural research systems.
- Reports prepared for the 2012 G8 and G20 summits stressed the importance of ASTI's data on agricultural research investments and human resource capacity in informing member countries of the need to support agricultural research.

agricultural research systems and capacity. Despite global and regional recognition of ASTI, the uptake of data and analyses at the country level remains less than optimal, particularly among key technical users who could be drawing on available data and analyses to deliver key messages to policy stakeholders.

To respond effectively to these and other challenges—including globalization, urbanization, rising incomes, shifting diets and trading patterns, public concern about food safety and the environment, and scientific advances in biotechnology and genomics—countries need clear evidence on which to base investment priorities and formulate high-impact policies targeting economic and productivity growth, and the achievement of welfare and sustainability goals.

ASTI has a critical, and evolving, role to play in this regard. Consequently, the proposed new strategic direction, outlined in the next section, is founded on a more demand-driven, decentralized, and partnership-based approach to sourcing data, conducting analyses, strengthening capacity, and undertaking outreach. This approach is designed to increase the sustainability of the initiative over time and to strengthen fruitful engagement with and by stakeholders to ensure they have the tools and evidence they need to improve outcomes in their countries.

## New Strategic Direction

ASTI's overall vision and mission remain unchanged under this new strategic direction (Box 2). What are evolving are ASTI's specific goals and their implementation. Rather than being an initiative centrally led by IFPRI, ASTI will evolve to become a multistakeholder platform through which its data, analysis, and outreach functions can be undertaken more effectively in terms of long-term sustainability and efficiency, demand-driven relevance, and targeted impact. IFPRI's role will gradually shift to focus on its comparative advantages of providing quality assurance and access to the global database, supporting a global research agenda on science and technology issues in agriculture, and providing technical assistance and building national and regional capacity for data collection and analysis. Note that for clarity, subsequent reference to "ASTI" indicates its evolution as a multistakeholder platform; reference to ASTI/IFPRI indicates the evolving role of ASTI's existing IFPRI-based team as a capacity building/ technical support unit.

At the core of the new direction is a vision of ASTI being transformed into a global platform of regional and country-level partners collaborating for the purpose of capturing high-quality, demand-driven data; conducting targeted research and analyses; and building the capacity for informed decisionmaking in agricultural research. National and regional network members will assume the long-term responsibility for maintaining and updating the datasets, supported by IFPRI. Network members will collaborate to prepare national syntheses, conduct research and critical analyses, and disseminate results. To enhance policy impact at the national level, stronger and more targeted outreach is needed, based on an improved understanding of national policy and evidence needs.

## Box 2. ASTI's Vision, Mission, and Goals

### VISION

ASTI's vision is the attainment of more robust national agricultural research and innovation systems in low- and middle-income countries through improved decisionmaking founded on high-quality data, research, and analyses effectively targeted through proven pathways of influence.

### MISSION

ASTI's mission is to provide high-quality and relevant data, tools, and analyses to support informed decisionmaking in agricultural research innovation systems in low and middle-income countries.

### GOALS

1. Empower national agricultural research and innovation systems in developing countries to take ownership of their national ASTI databases
2. Develop human resource capacity and strategic partnerships to facilitate the undertaking of relevant analyses using ASTI data
3. Raise awareness of issues arising from the data and analyses using ASTI's stakeholder platform and creative outreach strategies

Achieving the critical goals of engaging national stakeholders, facilitating the conduct of effective collaborative research, ensuring shared ownership, and successfully targeting key messages for uptake represents profound and ambitious changes to ASTI's structural and operating model. Such changes will need to be carefully planned and implemented in phases over time; what follows below is a description of the overall vision, focusing on the three areas of ASTI's strategic focus.

## Three Areas of ASTI's Strategic Focus

The three areas of ASTI's strategic focus are (1) data collection, processing, and provision, (2) analysis, and (3) targeted outreach. Capacity strengthening and partnership building are integral functions across all three areas (Box 3). The specific functions and activities of each area are described in turn below.

