



RESEARCH  
PROGRAM ON  
Policies,  
Institutions,  
and Markets

Led by IFPRI

# Proposal for Extension Period 2015 - 2016



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## ***Introduction: Strategic context, lessons from PIM's first three years, and transition to Phase 2***

The CGIAR Research Program on Policies, Institutions, and Markets (PIM) supports **research to strengthen the policy and institutional foundations of a food secure future**. Sustainable growth in agriculture and eradication of hunger will require advances in agricultural science and technology, efficient use of scarce natural resources, relatively unencumbered trade and market access, and well-targeted social protection. These four elements constitute a simple strategic context and conceptual framework for food security. With due attention to each, the goals expressed in the System Level Outcomes (SLOs) of CGIAR are eminently attainable. Each of the four conceptual elements has important policy and institutional dimensions, as do the eleven common Intermediate Development Outcomes agreed by the leaders of the CGIAR Research Programs. These policy and institutional dimensions define the research domain of PIM.

PIM was launched in 2012 with a program highly relevant to the strategic context, but broad in scope and lacking direct focus on specific threats to attainment of the goals of CGIAR. Restructuring in the first phase has increased focus, and resulted in a new architecture of flagships and clusters described below. Furthermore, **during the first phase of implementation, several ways in which PIM as a CRP adds value have become apparent**. Firstly, PIM provides **a mechanism for Centers to combine forces on a common research effort**. This is most clearly seen now in the work on foresight modelling, on value chains, and on methods and tools for gender analysis; further opportunities to foster cross-Center work within the context of PIM's flagships will be explored in the future. Secondly, PIM has been able to **facilitate external partnerships** that had eluded past efforts. An example is the working group of International Organizations on distortions in agricultural incentives, co-convened by OECD and PIM. Thirdly, PIM has been able to **leverage bilaterally funded work** of its lead Center, and more fully apply this work to the broader efforts of CGIAR as a whole; this function can be seen in the work on public expenditures, biosafety systems, and agricultural science and technology indicators (ASTI).

The bilaterally funded elements of PIM are of two distinct types. In the first, bilateral funds combine with those from CGIAR Window 1-2 to allow expansion of scope and duration of research. In the second, a bilateral funding partner may have a specific need deriving from an operational engagement or a request from a client country, and may ask PIM to undertake work. In such a case, the major funding will come from the bilateral partner, and PIM's leveraging allows the work to harvest lessons more broadly as global public goods. Both types of leveraging are productive, and account for the program's substantial share of bilateral funding. Given uncertainties about future modalities of funding, reliance on varied sources represents prudent financial stewardship, and will continue until changed circumstances warrant reconsideration.

These lessons of the first phase of implementation and resulting adjustments in the program have been taken into account in designing the interim program for 2015-2016, and will be carried forward into the second phase.

## Intermediate development outcomes, theory of change, and impact pathways

Selectivity and prioritization under the PIM program are undertaken to address the most pressing threats of policy and institutional origin to achievement of the larger objectives of CGIAR; namely:

- Misallocation of resources invested in research and technological discovery; missed opportunities to realize high returns to investment
- Regulatory, legal, and social barriers to wide adoption of promising technologies
- National policies that discriminate against agriculture and/or impede trade, and low levels of public spending on agriculture
- Poorly functioning value chains, with exclusion of poor and marginalized groups
- Vulnerability of disadvantaged groups due to lack of mechanisms for social protection
- Poorly defined property rights and mismanagement of common property

These challenges are reflected in PIM's IDOs. PIM's results framework, including seven IDOs, each of which has a specific gender dimension, is shown in [Table 1](#).

PIM joins with boundary partners (research, implementation, and outreach partners) to deliver outcomes and contribute to impact (See [Section on Partnerships](#)). PIM assists primary decision agents in effecting change by providing relevant knowledge and enhancing their capacity. Evidence of impact is gathered by documenting change (or in some cases avoidance of welfare-reducing change), and soliciting feedback regarding the relevance of research to the outcome.

More specifically, most of PIM's work achieves impact through one of the four pathways presented in [Figure 1](#).

**Figure 1: Main impact pathways of PIM research**



PIM's work on foresight modelling and in support of developing countries participating in negotiations of the World Trade Organization exemplifies the **first type of impact pathway**. Work with a coalition of partners including OECD and the World Bank to assist developing countries to measure distortions in agricultural incentives and benchmark progress toward improvement provides another example of applied work in the global arena.

An example of impact achieved jointly with national partners (**Pathway 2**) can be seen in the long-term partnership between IFPRI and the Government of Ethiopia on the implementation of the Productive Safety Net Programme. Boundary partners for this work include the Ministry of Agriculture and Rural Development, and development partners (Canada, Netherlands, European Commission, Ireland, Sweden, United States, United Kingdom, Denmark, World Food Programme, and World Bank). IFPRI's research team has worked with the project implementation team to undertake survey-based evaluations every two years since 2006. A recent report of the government notes: "These evaluations ... have played a critical role in measuring success (which helps sustain support for the program) and identifying problems (which provide a basis for formulating informed solutions)".<sup>1</sup>

In the **third pathway**, PIM works with partners to overcome bottlenecks and identify solutions to missing markets and poorly functioning institutions. When solutions involve public bodies and/or NGOs, PIM works with those designing, funding, and implementing programs. Much of the work on value chains, credit, insurance, and asset acquisition, is of this type.

A **fourth pathway** entails design of research methods and tools, new ways to collect data, and assuring that the toolbox for policy analysis is well stocked and readily accessible. Examples of this work include development of tools for foresight analysis, sharing of analytical approaches to value chains, development of the Women's Empowerment in Agriculture Index, and providing new methods for collection of sex-disaggregated data.

**For all research activities, PIM encourages researchers to clarify impact pathways early in the design process.** Achievement of impact requires careful scanning of the policy horizon, both in the near term and the more distant future, to identify issues where action is likely to be feasible and constructive. PIM researchers are encouraged to use the following decision tree, and elements of the tree (specific policies, key partners with agency) are documented in the annual reporting process:

- What policy measure, institutional arrangement, or market characteristic is acting against the interest of poor producers or consumers? How important is it?
- What is the process to effect change, and how likely is it to succeed?
- Who has agency in the process?
- Do the agents need additional information to choose a course of action or confirm their preferred course of action? What information, when, and how will it be used?

