

Annual Report 2014

stronger



evidence



for better



decisions



June 2015

A. KEY MESSAGES

Overview, and synthesis of progress and challenges

In 2014, PIM completed its first three-year phase. Researchers produced significant bodies of work (see below). The results were published in well-regarded journals and books (including [98 articles in ISI journals](#)), applied by practitioners in development programs world-wide, and used for training and capacity-building. PIM welcomed IWMI as a new participating Center, and maintained productive relationships with a broad set of partners outside CGIAR. The newly hired Senior Research Fellow in the Program Management Unit (PMU) helped teams strengthen efforts in monitoring and evaluation. PIM sponsored a convening of experienced professionals from a range of disciplines to identify [good practices in assessing the impact of policy-oriented research](#). PIM contributed to the CGIAR gender network and developed [a set of guidelines for gathering sex-disaggregated data](#).

Management attention in 2014 focused on:

- *Successful completion of phase 1:* the PIM team identified “big-picture,” summary products for each of the flagships which reflect the main accomplishments from the program’s first phase (See Annex 1). These products, which include books (e.g., [Food Security in a World of Natural Resource Scarcity](#); [Gender in Agriculture: Closing the Knowledge Gap](#)), journal articles (e.g., [Special issue of World Development on Economic transformation in Africa](#); [Special issue of Agricultural Economics on modeling climate change](#)), web platforms (e.g., [Tools4valuechains.org](#); [Iraq Spatial and Yemen spatial](#)), and other tools (e.g., [GAAP toolkit](#)), convey key messages in a variety of formats suitable for distribution to a range of audiences.
- *Development of a strong proposal for the 2015-2016 extension phase:* the stock-taking of key accomplishments during phase 1 helped inform the content of the proposal for 2015-2016. Each of the flagships identified ongoing work that warrants continuation, and upon advice from PIM’s Science Policy and Advisory Panel, PIM management proposed to add new work on a selective basis; e.g., attention to youth employment in Africa South of the Sahara, increased emphasis on inclusion in analysis of structural transformation in late-transforming countries, and analysis of the magnitude and causes of food waste and loss. PIM’s extension proposal for 2015-2016 was judged to be strong, and accepted for funding. To increase the focus of the program, PIM management merged the first three flagships into one flagship on agricultural technology for growth. The Program Management Unit continues to tighten links between the activities funded through Windows 1-2 and Window 3 and bilateral sources, in order to build a fully integrated portfolio.
- *Support to the external program evaluation undertaken by the Independent Evaluation Arrangement:* the Program Management Unit, Focal Points, Flagship and Cluster Leaders, and selected activity leaders worked collegially with the external evaluation team to provide the requested information. PIM Management has now received the final evaluation report, and coordinated inputs for the management response. The evaluation team found that the work of PIM is relevant, and should continue in the future under IFPRI’s leadership. A number of useful suggestions were provided to improve the governance and implementation of the program.

Two significant achievements/success stories

A fruitful year for the PIM foresight modeling team

The foresight team continued to enhance the modeling tools, with a complete recoding of IMPACT version 3, and improved water and crop models. The scope of coverage increased, with ongoing work on livestock, fish, and sweet potato. [Three training sessions](#) were held. Ex ante assessment was completed for seventeen promising technologies related to drought and heat tolerance in maize, wheat, rice, potato, sorghum and groundnut, and pest control for cassava. In all cases examined, the new technologies have beneficial effects on yields under climate change, and in the cases of maize, potato and groundnut, yields with the new technologies under climate assumptions for 2050 are higher than baseline yields in 2050 without climate change. A [research brief](#) summarizing these findings was presented at the annual [Strategic Foresight Conference](#) held on November 7. The book [Food Security in a World of Natural Resource Scarcity](#) (more than 28,000 downloads in the first twelve months after publication) showed that adoption of superior agricultural technologies currently under development or planned could increase global crop yields as much as 67% and cut food prices nearly in half by 2050 relative to the projected baseline. The interactive [Agritech toolbox](#) enables researchers and policy-makers to explore these data themselves to examine how alternative agricultural practices and technologies can affect farm yields, food prices, natural resource use, hunger, malnutrition, land use and global trade. Sixteen ISI publications came out of the PIM foresight work; for instance the IFPRI team provided a major contribution to the [Special Issue of Agricultural Economics on modeling climate change](#), and ICRISAT produced [four journal articles](#) on evaluating potential benefits of promising technologies and management options for groundnut, sorghum and chickpea. The foresight work contributed to priority setting of other CRPs, such as RTB (through CIAT, CIP and IITA), and Dryland Cereals (through ICRISAT).

Synthesis of findings on gender and assets from GAAP phase 1

The [Gender, Agriculture, and Assets Project \(GAAP\)](#), led by IFPRI and ILRI with funding from the Bill & Melinda Gates Foundation and PIM, produced [journal articles, a practitioner's guide, and a toolkit](#) enhancing understanding of how development projects affect men's and women's assets. This research demonstrates that (1) men's and women's endowments of assets affect their adoption of agricultural technologies; (2) the design and implementation of agricultural development programs can affect men's and women's use, control, and ownership of assets; and (3) increases in asset ownership at the individual or household level are often associated with increases in women's workloads. As a result of this research, partner organizations such as Land O'Lakes and CARE-Bangladesh are paying greater attention to gender and assets in their project staffing and M&E. This research also prompted the UN Foundation to commission IFPRI to write an [issues paper on gender and assets indicators for project monitoring](#), which contributed to the ExxonMobil Foundation's monitoring indicators on women's economic empowerment. In addition, this work influenced the design of the [Women's Empowerment in Agriculture Index \(WEAI\)](#). In 2015 the focus of GAAP will shift to nutritional aspects, and the project will move to A4NH.

