



RESEARCH
PROGRAM ON
Agriculture for
Nutrition
and Health

Led by IFPRI

2015 Annual Performance Monitoring Report



Photo: N. Palmer/WMI



ACRONYMS AND ABBREVIATIONS

A4NH	Agriculture for Nutrition and Health
AMR	Antimicrobial resistance
ANGeL	Agriculture, Nutrition, and Gender Linkages project
BMGF	Bill and Melinda Gates Foundation
BMZ	Federal Ministry for Economic Cooperation and Development
CRP	CGIAR Research Program
DFID	United Kingdom's Department for International Development
EAC	East African Community
FANTA	Food and Nutrition Technical Assistance project
FAO	Food and Agriculture Organization of the United Nations
FERG	Foodborne Disease Burden Epidemiology Reference Group
GAAP2	Second Phase of the Gender, Agriculture and Assets Project
HKI	Helen Keller International
IAC	Independent Advisory Committee
IDO	Intermediate development outcome
IFAD	International Fund for Agricultural Development
IIED	International Institute for Environment and Development
IMMANA	Innovative Methods and Metrics for Agriculture and Nutrition Actions project
ISPC	Independent Science and Partnership Council
LANEA	Leveraging Agriculture for Nutrition in East Africa consortium
LANSa	Leveraging Agriculture for Nutrition in South Asia consortium
LCIRAH	Leverhulme Centre for Integrative Research on Agriculture and Health
LSHTM	London School of Hygiene and Tropical Medicine
MERS	Middle East Respiratory syndrome
NGO	Non-governmental organization
PACA	Partnership for Aflatoxin Control in Africa
PHFI	Public Health Foundation of India
PMC	Planning and Management Committee
PMU	Program Management Unit
RCT	Randomized controlled trial
ReSAKSS	Regional Strategic Analysis and Knowledge Support System
RVF	Rift Valley fever
SPRING	Strengthening Partnerships, Results, and Innovations in Nutrition Globally project
SRF	Strategy and Results Framework
SUN	Scaling Up Nutrition
ToC	Theory of Change
TRAIN	Targeting and Realigning Agriculture for Improved Nutrition project
USAID	United States Agency for International Development
W1/2/3	Window 1/2/3
Wageningen UR	Wageningen University and Research Centre
WEAI	Women's Empowerment in Agriculture Index
WFP	World Food Program
WHO	World Health Organization
WINGS	Women Improving Nutrition through Group-Based Strategies project

A. KEY MESSAGES

In 2015, A4NH completed the first year of the two-year Extension Phase. A4NH-affiliated researchers in the four research flagships – (1) Value Chains for Enhanced Nutrition, (2) Biofortification, (3) Agriculture-Associated Diseases, and (4) Integrated Programs and Policies – generated significant results, which have been published and disseminated through our growing network of partners working on agriculture, nutrition, and health around the globe. A4NH research and capacity building activities are helping our partners from subnational to global levels to make progress in **improving diet quality, reducing exposure to agriculture-associated diseases, empowering women and poor communities**, and making **better cross-sectoral policies, programs and investments**. These four ambitious goals are known as our intermediate development outcomes (IDOs). This report describes our progress in achieving the outputs and outcomes described in our approved [Extension Proposal for 2015-2016](#).

A4NH management attention in 2015 focused on:

- **External evaluations:** The A4NH team and many partners were involved in two major evaluations, and one assessment, which were all completed in 2015. The [CRP external evaluation](#) found that the CRP is on track and made eight useful recommendations to improve performance. We also commissioned an external evaluation on [food safety research](#) and [an assessment](#) of how international NGOs access and use research results and evaluation findings. More details are on the [Impact page](#) of our website.
- **Preparing for Phase II:** The A4NH team successfully submitted a [detailed pre-proposal](#) for the second phase of the CRPs (2017-2022) in August 2015. The A4NH team spent the last quarter of 2015 and first quarter of 2016 preparing the [full proposal for Phase II](#), which was submitted in March 2016 for review and approval by November 2016. More importantly, activities in 2015 focused on transitioning A4NH into its second phase, which are described in more detail under Lessons Learned in this report.
- **Development of new partnerships:** Two of the new flagships in Phase II will be on (a) food systems and (b) agriculture and public health. Recognizing that comparative advantage in these areas exists largely outside CGIAR, the Program Management Unit (PMU), with guidance from the Independent Advisory Committee (IAC) and Planning and Management Committee (PMC) plus key members of Flagships 1 and 3, began in 2015 to engage new partners – Wageningen University and Research Centre (Wageningen UR) and the London School of Hygiene and Tropical Medicine (LSHTM) – to build up A4NH leadership in food systems and public health, respectively. More details are described under Partnership Building Achievements in this report.

SYNTHESIS OF TWO MOST SIGNIFICANT ACHIEVEMENTS/SUCCESS STORIES

Focusing the policy dialogue, globally, regionally, and nationally, on stimulating effective actions related to nutrition-sensitive agriculture and development

Globally, the momentum for improving nutrition continues to grow. The data and evidence produced by Flagship 4 on Integrated Programs and Policies, has encouraged decisionmakers to recognize the range of opportunities for improving nutrition and that a variety of stakeholders, including those representing agriculture, must be engaged to implement what is known to work. On the global level, one of the most important A4NH supported efforts is the Global Nutrition Report, which is co-chaired by IFPRI. The objective of the report, which contains both national-level statistics and targeted analysis on key themes, is to guide action, build accountability and spark increased commitment for further progress towards reducing malnutrition. Since the publication of the first [Global Nutrition Report in 2014](#), the urgency of addressing malnutrition has reached key audiences and decisionmakers, highlighting the linkages between agriculture, climate change, and nutrition, and the need for more data in this area. The [2015 report](#) has been downloaded more than 11,000 times and has received nearly 250 media mentions in the four months since its launch. It has been presented at over 20 events, including reaching the climate community with a side event at the 2015 Paris Climate Conference, and galvanizing the dietitian community with a forum organized by the US Academy of Nutrition and Dietetics, the European Federation of Associations of Dietitians and the International Confederations of Dietetic Associations. On the national level, A4NH research provided answers to the question about what it takes to scale up effective investments to reduce malnutrition, so national governments can craft effective programs and policies. In 2015, the Transform Nutrition consortium, led by IFPRI, generated an [evidence review](#) that lists nine critical elements for scaling up. The Scaling Up Nutrition Movement (SUN) [highlighted this paper](#) to their members and cited it as a key reference framework for their guidance on documenting and

enabling access to systematic research expertise on the implementation strategies, effective coverage, and impact of evidence-based actions in SUN countries. In other cases, Transform Nutrition outputs were used by decisionmakers in Bangladesh to support improved nutrition-specific and nutrition-sensitive cross-sectoral policy. In 2015, the Government of Bangladesh developed its 7th Five Year Plan. One of the Transform Nutrition research team members from ICDDR,B was invited to chair the working group on nutrition and produce the [nutrition background paper](#). The paper drew on Transform-related references, the conceptual framework co-developed with other members of the *Lancet* study group, and specifically cites a seminar presentation made by the CEO of Transform Nutrition (and A4NH cluster leader) in a section on the enabling environment for nutrition. In addition to using A4NH evidence in overall planning, the Government of Bangladesh relied on A4NH evidence to design and launch a new pilot project – the Agriculture, Nutrition, and Gender Linkages ([ANGeL](#)) project – that will help them understand how to design, implement, and scale up agricultural interventions to improve nutrition and women’s empowerment; more details are included in later parts of this report.

Framework for developing nutrition-sensitive value chains being applied and tested by partners

Since A4NH began in 2012, one of the main objectives of Flagship 1 on Value Chains for Enhanced Nutrition has been to generate evidence that could be used to strengthen the design of interventions in nutrition-sensitive value chains. Following a [March 2014 workshop](#), researchers and practitioners convened by A4NH developed a framework to support the identification, design and evaluation of nutrition-sensitive value chain interventions. In 2015, the framework was published as an [IFPRI Discussion Paper](#) and [Research Brief](#), and highlighted on the Food Security Portal. Over the course of 2015, partners in and outside CGIAR have started applying it to their research. A [team from CIAT](#) is studying the delivery of beans and amaranth, a nutrient-dense vegetable, to impoverished urban and peri-urban populations in Kenya and Uganda. Using preliminary results from this study, CIAT successfully obtained funding in 2015 from Germany’s Federal Ministry for Economic Cooperation and Development (BMZ) for a three-year project (2016-2018) testing market-based solutions to improve diets of the poorest consumers in Kenya and Uganda. The World Food Program (WFP), with IFPRI has been conducting operational research – guided by the framework – in Malawi. Preliminary results were used to obtain funding in 2015 from the Innovative Methods and Metrics for Agriculture and Nutrition Actions (IMMANA) research initiative funded by the UK Department for International Development (DFID); [IFPRI will lead a team with ICRAF and WFP](#) in Malawi that will refine the framework and develop and validate theory-based methods and metrics that can be used to support the identification, design, and evaluation of nutrition-sensitive value chain interventions. Another team from IFPRI is using indicators from the framework to evaluate mung bean interventions in USAID’s [Agricultural Value Chains](#) project in Bangladesh. The framework has already begun being disseminated to key United Nations food and agriculture agencies and used in project design through A4NH’s partnership with the International Fund for Agricultural Development (IFAD). With technical support from A4NH, IFAD is developing guidance on how to design nutrition-sensitive value chains, and is carrying out fieldwork for testing an approach in Indonesia and Nigeria. During 2015, IFAD modified the framework to focus it more on smallholder producers. This framework now underpins IFAD’s approach to development of value chains for nutrition, and was specifically used to assist value chain development projects on grains, tubers, vegetables, dairy, and fish, in Indonesia, Laos, Nicaragua, and Rwanda. All of these efforts, plus others in the pipeline, are filling critical evidence gaps on the feasibility of the value chains for nutrition approach and how value chains can best be developed in ways that support healthy food systems, providing a useful building block for A4NH to enhance joint research with other CRPs starting in 2016 for Phase II.

OVERALL FINANCIAL SUMMARY

The A4NH Window 1 (W1) budget was cut in late 2014, and so the available carryover did not meet all commitments made. Likewise, in March 2015, W1 revenue was cut by 50% (\$4 million). At the end of 2015 W1/W2 revenue was \$19.2 million, including \$2.5 million from W1 and \$16.7 million from W2 (including one-third of a multi-year, pre-paid commitment for 2013-15 and one contribution in late 2015 to be received in 2016). This was much lower than expected and about 2/3 of W1/W2 expenditure for 2014. W3/bilateral grants exceeded forecasts at \$73.2 million.

The net effect for the 2015 budget was that expenditure was very close to the forecast (\$92.10 million). However this overall picture hides big differences in the expected distribution of funds across flagships, especially the challenges of funding newer research areas and initiatives relative to more established research areas.