PIM asks researchers to document the contribution of their work to change, either accomplished or, in the case of potential policy reversals, avoided. PIM does not claim attribution for change, because researchers are usually not agents in the policy process and many partners contribute.

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<sup>1</sup> MoARD (2014). "2013 Review of the Productive Safety Net and Household Asset Building Programmes," Ministry of Agriculture and Rural Development, Ethiopia, p. 58.

**Table 1: PIM's Intermediate Development Outcomes (IDOs) and gender IDOs**

IDO/Gender IDO	Counterfactual	Indicator <sup>2</sup>	2025 target	Risks
<b>IDO 1:</b> Improved prioritization of global agricultural research effort for developing countries	Investment in research without benefit of quantitative assessment of options	Proportion of respondents to survey of decisionmakers reporting that modelling work was relevant	75%	Political economy overrides or not responsive to findings of analysis
<b>Gender IDO 1:</b> Gender implications explicitly considered in methodology improvements	Gender implications not considered explicitly	Subjective self-assessment by research teams on scale [0,1]	0.75	Potential technical limitations
<b>IDO 2:</b> In countries of focus, more investment in agricultural research, and higher returns	In same countries, low rates of public investment in and low returns to agricultural research	<ul style="list-style-type: none"> <li>Amount of public investment in agricultural research as proportion of national agricultural GDP</li> <li>Growth rate of TFP (measured at 3 year intervals)</li> </ul>	1% 2%	<ul style="list-style-type: none"> <li>Politics undervalue ag research</li> <li>Poor management of research and outreach yields low returns</li> </ul>
<b>Gender IDO 2:</b> Gender implications explicitly considered among criteria in priority-setting	Gender implications not considered	Subjective self-assessment by research teams on scale [0,1]	0.75	Potential technical limitations
<b>IDO 3:</b> In countries of focus, increased adoption of superior technologies and management practices	Rates of adoption of designated superior technologies remain at baseline level	<ul style="list-style-type: none"> <li>Crops: proportion of area under cultivation</li> <li>Livestock: TBD</li> </ul>	50%	<ul style="list-style-type: none"> <li>Measurement challenges</li> <li>Reliability of data</li> </ul>
<b>Gender IDO 3:</b> Gender-specific constraints to adoption identified and addressed	Gender implications not considered explicitly	Subjective self-assessment by research teams on scale [0,1]	0.75	<ul style="list-style-type: none"> <li>Measurement challenges</li> <li>Reliability of data</li> </ul>
<b>IDO 4:</b> In countries of focus, reduced distortions and better public spending for agriculture	Policies that penalize agriculture; low levels of public spending on agriculture	PSE (Producer Support Estimate) or NRA (Nominal Rate of Assistance) using standard methodology	>-10% <10%	Global shift toward higher levels of protection and intervention
<b>Gender IDO 4:</b> Policy and public spending reduce gender barriers	Gender implications not considered explicitly	Subjective self-assessment by research teams on scale [0,1]	0.75	<ul style="list-style-type: none"> <li>Measurement challenges</li> <li>Reliability of data</li> </ul>
<b>IDO 5:</b> Value chains with lower transactions costs, increased inclusion	Poorly functioning value chains; exclusion of target groups	<ul style="list-style-type: none"> <li>For selected value chains in focus countries, commodity specific PSE and/or</li> </ul>	>-10%	<ul style="list-style-type: none"> <li>National political economy</li> <li>Global shift toward higher levels of intervention</li> </ul>
<b>Gender IDO 5:</b> Gender inequalities in value chains are reduced or removed	Gender segregation unchanged and penalizes women	Subjective assessment by research teams on scale [0,1]	0.75	Reluctance of decision agents to remove barriers
<b>IDO 6:</b> Improved design and coverage of social protection programs	Poor design and coverage of safety nets programs	<ul style="list-style-type: none"> <li>Quality of design: subjective assessment by research teams on scale [0,1]</li> <li>In countries of focus, proportion of eligible covered</li> </ul>	0.50 TBD	<ul style="list-style-type: none"> <li>Absence of national programs</li> <li>Lack of capacity</li> </ul>
<b>Gender IDO 6:</b> Social protection programs meet needs of women and men, girls and boys	Social protection fails to identify differential needs by gender	Subjective assessment by research teams on scale [0,1]	0.75	<ul style="list-style-type: none"> <li>Absence of national programs</li> <li>Lack of capacity</li> </ul>
<b>IDO 7:</b> Policies and programs that increase security of rights to natural resources and assets for women and the poor	Poorly defined property rights and mismanagement of common property	<ul style="list-style-type: none"> <li>Land Governance Assessment Framework indicators to be selected</li> <li>Case studies of successful and failed reforms</li> </ul>	TBD	Fast transfer of land outpaces effort to provide protections for original holders
<b>Gender IDO 7:</b> Specific attention to impact on women in assessment of rights to natural resources and assets	No differentiation by gender in assessments	Indicators of tenure security for women in surveys such as LSMS-ISA	TBD	Customary institutions discriminating against women persist

<sup>2</sup> Unless indicated, the geographic domain of measurement will be the set of countries selected for measurement of the SLO indicators, or a subset thereof.



## Flagship projects and work plan

Much of the work initiated in the first phase of implementation of the PIM program will continue. For the period 2015-2016, PIM management proposes to **further streamline the architecture adopted in the first phase** (by merging the former Flagships 1, 2 and 3, all pertaining to technology, into a single flagship, now Flagship 1), in order to achieve greater focus and to ease reporting. Five remaining flagships are proposed, each of which has several clusters. The flagships are supplemented by a category for cross-cutting work (see [Figure 2](#) and [Table 2](#)). The text below provides information on **priorities for 2015-2016 by cluster**.

**Figure 2: PIM's flagships and cross-cutting activities**



### Flagship 1 – Technological innovation and sustainable intensification

PIM's first flagship brings together work on global and regional foresight modelling tools (Cluster 1.1), science policy and incentives for innovation (Cluster 1.2), and technology adoption and sustainable intensification (Cluster 1.3).