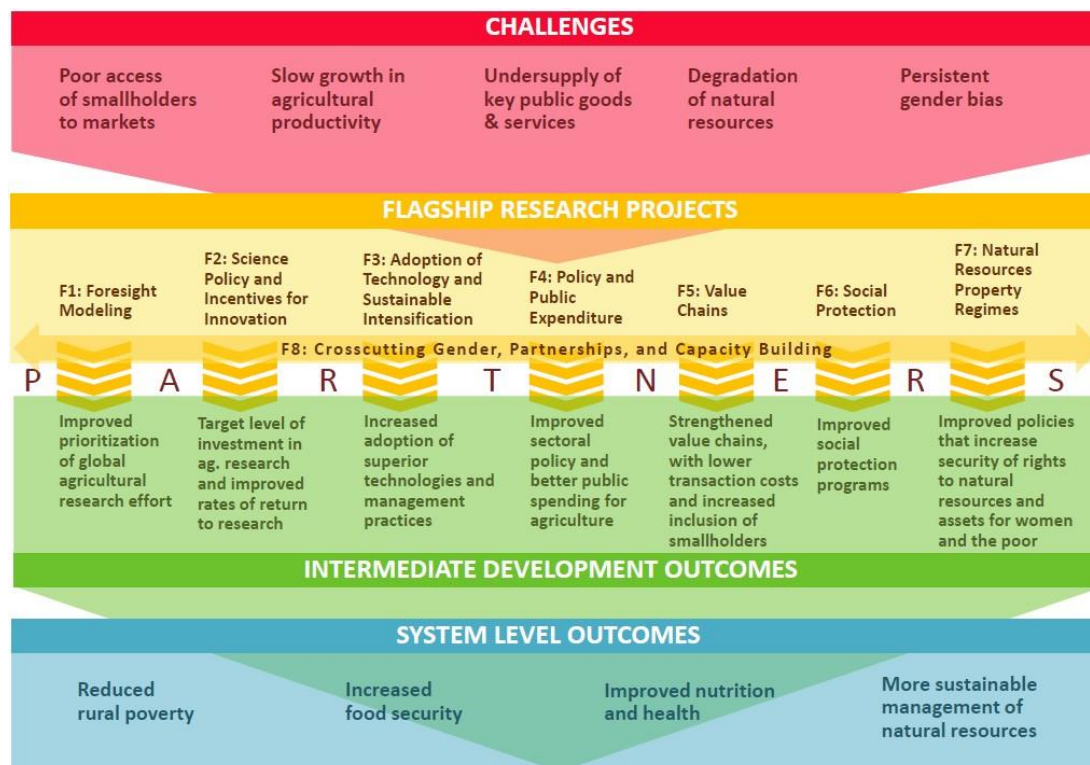
Overall financial summary

In 2014, PIM received USD 21.2 M in W1-2 funding as per the CGIAR Financing Plan, which, added to the USD 8.5 M carryover from 2013, provided an available total of USD 29.7 M. Financial records available as of April 2015 show W1-2 expenditure of USD 24.7 M, i.e. 83.2%. Window 3 and bilateral expenditures are estimated at USD 62.1 M, representing 70% of the program.

B. IMPACT PATHWAY AND INTERMEDIATE DEVELOPMENT OUTCOMES (IDOS)

PIM's portfolio is organized to address major development challenges, as shown in the first row of Figure 1. PIM's Intermediate Development Outcomes (IDOS) are shown in the third row of the figure. These IDOs contribute to all four currently operative system level outcomes.

Figure 1. PIM's flagships, IDOs, and contribution to SLOs



A description of impact pathways by flagship/cluster is available [here](#).

C. PROGRESS ALONG THE IMPACT PATHWAY

C.1 Progress toward outputs

Please see below descriptions of a selection from among the 98 ISI journal publications, 91 databases, and other outputs produced or co-produced by PIM in 2014.

Flagship 1 – Foresight Modeling

Selected outputs of the foresight modeling work under Flagship 1 are described in Section A.

Flagship 2 – Science Policy and Incentives for Innovation

The Agricultural Science and Technology Indicators (ASTI) Initiative released [a new analytical report on the status of agricultural capacities in Africa south of the Sahara](#). The report finds that despite increased spending since 2000, underinvestment, shortages of skilled staff, inadequate facilities and equipment, and poor policies continue to constrain research in many countries. The report received extensive coverage in several top media outlets, among which [AllAfrica.com](#), [InterPress Service](#), [Thomson Reuters Foundation](#), [Xinhua News Agency](#), and [Voice of America](#).

The report [“GM Technologies for Africa: A State of Affairs”](#) provides a systematic evaluation of the status of biotechnologies in four of the leading biotechnology countries in Africa (South Africa, Nigeria, Kenya, and Uganda). In South Africa, agricultural biotechnology has been mainstreamed in a significant number of institutes. Nigeria, on the other hand, has encountered difficulties and made

little progress. Kenya and Uganda maintain a solid portfolio of agricultural biotechnology research, but face institutional, staffing, and financial limitations in advancing the work.