Cumulative - Planned vs Actual Expenditure					
2012-2015 Cumulative, Financial Summary (in USD Millions)	PIA/Consortium Financial Plans	Actual Expenditure	Planned Expenditure 2015	Actual Expenditure 2015	Cumulative Variance (PIA or POWB)
Total Expenditure	\$273.50	\$274.90	\$92.60	\$92.10	
Window 1(\$12.9M income)	\$119.3 (PIA)	\$80.00	\$26.70	\$18.87	-29%
Window 2 (\$70.36M income)	\$80.00				
Window 3/Bilateral	\$154.2 (PIA)	\$194.90	\$65.90	\$73.24	11%
	\$194.90				
Gender Research Expenditure*				\$20.55	

*Estimated expenditure for gender research is integrated within the flagship.

B. IMPACT PATHWAY AND INTERMEDIATE DEVELOPMENT OUTCOMES (IDOs)

The Extension Phase is guided by the results framework developed for the [extension proposal](#). The framework shows how A4NH flagships contribute to four IDOs-- **improved diet quality, reduced exposure to agriculture-associated disease, empowerment of women and poor communities**, and making **better cross-sector programs, policies, and investments** through three types of impact pathways—**value chains, programs, and policies**. These IDOs were developed with substantial input across our flagships and were shared with other CRPs through the CRP-IDO working group. All these IDOs are reflected in the [new CGIAR SRF](#) (2016-2030)—with exposure to agriculture-associated diseases divided into two—improved food safety and improved human and animal health— which will facilitate A4NH’s transition to Phase II.

In 2015, A4NH published [its approach to impact pathways and theories of change](#) (ToCs) as well as set of detailed ToCs for our most advanced research areas. The ToCs not only describe the impact pathways but also identify the key assumptions that underlie the linkages between outcomes and assess the status of the evidence supporting the assumptions and the likelihood that the outcome will occur. As can be seen in the pre-proposal and proposals, the insights from ToC work helped shape plans for Phase II. To ensure that the ToCs will be regularly updated and used by M&E staff and management at different levels, they will be integrated into the online M&E platform being developed in 2016 (with the other integrating CRPs). For more information and copies of publications, see the [Impact page](#) of our web site.

C. PROGRESS ALONG THE IMPACT PATHWAY

C.1 PROGRESS TOWARDS OUTPUTS

A4NH researchers generated a number of high-quality research outputs this year, including 30 products, 12 tools, and 151 articles in ISI journals with an overall average impact factor of 3.38. Major achievements are described in this next section by clusters of activity.

Delivery and nutritional efficacy of biofortified varieties. One of the major pathways by which A4NH contributes to improved diet quality and diversity is through the work of HarvestPlus to make biofortified crop varieties available to NARES and implementing partners so that the crops can be adapted for local conditions and released. To date, several varieties have already been released in target countries; in 2015, two zinc rice varieties were released in Bangladesh, one each for *aman* and *boro* season; three vitamin A orange maize varieties were released in Zambia; and zinc wheat has been recommended for release in Pakistan.¹ Another critical part of the impact pathway is demonstrating the nutritional efficacy, or ability of biofortified crops to improve the nutritional status of people who eat them. In 2015, important new studies were published. A review of the [bean nutrition research](#) concluded that beans are a good vehicle for iron biofortification, and that decreasing the levels of phytic acid (an absorption

¹ HarvestPlus has sought input from male and female farmers and male and female consumers on issues of varietal preference and food acceptability.

inhibitor) in biofortified varieties substantially increases iron absorption. Results from an [iron pearl millet efficacy study](#) demonstrated that iron pearl millet is efficacious in improving iron status in children. School children aged 12 to 16 years who ate iron-rich pearl millet in the form of *bhakhri* (a flat, unleavened bread) at midday and evening meals significantly improved their iron status in four months, compared with ordinary pearl millet. Those children who were iron deficient at the start and ate iron-rich pearl millet *bhakhri* were 1.6 times more likely to have resolved their iron deficiency compared with those who ate *bhakhri* made from the ordinary pearl millet. A [cassava efficacy trial](#) with rural Kenyan school children reported that in the study population, boiled yellow cassava consumption led to modest but significant gains in serum retinol concentration and a large increase in circulating levels of beta carotene, thus supporting biofortified cassava as an efficacious new approach to improve vitamin A status.

Food safety of perishable products. A4NH scientists from ILRI generated high-profile products and tools in 2015 for enablers and value chain actors to use to reduce the health risks associated with consuming perishable foods. A4NH researchers authored Chapter 6 on Food Safety: Reducing and Managing Food Scares in the [2014-2015 Global Food Policy Report](#). A4NH research in 2015 continued to be concentrated in the two high burden areas for foodborne disease risk – Africa and Southeast Asia, specifically on understanding risks in informal markets. A [synthesis of risk analysis in 20 livestock and fish value chains](#) in Africa and Asia shows that variations in risk exposure between men and women are mainly due to gender-based differences in occupational exposure and consumption patterns. Studies like these help value chain actors and enablers understand how actors participating in informal markets are exposed to risk and how they manage these risks. The findings suggest that men and women are exposed to different food safety risks, implying that food safety communication differentiated by gender, may be more relevant than gender-neutral messages. A better understanding of the gendered nature of risk exposure and management can also help make food safety research more gender responsive. A collection of manuals and tools for extension workers to use in communicating hygiene messages to small scale producers, like [dairy farmers](#) and [abattoir workers](#), were developed and disseminated.

Food safety related to aflatoxin risks. IITA continued testing on multiple, country-specific aflatoxin biocontrol products in the Gambia, Ghana, Mozambique, Senegal, Tanzania, and Zambia. Preliminary results from an IFPRI-led randomized controlled trial (RCT) in Kenya testing the impacts of subsidized access to aflatoxin control technologies and market incentives indicate that farmers are highly responsive to both price incentives and subsidies, but unlikely to adopt food safety technologies in the absence of both. [A separate study](#) investigating the association between price and aflatoxin contamination in Kenyan branded maize flour found that brands with higher rates of aflatoxin contamination are less expensive. This confirms that current practice, in which upmarket millers test for aflatoxin at the factory gate and rejected lots are sold to less discerning buyers, exacerbates inequalities in aflatoxin exposure. Any food safety strategy in which aflatoxin testing is employed must ensure that contaminated foods are either disposed of properly or directed to a safe use. ICRISAT published results from tests on the [efficacy of triple layer storage bags](#), known as Purdue Improved Crop Storage bags (PICS). Results showed that groundnuts stored in PICS had less bruchid damage and aflatoxin contamination and that PICS could be a viable and ecologically safe storage method. ICRISAT worked with partners to promote the technology to groundnut farmers in Andhra Pradesh. This is part of their larger efforts to work with farmers in India and West Africa to encourage adoption of good agricultural practices (agronomic practices, use of resistant/tolerant varieties, and best-bet harvesting techniques) and technologies that reduce aflatoxin contamination in groundnuts.

Evaluating and strengthening nutrition-sensitive agriculture and development programs. One of the primary objectives of our work in A4NH is to generate evidence that can answer the question ‘[does better agriculture mean better nutrition?](#)’ Every year, we have reported the findings from robust evaluations that answer parts of that question. In 2015, several A4NH researchers from IFPRI contributed to [a special issue of the Journal of Development Studies](#), “Farm-Level Pathways to Improved Nutritional Status.” The eight studies (six of which were co-authored by A4NH-affiliated researchers) provide support for the claim that household agricultural production is linked to household diets and the nutrition of individual household members, and the mediating role of women’s empowerment. Studies using a range of data, metrics and analytical tools and carried out in a variety of contexts confirm that household production diversity and/or livestock ownership are associated with greater diversity in the diet, and in some studies, with lower stunting in children. This was particularly true where markets were inefficient, and in households where women were more empowered. Also in 2015, IFPRI staff affiliated with A4NH finalized

results from the first randomized controlled trial (aside from biofortification) of a gender- and nutrition-sensitive agricultural development program. The project was implemented by Helen Keller International (HKI), a long-term partner, in Burkina Faso. [The findings](#), which are highlighted in an IFPRI [blog post](#), show that the program reduced anemia, wasting and diarrhea in young children, improved maternal nutrition and increased women's ownership of productive assets, women's social status, and their role in household decisionmaking.

Understanding, supporting and evaluating cross-sectoral policy processes. We highlighted A4NH's achievements in this cluster as one of the most significant success stories of 2015. It was also a momentous year for [POSHAN](#) (Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India), which is led by IFPRI, in collaboration with the Public Health Foundation of India and the Institute of Development Studies. In December, POSHAN released a [costing report for India](#), which estimated the cost of delivering direct nutrition interventions at scale. The report is one of the few studies that attempt to quantify the financial investments needed and that provides state-level cost estimates, which can be considered in decisionmaking processes at the national and state-level. Other members of A4NH published a paper documenting the [concepts, methods, and tools](#) used to consider policy processes and measure national-level, nutrition-relevant change. The tools are being used as part of a broader initiative called [Stories of Change](#), which is developing case studies that will capture experiential learning in six countries – Bangladesh, Nepal, India (Odisha), Senegal, Zambia, and Ethiopia – that have high burdens of undernutrition, but have achieved notable results in improving nutrition outcomes in recent years. Another important joint publication from Transform Nutrition and LANSAs was [The Other Asian Enigma: Explaining the Rapid Reduction of Undernutrition in Bangladesh](#), which analyzed five rounds of data from Demographic and Health Surveys and found that rapid wealth accumulation and significant gains in parental education are the two main drivers of reduction in undernutrition in Bangladesh, but health, sanitation and other demographic factors play important secondary roles. Globally, the Biodiversity for Food and Nutrition (BNF) project published the [State of Knowledge Review on the Interlinkages between Biodiversity and Health](#); Bioversity staff co-authored two chapters. BFN's achievements in Brazil were described in an [A4NH outcome story](#).

Enhancing value chains at local and global levels. The value chain framework was highlighted as one of A4NH's most significant success stories of 2015. Gender considerations appear in several steps in the value chain for nutrition approach from diagnostics to intervention design. For example, in the new CIAT project in Kenya and Uganda, researchers will be collecting data to help answer questions such as what is the role and position of women along the value chains and what are the leverage points to achieve better maternal and child nutrition through women's employment and empowerment. In addition to that line of work on the framework, IFPRI's Markets, Trade, and Institutions division and the South Asia office, with support from A4NH, strengthened collaborations with McGill University, University of South Carolina, and Wholesome Wave² to launch two pilot studies in Odisha using the [convergent innovation model](#). The project is delivering multiple innovations (agricultural, nutrition BCC, and preventive and curative healthcare) through two models (PRADAN's self-help groups and community service providers, and eKutir's network of micro-entrepreneurs); results are expected in 2016 and beyond. A4NH-funded work led by WorldFish on small dried fish value chains led to the development of a business model for fish-based complementary foods for infants in Bangladesh. Bioversity International's part of the Food Africa project in Benin generated evidence on constraints for safe, nutritious foods for young children. Posters and videos have been designed to communicate key messages on improved child feeding; the two strategies will be compared in 2016. From the Fruiting Africa project, led by ICRAF, baseline data has been used to develop site specific [fruit tree portfolios](#), combinations of indigenous and exotic food tree species and crops that can be harvested consecutively and potentially provide year-round access to fruit to fill specific 'hunger gaps' or food insecure periods and fill 'nutrient gaps' in diets. A brochure for Kenyan farmers was developed and disseminated.