The objective of PIM's work on **foresight modelling (Cluster 1.1)** is to analyse the implications of likely scenarios in order to inform decisions on resource allocation for agricultural research and other policy and investment decisions. In addition, the modelling work is of broad interest to researchers, development professionals, and policymakers seeking rigorous quantitative perspectives on likely scenarios for future food supply, demand, and trade. The focus will be on:

- improving the modelling tools and data; e.g. linking partial equilibrium (IMPACT) and general equilibrium modelling approaches better to incorporate economy-wide effects and to enrich insights drawing on household data; incorporating gender explicitly in the modelling; including nutritional dimensions;
- applying the tools to a wider range of technologies, including production systems and natural resource management practices; and
- increasing linkages with and use of results by other CRPs.

**Work on science policy and innovation (Cluster 1.2)** will help leaders in developing countries determine how much to invest in agricultural research, how more effectively to focus research

efforts, and how to engage with partners and encourage private investment in agricultural technology.

The Agricultural Science and Technology Indicators project (ASTI) will collect data in the WANA, LAC, and South and Central Asian regions; explore the linkage between investments in technology and productivity growth; and assist FARA and other African organizations charged with implementation of the Science Agenda for African Agriculture.

The Program on Biosafety Systems (PBS) will continue to advise national counterparts on biosafety policy, with emphasis on Indonesia, Vietnam, Ghana, Uganda and Malawi. PBS's collaboration with other CGIAR Centers and CRPs will be increased.

The work on science, technology, and innovation systems will continue to focus on the design of assessment tools to evaluate these systems in terms of economic performance, investment climate, and innovativeness. Work will extend to address policy dimensions of emerging and near-horizon technologies.

Research on **technology adoption and sustainable intensification (Cluster 1.3)** will clarify factors affecting decisions of both male and female farmers to adopt new technologies and practices, and to manage related trade-offs. A stocktaking of lessons learnt from technology adoption and impact studies will be undertaken to support a more strategic research agenda in this area.

The work on advisory services will continue to support a community of practice through a knowledge-sharing platform via the Global Forum for Rural Advisory Services (GFRAS). Research efforts will focus on developing new curricula, exploring innovations in delivery, and testing (in collaboration with CCAFS) how extension services can best promote climate-smart agriculture.

The geospatial databases and tools built in 2013-2014 will be further developed and applied in several ways. Geo-referenced databases on technology adoption for ASARECA and CORAF will be created in support of the African Agriculture Technology Platform. PIM's investment in mapping activities of all the CRPs during the first phase will continue at a reduced pace as the platform is launched and responsibility for updates passed to the CRPs.

The BioSight project will join with advanced research institutes; e.g., the Center for Environmental Systems Research and the Potsdam Institute for Climate Research, to explore modelling of land use change, and to continue ongoing work on trade-offs between crops, livestock, land, water, and energy.

In collaboration with FAO, IFAD, and other partners, the work on metrics for natural resource management will be expanded beyond the current focus on biodiversity.

## **Flagship 2 – Agricultural growth and transformation at the national level**

Through work within this second flagship, PIM provides national policymakers and their development partners with analysis to show how the constellation of policies and public spending they implement either supports or impedes broadly based agricultural growth, how policies affect women, young people, and marginalized groups, and where changes would bring the greatest benefit. Through the work on structural transformation, this flagship also contributes to understanding of economic growth in developing countries more generally, and its implications for poverty and sustainability of the resource base.

Work within **Cluster 2.1 on public expenditure** will focus on metrics of public expenditure, country and global-level analysis of the decision process and impacts of alternative choices in public spending, and issues of subsidiarity across levels of government.

Work on structural **transformation of rural economies within Cluster 2.2** will continue, with the ongoing updating of IFPRI's Social Accounting Matrices (SAM) databases, which are among the CGIAR's most downloaded resources. This activity will give priority to Africa and low-income countries, and will include sex-disaggregated data, thus allowing for gendered analysis of policy alternatives and investment choices.

A new area of development of the program will respond to the challenges of youth employment in rural Africa and South Asia, and strengthen the analytical underpinnings of interventions designed to create good jobs in agriculture for young men and women.

Other new work proposed under Cluster 2.2 focuses on analysis of the role that agriculture can play in late-developing countries' transformation: do growth paths available to late-transforming African countries reflect new opportunities and constraints of the 21st century? If so, what is the appropriate role for the public sector in late-transforming countries?

### **Flagship 3 – Inclusive value chains and efficient trade**

Work within this flagship falls into three clusters: national, regional and global trade policies (Cluster 3.1), tools for assessing value chains (Cluster 3.2), and interventions to improve value chains (Cluster 3.3).

Work under **Cluster 3.1 on trade policies** will assist developing countries participating in global and regional trade discussions. This cluster will focus especially on the Doha Development Agenda negotiations (Bali results and next steps); regional trade agreements; export restrictions; and policy measures related to food security (e.g., trade policy versus storage policies/food reserves). In addition, research that started in Phase 1 to advance common methodologies for measuring distortions in incentives will continue. A specific effort will aim to provide gender-relevant information on these measurements. The metrics of distortions and analysis of specific value chains under Cluster 3.3 are complementary.

**Cluster 3.2 on tools for value chains** aims to develop tools to understand and measure problems and opportunities that particularly affect poor producers and consumers. These tools are made available through the [PIM value chains website](#). The value chains team proposes to augment the outreach of the website by creating a pilot virtual hub in a selected region. The hub would increase the potential for collaboration between CRPs, and help disseminate and test methods and tools.

**Cluster 3.3 on value chains interventions** will focus on specific interventions to strengthen value chains by resolving market failures identified through the tools developed in Cluster 3.2.

Attention to gender issues will continue to be significant across the three clusters, and links will be established with the Gender, Agriculture and Assets (GAAP) program.

### **Flagship 4 – Improved social protection for vulnerable populations**

This flagship covers work on safety nets (Cluster 4.1), and insurance for the poor (Cluster 4.2).