Flagship 3 – Adoption of Technology and Sustainable Intensification

Efforts to synthesize information about efficient methods for delivery of rural advisory services were carried on in 2014. ICRAF continued a study initiated in 2013 to evaluate stakeholders' perceptions of the efficiency of Rural Resource Centers (RRC) for the dissemination of agroforestry innovations. Results summarized in a [2014 journal article](#) show that farmers can be effective in demonstrations and scaling-up of agricultural practices, and that modest investments to improve their communications and mentoring skills can make them even more so. In 2014, the concept of Rural Resource Centre was selected as one of the [top twenty innovations by the Technical Centre for Agriculture and Rural Cooperation](#).

IFPRI and CIAT continued to develop the CRP geospatial mapping tools, and released a draft version of the tools for use by the Consortium and by FARA. The team co-convoked [the CGIAR-Consortium for Spatial Information Annual Meeting \(“Mapping of Technology Diffusion in Africa”\)](#), and produced [two journal articles on global cropping systems models and maps](#). AGRA's Scaling Seeds and other Technologies Partnership (SSTP) program used HarvestChoice-generated [Geospatial Targeting Tools](#) and [Commodity Priority Setting Tools](#) for their stakeholder consultations for the program's initial scoping and targeting.

The Institute of Economic Growth (New Delhi) and IFPRI with support from PIM co-convoked [an international conference in New Delhi](#) to explore constraints affecting Indian agriculture. Irrigated and rain-fed areas have both had erratic growth, as well as poor resilience to weather shocks. As a consequence, food prices are high and volatile, creating hardship for the poor and discontent on the part of the growing middle class. Natural resources, particularly water, are stressed. Many of the developments impeding India's rural prosperity derive from distortions in public spending for agriculture, constraints in the institutional and regulatory environment, and poor performance of local markets. The outputs of the conference will inform PIM's future work on India.

Flagship 4 – Policy and Public Expenditure

New enhancements (updated public expenditure data and more detail on fuel and energy) of the [Statistics of Public Expenditure for Economic Development \(SPEED\) database](#) led to an increased use of this database, with over 8,900 records of use in 2014, compared to 3,652 in 2013.

An IFPRI team used a 21-year longitudinal survey conducted in rural Pakistan (1991–2012) to understand the relationship between weather and long-term migration, and found that [heat stress increases long-term human migration](#). This paper received the highest level of attention, as measured by Altmetrics, of all IFPRI publications in 2014.

Evidence collected in the [special issue of Food Policy “Boserup and beyond: Mounting land pressures and development strategies in Africa”](#) shows that rising rural population densities in parts of Africa are contributing to more intensive use of agricultural land. Change is effected through reduction in fallow, increased double-cropping, and greater application of purchased inputs. Work to understand the empirics of intensification provides practical insights into technology choice and targeting of release of new varieties and managerial systems.

The Social Accounting Matrices (SAMs) maintained by IFPRI with support from PIM enable countries to conduct economy-wide analysis of agricultural and national development strategies, and evaluate the broader implications of agricultural investments and policies. In 2014 SAMs were updated and made publicly available [for the following countries](#): Iraq, Yemen, Botswana, Namibia, Swaziland, Lesotho, Zambia, Mozambique, South Africa, Tanzania, Rwanda, Vietnam, Ethiopia and Malawi.

[Iraq Spatial](#)¹ and [Yemen Spatial](#) were launched in 2014. They are the first country portals affiliated with [Arab Spatial](#)² (which version 3.0, including a new Arab Food and Nutrition Security Blog, was launched in October), and provide more specific national and sub-national data to assist in targeting of food security and development interventions. Although application of Yemen Spatial is on hold in light of the present conflict, these tools will be helpful and timely when actions to support recovery are possible.

The [initiative on measuring agricultural incentives](#) in partnership with FAO, OECD, World Bank, IDB and others developed a draft version of a consolidated online database of measures of taxation and subsidy of agricultural commodities, both explicit (through trade and subsidy policies) and implicit (through regulatory, institutional, or fiscal decisions). Working with partners to clarify methodologies allows the measures developed under separate initiatives to be used for cross-country analysis, and will help policy-makers benchmark their incentive environments against those of their neighbors and trading partners.

Flagship 5 – Value Chains

The [Tools4valuechains website](#), an initiative with inputs from Bioversity, CIAT, CIMMYT, CIP, ICARDA, ICRAF, ICRISAT, IFPRI, IITA, and ILRI, currently includes over 30 tools for value chain analysis, including a [Gender in Value Chains Toolkit](#). Tools are peer-reviewed by the PIM value chains team prior to posting. 12,595 unique users have visited the portal since its launch in August 2014, for a total of 23,416 visits. Implementing partners (e.g., Inter-American Institute for Cooperation on Agriculture, Catholic Relief Services, Techno Serve, USAID, World Bank) regularly provide feedback on the portal and tools.