### Data Collection, Processing, and Provision

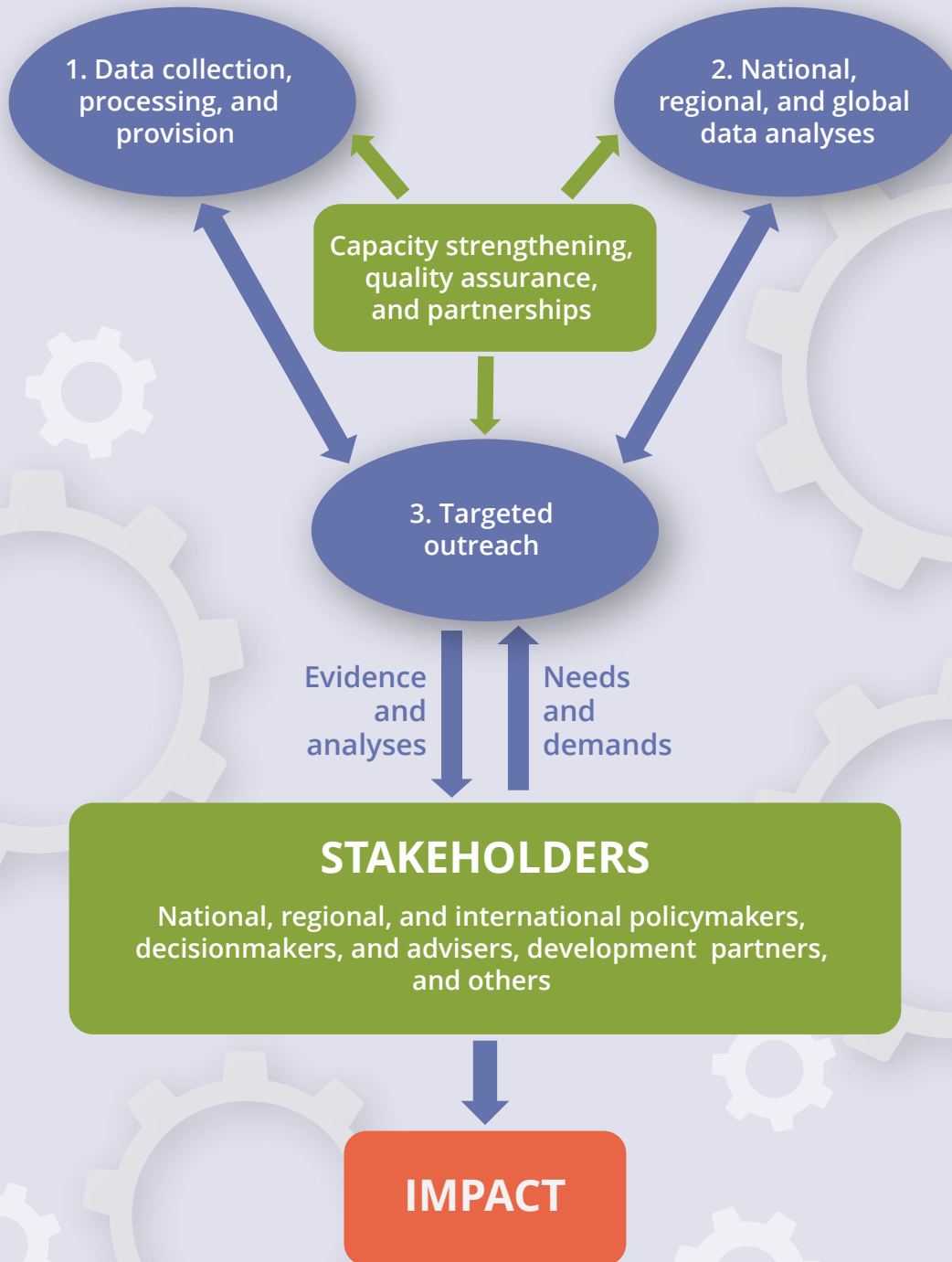
The strategic objective that has driven activities of this primary area of ASTI's work in the past is to build comprehensive, high-quality, and internationally comparable data products on agricultural research in low- and middle-income countries that utilize both quantitative and qualitative methodologies, are updated at regular intervals, and are made easily accessible to stakeholders. This objective does not change under the new strategy. The major proposed change is to transfer the ownership and responsibility of data collection and the building of data products to members of the proposed multistakeholder platform, ensuring that the resulting system remains demand-driven and readily accessible. This will require further developing a global network of national and regional partners to take responsibility for collecting data and providing the resulting outputs, as well as building strategic alliances with key regional partners who will assume responsibility for the following tasks, with IFPRI providing guidance and technical assistance:

1. Coordinate, oversee, and strengthen the capacity of national level data collection, including supporting national agricultural research systems in maintaining the data to the required standards and specifications, and ensuring the regular supply of core data from their countries
2. Assess the demand for data outputs and support the collection of in-depth qualitative and quantitative data to meet those demands