Work on **safety nets under Cluster 4.1** will continue to explore links between social protection, food security, poverty, agriculture, and asset formation (where assets are broadly defined to include both physical and human capital). Work on instruments for delivery of social protection will also continue. The work in Latin America will be scaled back, and the work in sub-Saharan Africa and South Asia will be prioritized. The emphasis on partnerships, innovations, impacts, and gender will be retained.

Two new topics are proposed, for which PIM will seek bilateral support.



- Little work has been done on social protection in urban areas of poor countries, and this is an issue of increased importance in light of the rapid urbanization.
- Because a number of programs evaluated by researchers under PIM have been in place for a decade or more, the medium and longer term consequences of these interventions can be studied.

Work on **insurance under Cluster 4.2** will proceed along the two priority areas identified during the January 2014 workshop co-sponsored by PIM and CCAFS: developing high quality index insurance products; and studying the impacts of bundling different types of insurance and other financial services.

### **Flagship 5 – Property rights regimes for management of natural resources and assets**

This flagship will focus on land and water resources and their governance, with a special emphasis on gender.

Under **Cluster 5.1 on water and land policies**, gender differences in water use will be examined, as well as the extent to which water technologies meet the needs of both women and men. With regard to land, the current research examining the impact of a range of land governance reforms on tenure security, productivity, and the interests of vulnerable groups will be pursued. A new effort will be launched to identify indicators of land tenure security, and ways to monitor them at national and subnational scales.

The **Collective Action and Property Rights (CAPRI) Program (Cluster 5.2)** will continue to focus on management of common pool resources and common property, ecosystem services and coordination across individual agricultural holdings, and the role of collective action to improve smallholder livelihoods. CAPRI's work traditionally gives high visibility to gender issues, and this emphasis will be retained.

The **Gender, Agriculture and Assets Project (GAAP, Cluster 5.3)** will seek a second phase of bilateral funding leveraged by support from Window 1-2 through PIM. Work will include longer term follow-ups of current projects, as well as a closer focus on findings on nutrition and health status (in collaboration with A4NH).

### **Cross-cutting activities**

Capacity building, management of partnerships, and some aspects of the gender work, cut across the five flagships. Important among these are work on sex-disaggregated data for gender analysis, including work to develop further the Women's Empowerment in Agriculture Index (WEAI) (see [Gender section](#)); and M&E and impact evaluation activities. PIM and IFPRI have agreed on a shared program of external impact evaluations of major bodies of work, and resources will be provided for these as well as other monitoring and evaluation activities that span all flagships.

**Capacity building** is embedded in all the work described above, but is also included in the section on cross-cutting elements of the portfolio. Targeted training, such as that on modelling through the AGRODEP Network in Africa, will be continued. In addition, new vehicles for enriching the capacity of partner organizations will be explored, such as on-line courses and curriculum development.

**Table 2: How the PIM flagships and clusters contribute to PIM's IDOs**

Flagships	Clusters	Key 2015-2016 outputs	Key outcomes	IDOs
1 – Technological innovation and sustainable intensification	1.1 – Global and regional foresight modelling tools	<ul style="list-style-type: none"> <li>Data and methods; nutrition, gender, land use, link with CGE models</li> <li>Ex ante assessment of additional technologies and practices</li> <li>Analysis of plausible alternative global futures</li> </ul>	<ul style="list-style-type: none"> <li>Use of foresight models in allocation of research funds and other policy and investment decisions</li> </ul>	1
	1.2 – Science policy and incentives for innovation	<ul style="list-style-type: none"> <li>Updated datasets, country factsheets, regional reports</li> <li>Book on the future of agricultural R&amp;D in SSA</li> <li>Analysis of R&amp;D policies, investments, capacities, and institutions</li> <li>Support for countries on regulatory frameworks for biotechnology</li> <li>Tools to characterize key dimensions of STI systems</li> <li>Analysis and methods linking R&amp;D to productivity growth</li> <li>Policy issues of near-horizon technologies</li> </ul>	<ul style="list-style-type: none"> <li>Enhanced evidence on the levels of investment in and performance of agricultural R&amp;D</li> <li>Biosafety regulatory policies and regulations defined and implemented in target countries</li> <li>Better functioning science, technology and innovation systems in selected countries</li> </ul>	2
	1.3 – Technology adoption and sustainable intensification	<ul style="list-style-type: none"> <li>Synthesis piece on extension reforms and approaches</li> <li>Knowledge sharing platform and community of practice on extension</li> <li>Framework for analysis of technology adoption; constraints and impact</li> <li>Tools for monitoring of technology adoption</li> <li>Application of modelling trade-offs around sustainable intensification</li> <li>Indicators and metrics for NRM, including standards for data collection</li> </ul>	<ul style="list-style-type: none"> <li>Better access of producers to knowledge and advisory services</li> <li>Reliable data on technology adoption used in decisionmaking</li> <li>Enhanced empirical understanding of status and trends of NRM</li> </ul>	3, 7
2 – Agricultural growth and transformation at the national level	2.1 – Public expenditure: measurements, drivers, and impacts	<ul style="list-style-type: none"> <li>Improved metrics of agricultural public spending</li> <li>Analysis of impact of public spending, and factors influencing returns</li> <li>Scoping studies on subsidiarity/decentralization in agricultural spending</li> </ul>	<ul style="list-style-type: none"> <li>Harmonized measurements of agricultural public spending</li> <li>Better allocation of public spending to facilitate agricultural growth and transformation</li> </ul>	4
	2.2 – Structural transformation: tools and analysis	<ul style="list-style-type: none"> <li>Updated SAMs</li> <li>Scaled up Arab Spatial tool</li> <li>Studies on the role of agriculture in structural transformation</li> <li>Studies on youth employment in rural Africa and Asia</li> </ul>	<ul style="list-style-type: none"> <li>Better tools for analysis of policy options at the national level</li> <li>Strengthened analytical underpinnings for job creation programs for youth in agriculture</li> </ul>	4
3 – Inclusive value chains and efficient trade	3.1 – National, regional and global trade policies	<ul style="list-style-type: none"> <li>Harmonized indicators of policy-related distortions in incentives</li> <li>Support for participants in global and regional trade negotiations</li> <li>Studies on the political economy of trade</li> </ul>	<ul style="list-style-type: none"> <li>Use of tools to assess distortions in incentives for a set of countries/commodities</li> <li>More informed participation of developing countries in key trade negotiations</li> </ul>	4, 5
	3.2 – Tools for assessing value chains	<ul style="list-style-type: none"> <li>Population of value chains website with new peer-reviewed tools</li> <li>Establishment and operation of a pilot hub in one region</li> </ul>	<ul style="list-style-type: none"> <li>Approaches to improve the performance of value chains of importance to poor consumers and smallholder producers identified and tested</li> </ul>	5
	3.3 – Interventions to improve value chains	<ul style="list-style-type: none"> <li>Book on interventions to improve value chains</li> <li>Analysis of post-harvest losses (quantification and remediation)</li> </ul>		