Animal-associated disease risks. A4NH made significant contributions to high-level global livestock and health policy in 2015. DFID commissioned two evidence reviews on agriculture-associated antimicrobial resistance ([AMR](#)) in developing countries and Middle East respiratory syndrome ([MERS](#)) as part of Evidence on Demand, an online hub that provides technical resources to help DFID advisors (and the wider development community) make evidence-based decisions. ILRI researchers authored the review on AMR and contributed to the one on MERS. An

² [Wholesome Wave](#) started in 2008 to inspire under-served consumers to make healthier food choices by increasing affordable access to locally grown produce.

A4NH flagship leader served as a member and co-author of the Lancet Commission on Health and Climate Change. The [2015 article in the Lancet](#) maps out the impacts of climate change on human health and the necessary policy responses. ILRI researchers published a [review on how the decision support framework for Rift Valley fever \(RVF\)](#) has been utilized in Kenya since it was developed in 2012. The opportunities identified to disseminate the framework further were pursued in 2015; successful outcomes are described later in this report.

C.2 PROGRESS TOWARDS THE ACHIEVEMENT OF RESEARCH OUTCOMES AND IDOS

A4NH is committed to applying the knowledge generated by relevant research with our partners to practical situations that can improve diet quality, health, empowerment of women and poor communities, and create a more enabling environment for nutrition and health. A4NH is tracking progress by focusing on the recognition and use of research outputs by our partners, extension of technology/materials, and support to decisionmakers to create a more enabling environment for nutrition and health, especially within agricultural policy and investment.

Table 1. A4NH outcomes and achievements from 2015, by flagship

A4NH Outcomes for 2015-16 On-track or Slower than planned	Outcome-related achievements in 2015
Flagship 1: Value Chains for Enhanced Nutrition Contributes to IDOs on improved diet quality and better cross-sector programs, policies, and investments	
Evidence used to target additional work on value chain interventions using appropriate entry points and to strengthen design of value chain interventions for nutritious foods	<ul style="list-style-type: none"> Value chain framework and tools informed new research: CIAT-led grant in East Africa on beans and amaranth, IFPRI-led grant on multi-chain metrics and indicators, IFPRI-led evaluation in Bangladesh, IFAD projects on grains, tubers, vegetables, dairy, and fish, in Indonesia, Laos, Nicaragua, and Rwanda. Orange-fleshed sweet potato endorsed by stakeholders (public and private sectors, NGOs) in multi-faceted national strategy to combat vitamin A deficiency in Bangladesh
New partnerships created, tools and evidence used by researchers and practitioners to design additional projects that can achieve better results	<ul style="list-style-type: none"> WFP in Malawi, IFAD in multiple countries, and Feed the Children in Kenya, research partnerships related to nutrition-sensitive value chains. Wageningen UR, GAIN and national partners in focus countries, shifting focus to food systems. Food and pulse producer companies in India co-develop plans for a Pulse Innovation Platform with research partners.
Nutrition better integrated into FTA and systems CRPs*	<ul style="list-style-type: none"> Identified entry points for improving diets through greater production and consumption of locally available nutrient-dense foods, and methods for disseminating nutrition education materials (A4NH, w/HumidTropics and AAS).
Flagship 2: Biofortification Contributes to the IDOs on improved diet quality and better cross-sector programs, policies, and investments	
Development of high-yielding varieties with full target nutrient levels for release and multiplication by partners	<ul style="list-style-type: none"> Bangladesh released two zinc rice varieties. Zambia released three vitamin A orange maize varieties. Pakistan recommended zinc wheat for release.
Nutritional efficacy and effectiveness evidence informs public health enabling and actions for biofortification	<ul style="list-style-type: none"> WHO commissioned papers on topics related to biofortification to inform subsequent WHO/FAO policy recommendations (expected in 2016). Nutritional efficacy studies published on high iron beans, iron pearl millet, and vitamin A cassava; new research links OSP consumption to diarrhea reduction among young children.
Technical and policy support for enabling biofortification at global and national levels	<ul style="list-style-type: none"> Sample preparation procedures and fast and cost-effective XRF methods for Fe and Zn evaluation of biofortified sweetpotato and potato clones now applied by partners involved in micronutrient evaluation for biofortification breeding approach. Global Panel for Agriculture and Food Systems for Nutrition issued policy brief on evidence supporting biofortification for donors and governments. Several submissions advanced in Codex Committee on Nutrition and Foods for Special Dietary Uses co-led by Zimbabwe and South Africa and supported by HarvestPlus; led to approval at Codex Alimentarius Commission for new work sanctioned by 187 governments and 200 observer organizations.

Evidence from operational research informs partnerships for scale in 9 target and other expansion countries	<ul style="list-style-type: none"> Biofortified crops delivered through partners to almost 2 million households.
	<ul style="list-style-type: none"> Biofortification included as \$8 million component of a successful \$34 million proposal from World Vision to Global Affairs Canada. World Vision to expand biofortification in Kenya and Tanzania, with technical assistance from HarvestPlus, and to expand the reach of HarvestPlus programs in Bangladesh and Pakistan to new areas and populations through World Vision's programs. More World Vision offices incorporated biofortified crops in their programming: from 7 in 2014 to 15 in 2015.
Flagship 3: Agriculture-Associated Diseases Contributes to IDOs on reduced exposure to agriculture-associated diseases and better cross-sector programs, policies, and investments	
Evidence on health and economic burdens of food borne disease; technologies and practices being used at medium scale and with potential for large scale in Africa	<ul style="list-style-type: none"> Aflasafe KE01 registered and released for maize enabling its commercialization and allocation of resources by Kenyan government to scale-up adoption. Kenyan maize value chain stakeholders were convened by IFPRI to establish market linkages between providers of aflatoxin control technologies, farmer organizations in aflatoxin-prone areas, and millers offering premium prices for safe grain.
Influence on policy context at regional level and policy implementation in Kenya and Nigeria	<ul style="list-style-type: none"> East Africa Community (EAC) Multi-sectoral Ministerial Council reviewed 11 technical papers prepared by IITA, ILRI and other partners and adopted all policy recommendations; knowledge platform established by papers and preceding production process to build a regional aflatoxin abatement action plan is underway; 11 policy papers for the Regional Expert Working Group on Aflatoxin conferences (drafted by IITA) reflected condensed version of larger technical papers and included all recommendations previously approved by EAC Expert Working Groups during preceding workshops.
Evidence on health and economic burdens of food borne disease; technologies and practices being used at medium scale and with potential for large scale in countries where Livestock & Fish and system CRPs work.**	<ul style="list-style-type: none"> Foodborne Disease Burden Epidemiology Reference Group (FERG) of WHO produced first global assessment of food-borne disease. A member of the FERG who contributed to this report is a joint appointee at ILRI and the University of Liverpool. The report covered 31 foodborne disease hazards that together cause 600 million illnesses, 420,000 deaths and 22 million disability adjusted life years (DALYs): burden of foodborne disease is high; highest burden is in Africa, followed by Southeast Asia. IIED and ILRI issued policy brief describing positive long-term effects of training & certification scheme launched in 2006 among small scale milk vendors in Kenya and message that there needs to be long-term, genuine government commitment, stronger incentives for participation, and greater efforts to promote the scheme among traders and consumers to be sustainable.
Evidence informs policy and investments, tools and methods used by researchers and program implementers	<ul style="list-style-type: none"> RVF decision support framework used with Contingency Plan and other SOPs to support RVF control in Kenya. Regional conference convened by OIE concludes that it can be used in East Africa to assess level of preparedness. Zambia Agriculture Research Station establishes an aflatoxin testing facility in Eastern Zambia (where most groundnuts in Zambia are grown). Processed its first samples for aflatoxin analysis in 2015, including samples from COMACO, a peanut butter processing company. ICRISAT research and partnerships on groundnuts in Zambia have increased awareness about extent of aflatoxin contamination along groundnut value chain and importance of testing. Evidence on effects of Ecohealth approach on managing and controlling zoonotic and emerging diseases in Southeast Asia: (1) Ecohealth has been widely accepted and gained a remarkable amount of exposure in a relatively short time and (2) model used in Vietnam, coordinated by a jointly appointed researcher from ILRI and Hanoi School of Public Health, provides alternative to short courses led by northern universities which do not lead to recognized qualifications and not grounded in local contexts. ILRI has been an active partner in promoting and using Ecohealth in Southeast Asia.

Flagship 4: Integrated Programs and Policies	
Contributes to the IDOs on improved diet quality, better cross-sector programs, policies, and investments, and empowerment of women and poor communities	
Evidence generated on impact, design, delivery and cost-effectiveness of nutrition-sensitive agricultural programs and used to: (1) strengthen program design and operations; (2) achieve greater impacts and cost-effectiveness; and (3) stimulate investments in replicating, adapting and scaling-up agriculture-nutrition programs	<ul style="list-style-type: none"> Ministry of Agriculture in Bangladesh launched ANGeL to identify actions and investments in agriculture that can leverage agricultural development for improved nutrition and make recommendations on how to invigorate pathways to women’s empowerment, particularly through agriculture. PRADAN, one of India’s largest NGOs funded WINGS. Program evaluation, led by IFPRI, will generate evidence on most effective ways to design and implement agriculture- and livelihood-focused self-help group programs for women’s empowerment and nutritional benefit. BRAC and IFPRI launched TRAIN in Bangladesh. RCT will assess impact of incorporating a maternal and child health and nutrition behavior change communication strategy into an agricultural credit program targeted to women that promotes production diversity and income generation. Results from CIP-led baseline study used by Ministries of Health and Agriculture in Kenya to improve targeting of households with orange-fleshed sweet potato to address malnutrition.
Capacity strengthened among partners in designing gender-sensitive and nutrition sensitive programs and using impact pathway analysis methods for program strengthening and	<ul style="list-style-type: none"> GAAP2, led by IFPRI, funded by BMGF for second phase to generate evidence on impact of agricultural development projects on women’s empowerment and develop and validate approach to measuring women’s empowerment at project level. Includes at least 13 agricultural development projects; two communities of practice will be supported and training materials developed.
AU-NEPAD CAADP policy processes become more nutrition-sensitive through improved capacity to use evidence and information, and apply tools, methods and approaches to strengthen policy	<ul style="list-style-type: none"> CAADP Results Framework (2015-2025) includes nutrition indicators. Through blog posts, presentations, and other targeted communication, A4NH encouraged, and will continue to encourage, nutrition researchers to engage with CAADP processes, especially at national level to generate context specific evidence to inform policies and programs and monitor and evaluate progress.