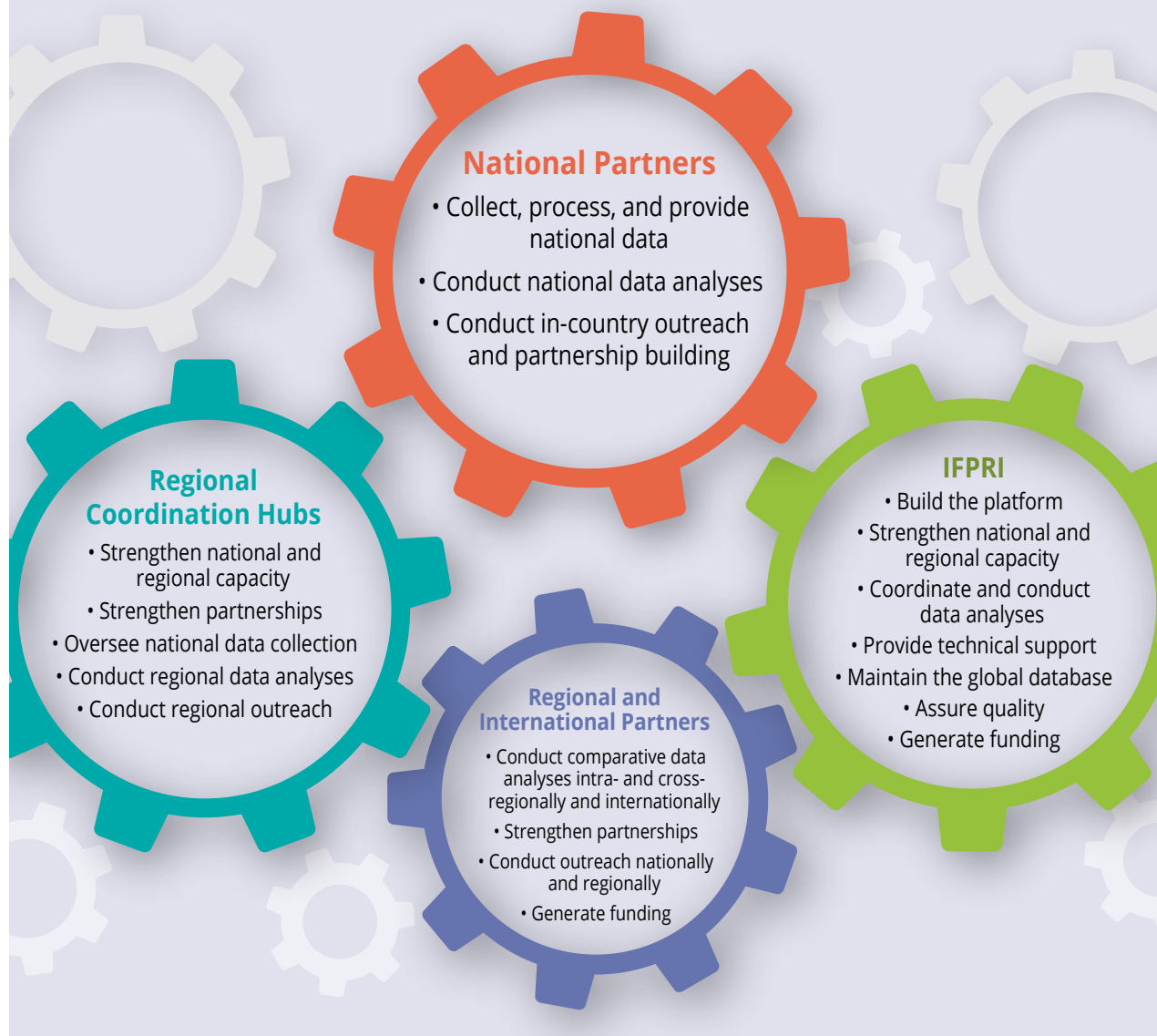


## Box 3. ASTI's Strategic Focus

### ASTI'S IMPACT PATHWAYS



## ASTI AS A MULTISTAKEHOLDER PLATFORM



3. Enhance IFPRI's linkages with national agricultural research systems and regional partners to facilitate global benchmarking and analyses
4. Maintain and update an Internet-based system of data storage that interlinks regional and national systems, thereby ensuring that national, regional, and global comparative analyses can be undertaken

## Data Analysis

The strategic objective of ASTI's analytical area is to develop a research agenda focusing on agricultural research investments, capacities, and policy developments in low- and middle-income countries. This research agenda will be implemented by partners and stakeholders in the proposed platform, and will contribute to inform decisions on agricultural research investment and human resource capacities, and to evaluate the impacts of policies and investments on food security, economic growth and development.