Flagships	Clusters	Key 2015-2016 outputs	Key outcomes	DOs
4 – Improved social protection for vulnerable populations	4.1 – Safety nets: design and performance	<ul style="list-style-type: none"> <li>• Studies on innovation in design and delivery of safety net programs</li> <li>• Scoping study on social protection in urban areas</li> <li>• Studies on long-term impact of safety net programs</li> </ul>	<ul style="list-style-type: none"> <li>• Progress toward effective and efficient social protection interventions</li> </ul>	6
	4.2 – Insurance for the poor	<ul style="list-style-type: none"> <li>• Development and testing of new insurance products in Bangladesh</li> <li>• Pilots to test bundling of weather insurance and improved seeds</li> </ul>	<ul style="list-style-type: none"> <li>• Better understanding of how insurance products can serve the poor</li> </ul>	6
5 – Property rights regimes for management of natural resources and assets	5.1 – Water and land policies	<ul style="list-style-type: none"> <li>• Synthesis of water-energy tradeoffs</li> <li>• Scoping work on gender and water technologies</li> <li>• Indicators of land tenure security</li> <li>• Scoping study on tenure issues related to access of the youth to land</li> </ul>	<ul style="list-style-type: none"> <li>• Improved use of scientific evidence in decision processes related to management of water and land</li> </ul>	7
	5.2 – Collective action, property rights (CAPRI)	<ul style="list-style-type: none"> <li>• Studies on innovative mechanisms for collective action for NRM</li> <li>• Synthesis of lessons learnt on payments for environmental services</li> </ul>	<ul style="list-style-type: none"> <li>• Better understanding of how to manage resources in collective and/or common tenure rights</li> </ul>	7
	5.3 – Gender, Agriculture and Assets Project (GAAP)	<ul style="list-style-type: none"> <li>• Long-term impact assessments of gendered control over assets</li> </ul>	<ul style="list-style-type: none"> <li>• Strategies to reduce gender gaps in asset access, control, and ownership</li> <li>• Improvement in partners' ability to measure and analyze gender and assets data</li> </ul>	7
Cross-cutting activities	Sex-disaggregated data for gender analysis	<ul style="list-style-type: none"> <li>• Methodological experiments on how to collect sex-disaggregated data</li> <li>• Blog and community of practice on collection of sex-disaggregated data</li> <li>• Empirical interrogation of gender myths</li> <li>• Further development of WEAI</li> </ul>	<ul style="list-style-type: none"> <li>• Improved quality and quantity of sex-disaggregated data</li> <li>• Better understanding of links between women's empowerment and food security</li> </ul>	All
	M&E, and impact assessment	<ul style="list-style-type: none"> <li>• Assessment of baselines for PIM M&amp;E indicators</li> <li>• External impact evaluations of major bodies of work within PIM</li> </ul>	<ul style="list-style-type: none"> <li>• Improved M&amp;E framework for PIM</li> <li>• Improvements of quality of PIM research</li> </ul>	All
	Capacity building, partnerships, and other cross-cutting activities	<ul style="list-style-type: none"> <li>• Monitoring of partnerships</li> <li>• Trainings, and participation in capacity building platforms</li> </ul>	<ul style="list-style-type: none"> <li>• Development of strategic partnerships</li> <li>• Enhanced capacity of PIM partners</li> </ul>	All

## Gender

As described in the work plan section, **gender is integrated into research in each of the flagships and clusters**. [Table 3](#) summarizes the main gender components in each flagship as well as in the cross-cutting activities.

The PIM Management Unit has done an accounting of research funds used explicitly for gender analysis, including both free-standing strategic work and work embedded in other activities. That accounting (with some key gaps in coverage) finds approximately 15% of the resources devoted to gender analysis, and has been reported in earlier documents, such as the 2013 Annual Report and the Plan of Work and Budget for 2014. The actual number, considering fuller reporting and the jointness of gender analysis and other topics, such as social protection, is probably closer to 25%. PIM will continue to place a major emphasis on gender work, and to develop new tools for and insights from gender analysis.

### Gender in the workplace

[Table 4](#) displays the gender balance within the PIM management bodies (with the *proviso* that not all flagship and cluster leaders for 2015-2016 are yet formally designated). The Program Management Unit will increase gender balance in July 2014, when the recently hired male Senior Research Fellow will arrive. Only one of the seven members of the Science Policy and Advisory Panel is female, and correction of this imbalance will be a priority. Both the Management Committee and the Cluster Leaders are approximately gender balanced.

**Table 4: Gender balance in PIM governance structure**

	Number	Number of women	% women
Science Policy and Advisory Panel	7	1	14
Management Committee	8	5	63
Program Management Unit	5	5	100
Flagship Leaders	5	2	40
Cluster Leaders	13	5	38