In 2014, PIM initiated work on post-harvest losses. The results of a [PIM study](#) point to the high impact and high cost of electricity, paved roads, and railways in reducing post-harvest losses. According to the study, USD 239 billion invested over the next 15 years in roads and rails to connect farms to markets and in electrification to improve cold storage would yield benefits of USD 3.1 trillion in avoided loss. Despite the apparent attractiveness of this investment, comparable increments in food supply could be achieved at lower cost through investment in agricultural research, with a benefit-cost ratio more than twice that of investment in infrastructure. The study concludes that investment in infrastructure to reduce loss and waste is not a low cost solution for food security, but concurrent investments in infrastructure and agricultural technology complement each other to yield high returns. This research was undertaken to inform development of the Sustainable Development Goals and strategies to achieve them.

Flagship 6 – Social Protection

PIM's work on social protection continues to generate highly regarded publications and practical applications. The [lead article in the October 2014 issue of Economic Development and Cultural Change](#) addresses findings on the impact of Ethiopia's Productive Safety Nets Programme. IFPRI researchers also published [three journal articles](#) analyzing the impact of cash, food and vouchers on food security and wellbeing in Bangladesh, Ecuador, Niger, Uganda, and Yemen. The evaluation of the [Transfer Modality Research Initiative in Bangladesh](#), a partnership between IFPRI-PIM and the World Food Programme, found that all forms of transfers improve measures of household food security, but only cash combined with communication about nutrition improves the nutritional status of children.

Flagship 7 – Natural Resources Property Regimes

WorldFish has continued to contribute innovative approaches to analysis of polycentric governance of natural resources, and in 2014 launched an [online platform](#) to promote exchange of experience on

¹ The country Spatial sites are being upgraded to 3.0 technology; this will go along with a change in the url for these sites. In case the links do not work at the time of the review of this report, please contact J.F.T TrinhTan@cgiar.org to ask for the updated links.

² Please use Google Chrome, Mozilla Firefox, or Internet Explorer version 11+ to access this site.

this topic, drawing on outputs from projects in Zambia, Uganda, and Cambodia. A [workshop co-convened by PIM, WLE, and FTA](#) brought together researchers working on issues of institutions for ecosystem services.

PIM provided support for the [Science for Nature and People project](#) Making Ecosystems Count, which aims to inform the metrics for the Sustainable Development Goals (SDGs). As part of this project, participants in a [workshop on Measuring Natural Capital](#) met to define and characterize a tentative set of natural resource and ecosystem service-based indicators for planning and monitoring progress towards meeting the SDGs. The working group identified 17 candidate indicators, and is now conducting stakeholder consultations on them. This activity is led by Bioversity International.

Cross-cutting activities (partnerships, capacity building)

The [Workshop on best practice methods for assessing the impact of policy-oriented research](#) was jointly organized by PIM, IFPRI and SPIA, and held in November 2014. A draft summary and guidelines paper (under review) discusses the many challenges in assessing the impacts of policy-oriented research, useful methods for addressing them, and practical approaches for the CGIAR.

C.2 Progress toward the achievement of research outcomes and IDOs

With the arrival to the Program Management Unit in July 2014 of a Senior Research Fellow with substantial responsibility for impact assessment and monitoring and evaluation, good progress has been made in developing long term impact pathways and short term outcomes (see section B). PIM research has consistently been oriented to the achievement of outcomes. Several examples for 2014 are presented below.

Flagship 1 – Foresight Modeling

Selected outcomes of the foresight modeling work under Flagship 1 are described in Section A.

Flagship 2 – Science Policy and Incentives for Innovation

In Malawi, the Program for Biosafety Systems (PBS) worked with key government ministries as they launched successful field trials of GM cotton, and provided training to build biosafety competency for the introduction of the first GM food crop (Bt cowpea). In Vietnam, PBS assisted government agencies to complete regulations related to regulatory review (food, feed, environmental release), which resulted in biosafety approvals for three genetically modified maize varieties; commercial launch is expected in 2015.

Flagship 3 – Adoption of Technology and Sustainable Intensification

The National Smallholder Farmers Association of Malawi (NASFAM) used research from IFPRI-PIM in making the decision to hire more women than men as extension agents in order to improve outreach to women farmers.

Flagship 4 – Policy and Public Expenditure

IFPRI's SAMs and CGE models remain in active use by government policy units. Researchers assisted the Ethiopian Policy Analysis Unit (EPAU) to develop a new 2010-2011 SAM that was used for priority-setting for Ethiopia's Second Growth and Transformation Plan (GTP2). The SAM for South Africa was used by the National Treasury to conduct regular policy analysis, including an evaluation of the proposed carbon tax for South Africa and the country's Integrated Energy Plan. A paper written by National Treasury staff (and others) using the SAM and related CGE model can be found [here](#).

The Government of Yemen (prior to recent unrest) used [Yemen spatial](#) as a monitoring tool for the implementation of the country's Food Security Strategy. IFAD has integrated use of Arab Spatial into project design and targeting for the Near East, North Africa and Europe Regional Division.

Analysis by IFPRI-PIM researchers of the relationship between Egypt's food subsidy system and the increasing double burden of malnutrition (under-nutrition and obesity) in this country (paper submitted for review to the IFPRI Monograph series) helped inform the decision of the Egyptian government to [reform its food subsidy system](#). Several significant changes; e.g., changes in targeting, transition to electronic vouchers, and broadening of the subsidized food basket, are consistent with the recommendations of IFPRI's research, as well as that of other advisors.