Note:** 2015-16 achievements have been reduced because of unfavorable ISPC review and decisions to terminate the systems CRPs before Phase II begins; *Note:** Progress has been slower than expected due to significant cuts to W1/W2 funding. A large bilateral project was approved in early 2016 that will provide the rigorous evidence on impacts of the T&C scheme that was requested by the external evaluation panel.

MAJOR OUTCOME ACCOMPLISHMENTS TO DATE

Cumulatively, A4NH’s accomplishments since it began in 2012 are contributing towards the development impacts the program is designed to achieve. Some of the major outcomes achieved to date are summarized by flagship.

Flagship 1

- Value chain partners inside and outside CGIAR co-develop and publish a nutrition-sensitive value chains framework
- CGIAR Centers and partners in at least three new projects adapt a multi-chain approach useful for A4NH and partner research on food systems in Phase II

Flagship 2

- Critical partners in biofortification impact pathways aligned and working together in nine target countries
- Policymakers and investors in many target countries, including Bangladesh, Democratic Republic of Congo, Nigeria, Pakistan, Rwanda, Uganda, and Zambia, as well as several partnership countries have prioritized biofortification using evidence (e.g., Biofortification Prioritization Index, evidence from nutritional efficacy trials, and cost-effectiveness information) and support from flagship team
- Key enablers of biofortification – Codex Alimentarius, the Food and Agriculture Organization of the United Nations (FAO), and World Health Organization (WHO) – actively support an international and regional enabling environment for the scaling-out of biofortification
- CGIAR Centers agree to mainstreaming biofortification and are acting to implement

Flagship 3

- Regional policymakers – Partnership for Aflatoxin Control in Africa (PACA) and the East African Community (EAC) – incorporate evidence on aflatoxin risk and control into national policy and investment advice to member states
- National governments (Nigeria and Kenya) invest in aflasafe™ and other on-farm methods in reducing aflatoxins based on evidence of efficacy and technical support from A4NH researchers
- Donors and implementing partners demand efficacy and sustainability evidence on planning market-based interventions for food safety in informal markets

Flagship 4

- Program implementers, such as BRAC and HKI, use A4NH evidence and methods in design of new programs
- Networks and technical support providers for agriculture-nutrition programs, like Secure Nutrition, the Food and Nutrition Technical Assistance project (FANTA), FAO, the [Food Security Portal](#), and the Strengthening Partnerships, Results, and Innovations in Nutrition Globally project (SPRING), incorporate knowledge and evidence from A4NH researchers on agriculture-nutrition pathways
- International nutrition-sensitive strategies and investment cases influenced by A4NH outputs and activities. For example, part of the justification for the Scaling Up Nutrition movement (SUN) is the evidence cited in both Lancet series on Maternal and Child Nutrition (2008 and 2013) and the Third Copenhagen Consensus that investing in efforts to eliminate child malnutrition has multiple benefits. This evidence has been cited/reflected in many other strategic documents, including but not limited to: the Global Nutrition for Growth Compact (in 2013), USAID's Multi-Sectoral Nutrition Strategy for 2014-2025, the 2014 Rome Declaration on Nutrition and its Framework for Action endorsed at the Second International Conference on Nutrition (ICN2), and the BMGF 2015-2020 Nutrition Strategy.
- Leaders are aware and increasingly implement monitoring of progress at country level for increasing nutrition-sensitive investments and meeting nutrition targets.

C.3 Progress towards Impact

Flagship 2 is the nearest among all A4NH flagships to achieving development impacts at scale. In 2015, HarvestPlus and its partners delivered biofortified crops to 2 million households. Progress in establishing new or strengthening existing partnerships is described in different sections of this report. In order to learn from the success of the adoption of high iron beans (HIB) in Rwanda, HarvestPlus, the Rwanda Agriculture Board (RAB), and CIAT conducted an impact assessment study to understand the extent of iron bean adoption and diffusion. Results of a national representative listing exercise conducted in May-June 2015 (preceding the main household survey for the impact assessment) suggest that since the release of four iron bean varieties in 2010 and an additional six in 2012, 29% of rural bean-growing households have grown at least one iron bean variety. Extrapolating the 29% to the national-rural bean growing population, it is estimated that almost half a million rural Rwandan households have grown an iron bean variety since 2010. Full results of the [listing report](#) are available. Full results from the impact assessment, including findings on gender, will be available in 2016. Newly published research that used data from the evaluation of an intervention that disseminated [orange sweet potato](#) (OSP) in Mozambique from 2007-2009 found that it reduced diarrhea in children. For children under the age of five who ate OSP within the past week, there was a 42 percent reduction in the likelihood they would experience diarrhea. For children under three years of age who ate OSP, the likelihood of having diarrhea was reduced by more than half (52 percent). The OSP had an impact not only on reducing the incidence, but also the duration of diarrhea. For children who had diarrhea, eating OSP reduced the duration of the illness by more than 10 percent in children under five, and more than 25 percent in children aged under three.

D. GENDER RESEARCH ACHIEVEMENTS

Filling evidence gaps on women's time use in agriculture. Participants in the 2013 gender-nutrition methods workshop identified women's time use in agriculture and the impacts on nutrition as a high priority area for research. A4NH began pursuing this research area and results from a [systematic review](#) were completed in 2015 and disseminated through [blog posts](#), an IFPRI [policy seminar](#), a [side event](#) at the 5th Annual LCIRAH Conference, and videos posted on two different video channels.³ The evidence confirms that women play a key role in agriculture – as farmers or farmworkers – which is reflected in their time commitments to these activities. Nevertheless, frequently, these interventions tend to increase women's, men's, and children's time burdens. The studies in the review could not provide straightforward evidence on nutritional implications, but the authors identified four types of responses households could make to increased workload that would affect household nutrition. A4NH is supporting research to fill in these evidence gaps; results are expected after 2016.

Gender publications and resources. A4NH researchers published several gender-oriented results from ongoing projects in 2015, like the [role of gender in crop choice and plot management](#) in Mozambique, findings from the IFPRI-led RCT that the HKI project in Burkina Faso had positive impacts on attitudes about [gender norms on land and asset ownership](#), and what [dimensions of women's empowerment in agriculture are most critical for improving nutrition](#) in Ghana. The A4NH-hosted [Gender-Nutrition Idea Exchange](#), which was launched in 2014, had a successful year with more than 8,600 users and more than 10,600 sessions, or times when a user was actively engaged with the blog; 72.23% of these were new sessions.

Launch of new projects. This year, a number of bilateral, gender-focused projects co-funded by A4NH and led by IFPRI were launched, and will continue through Phase II. [ANGeL](#) is a three-year pilot project (2015-18) being implemented by the Ministry of Agriculture in Bangladesh and funded by USAID and A4NH, with technical assistance from IFPRI's Bangladesh Policy Research and Strategy Support Program and HKI. The Ministry of Agriculture plans to use the research-based evidence created by the pilot project to design, implement, and scale up the most effective country-wide interventions to improve nutrition and women's empowerment. The Gender, Agriculture and Assets Project (GAAP) received a second round of funding from the Bill and Melinda Gates Foundation (BMGF) to adapt and validate a measure of women's empowerment that agricultural development projects can use to diagnose key areas of women's (and men's) disempowerment, design appropriate strategies to address deficiencies, and monitor project outcomes related to women's empowerment. From 2015-2020, [GAAP2](#) will develop a pro-WEAI (based on the Women's Empowerment in Agriculture Index) then it will be tested in the GAAP2 projects, many of which are implemented by key A4NH partners, like AVRDC, Catholic Relief Services, HKI, and IFAD. GAAP2 selected two gender researchers from Bioversity and ILRI as GAAP2 fellows to work with the teams. IFPRI and PRADAN, one of India's largest NGOs, is implementing Women Improving Nutrition through Group-Based Strategies ([WINGS](#)), (2015-2019), also funded by BMGF. The purpose of the project is to generate evidence on the most effective ways to design and implement agriculture- and livelihood-focused self-help group programs for women's empowerment and nutritional benefit.

Update on CGIAR gender postdoctoral fellowships. In 2015, two postdoctoral fellows were recruited under the CO's Gender Research Action Plan. A4NH and PIM are jointly supporting [Greg Seymour](#) to work on quantitative measures of women's empowerment, using both existing nationally-representative datasets and survey data collected as part of nutrition-sensitive agricultural interventions. Greg joined IFPRI in May 2015. As part of his A4NH work, he contributed to papers on autonomy and decisionmaking indicators, and on innovative approaches to the collection of time use data, both of which are key dimensions of empowerment in agriculture. The second postdoctoral fellow, [Giordano Palloni](#), is working on bringing a value chain lens to the cross-CRP gender- agriculture-nutrition work led by A4NH, and bringing a gender lens to the empirical research on assessing the impacts of value chain interventions on nutrition and other key outcomes. Giordano, also hosted by IFPRI, collaborates with the CRPs on Livestock and Fish and Grain Legumes. After joining in June 2015, he began working on the Targeting and Realigning Agriculture for Improved Nutrition ([TRAIN](#)) project, a five year impact evaluation study comparing different modalities to integrate nutrition with agricultural programs with and without nutrition sensitive agricultural extension and male sensitization in Bangladesh. He is

³ [It is Time: Gendered Time Use in Agriculture-Nutrition Pathways](#) has received 125 views since it was posted in August 2015 on A4NH's Vimeo Channel and Women's Time in Agriculture and Nutrition has received 535 views since it was posted by LCIRAH/LIDC on YouTube in April 2015.

interacting with the other two CRPs to identify a second project.

Gender in the workplace. Personnel involvement at different levels of A4NH tends to be fairly gender balanced. The data in Table 2 come from Center reports to A4NH on personnel that report spending at least 10% of their time on A4NH activities, funded by all sources.

Table 2. Gender composition among categories of A4NH personnel

	Female	Male	Total	F/M
Director/Team Leader	7	5	12	1.4
Principal or Senior Scientist/Senior Research Fellow	11	26	37	0.4
Scientist/Research Fellow	22	57	79	0.4
Post-doc/Associate Research Fellow	12	3	15	4
Other scientific and support staff	73	73	146	1
TOTAL CRP	125	164	289	0.8

E. PARTNERSHIP BUILDING ACHIEVEMENTS

Researchers. To accelerate innovative research on method and metrics for designing and evaluating interventions and to foster a community of researchers working at the intersection of agriculture, nutrition and health, A4NH and the Leverhulme Centre for Innovative Research on Agriculture and Health (LCIRAH) initiated the Agriculture, Nutrition and Health Academy, which was [officially launched in June 2015](#). By the end of 2015, membership in the ANH Academy stood at 305 members with 30% coming from Africa south of the Sahara and 15% from South and Southeast Asia. Fifty-nine percent of the members occupy junior or mid-level positions in their institutions. The ANH Academy will hold its first scientific meeting in June 2016 in Addis Ababa.