**Table 3: How the PIM flagships and clusters contribute to gender IDOs**

Flagships	Clusters	Key 2015-2016 gender outputs	Key gender outcomes	Gender IDOs
1 – Technological innovation and sustainable intensification	1.1 – Global and regional foresight modelling tools	<ul style="list-style-type: none"> <li>• Incorporation of sex-disaggregated data in models</li> <li>• Assessment of gender-differentiated impacts of alternative scenarios</li> </ul>	<ul style="list-style-type: none"> <li>• Differential impact by gender considered among criteria for priority-setting</li> </ul>	1
	1.2 – Science policy and incentives for innovation	<ul style="list-style-type: none"> <li>• Analysis of gender dimensions of technologies, including biotechnology</li> <li>• Assessment of impact of biotechnology crops on women</li> <li>• Data on representation of women in agricultural R&amp;D</li> <li>• Data on female participation in STI policy systems</li> </ul>	<ul style="list-style-type: none"> <li>• Timely release of technologies of value to women</li> <li>• Distribution of benefits of agricultural research investments by gender clarified</li> </ul>	2
	1.3 – Technology adoption and sustainable intensification	<ul style="list-style-type: none"> <li>• Identification of extension approaches serving needs of women and men</li> <li>• Analysis of the role of gender in adoption and sustainable intensification</li> <li>• Measures developed to capture NRM issues of relevance to women</li> </ul>	<ul style="list-style-type: none"> <li>• Extension programs serve needs of men and women</li> <li>• Gender dimensions of constraints to and impact of technology adoption captured</li> <li>• Gender reflected in metrics for NRM</li> </ul>	3, 7
2 – Agricultural growth and transformation at the national level	2.1 – Public expenditure: measurements, drivers, and impacts	<ul style="list-style-type: none"> <li>• Development of tools and methods to track the effects of public spending on agriculture on women and men</li> </ul>	<ul style="list-style-type: none"> <li>• Gender budgeting used to track public spending on agriculture</li> </ul>	4
	2.2 – Structural transformation: tools and analysis	<ul style="list-style-type: none"> <li>• Gendered analysis of policy alternatives and investment outcomes</li> <li>• Incorporation of sex-disaggregated data in policy analysis tools</li> </ul>	<ul style="list-style-type: none"> <li>• Gender dimensions of alternative paths of structural transformation revealed</li> </ul>	4
3 – Inclusive value chains and efficient trade	3.1 – National, regional and global trade policies	<ul style="list-style-type: none"> <li>• Investigation of differential effects of distortions on men and women</li> <li>• Identification of gender aspects of trade policies</li> </ul>	<ul style="list-style-type: none"> <li>• Gender implications of distortions in incentives clarified</li> <li>• Gender dimension included in negotiations</li> </ul>	4, 5
	3.2 – Tools for assessing value chains	<ul style="list-style-type: none"> <li>• Gender-based tools and methodologies for value chain analysis</li> <li>• Study of differential constraints in market participation by sex</li> </ul>	<ul style="list-style-type: none"> <li>• Gender inequalities in value chains diagnosed</li> </ul>	5
	3.3 – Interventions to improve value chains	<ul style="list-style-type: none"> <li>• Value chain impact assessments conducted with focus on gender</li> <li>• Actions identified for more equitable increased sharing of benefits</li> </ul>	<ul style="list-style-type: none"> <li>• Interventions designed to benefit both men and women</li> </ul>	5
4 – Improved social protection for vulnerable populations	4.1 – Safety nets: design and performance	<ul style="list-style-type: none"> <li>• Identification and analysis of gender-sensitive social protection policies</li> <li>• Evaluation of gender impact of social protection programs</li> </ul>	<ul style="list-style-type: none"> <li>• Social protection programs designed to meet the needs of all vulnerable individuals</li> </ul>	6
	4.2 – Insurance for the poor	<ul style="list-style-type: none"> <li>• Assessment of differences in insurance needs of men and women</li> </ul>	<ul style="list-style-type: none"> <li>• Differential needs, if any, addressed</li> </ul>	6
5 – Property rights regimes for management of natural resources and assets	5.1 – Water & land policies	<ul style="list-style-type: none"> <li>• Study of gendered mechanisms for control of land and water</li> </ul>	<ul style="list-style-type: none"> <li>• Practical instruments for redress identified</li> </ul>	7
	5.2 – Collective action, property rights (CAPRI)	<ul style="list-style-type: none"> <li>• Analysis of gender dimensions of different types of property rights</li> <li>• Identification of changes in regulations or institutions to redress inequality</li> </ul>	<ul style="list-style-type: none"> <li>• Use of findings to develop more gender-equitable control of natural resources</li> </ul>	7
	5.3 – Gender, Agriculture and Assets Project (GAAP)	<ul style="list-style-type: none"> <li>• Long-term impact assessments of gendered control over assets</li> </ul>	<ul style="list-style-type: none"> <li>• Strategies to reduce gender gaps in assets</li> <li>• Increased capacity of partners to measure and analyze data on gender and assets</li> </ul>	7
Cross-cutting activities	Sex-disaggregated data for gender analysis	<ul style="list-style-type: none"> <li>• Methodological experiments in collection of sex-disaggregated data</li> <li>• Further development of WEAI</li> <li>• Empirical interrogation of gender myths</li> </ul>	<ul style="list-style-type: none"> <li>• More and better sex-disaggregated data</li> <li>• Deeper insight into gender and food security</li> </ul>	All
	M&E, and impact assessment	<ul style="list-style-type: none"> <li>• Assessment of baselines for PIM M&amp;E gender indicators</li> <li>• External impact evaluations of major gender research areas within PIM</li> </ul>	<ul style="list-style-type: none"> <li>• Improved gender M&amp;E framework for PIM</li> <li>• Better gender research in PIM</li> </ul>	All
	Capacity building, partnerships, and other cross-cutting activities	<ul style="list-style-type: none"> <li>• Development of capacity-building activities and strategy with a special focus on gender issues, challenges, and constraints</li> </ul>	<ul style="list-style-type: none"> <li>• Proactive inclusion of women in training; better gender balance in PIM management</li> </ul>	All



## ***Partnerships and regional collaborations***

PIM's teams maintain valued working relationships with research institutions in both developing and developed countries, and these will be strengthened during the period 2015-2016. PIM's partners belong to one or several of the following categories: **research partners, outreach partners, implementation partners, and funding partners.**

**In most activities, all four categories of partners interact.** For instance, in 2015-2016 the foresight modelling team will further develop cooperation with research partners such as the Agricultural Model Intercomparison and Improvement Project (AgMIP), the Potsdam Institute for Climate Research (PIK), the International Institute for Applied Systems Analysis (IIASA), LEI Wageningen, FAO, and OECD; the work will also be coordinated with other foresight activities, such as the qualitative analysis led by the CGIAR Consortium Office. Outreach and communications activities, such as the high level Annual Foresight Conference, will be pursued in partnership with CCAFS and FAO. On the implementation side, the modelling outputs will continue to be used to inform FARA's leadership of the Science Agenda for African Agriculture and its implementation by national governments and Sub-Regional Organizations. Funding is provided by PIM, the Bill & Melinda Gates Foundation, and CCAFS, and other CRPs will be invited to co-finance the effort starting in 2015-2016.