Results of [an analysis of returns to investments in rural roads done by IFPRI as part of the Ethiopian Strategy Support Program](#) suggest that investments in rural feeder roads are cost-effective ways to help reduce widespread poverty, even in unfavorable settings. These results were used by the Department for International Development (DFID) in consideration of a grant of 80 million pounds to the Government of Ethiopia's rural road program.

An IFPRI-PIM team found that the Government of Nigeria's policy to impose heavy taxes on rice imports increased incentives for smuggling, and did not contribute to the government's goal of increasing domestic rice production. After these results were conveyed to members of the Federal Ministry of Agriculture and Rural Development, and used in debates on rice tariff policy, the Nigerian government lowered the tariff on rice from 110% to 60%. This research is presented in a book on the rice economy in Nigeria (forthcoming).

The EU debate on biofuel policy continues, and the new legislative [proposal from the European Council released in 2014](#) continues to draw on the IFPRI MIRAGE-Biof model results. The European Commission's Joint Research Centre released the publication "[Progress in estimates of ILUC with MIRAGE model](#)," co-authored by an IFPRI-PIM researcher and offering further analysis for a better understanding of indirect land use change.

The negotiations under the World Trade Organization's stalled Doha Round took on new momentum in November, when agreement was reached with India on food stockpiling. IFPRI-PIM researchers attended the negotiations, and immediately began work with the LDC delegation in Geneva to design implementation measures to meet the target date of December 2015 for conclusion of the negotiations.

IFPRI's work with support of PIM on price volatility and its transmission from international to local markets contributes to the [Agricultural Market Information Systems \(AMIS\)](#) and the [Food Security and Nutrition Indicators Network \(FSIN\)](#). The work informed activities of the 2014 G20 meeting in Australia. Researchers leading this activity were coauthors of the recommendations of international organizations, specifically of the [G20 Food Security and Nutrition Framework](#), and assisted with the design of the food security strategy for the G20 meeting led by Turkey in 2015.

Flagship 5 – Value Chains

The [LINK methodology](#) developed by CIAT was included in global agricultural development toolkits by the NGOs Catholic Relief Services and VECO, and incorporated into training materials for the FAO EU Africa project, as well as used by a range of NGO partners in Honduras, Nicaragua, Haiti, Colombia, Peru, Kenya, Uganda, Ethiopia, and Indonesia. Moreover the team was approached by Unilever to adapt use of LINK into the [Unilever procurement guide for agricultural raw materials](#). Through this process, LINK will indirectly influence practices that currently reach more than 1.2 million small producers.

Flagship 6 – Social Protection

In May, the Prime Minister of Ethiopia publicly thanked an IFPRI-PIM team for their contributions to strengthening the Productive Safety Nets Programme (PSNP). The World Bank – the main donor of the PSNP – made more than 60 references to the IFPRI evaluation work in the documentation supporting an additional USD 600 million in funding. The PSNP is currently undergoing a re-design; the second draft of the design document for the "Next Generation" program makes explicit reference to the [work of IFPRI on targeting and graduation](#) in its section on "Lessons learned."

Results from an IFPRI study comparing different modalities of transfers to beneficiaries in Bangladesh drew extensive press coverage after the results were presented at a workshop and press conference in Dhaka. Media coverage included a [prominently-featured editorial in The Daily Star](#) (the largest circulated English daily newspaper in Bangladesh), which cited the IFPRI results and emphasized the importance of incorporating nutrition messages into social safety net programs.

In Uruguay, encouraging results from [an innovative weather index insurance system for small horticultural producers](#), piloted during the first quarter of 2014 in partnership with the Ministry of Agriculture (MGAP) and BSE Insurance Company, have prompted these stakeholders to engage in a larger round of implementation, with broader coverage in area and crops. BSE has committed USD 3.5 million as risk capital to support this second rollout. The level of subsidy required to secure participation in the program is presently under investigation.

Flagship 7 – Natural Resources Property Regimes

In South Africa, national policy-makers used research results generated by Bioversity scientists to make the decision to invest in the development of two community seedbanks.

Cross-cutting activities (partnerships, capacity building)

PIM was one of many supporters of the [2020 Resilience Conference](#) held in May in Addis Ababa under IFPRI's leadership. An evaluation of the early outcomes of this conference (Paarlberg 2014³) found that the event (a) delivered new knowledge to those who participated, (b) generated or maintained contacts for the majority of participants, (c) generated significant media coverage and increased interest to research outputs on the main themes related to resilience, and (d) accelerated learning and coordination across organizations.

PIM coordinated and financed the session on Expanding Commercial Opportunities for the Rural Poor at the CGIAR Development Dialogues in New York. The session brought together high level policy-makers, including the chair of the Committee on World Food Security and two prominent African ministers, along with research leaders. The discussion reinforced the importance of evidence-based policy-making, and the important role of CGIAR in contributing evidence for policy-makers.

C.3 Progress toward Impact

PIM's work on social safety nets is recognized as a contributor to innovation in programs of assistance to the vulnerable in times of shock, as noted in [The Economist in March of 2014](#). A body of IFPRI-PIM research showed that food vouchers and cash benefits can be a cheaper method of relieving poverty than food aid, and boost nutrition at the same time. Drawing on conclusions of this work and other inputs, the World Food Programme has shifted to cash and vouchers instead of commodity assistance for 4.4 million beneficiaries. Similarly, the safety net research in Ethiopia referred to in Sections C1 and C2 has shaped the design of Ethiopia's social program, which aims to reach 10 million people in 2015 (many of whom are smallholder farmers).