A4NH invested in developing two new research partnerships as part of our preparation for Phase II. Wageningen UR has been invited to lead the Phase II flagship on Food Systems for Healthier Diets. A4NH and Wageningen co-organized workshops over the course of the year for researchers to engage around this new direction for research, including one workshop in Ethiopia with policymakers. A new, formalized link with the public health research community, convened by LSHTM, was also initiated. The intent is for LSHTM to co-lead the Phase II flagship on Improving Human Health with ILRI, conduct joint research with CGIAR scientists, and initiate a platform that can be used to facilitate the identification of collaborative research and the sharing of cross-sectoral research approaches and methods for CGIAR and public health researchers. This partnership will build upon the [regional public health consultations](#) A4NH convened during the first half of 2015. More information on both of these new partnerships is available in the [Partnership Annex](#) of the Full Proposal for Phase II.

CRPs. A4NH has continued to work with other CRPs in 2015 primarily on joint research and mutual learning and networking. Key strategies for Phase II on coordinating more directly with the other CRPs were described in the [A4NH Full Proposal](#). In 2015, the key partnerships with other CRPs, beyond the collaborations with the commodity CRPs in HarvestPlus that are part of Flagship 2, included:

- [Flagship 1](#). Convened with **Livestock and Fish** planning meeting for applying value chains framework to their value chains; convened exploratory meetings with **Grain Legumes** and partners in India on pulse innovation platform; joint research with **AAS** and **HumidTropics** on nutrition in livelihood and systems programming in Kenya, Vietnam and Zambia and co-development of nutrition-sensitive landscape frameworks and methods.
- [Flagship 3](#). Joint research with **Livestock and Fish** on food safety in informal markets in East Africa and India (dairy), Uganda and Vietnam (pork), and Zambia (fish); with **PIM**, **MAIZE** and **Grain Legumes** on aflatoxin control primarily in Africa; and with **CCAFS** on climate change and disease risks in Vietnam.
- [Flagship 4](#). Joint research with **PIM** on evaluations of social protection programs' impacts on nutrition.

Actors in Value Chains and Development Program Implementers. New partnerships have come from Bioversity's work on metrics for sustainable diets. This has led to increased collaboration with the [EAT initiative](#), an international consortium dedicated to addressing the issues of food, health, and sustainability across sectors, such as academia, business, politics, and civil society. Bioversity and EAT held a writeshop on one of EAT's priority thematic areas and

developed a background paper. A moderated panel session was jointly organized by Bioversity, EAT, and the Stockholm Resilience Center at the Global Landscapes Forum in Paris. In Vietnam, Bioversity has made efforts to collaborate with the private sector. Bioversity engaged with Fresh Studios, a Vietnamese consultancy firm that specializes in sustainable business development, to develop two funding proposals aiming to improve the quality of diets of the poor in Vietnam through combined dietary behavior change, production and market value chain interventions. New partnerships with stakeholders in the Kenyan maize value chain have come from IFPRI's work on testing procurement models for aflatoxin control technologies. The Eastern Africa Grain Council (EAGC), a membership organization of grain stakeholders throughout Eastern Africa, is a formal partner in a new research project funded by the Netherlands Organization for Scientific Research, along with IFPRI, IITA, and Wageningen UR.

HarvestPlus worked closely in 2015 with the INGO, World Vision, on country- and activity-specific proposals for expansion countries. Biofortification was included as a US\$8 million component of a US\$34 million grant proposal to Global Affairs Canada, entitled Enhancing Nutrition seRvices to Improve maternal and Child Health in Africa and Asia ([ENRICH](#)), which was funded in mid-2015. This grant will allow World Vision to expand biofortification in Kenya and Tanzania, with technical assistance from HarvestPlus, and to expand the reach of HarvestPlus programs in Bangladesh and Pakistan to new areas and populations through World Vision's programs. An increasing number of World Vision offices are incorporating biofortified crops in their programming. [WINGS](#) is implemented with PRADAN, a local NGO in India working with vulnerable, excluded communities to mobilize women's self-help groups (SHGs) on issues of social, political, and economic empowerment of women. IFPRI has embarked with a new division at BRAC, the micro-credit team, on the new [TRAIN](#) project. ICRAF established a partnership with INGO Feed the Children in Kenya to pilot an integrated agriculture and nutrition school learning program with fruit tree and vegetable demonstration plots. The National Institute of Nutrition in Vietnam has been engaged in Bioversity's activities in Vietnam, particularly through consultation during the development of adapted nutrition education materials and project objective setting to ensure that messaging and goals are in line with current national objectives. Provincial, communal and village health workers have been engaged for the implementation of the community-based NSL intervention.

Enablers (like policy and decisionmakers as well as investors who are all involved in the creation of enabling environments at different national, regional, and international levels). New partnerships through two projects in India (POSHAN and WINGS) have come about through significant stakeholder engagement with policymakers, such as the health financing community, Ministry of Health and Family Welfare, the Prime Minister's Office, and the National Institution for Transforming India. In Bangladesh, ANGeL serves as a mechanism to collaborate with the Government of Bangladesh through the Ministry of Agriculture to pilot strategies for reducing child malnutrition through the empowerment of women and diversification of agricultural production. The Fruiting Africa project has brought together multi-sectoral partners including Kenya's Ministry of Agriculture, Ministry of Health and Ministry of Education. ICRAF will continue, through a new bilateral grant in 2016 to upscale the program with these ministries and Feed the Children. CIP established new regional alliances in Bangladesh, including a strong multisectoral partnership with district authorities in Gaibandha district representing health, marketing, and education departments.

F. CAPACITY BUILDING

Capacity building is an important component of our ToC. Training provided by A4NH and partners in production, management, commercialization and nutrition education built capacity among more than 117,500 farmers, technicians, community resource persons, retailers and marketing representatives, caregivers, and policymakers, of whom around 78% were female. Students are the academics, decisionmakers and implementers of tomorrow. 111 master's and PhD-level students received long-term mentoring and support from A4NH researchers to conduct agriculture, nutrition and health research. With the investment in the ANH Academy, described earlier in this report, we expect these numbers to increase and to be able to share success stories in future reports.

Building research capacity. Building research capacity involves training, ongoing support, and mutual learning and networking. For example, HarvestPlus continues to build breeding and analytical capacity for biofortified traits with NARS in target countries. Following a proficiency study for carotenoid analysis carried out by EMBRAPA (Brazil) in 2014, it was determined that additional carotenoid analysis training was needed. HarvestPlus in collaboration with CIMMYT and ZARI provided a one-week training on carotenoid analysis in maize at ZARI with participation of the Malawi National Agricultural Research Institute. Furthermore, in an effort to provide clarity on the laboratory methodology involved during carotenoids quantification, a one-day workshop was conducted by CIMMYT with participation of the following

organizations: ZARI, the Malawi National Agricultural Research Institute, and the Zambian Bureau of Standards, Food and Drug Control Laboratories, IITA, and milling companies. CIP, as leader of the Nutritional Quality Assurance and Enhancement Network, finalized a manual on application of XRF technology on sweetpotato and potato, which will be used in training courses at partner institutions; 15 technicians and researchers from Africa were trained on how to apply the technology for micronutrient analysis. ILRI has worked with leading developing country research institutes, including the Public Health Foundation of India, Hanoi School of Public Health, KEMRI, and CSRS, to build institutional research capacity to use integrated approaches like Ecohealth. Through a collaborative project with IFPRI on markets for safe food, faculty and students at the University for Development Studies in Ghana have become proficient in aflatoxin testing using two analytical platforms. As part of Bioversity's collaboration with the EAT initiative, five young professionals and Bioversity partners from Ethiopia, Kenya, Vietnam, and Zambia were given the opportunity to attend the Global Landscapes Forum. This [video](#) describes their experiences and how each of them will integrate what they have learned into their own work.⁴

Building capacity of users of research. Besides researchers, there are three other groups of users of A4NH research: program implementers, actors in value chains, and enablers (policymakers and investors). A4NH builds capacity of these groups through things like short-term training courses, field demonstrations, and policy learning platforms. Some highlights in 2015 were ICRAF's work with the Kenyan Institute of Business Training to deliver a comprehensive training course to fruit producers and processors on issues of business development, management and negotiation skills to 20 representatives (50% female) of 14 fruit producer and processor groups in Machakos County. IFPRI built aflatoxin testing capacity among members of the Kenya Cereal Millers Association through a partnership with Texas A&M University. With Sokoine Agriculture University in Tanzania, ICRISAT established an enzyme linked immune sorbent assay (ELISA)-based aflatoxin diagnostic facility at SUA. FAO, with support from ILRI, held training workshops on good emergency management practices, building capacity on preparedness and control of key zoonoses with Rift Valley fever being used as a case study disease. ICRISAT held more than 200 field demonstrations to show the effectiveness of various integrated aflatoxin management techniques in Ghana, Mali and Nigeria, and 40 in India. In addition to strengthening the skills and capacity of policymakers and practitioners, the [Transforming Nutrition](#) short course has inspired participants to put these ideas and plans into action. The Nigerian cohort from the 2015 course continued to develop and implement the Nigeria nutrition advocacy action plan that they devised and presented during the course. They are working with the Northern State Governors Forum to set up meetings with all state governors within the DFID-funded Working to Improve Nutrition in Northern Nigeria (WINNN) program. WINNN has drawn on nutrition advocacy elements from the short course to develop a three-day training for (separately) media, CSOs, and State House of Assembly members. The training is followed by a two-day visit to communities in WINNN local government areas. The aim of the initiative is to harness these actors to demand the release of budgets and track the utilization of resources during implementation.

G. RISK MANAGEMENT

Since the inception of A4NH, the top three risks that A4NH management has been working to mitigate relate to: (1) partnerships, (2) clarifying expectations and demonstrating progress in achieving outcomes and impacts, and (3) improving performance management systems. However, in 2015, financial risks linked to drastic decreases in W1 funding had an important impact on performance in both Flagships 1 and 3. This problem will be even greater in 2016, and will slow the development of the new Phase II flagships on food systems and food safety, both very favorably reviewed in the A4NH pre-proposal. In the short-term, the major risk mitigation measure is to strengthen partnerships to improve the comparative advantage of A4NH with Wageningen UR, its public and private partners, and a public health research network convened by LSHTM. We also focused on strengthening country partnerships, through A4NH-linked initiatives such as [Together for Nutrition](#) and [Leveraging Agriculture for Nutrition in East Africa](#) (LANEA) and through engaging with larger processes such as the Global Nutrition Report and CAADP (aided by the IFPRI-facilitated ReSAKSS network). To mitigate the second long-term risk, we made major progress on generating evidence, with a growing portfolio of high-quality evaluations on agriculture- nutrition interventions; publications (widely cited and applied) and new research to improve our understanding of the role of agriculture in improving nutrition and health, including the critical role of empowerment; and development, application and publications of ToCs for key research areas plus using these to track short-term immediate results that are plausible in contributing to longer-term impacts. To mitigate the third risk related to performance-management, A4NH management continues to hold at least bi-annual

⁴ Click on the video link and enter the password, "Bioversity."

discussions with participating Centers (Center management and CFPs), which are documented in a performance monitoring memo and made available through our internal site, A4NH TeamSpace. The memo records progress on compliance with open access and open data policies, delivery of outputs and outcomes, and resource mobilization.