To fulfill this objective, there is the need to build as part of the proposed ASTI platform, a network of analysts in selected countries and regions, who will take responsibility for developing the relevant research agenda in their country or region, implementing a series of research projects as part of a global agenda under the coordination, guidance, and technical assistance of IFPRI. Assistance will focus on developing joint research projects, strengthening in-country analytical capacity supporting national ownership of the analyses undertaken, improving and broadening the analytical coverage, and ensuring that products and services support investment decisions. As part of the process of developing this research network, IFPRI will undertake the following activities:

1. Identify organizations with the technical capacity to develop and manage country-based research teams responsible for conducting national and regional analyses, supporting research, and building national capacity within their region
2. Develop a research agenda for the regional research networks as part of a collaborative effort between the research teams in those networks and IFPRI
3. Prepare a set of training modules and toolkits that respond to the needs/ demands of national and regional stakeholders and focus on
  - Analyzing ASTI data to evaluate the status and performance of research systems
  - Optimizing the allocation and prioritization of agricultural research investments and human resource capacities
  - Assessing returns to research investment and alternative uses of available funding flows

## Targeted Outreach

The strategic objective of ASTI's outreach agenda is to enhance stakeholders' understanding of the importance of agricultural research investment and to raise their awareness of the critical human resource capacity, financial, and policy issues surrounding national agricultural research systems.

International stakeholders are avid users of ASTI's outputs, but the same cannot be said of national stakeholders. Addressing this key gap will require an assessment of the factors underlying it, including the data and evidence national stakeholders require, and more in-depth interaction with national partners (beyond national agricultural research institutes). A range of approaches to outreach, communications, and partnerships will be required:

1. To directly identify stakeholder needs and open channels for the delivery of targeted messages, a network of national, regional, and international partners, including the many forums in which ASTI participates, will be leveraged to build a broader multistakeholder platform around common goals, issues, and challenges related to agricultural research for development. In this way, over time, ASTI's data, analyses, and evidence will become embedded within existing policymaking processes via a feedback loop of needs and demands on the one hand, and evidence and analyses on the other.
2. Creating the desired feedback loop described above will require mapping not only the key stakeholders, policymakers, decisionmakers, and other potential and existing users of ASTI data, but also the pathways through which the anticipated decisionmaking and influence will occur. Reaching a broader set of stakeholders will also necessitate the development of a diverse set of demand-driven products, including policy briefs, seminars, and other events, as well as technical strategies, such as embedding ASTI's data tools within network members' websites.
3. IFPRI will develop toolkits to assist network members in more effectively communicating ASTI's evidence to their stakeholders, including policymakers. The toolkits will be developed based on pilot studies in a number of African countries designed to test different strategies for targeting policy-relevant information to decisionmakers.

# Key Implications and Way Forward

ASTI's proposed future strategic direction is ambitious in its stated aspirations, actions, and deliverables. It therefore has numerous implications for the initiative's organizational structure and daily operations:

- ASTI will become a decentralized and diverse multistakeholder platform that complements existing institutions and networks
- ASTI's ownership and network will be expanded through the addition of new partners to increase the initiative's responsiveness to stakeholder needs
- IFPRI's role in facilitating the creation of the ASTI platform will gradually shift toward global coordination and support of data collection, analysis and outreach and building regional and national capacity

Successful implementation of the new strategic direction outlined in this document will depend on effective cooperation and partnerships between IFPRI, ASTI's partnership agencies, and stakeholders, as specified. A first step in this direction has been undertaken as part of a current project in Southeast Asia and the Pacific, which is funded by the Australian Centre for International Agricultural Research (ACIAR) and has been developed and is being implemented in close collaboration with the Asia-Pacific Association of Agricultural Research Institutions (APAARI) (Box 4). To replicate this approach in other regions, ASTI is actively seeking input from stakeholders to begin the process building the platform and to develop (i) solid plans for implementation and daily operations, (ii) a series of project proposals, and (iii) a mechanism to monitor progress and outputs.

## Box 4. The APAARI Model

In order to lay the foundations for a system whereby countries accept the long-term responsibility for updating datasets, preparing national syntheses and analyses, and disseminating the results, country stakeholder engagement and ownership is critical. For the ACIAR-funded project in Southeast Asia and the Pacific, IFPRI has entered into a strategic partnership with APAARI, which—as a multistakeholder agency with links to NARIs in the region—is an ideal partner to manage the project’s day-to-day operations. Under this partnership model, the APAARI secretariat is responsible for establishing and maintaining a network of national focal points and organizing training workshops and other stakeholder events. A dedicated APAARI-based project coordinator is managing the data collection process, functioning as the primary contact for focal points, taking the lead in drafting a number of country-level and regional publications, and presenting project results at various events. Through continuous engagement with the heads of NARIs and by establishing linkages with relevant regional platforms, APAARI’s senior management is playing a critical role in ensuring the long-term institutionalization of the project and enhancing the uptake of the its policy recommendations.

IFPRI will continue to act as a technical backstop for the data collection and development of the project’s outputs. In addition, IFPRI and APAARI will jointly lead the planned outreach activities. Strengthening analytical capacity at the country level is an important component of the project. IFPRI will lead the preparation of analytical studies on the efficiency and impact of agricultural research in Southeast Asia and on its future performance. IFPRI will also develop training modules complementing these studies, which will transfer the analytical concepts and methods to capable analysts in the region as well as at APAARI.





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