In order to **improve the PIM program's documentation of partnerships and to help manage partnerships strategically**, the 2013 reporting template asked researchers to identify three partners, describe the nature of the partnerships, and provide contact information for subsequent follow-up. A total of 157 partners were reported. The most numerous category remains research partners. For global work, the research partners tend to be advanced research institutes, whereas for national work the national research institutes, universities, and regional research networks predominate. A second substantial category is implementation partners, such as IFAD and the World Bank. The amount of funding that went to non-CGIAR partners in 2013 was \$25M (out of which \$3.3M Window 1-2 funding and \$21.7M bilateral/Window 3 funding), which represents 26% of the total PIM funding.

Selected (not exhaustive) examples of **research partnerships** expected to grow in 2015-2016 include the following:

- *Sub-Regional Organizations in Africa, on adoption of technology:* The geospatial mapping of agricultural technology and adoption will be pursued in collaboration with CORAF and ASARECA.
- *NGOs and implementation partners on gender:* PIM's gender team works with an array of partners, including FAO, the World Bank, the Gender and Agriculture Partnership led by GFAR, other CRPs, National Statistics Agencies, and NGOs (CARE, World Vision International, CRS, etc.) Collaboration is underway with Landesa to develop gendered indicators on land rights for the post-2015 development agenda.
- *Various partners, on the future of the African Drylands:* The collaboration with the World Bank and others on the economics of resilience in African Drylands has led to further work with the FAO team running the Global Livestock Environmental Assessment Model, and the Action Against Hunger team operating the BioGenerator model.
- *Multiple partners, on metrics for natural resources management:* In addition to maintaining work with the current Centers and advanced research partners already engaged, new partners (including FAO and IFAD) are expected to be active in 2015. Land and natural resource work will continue in collaboration with the World Bank, FAO, International Land Coalition, national governments, and NGOs such as Foundation for Ecological Security and Mama's Hope Organization for Legal Assistance.

- *Partners in Central Asia:* Work initiated in 2014 with the Eurasian Center for Food Security and the University of Central Asia will continue.
- *Many agencies, on agricultural extension and advisory services:* PIM will strengthen its collaboration with the Global Forum for Rural Advisory Services and its regional and national forums, universities and training institutions, and development agencies such as GIZ.

**PIM achieves impact through partnering with development practitioners and policymakers**, who translate research findings into delivery. National governments in developing countries are the main implementation agents for policy reforms; strong partnerships are in place (please see the PIM 2013 Annual Report) and will be nurtured. International Organizations and International Financial Institutions are additional implementation partners, and PIM has active relationships with many of them. Drawing on guidance from our new member of the PIM Management Committee, Douglas Brown, Director of Agriculture and Food Security at World Vision International, we will explore building closer links with NGOs, including expanding existing partnerships on collective action for property rights and gender and asset accumulation.

Partnership offers good vehicles for **capacity building**. Several stand-alone capacity building activities are listed under the category “cross-cutting” in the proposed budget, but most work in this area is embedded in PIM’s research flagships, as described above.

The **geographic focus** of the PIM program ranges from global, to sub-national (down to the pixel) level, as noted in [Figure 1](#). The greatest concentration of the program is in Africa south of the Sahara and South Asia, and this will remain the case during 2015-2016. PIM has a significant but declining presence in Latin America, devotes small but growing attention to Central Asia, and conducts modest but strategic work in the Middle East and North Africa. Work in East Asia is quite selective and will remain so: PIM is likely to become engaged in efforts to assist Myanmar, and work in Indonesia and Vietnam will likely increase. PIM supports collaboration with Chinese researchers, and will explore mutual interest in work to understand the impact of China’s agricultural work in Africa. As CGIAR clarifies the geographic domains for measurement of indicators for the System Level Outcomes, PIM will focus additional work on the selected countries, and in most cases use these as countries of measurement for the PIM results framework.

## ***Budget***

Budget calculations for 2015-2016 are based on observed funding and expenditures for 2012-2014, assumptions about the magnitude and composition of future funding, envisaged adjustments to the composition of the program, and requirements for each flagship and cluster to make adequate progress over the two year period.

Allocations by funding source for 2012-2014 are shown in [Table 5](#), and sum to a projected \$270M, of which 73% is from bilateral/W3 sources. PIM is authorized to spend up to a ceiling of \$265M as per the approved Phase 1 proposal. Hence **spending through end 2014 is projected to be slightly above the ceiling**. The composition of funds for Phase 1 deviates from that anticipated in the initial proposal: actual flows through W1-2 in 2012-2014 (\$72M) are approximately half of the projected/authorized flows for that period (\$141M); funds from W3 and bilateral sources (\$198M) make up the difference.

The projected level of activity for PIM in 2015-2016 is lower than in 2014 due to 1) similar W1-2 annual allocations, but lower projected carryover from previous years than in 2014, and 2) a conservatively flat projection for bilateral/W3 funds. We used the amount of W1-2 as per the Consortium’s 2015 Financing Plan (\$25M), with a projected 10% increase for 2016 (\$27.5M). In

order to increase the available amount for 2015 to cover early preparation for Phase 2, we have elected to carry over \$2M of W1-2 funding from 2014 into 2015, giving a total of \$27M W1-2 funding for that year. Bilateral/W3 funding is assumed to remain constant throughout 2014-2016, although its sources and purposes will vary as tasks enter and leave the portfolio. The resulting totals for each year and cumulatively are shown in [Table 5](#).