H. LESSONS LEARNED

We obtained useful advice from our [CRP-commissioned external evaluation](#). This advice, combined with advice from other evaluations, internal audits, ISPC commentaries, and lessons from interactions with A4NH participating Centers' management, led to two important changes to A4NH management that began in 2015 to prepare us for Phase II. The first related to strengthening the management partnership between A4NH and at least a sub-set of participating Centers. For functions demanded from A4NH, such as improving research quality, as well as strengthening relationships with national partners, the capacity lies within participating Centers. As a result, we will revise the management structure for Phase II, developing and testing the arrangements in 2016. We will have six managing partners (four from CGIAR and two from outside CGIAR) to co-manage A4NH with the Lead Center, IFPRI. Managing partners will be represented by Center leaders with authority to make decisions. The PMU will delegate responsibilities for flagship-level management and country partnerships to managing partners.

The second change will be for A4NH to play a more integrative role for nutrition and health outcomes across CGIAR. This reflects advice from the external evaluation, greater emphasis on nutrition and health under the new CGIAR SRF, and changes in the CGIAR research portfolio for Phase II. Beyond our core research, which is largely jointly conducted with other CRPs and external partners, the Phase II proposal describes what else A4NH can provide the CGIAR System: networking and mutual learning for agriculture-nutrition-health research and bridging the space between agriculture and the nutrition and health research and development communities.

Performance across the four A4NH flagships has been mixed, largely due to differences in resources (critical mass of people and funding) and experience. Flagships 2 and 4, larger and more mature research areas, have much more experience and skill in managing the elements of resource mobilization, and research planning, management, and reporting required to achieve programmatic results. These flagships are more than 80% funded by bilateral grants. For newer research areas, like Flagships 1 and 3, important results have been achieved in 2015, but building the critical mass that is necessary to accelerate outcomes and impacts at scale has been much slower and much more constrained by decreases in W1/W2 funding. For both, we made major changes, proposed and favorably assessed in the A4NH Phase II pre-proposal, that respond to changing demand, including in the revised CGIAR SRF. Flagship 1 will take on integrating functions – moving from value chains to food systems and supporting the AFS-CRPs on enhancing nutrition and health in value chains for their commodities. Wageningen UR will assume flagship leadership, bringing in more private sector partnerships and establishing critical mass and comparative advantage needed. In the new SRF, there is greater emphasis on health, with IDOs for improving food safety and improving human and animal health. Our pre-proposal responded to these opportunities and proposed two separate flagships, Food Safety and Improving Human Health. Food Safety will focus on joint research with agri- food system partners and Improving Human Health on joint research with public health programs. The evolving plans for food safety benefited greatly from advice from the [external evaluation](#) panel. LSHTM will co-lead Improving Human Health, providing more critical mass, overcoming perennial concerns of comparative advantage of A4NH in cross-sectoral agriculture and health research, and linking CGIAR to partnerships with public health. We appreciated the ISPC's support for the evolution of the A4NH research agenda and new partnership initiatives, which were described in the pre-proposal and have sought to address concerns and clarifications in the full proposal that was submitted at the end of March 2016.

I. FINANCIAL REPORTS

CRP No. 4.0 - CGIAR Research Program on Agriculture for Nutrition and Health (A4N)

Period: 01/01/2015- 12/31/2015

Amounts in USD (000's)

Cumulative Financial Summary



Report Descriptio

Name of Report: Cumuative Financial Summary

Frequency/Period: Annual

Deadline: Every April 15th

Partners	(a) Total POWB budget since inception					(b) Actual cumulative Expenses					(c) Variance / Balance				
	Windows					Windows					Windows				
	1 & 2	Window 3	Bilateral Funding	Centerfunds	Total Funding	1 & 2	Window 3	Bilateral Funding	Centerfunds	Total Funding	1 & 2	Window 3	Bilateral Funding	Center funds	Total Funding
1. AFRICARICE					-					-					-
2. BIOVERSITY	6329.00	5591.06	7112.86	164.49	19,197	6102.00	4925.38	6322.13	291.36	17,641	227	666	791	(127)	1,557
3. CIAT	16985.61	1658.29	46830.86	0.00	65,475	17672.00	616.00	54738.00	0.00	73,026	(686)	1,042	(7,907)	-	(7,551)
4. CIFOR					-					-					-
5. CIMMYT	5345.79	5034.76	3425.00	0.00	13,806	5346.25	4838.22	3228.46	0.00	13,413	(0)	197	197	-	393
6. CIP	1702.49	4142.00	0.00	0.00	5,844	1682.00	3083.00	0.00	0.00	4,765	20	1,059	-	-	1,079
7. ICARDA					-					-					-
8. ICRAF	1357.00	733.00	2191.00	0.00	4,281	1357.00	616.00	607.00	0.00	2,580	-	117	1,584	-	1,701
9. ICRISAT	6039.36	3780.00	124.71	0.00	9,944	5778.27	2218.54	109.30	0.00	8,106	261	1,561	15	-	1,838
10. IFPRI	19948.06	26967.00	49291.00	707.00	96,913	17570.21	31099.00	43472.00	749.00	92,890	2,378	(4,132)	5,819	(42)	4,023
11. IITA	8042.00	3575.00	26105.00	0.00	37,722	8042.00	4204.00	17335.00	0.00	29,581	-	(629)	8,770	-	8,141
12. ILRI	12636.98	1839.98	10347.22	0.00	24,824	12926.92	1679.74	8722.47	0.00	23,329	(290)	160	1,625	-	1,495
13. IRRI	3056.00	2018.00	3898.00	0.00	8,972	3133.00	1856.00	3075.00	0.00	8,064	(77)	162	823	-	908
14. IWMI					-					-					-
15. WORLDFISH	451.00	0.00	712.00	0.00	1,163	428.00	0.00	704.00	0.00	1,132	23	-	8	-	31
Total for CRP	81,893	55,339	150,038	871	288,142	80,038	55,136	138,313	1,040	274,527	1,856	203	11,724	(169)	13,614
	28%	19%	52%	0%	100%	29%	20%	50%	0%	100%	14%	1%	86%	-1%	100%

CRP No. 4.0 - CGIAR Research Program on Agriculture for Nutrition and Health (A4N)

Period:

Amounts in USD (000's)

Annual Financial Summary by Centers



Report Description

Name of Report: Annual Financial Summary by Centers & Other Participants

Frequency/Period: Annual

Deadline: Every April 15th

Summary Report - by CG Partners

	(a) CRP 2015 POWB approved budget					(b) CRP 2015 Expenditure					(c) Variance this Year				
	Windows					Windows					Windows				
	1 & 2	Window 3	Bilateral Funding	Center funds	Total Funding	1 & 2	Window 3	Bilateral Funding	Center funds	Total Funding	1 & 2	Window 3	Bilateral Funding	Center funds	Total Funding
1. AFRICARICE					-					-					-
2. BIODIVERSITY	1,570	431	1,953	164	4,119	1,343	166	1,563	291	3,364	227	265	390	(127)	755
3. CIAT	1,736	711	15,291	-	17,739	2,422	283	18,713	-	21,418	(686)	429	(3,422)	-	(3,679)
4. CIFOR					-					-					-
5. CIMMYT	1,921	1,610	-	-	3,531	1,921	1,610	-	-	3,531	(0)	(1)	-	-	(1)
6. CIP	322	2,419	-	-	2,741	302	2,419	-	-	2,721	20	-	-	-	20
7. ICARDA					-					-					-
8. ICRAF	238	504	55	-	797	237	386	49	-	672	1	118	6	-	125
9. ICRISAT	1,138	940	29	-	2,106	876	760	29	-	1,665	261	180	0	-	441
10. IFPRI	7,479	19,777	16,491	300	44,047	5,745	19,777	16,492	-	42,014	1,734	-	(1)	300	2,034
11. IITA	1,277	1,556	6,246	-	9,079	1,277	1,726	5,316	-	8,319	-	(170)	930	-	760
12. ILRI	3,203	413	3,053	-	6,670	3,493	542	1,820	-	5,855	(290)	(129)	1,233	-	814
13. IRRI	1,038	-	1,880	-	2,918	1,115	-	1,218	-	2,333	(77)	-	662	-	585
14. IWMI					-					-					-
15. WORLDFISH	160	-	96	-	256	137	-	74	-	211	23	-	22	-	45
Total for CRP	20,082	28,361	45,095	464	94,003	18,869	27,670	45,274	291	92,103	1,214	692	(179)	173	1,899
	21%	30%	48%	0%	100%	20%	30%	49%	0%	100%	64%	36%	-9%	9%	100%

Annual Financial Summary by Natural Classification



CRP No.4.0 - CGIAR Research Program on Agriculture for Nutrition and Health (A4NH)

Period:

Amounts in USD 000's

Report Description

Name of Report: Financial Summary by Natural Classification lines
Frequency/Period: Annual
Deadline: Every April 15th

	Financial Summary by Natural Classification lines					Financial Summary by Natural Classification lines					Financial Summary by Natural Classification lines				
	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding
Total CRP 4.0	POWB Approved Budget					Actual					Unspent/Variance				
Personnel	8,332	8,894	10,689	265	28,181	7,385	8,373	9,555	17	25,329	948	521	1,134	249	2,851
Collaborators Costs - CGIAR Centers	8,590	20,308	1,281	-	30,179	8,981	20,308	5,538	-	34,827	(391)	-	(4,256)	-	(4,647)
Collaborator Costs - Partners	1,712	9,993	16,659	-	28,364	2,075	9,994	15,703	-	27,772	(363)	(0)	956	-	592
Supplies and services	6,156	4,465	9,664	28	20,314	5,738	4,640	12,832	50	23,260	418	(175)	(3,168)	(22)	(2,946)
Operational Travel	1,048	1,109	2,017	-	4,174	938	948	2,055	-	3,941	111	161	(39)	-	234
Depreciation	138	430	686	-	1,253	142	318	286	-	746	(4)	112	400	-	508
Sub-total of Direct Costs	25,977	45,199	40,996	293	112,466	25,258	44,580	45,970	66	115,874	718	619	(4,973)	227	(3,409)
Indirect Costs	2,696	3,469	5,380	171	11,716	2,591	3,397	4,842	225	11,056	105	72	538	(54)	660
Total - All Costs	28,673	48,669	46,376	464	124,182	27,850	47,977	50,812	291	126,930	823	692	(4,436)	173	(2,748)
LESS Coll Costs CGIAR Centers	<u>(8,590.3)</u>	<u>(20,307.8)</u>	<u>(1,281.3)</u>	-	<u>(30,179)</u>	<u>(8,981)</u>	<u>(20,308)</u>	<u>(5,538)</u>	-	<u>(34,827)</u>	<u>391</u>	-	<u>4,256</u>	-	<u>4,647</u>
Total Net Costs	20,082	28,361	45,095	464	94,003	18,869	27,670	45,274	291	92,103	1,214	692	(179)	173	1,899