The outcome on the tariff reduction on rice in Nigeria described in Section C2, and positive response to the removal in late 2012 of the ban on maize exports in Tanzania (operative for the 2013 season and subsequently) affected tens of millions of producers and consumers in each country in 2014. These examples demonstrate the potential for national policy research to have impact on very large numbers of beneficiaries.

Other PIM research, in partnership with development or private sector organizations, is also showing impact on beneficiaries in specific geographical areas. For instance, the work on innovative extension

³ Paarlberg, R. 2014. Impact Assessment: IFPRI 2020 Conference on Building Resilience for Food and Nutrition Security, May 15-17 2014, Addis Ababa, Ethiopia. Independent Impact Assessment Report No. 37, International Food Policy Research Institute, Washington, DC.

methods has contributed to the deployment of volunteer farmer trainers in East Africa, reaching over 300,000 dairy farmers. Value chain tools are being used by development organizations to reach hundreds of farmer groups in Africa and Latin America, and improved common land management practices are being disseminated to groups in hundreds of landscapes through partnerships in India.

PIM has recently begun to jointly design and fund with IFPRI external evaluations of IFPRI research under PIM. In the future, PIM will also commission evaluations of research from other participating Centers. In 2014, PIM co-funded two external evaluations, one on agricultural science policy (Flagship 2), and one on social protection (Flagship 6). The reports of these evaluations are due for completion by mid-2015.

D. GENDER RESEARCH ACHIEVEMENTS

Selected gender research achievements

PIM's gender strategy aims to strengthen the incorporation of gender analysis throughout the research portfolio and to carry out and promote strategic, cross-cutting gender research. Selected 2014 achievements in both areas are highlighted below.

The pilot [Women's Empowerment in Agriculture Index \(WEAI\) datasets](#) for Bangladesh, Guatemala, and Uganda were downloaded 650 times in 2014. The WEAI baseline report, "[Measuring Progress Toward Empowerment](#)," summarizes findings from the WEAI survey in thirteen countries across five regions. The PIM evaluators found that the diagnostics on women's disempowerment in Bangladesh using the WEAI have led USAID to increase the funding dedicated to improving women's empowerment in this country by about USD 6 million, and to change the focus of Feed the Future projects to address constraints women face in agricultural development.

The FAO-IFPRI-PIM book [Gender in Agriculture: Closing the Knowledge Gap](#), along with PIM research on [gender inequalities in control of land](#), has led to questioning of some widely held assumptions regarding the role of women in agriculture. This prompted the Bill & Melinda Gates Foundation to [update statistics](#) on the share of women working in African agriculture, and FAO to update the indicators of gender gaps in control of land featured on the [Gender and Land Rights Database](#). PIM research on sex-disaggregated land rights indicators also contributed to [Landesa's advocacy](#) for land rights indicators in the Sustainable Development Goals.

In March 2014, [researchers gathered in Entebbe, Uganda](#) to share lessons learned from value chain interventions and to identify tools to make these interventions more gender equitable and effective. This event was co-sponsored by PIM and RTB.

Research by ICRAF with support from PIM on [Gender, agroforestry and food security in Africa](#) found that women are as involved in agroforestry as men, but their participation and benefits are constrained by cultural norms and lack of resources. This paper recommends several approaches to reduce these barriers.

PIM, in collaboration with the Ethiopian Agricultural Transformation Agency (ATA), the Ethiopian Ministry of Agriculture's Women's Affairs Directorate, the Ethiopian Institute of Agricultural Research, and IFPRI's Research for Ethiopia's Agricultural Policy (REAP), conducted a two-day [workshop on paving the path for gender equality in agriculture in Addis Ababa](#). PIM and REAP are also working with the ATA's Gender Program Team to synthesize findings from existing research on the role of gender in agriculture in Ethiopia, identify research gaps, and provide policy recommendations to reduce gender gaps in agriculture.

Success and challenges in mainstreaming gender research

Through the WEAI surveys, baseline data have been collected on five domains of empowerment in agriculture, i.e., production, resources, income, leadership, and time, in thirteen countries. PIM not only collects and analyzes sex-disaggregated data to identify gender inequalities, but also builds the capacity of researchers within the CGIAR and partner organizations to collect and analyze such data. In order to assist in strengthening gender research within CGIAR, PIM developed a [set of standards for collecting sex-disaggregated data](#). The document identifies simple steps for gathering these data in five broad research areas commonly addressed within the CGIAR. All PIM researchers collecting primary data in 2015 are requested to follow these guidelines and the Consortium Office has instructed all CRPs to adopt and disseminate them to scientists. PIM also launched [EnGendering Data](#), a blog on collecting and analyzing sex-disaggregated data to improve the knowledge base on the role of gender in agriculture and food security, which has generated substantial interest and raised the visibility of PIM's gender work.