Total projected spending for the period 2012-2016 under the assumptions presented above is \$466M, requiring **additional authorization of \$201M**. **The additional authorization needed is solely in the category of bilateral/W3 funding. The projected W1-2 spending in 2012-2016 (\$126M) is below the authorized W1-2 ceiling in the Phase 1 proposal (\$141M).**

Funding for 2015-2016 will yield additional outputs as specified in the [section of this proposal on flagships and work plan](#). A notional breakdown of the projected budget for 2015 and 2016 by flagship and cluster is shown in [Table 6](#). Reflecting the lower W1-2 amount available (\$27M in 2015 instead of \$29.7M in 2014), most of the clusters face a moderate budget decrease in 2015. A few clusters increase slightly, either to better integrate the bilaterally-funded activities into the program (Clusters 1.2, 5.2, 5.3), or to accommodate new areas of work (such as the work on post-harvest losses under Cluster 3.3, and expansion of the work on insurance under Cluster 4.2). Several of the activities that have already achieved good momentum; e.g., foresight modelling and analysis of value chains will be constrained under this budget, and we will seek complementary resources or new modes of cost sharing with partners. The projected decrease in the management budget compared to 2014 is due to the use of a new category for cross-cutting work formerly handled through the management budget.

**Table 5: PIM projected expenses for 2012-2016, by source of funding (in \$M)**

	W1-2	W3/Bilateral	Total
2012	15.3	62.5	77.8
2013	26.9	65.5	92.4
2014	29.7	70.5	100.23
2015	27.0	70.5	97.5
2016	27.5	70.5	98.0
<b>2012-2014</b>	<b>71.9</b>	<b>198.5</b>	<b>270.5</b>
<b>2012-2016</b>	<b>126.4</b>	<b>339.6</b>	<b>466.0</b>

**Table 6: PIM budgets for 2014-2015-2016, by cluster and source of funding (in \$M)**

Flagship/cluster title	2014 budgets			2015 budgets			2016 budgets		
	TOTAL	W1-2	W3/bilateral	TOTAL	W1-2	W3/bilateral	TOTAL	W1-2	W3/bilateral
<b>1 - Technological innovation and sustainable intensification</b>	<b>21,812</b>	<b>8,401</b>	<b>13,411</b>	<b>21,227</b>	<b>7,070</b>	<b>14,157</b>	<b>21,657</b>	<b>7,500</b>	<b>14,157</b>
1.1 - Global and regional foresight modelling tools	6,620	4,661	1,959	6,565	4,300	2,265	6,565	4,300	2,265
1.2 - Science policy and incentives for innovation	6,373	508	5,866	6,870	870	6,000	7,000	1,000	6,000
1.3 - Technology adoption and sustainable intensification	8,818	3,232	5,586	7,792	1,900	5,892	8,092	2,200	5,892
<b>2 - Agricultural growth and transformation at the national level</b>	<b>38,652</b>	<b>4,148</b>	<b>34,505</b>	<b>39,281</b>	<b>4,100</b>	<b>35,181</b>	<b>39,481</b>	<b>4,300</b>	<b>35,181</b>
2.1 - Public expenditure: measurements, drivers, and impacts	1,434	550	884	1,700	600	1,100	1,900	800	1,100
2.2 - Structural transformation: tools and analysis	37,218	3,598	33,621	37,581	3,500	34,081	37,581	3,500	34,081
<b>3 - Inclusive value chains and efficient trade</b>	<b>14,877</b>	<b>6,329</b>	<b>8,547</b>	<b>15,110</b>	<b>5,700</b>	<b>9,410</b>	<b>15,110</b>	<b>5,700</b>	<b>9,410</b>
3.1 - National, regional and global trade policies	6,062	1,411	4,651	6,300	1,400	4,900	6,300	1,400	4,900
3.2 - Tools for assessing value chains	4,363	3,543	819	3,926	2,800	1,126	3,926	2,800	1,126
3.3 - Interventions to improve value chains	4,451	1,375	3,077	4,884	1,500	3,384	4,884	1,500	3,384
<b>4 - Improved social protection for vulnerable populations</b>	<b>4,553</b>	<b>2,002</b>	<b>2,551</b>	<b>5,110</b>	<b>1,750</b>	<b>3,360</b>	<b>5,460</b>	<b>2,100</b>	<b>3,360</b>
4.1 - Safety nets: design and performance	4,285	1,734	2,551	4,250	1,350	2,900	4,400	1,500	2,900
4.2 - Insurance for the poor	268	268	0	860	400	460	1,060	600	460
<b>5 - Property right regimes for management of natural resources and assets</b>	<b>6,470</b>	<b>1,450</b>	<b>5,020</b>	<b>7,123</b>	<b>1,100</b>	<b>6,023</b>	<b>7,523</b>	<b>1,500</b>	<b>6,023</b>
5.1 - Water and land policies	2,547	613	1,935	2,841	500	2,341	3,041	700	2,341
5.2 - Collective action, property rights (CAPRI)	3,174	650	2,523	3,329	500	2,829	3,429	600	2,829
5.3 - Gender, Agriculture and Assets (GAAP)	749	186	562	953	100	853	1,053	200	853
<b>Cross-cutting activities</b>	<b>3,540</b>	<b>1,662</b>	<b>1,878</b>	<b>3,800</b>	<b>1,400</b>	<b>2,400</b>	<b>3,800</b>	<b>1,400</b>	<b>2,400</b>
Sex-disaggregated data for gender analysis	805	354	451	1,100	400	700	1,200	500	700
Monitoring and Evaluation, and impact assessment	500	500	0	800	800	0	700	700	0
Capacity building, partnerships and other cross-cutting activities	2,235	808	1,427	1,900	200	1,700	1,900	200	1,700
<b>Management and others</b>	<b>10,327</b>	<b>5,709</b>	<b>4,618</b>	<b>5,880</b>	<b>5,880</b>	<b>0</b>	<b>5,000</b>	<b>5,000</b>	<b>0</b>
Management/Coordination	4,365	4,365	0	3,280	3,280	0	3,300	3,300	0
Contingency and cofinancing	1,344	1,344	0	2,600	2,600	0	1,700	1,700	0
Pending assignment to cluster	4,618	0	4,618	0	0	0	0	0	0
<b>TOTAL</b>	<b>100,231</b>	<b>29,700</b>	<b>70,531</b>	<b>97,531</b>	<b>27,000</b>	<b>70,531</b>	<b>98,031</b>	<b>27,500</b>	<b>70,531</b>