Amounts for each participating center below:

	POWB Approved Budget					Actual					Unspent/Variance				
	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding
BIOVERSITY	POWB Approved Budget					Actual					Unspent/Variance				
Personnel	793	115	355	9	1,272	588	44	284	17	933	205	71	71	(7)	339
Collaborators Costs - CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collaborator Costs - Partners	153	88	981	-	1,222	115	34	785	-	935	38	54	196	-	288
Supplies and services	302	175	477	28	982	404	68	382	50	903	(102)	108	95	(22)	79
Operational Travel	73	20	39	-	131	21	8	31	-	60	51	12	8	-	71
Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sub-total of Direct Costs	1,320	399	1,852	37	3,608	1,129	154	1,482	66	2,831	191	245	370	(29)	777
Indirect Costs	251	32	101	127	511	214	12	81	225	533	36	20	20	(98)	(22)
Total - All Costs	1,570	431	1,953	164	4,119	1,343	166	1,563	291	3,364	227	265	390	(127)	755
LESS Coll Costs CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Net Costs	1,570	431	1,953	164	4,119	1,343	166	1,563	291	3,364	227	265	390	(127)	755
CIAT	POWB Approved Budget					Actual					Unspent/Variance				
Personnel	720	300	3,390	-	4,410	679	68	3,651	-	4,398	41	232	(261)	-	12
Collaborators Costs - CGIAR Centers	3,301	-	1,584	-	4,885	3,566	-	5,841	-	9,407	(265)	-	(4,256)	-	(4,522)
Collaborator Costs - Partners	82	-	4,817	-	4,899	689	-	5,361	-	6,050	(607)	-	(544)	-	(1,151)
Supplies and services	497	249	4,028	-	4,775	610	150	6,567	-	7,328	(113)	99	(2,539)	-	(2,553)
Operational Travel	118	75	515	-	708	88	30	1,002	-	1,121	29	45	(487)	-	(413)
Depreciation	7	-	118	-	125	-	-	64	-	64	7	-	54	-	61
Sub-total of Direct Costs	4,725	624	14,453	-	19,802	5,633	249	22,486	-	28,367	(908)	375	(8,033)	-	(8,566)
Indirect Costs	312	87	2,423	-	2,822	356	34	2,068	-	2,458	(44)	53	355	-	365
Total - All Costs	5,037	711	16,876	-	22,624	5,988	283	24,554	-	30,825	(951)	429	(7,678)	-	(8,201)
LESS Coll Costs CGIAR Centers	<u>(3,301.1)</u>	-	<u>(1,584)</u>	-	<u>(4,885)</u>	<u>(3,566)</u>	-	<u>(5,841)</u>	-	<u>(9,407)</u>	<u>265</u>	-	<u>4,256</u>	-	<u>4,522</u>
Total Net Costs	1,736	711	15,291	-	17,739	2,422	283	18,713	-	21,418	(686)	429	(3,422)	-	(3,679)

	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding
CIMMYT	POWB Approved Budget					Actual					Unspent/Variance				
Personnel	672	564	-	-	1,236	672	564	-	-	1,236	-	-	-	-	-
Collaborators Costs - CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collaborator Costs - Partners	57	-	-	-	57	57	-	-	-	57	-	-	-	-	-
Supplies and services	845	756	-	-	1,601	845	756	-	-	1,601	(0)	(1)	-	-	(1)
Operational Travel	77	64	-	-	141	77	64	-	-	141	-	-	-	-	-
Depreciation	19	16	-	-	35	19	16	-	-	35	-	-	-	-	-
Sub-total of Direct Costs	1,670	1,400	-	-	3,070	1,671	1,400	-	-	3,071	(0)	(1)	-	-	(1)
Indirect Costs	251	210	-	-	461	251	210	-	-	461	(0)	-	-	-	(0)
Total - All Costs	1,921	1,610	-	-	3,531	1,921	1,610	-	-	3,531	(0)	(1)	-	-	(1)
LESS Coll Costs CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Net Costs	1,921	1,610	-	-	3,531	1,921	1,610	-	-	3,531	(0)	(1)	-	-	(1)
CIP	POWB Approved Budget					Actual					Unspent/Variance				
Personnel	96	449	-	-	545	104	449	-	-	553	(8)	-	-	-	(8)
Collaborators Costs - CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collaborator Costs - Partners	39	1,170	-	-	1,209	48	1,170	-	-	1,218	(9)	-	-	-	(9)
Supplies and services	105	427	-	-	532	93	427	-	-	520	12	-	-	-	12
Operational Travel	39	58	-	-	97	18	58	-	-	76	21	-	-	-	21
Depreciation	-	(1)	-	-	(1)	-	(1)	-	-	(1)	-	-	-	-	-
Sub-total of Direct Costs	279	2,103	-	-	2,382	263	2,103	-	-	2,366	16	-	-	-	16
Indirect Costs	43	316	-	-	359	39	316	-	-	355	4	-	-	-	4
Total - All Costs	322	2,419	-	-	2,741	302	2,419	-	-	2,721	20	-	-	-	20
LESS Coll Costs CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Net Costs	322	2,419	-	-	2,741	302	2,419	-	-	2,721	20	-	-	-	20
ICRISAT	POWB Approved Budget					Actual					Unspent/Variance				
Personnel	433	203	8	-	644	319	185	8	-	512	114	18	-	-	132
Collaborators Costs - CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collaborator Costs - Partners	37	277	-	-	314	-	216	-	-	216	37	61	-	-	98
Supplies and services	455	299	15	-	769	366	236	15	-	617	89	63	-	-	152
Operational Travel	54	29	5	-	88	57	21	5	-	83	(3)	8	0	-	5
Depreciation	2	3	-	-	5	13	-	-	-	13	(11)	3	-	-	(8)
Sub-total of Direct Costs	981	811	29	-	1,820	754	658	29	-	1,441	226	153	0	-	379
Indirect Costs	157	129	-	-	286	122	102	-	-	224	35	27	-	-	62
Total - All Costs	1,138	940	29	-	2,106	876	760	29	-	1,665	261	180	0	-	441
LESS Coll Costs CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Net Costs	1,138	940	29	-	2,106	876	760	29	-	1,665	261	180	0	-	441

	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding
IFPRI	POWB Approved Budget					Actual					Unspent/Variance				
Personnel	3,655	6,167	3,216	256	13,295	2,361	6,167	3,216	-	11,745	1,294	-	(0)	256	1,550
Collaborators Costs - CGIAR Centers	5,289	20,308	(303)	-	25,294	5,415	20,308	(303)	-	25,419	(126)	-	-	-	(126)
Collaborator Costs - Partners	1,005	8,258	9,118	-	18,381	903	8,258	9,118	-	18,278	102	-	-	-	102
Supplies and services	1,481	2,105	2,021	-	5,607	1,263	2,105	2,022	-	5,389	218	-	(1)	-	217
Operational Travel	358	584	347	-	1,289	286	584	347	-	1,216	73	-	(0)	-	73
Depreciation	75	264	137	-	477	103	264	137	-	505	(28)	-	-	-	(28)
Sub-total of Direct Costs	11,864	37,685	14,536	256	64,341	10,331	37,685	14,537	-	62,553	1,533	-	(1)	256	1,788
Indirect Costs	904	2,400	1,652	44	5,000	828	2,400	1,652	-	4,880	76	-	(0)	44	120
Total - All Costs	12,768	40,085	16,188	300	69,341	11,160	40,085	16,189	-	67,433	1,609	-	(1)	300	1,908
LESS Coll Costs CGIAR Centers	(5,289)	(20,308)	303	-	(25,294)	(5,415)	(20,308)	303	-	(25,419)	(126)	-	-	-	126
Total Net Costs	7,479	19,777	16,491	300	44,047	5,745	19,777	16,492	-	42,014	1,483	-	(1)	300	2,034
IITA	POWB Approved Budget					Actual					Unspent/Variance				
Personnel	518	592	1,326	-	2,436	773	469	1,319	-	2,561	(255)	123	7	-	(125)
Collaborators Costs - CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collaborator Costs - Partners	69	145	1,155	-	1,369	6	109	232	-	347	63	36	923	-	1,022
Supplies and services	323	350	1,879	-	2,552	165	776	2,604	-	3,544	159	(426)	(725)	-	(992)
Operational Travel	149	195	864	-	1,208	151	132	449	-	731	(2)	64	416	-	478
Depreciation	-	99	388	-	487	1	39	59	-	99	(1)	60	329	-	388
Sub-total of Direct Costs	1,059	1,381	5,612	-	8,052	1,095	1,524	4,662	-	7,281	(36)	(143)	950	-	771
Indirect Costs	218	175	634	-	1,027	182	202	654	-	1,038	36	(27)	(20)	-	(11)
Total - All Costs	1,277	1,556	6,246	-	9,079	1,277	1,726	5,316	-	8,319	-	(170)	930	-	760
LESS Coll Costs CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Net Costs	1,277	1,556	6,246	-	9,079	1,277	1,726	5,316	-	8,319	-	(170)	930	-	760
ILRI	POWB Approved Budget					Actual					Unspent/Variance				
Personnel	943	142	1,352	-	2,437	1,331	196	726	-	2,253	(388)	(54)	626	-	184
Collaborators Costs - CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collaborator Costs - Partners	179	55	485	-	719	165	206	105	-	476	14	(151)	381	-	243
Supplies and services	1,591	105	598	-	2,294	1,408	51	586	-	2,045	183	54	12	-	249
Operational Travel	100	57	193	-	350	160	18	159	-	337	(60)	39	34	-	13
Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sub-total of Direct Costs	2,812	359	2,629	-	5,800	3,064	471	1,576	-	5,111	(252)	(112)	1,053	-	689
Indirect Costs	391	54	425	-	870	429	71	244	-	744	(38)	(17)	181	-	126
Total - All Costs	3,203	413	3,053	-	6,670	3,493	542	1,820	-	5,855	(290)	(129)	1,233	-	814
LESS Coll Costs CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Net Costs	3,203	413	3,053	-	6,670	3,493	542	1,820	-	5,855	(290)	(129)	1,233	-	814
IRRI	POWB Approved Budget					Actual					Unspent/Variance				
Personnel	307	-	989	-	1,296	335	-	312	-	647	(28)	-	677	-	649
Collaborators Costs - CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collaborator Costs - Partners	89	-	102	-	191	89	-	102	-	191	-	-	-	-	-
Supplies and services	450	-	567	-	1,017	502	-	592	-	1,094	(52)	-	(25)	-	(77)
Operational Travel	48	-	48	-	96	63	-	50	-	113	(15)	-	(2)	-	(17)
Depreciation	32	-	43	-	75	5	-	30	-	35	27	-	13	-	40
Sub-total of Direct Costs	926	-	1,749	-	2,675	994	-	1,086	-	2,080	(68)	-	663	-	595
Indirect Costs	112	-	131	-	243	121	-	132	-	253	(9)	-	(1)	-	(10)
Total - All Costs	1,038	-	1,880	-	2,918	1,115	-	1,218	-	2,333	(77)	-	662	-	585
LESS Coll Costs CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Net Costs	1,038	-	1,880	-	2,918	1,115	-	1,218	-	2,333	(77)	-	662	-	585