PIM's performance matrix, developed in 2014, presents the numerous gender-focused outcomes and major outputs that PIM aims to achieve by the end of 2016, all of which contribute to PIM's gender-specific IDOs. Because of the nature of policy-oriented research and outcomes (e.g., reduction in rice tariff), identification of specific beneficiaries is not always possible, and PIM does not commit to targets for numbers of men and women beneficiaries. PIM does commit to targets for the percentage of flagship products and tools which have conducted gender analysis.

In 2014, PIM, in collaboration with A4NH, Maize and Humidtropics, received matching funds from the Consortium Office to hire an Associate Research Fellow (ARF). The ARF, who will commence work in May 2015, will assess the validity of the proposed indicators of progress towards the CGIAR gender and empowerment outcomes, and provide recommendations for improvements as necessary. Together with PIM's Gender Lead and Senior Research Assistant on Gender, the ARF will further enhance PIM's capacity to conduct rigorous gender analysis.

To measure how the work completed in 2014 contributed to PIM's gender-specific IDOs, the PMU assessed the level of gender focus of each PIM deliverable, and asked activity leaders to describe specific gender research achievements. This enables use of the reporting process to synthesize lessons learned about gender-related constraints and opportunities in agriculture during the first phase of PIM in order to identify priorities for the next phase. In developing the POWB for 2015, the PMU identified how each cluster contributes to PIM's gender-focused outputs and outcomes, and took steps to strengthen the gender focus of some activities and clusters.

As a result of consultations at the beginning of 2014, PIM researchers used sex-disaggregated data on time use in agriculture to develop a Social Accounting Matrix (SAM) for Malawi that separates male and female workers within labor markets and sectoral employment patterns. Similar work is underway for Bangladesh and Nigeria, and future IFPRI SAMs will be sex-disaggregated if the necessary data exist.

E. PARTNERSHIPS FOR RESEARCH AND IMPACT

PIM researchers collaborate with many partners in analysis, outreach, and implementation. Selected examples of partnerships operative in 2014 are presented below.

The foresight modeling team interacts regularly with partners through the [Agricultural Model Inter-Comparison Project](#). The University of Florida provides active support to the PIM virtual crop modeling teams at several Centers. In 2014, discussions were initiated with LEI-Wageningen University and Research Center to explore future cooperation on nutrition modeling and modeling of endogenous technical change.

PIM hosted a meeting of representatives from the Africa Union Commission (AUC), CAADP, FARA, ASARECA, CORAF, the CGIAR Consortium Office, A4NH, CCAFS, HumidTropics and RTB to discuss how CGIAR can support the Science Agenda for African Agriculture. Commitment to work together on the Science Agenda is agreed under the Memorandum of Understanding signed between CGIAR and the AUC in January 2013. PIM is also working with ASARECA and CORAF to develop a geo-referenced technology data platform to assist with targeting of new technologies, monitoring their adoption, and assessing their performance.

PIM's work on advisory services is a partnership including IFPRI, the Global Forum for Rural Advisory Services, ICRAF, and CIRAD, joined regularly by individual researchers from other organizations. The group held a [seminar on rural advisory and knowledge services](#) to exchange experience and share results on innovative extension methods and tools to improve scaling-up.

A [conference on Agricultural Transformation and Food Security in Central Asia](#), co-organized by IFPRI and the University of Central Asia, co-sponsored by PIM and A4NH, and also attended by ICARDA, took place in Bishkek, Kyrgyzstan in April. The Central Asia Program is implemented in collaboration with the Eurasian Center for Food Security at Moscow State University. Conference proceedings can be found on the ReSAKKS Asia website, [here](#).

IFPRI joined with the World Bank and the Government of Nigeria to draft an action plan for changes in the Government's monitoring, tracking, and allocation of public spending for agriculture. IFPRI worked with a coalition of partners led by the World Bank within the Land Governance Assessment Framework to provide analytical support to land tenure reforms in Africa south of the Sahara. PIM is a co-financier and technical partner in the [multi-agency report on enhancing resilience in the African drylands, now nearing completion](#). As part of this shared effort, PIM sponsored a seminar on [integrated landscape management in dryland regions of Sub-Saharan Africa](#). PIM also joined with the World Bank to hold a seminar on [youth employment in Sub-Saharan Africa](#).

PIM's work on value chains has well-established partnerships with implementation organizations, local NGOs, and farmers' organizations. Adaptation and implementation of the [Participatory Market Chain Approach](#) (PMCA) developed by CIP offer several examples of partnerships. NARO in Uganda has used PMCA to support diffusion of its new technologies, including work on orange-fleshed sweet potato. The government of the Philippines and IFAD have agreed to use the PMCA approach within the USD 42.5 million Convergence on Value-Chain Enhancement for Rural Growth and Empowerment Project to promote upgrading of value chains for field crops and fresh vegetables.

The [PIM value chains portal](#) became fully operational in 2014, and its tools are being applied to resolve bottlenecks identified by the commodity CRPs and Centers. For example, ICRISAT has drawn on the portal for training materials on value chain analysis of dryland agricultural commodities for the CRP on Dryland Cereals, and CIP is working on the linkages with the CRP on Roots, Tubers and Bananas.

Examples of partnerships with the private sector include work on insurance in Uruguay (see Section C2), and work on value chains in which Bioversity worked with AgroExport Topará to identify accessions among native Capsicum germplasm with commercial potential.

F. CAPACITY BUILDING

PIM builds capacity in several ways: by establishing research teams that include both senior and junior staff from a range of institutions; by developing tools and methods and training people to use

them; and through outreach activities including conferences and workshops, publications and interviews. In response to recommendations of the evaluation of PIM undertaken by the IEA, PIM will be joining with IFPRI to develop a comprehensive and strategic plan for capacity development. We report below on examples of capacity building in 2014.

The foresight modeling team undertook several significant training events in 2014. In addition to the [3 IMPACT training workshops](#) conducted by the IFPRI team, CIMMYT held a training workshop on “Crop modeling under an uncertain climate,” with participants from ASARECA and 10 NARES. ICARDA conducted a [training workshop on the use of the APSIM crop model](#), strengthening collaborations on priority crop and technologies with 8 NARS from the MENA region.

The [Biosight project](#) held a five-day workshop in Nairobi on “Applied Economic Modeling of Agricultural and Natural Resource Policies using GAMS,” and produced a suite of training modules and accompanying documentation to help researchers model trade-offs in agricultural intensification. Topics covered ranged from farm-level crop and livestock production to the management of grazing land and groundwater resources.

ICRAF held a workshop to build capacity of extension organizations in Cameroon on farmer-to-farmer extension and Rural Resource Centers.

At the request of the Yemeni Ministry of Planning and International Cooperation, IFPRI led a two-week training workshop on SAMs and CGE modeling. IFPRI’s SAM-building toolkit and other training materials related to SAMs and CGE modeling were used for [SAM and CGE modeling courses in Africa](#).

IFPRI organized a Sino-African mutual learning workshop on agricultural mechanization in Beijing ([“Mechanization and Agricultural Transformation in Asia and Africa: Sharing Development Experiences”](#)), with particular focus on the role of the private sector in supporting sustainable agricultural mechanization for small scale farmers.

IFPRI’s [AGRODEP](#) initiative organized the [17th Annual Conference on Global Economic Analysis \(GTAP\)](#) in Dakar (it was the second time in ten years that the conference was held in Africa). This year’s focus was on linking the GTAP network with African economists and PhD students, AGRODEP members, the African Economic Research Consortium, FANRPAN, CORAF, ASARECA, ECOWAS, COMESA, and national institutes.

Farming First and IFPRI organized a one-day workshop for journalists in Addis Ababa in May 2014 immediately prior to the [2020 Resilience conference](#). Led by senior communicators with expertise in communications planning, media pitching, content development, and social media management, the workshop enhanced participants’ capacity to communicate on topics related to food security, sustainable agriculture, and resilience.

Annex 1: PIM summary products from Phase 1 (publications and tools), by flagship

Flagship 1

- Book [Food Security in a World of Natural Resource Scarcity](#)
- Report on 17 technologies (forthcoming)
- IMPACT3 on the web
- [Agritech toolbox](#)
- [Special issue of *Agricultural Economics* on modeling climate change](#)

Flagship 2

- Report [Taking stock of national agricultural R&D capacity in Africa South of the Sahara](#)
- Report [GM Technologies for Africa: A State of Affairs](#)

Flagship 3

- Dataset [Spatial Production Allocation Model 2005 v2.0](#)
- Platform [CGIAR Agricultural Research Portfolio](#)

Flagship 4

- [Arab Spatial, Iraq Spatial, Yemen spatial](#)
- Database [Statistics of Public Expenditure for Economic Development \(SPEED\)](#)
- Syntheses on Country Strategy Support Programs (Ghana, Ethiopia, Nigeria, Pakistan)
- [Special issue of *Food Policy* Boserup and beyond: Mounting land pressures and development strategies in Africa](#)
- [Special issue of *World Development* on Economic transformation in Africa](#)

Flagship 5

- [MIRAGRODEP](#) (global dynamic CGE model for policy analysis and market projections)
- [Publications](#) and cycle of Policy Seminars on the Doha round negotiations in [Washington](#) and Geneva
- [Analysis of biofuel policies and land use consequences](#)
- [Tools4valuechains.org](#)
- Book Innovation For Inclusive Value Chain Development: Successes And Challenges (forthcoming)
- [Poverty score card for financial inclusion](#): example of Central America
- [Contract farming innovative designs](#) and [tool typology](#) to links smallholders to markets

Flagship 6

- [Publications on analysis of the impact of cash transfers, food rations and vouchers on food security and wellbeing in Ecuador, Niger, Uganda and Yemen](#)
- [Analysis of impact of public works on household food security, livelihoods and wellbeing](#)
- [Analysis of the impact of Bolsa Família on women's decision-making power](#)

Flagship 7

- [Package of products from GAAP](#) including technical guide, collection of project notes and discussion papers, and toolkit for collecting data
- Lessons from African Land Tenure Reform: package of synthesis study and [policy briefs](#) from Ethiopia, Ghana, Nigeria, Mozambique, and Tanzania studies, and recommendations on methods
- Factsheets on common property disseminated in collaboration with International Land Coalition's Database of Good Practices
- Synthesis article or Special issue in *International Journal of the Commons*

Gender, M&E, partnerships

- [Women's Empowerment in Agriculture Index \(WEAI\)](#)
- Book [Gender in Agriculture: Closing the Knowledge Gap](#)
- [Engendering Data](#) blog and [Standards for collecting sex-disaggregated data](#)