	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding
WORLD AGROFORESTRY	POWB Approved Budget					Actual					Unspent/Variance				
Personnel	145	362	23	-	530	164	230	12	-	406	(19)	132	11	-	124
Collaborators Costs - CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collaborator Costs - Partners	3	-	-	-	3	3	1	-	-	4	-	(1)	-	-	(1)
Supplies and services	28	-	24	-	52	23	72	22	-	117	5	(72)	2	-	(65)
Operational Travel	29	27	1	-	57	16	33	9	-	58	13	(6)	(8)	-	(1)
Depreciation	2	49	-	-	51	-	-	-	-	-	2	49	-	-	51
Sub-total of Direct Costs	207	438	48	-	693	206	336	43	-	585	1	102	5	-	108
Indirect Costs	31	66	7	-	104	31	50	6	-	87	-	16	1	-	17
Total - All Costs	238	504	55	-	797	237	386	49	-	672	1	118	6	-	125
LESS Coll Costs CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Net Costs	238	504	55	-	797	237	386	49	-	672	1	118	6	-	125
WORLD FISH	POWB Approved Budget					Actual					Unspent/Variance				
Personnel	50	-	30	-	80	58	-	27	-	85	(8)	-	3	-	(5)
Collaborators Costs - CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collaborator Costs - Partners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Supplies and services	80	-	54	-	134	60	-	42	-	102	20	-	12	-	32
Operational Travel	4	-	5	-	9	1	-	4	-	5	3	-	1	-	4
Depreciation	-	-	-	-	-	-	-	(4)	-	(4)	-	-	4	-	4
Sub-total of Direct Costs	134	-	89	-	223	119	-	69	-	188	15	-	20	-	35
Indirect Costs	26	-	7	-	33	18	-	5	-	23	8	-	2	-	10
Total - All Costs	160	-	96	-	256	137	-	74	-	211	23	-	22	-	45
LESS Coll Costs CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Net Costs	160	-	96	-	256	137	-	74	-	211	23	-	22	-	45
PMU	POWB Approved Budget					Actual					Unspent/Variance				
Personnel	1,000	-	-	-	1,000	910	-	-	-	910	90	-	-	-	90
Collaborators Costs - CGIAR Centers	-	-	-	-	-	3	-	-	-	3	(3)	-	-	-	(3)
Collaborator Costs - Partners	450	-	-	-	450	443	-	-	-	443	7	-	-	-	7
Supplies and services	375	-	-	-	375	247	-	-	-	247	128	-	-	-	128
Operational Travel	255	-	-	-	255	101	-	-	-	101	154	-	-	-	154
Depreciation	-	-	-	-	-	36	-	-	-	36	(36)	-	-	-	(36)
Sub-total of Direct Costs	2,080	-	-	-	2,080	1,740	-	-	-	1,740	340	-	-	-	340
Indirect Costs	354	-	-	-	354	280	-	-	-	280	74	-	-	-	74
Total - All Costs	2,434	-	-	-	2,434	2,020	-	-	-	2,020	414	-	-	-	414
LESS Coll Costs CGIAR Centers	-	-	-	-	-	(3)	-	-	-	(3)	3	-	-	-	3
Total Net Costs	2,434	-	-	-	2,434	2,017	-	-	-	2,017	417	-	-	-	417

CRP No. 4.0 - CGIAR Research Program on A
 Period:
 Amounts in USD 000's

Summary by Flagship Project



Report Description

Name of Report:	Financial Summary by Flagship Project
Frequency/Period:	Annual
Deadline:	Every April 15th

	POWB Approved	Current Year Actual Expenditures	Unspent Budget
Summary Report - by Flagship Project			
Flagship Project 1	7,817	6,669	1,148
Flagship Project 2	42,436	44,984	(2,548)
Flagship Project 3	11,684	10,310	1,374
Flagship Project 4	29,632	28,121	1,511
Flagship Project 5	-	-	-
Gender at PMU level	307	308	(1)
CRP Management/Coordination	2,127	1,712	415
*Total - All Costs	94,003	92,104	1,899
*Less Center Transfer for HP/Biofortification and CIAT			-
BIOVERSITY			
Flagship Project 1	2,572.00	1,815.00	757.00
Flagship Project 2			-
Flagship Project 3			-
Flagship Project 4	1,547.00	1,549.00	(2.00)
Flagship Project 5			-
CRP Management/Coordination			-
Total - All Costs	4,119.00	3,364.00	755.00
CIAT			
Flagship Project 1	957.00	796.00	161.00
Flagship Project 2	17,738.68	21,418.02	(3,679.34)
Flagship Project 3			-
Flagship Project 4			-
Flagship Project 5			-
CRP Management/Coordination			-
Total - All Costs	18,695.68	22,214.02	(3,518.34)

	POWB Approved	Current Year Actual Expenditures	Unspent Budget
CIMMYT			
Flagship Project 1			-
Flagship Project 2	3,529.00	3,552.00	(23.00)
Flagship Project 3			-
Flagship Project 4			-
Flagship Project 5			-
CRP Management/Coordination			-
Total - All Costs	3,529.00	3,552.00	(23.00)
CIP			
Flagship Project 1	2,045.00	2,045.00	-
Flagship Project 2	697.00	676.00	21.00
Flagship Project 3			-
Flagship Project 4			-
Flagship Project 5			-
CRP Management/Coordination			-
Total - All Costs	2,742.00	2,721.00	21.00
ICRISAT			
Flagship Project 1			-
Flagship Project 2	1,446.00	1,216.70	229.30
Flagship Project 3	660.48	448.59	211.89
Flagship Project 4			-
Flagship Project 5			-
CRP Management/Coordination			-
Total - All Costs	2,106.48	1,665.29	441.19
IFPRI			
Flagship Project 1	318	317	0.54
Flagship Project 2	11,850	11,886	(36.74)
Flagship Project 3	403	401	2.03
Flagship Project 4	28,085	26,572	1,512.84
Flagship Project 5	-	-	-
CRP Management/Coordination	2,434	2,020	414.18
Total - All Costs	43,089.35	41,196.51	1,892.84
IITA			
Flagship Project 1	702.00	643.00	59.00
Flagship Project 2	4,258.00	3,902.00	356.00
Flagship Project 3	4,120.00	3,775.00	345.00
Flagship Project 4			-
Flagship Project 5			-
CRP Management/Coordination			-
Total - All Costs	9,080.00	8,320.00	760.00

	POWB Approved	Current Year Actual Expenditures	Unspent Budget
ILRI			
Flagship Project 1	170.04	170.04	-
Flagship Project 2			-
Flagship Project 3	6,500.00	5,684.96	815.04
Flagship Project 4			-
Flagship Project 5			-
CRP Management/Coordination			-
Total - All Costs	6,670.04	5,855.00	815.04

IRRI			
Flagship Project 1			-
Flagship Project 2	2,918.00	2,333.00	585.00
Flagship Project 3			-
Flagship Project 4			-
Flagship Project 5			-
CRP Management/Coordination			-
Total - All Costs	2,918.00	2,333.00	585.00

WORLD AGROFORESTRY CENTRE (ICRAF)			
Flagship Project 1	797.00	672.00	125.00
Flagship Project 2			-
Flagship Project 3			-
Flagship Project 4			-
Flagship Project 5			-
CRP Management/Coordination			-
Total - All Costs	797.00	672.00	125.00

WORLD FISH			
Flagship Project 1	256.00	211.00	45.00
Flagship Project 2			-
Flagship Project 3			-
Flagship Project 4			-
Flagship Project 5			-
CRP Management/Coordination			-
Total - All Costs	256.00	211.00	45.00

CRP No. 4.0 - CGIAR Research Program on A
 Period:
 Amounts in USD 000's

Annual Financial Summary of Gender by Flagship Project



Report Description

Name of Report:	Financial Summary of Gender Expenditure by Flagship Project
Frequency/Period:	Annual
Deadline:	Every April 15th

	POWB Approved	Current Year Actual Expenditures	Unspent Budget
Summary Gender Report - byFlagship Project			
Flagship Project 1	3,202	2,913	289
Flagship Project 2	1,940	1,908	32
Flagship Project 3	1,818	1,599	219
Flagship Project 4	14,584	13,828	756
Flagship Project 5	-	-	-
Total - All Costs	21,544	20,249	1,295
	23%	22%	
BIOVERSITY			
Flagship Project 1	900	635	265.16
Flagship Project 2	-	-	-
Flagship Project 3	-	-	-
Flagship Project 4	541	542	(0.92)
Flagship Project 5	-	-	-
Total - All Costs	1,442	1,177	264
CIAT			
Flagship Project 1			-
Flagship Project 2	177.39	177.39	-
Flagship Project 3			-
Flagship Project 4			-
Flagship Project 5			-
Total - All Costs	177.39	177.39	-
CIFOR			
Flagship Project 1			-
Flagship Project 2			-
Flagship Project 3			-
Flagship Project 4			-
Flagship Project 5			-
Total - All Costs	-	-	-
CIMMYT			
Flagship Project 1			-
Flagship Project 2	875.00	873.00	2.00
Flagship Project 3			-
Flagship Project 4			-
Flagship Project 5			-
Total - All Costs	875.00	873.00	2.00

	POWB Approved	Current Year Actual Expenditures	Unspent Budget
CIP			
Flagship Project 1	2,045.00	2,045.00	-
Flagship Project 2	697.00	676.00	21.00
Flagship Project 3			-
Flagship Project 4			-
Flagship Project 5			-
Total - All Costs	2,742.00	2,721.00	21.00
ICRISAT			
Flagship Project 1	144.60	121.67	22.93
Flagship Project 2			-
Flagship Project 3	66.05	44.86	21.19
Flagship Project 4			-
Flagship Project 5			-
Total - All Costs	210.65	166.53	44.12
IFPRI			
Flagship Project 1	3.18	3.17	0.01
Flagship Project 2	118.50	118.86	(0.37)
Flagship Project 3	40.30	40.10	0.20
Flagship Project 4	14,042.62	13,286.20	756.42
Flagship Project 5			-
Total - All Costs	14,204.60	13,448.33	756.26
IITA			
Flagship Project 1	7.02	6.43	0.59
Flagship Project 2	42.58	39.02	3.56
Flagship Project 3	412.00	377.50	34.50
Flagship Project 4			-
Flagship Project 5			-
Total - All Costs	461.60	422.95	38.65
ILRI			
Flagship Project 1	102.03	102.03	-
Flagship Project 2			-
Flagship Project 3	1,300.00	1,136.99	163.01
Flagship Project 4			-
Flagship Project 5			-
Total - All Costs	1,402.03	1,239.02	163.01

	POWB Approved	Current Year Actual Expenditures	Unspent Budget
IRRI			
Flagship Project 1			-
Flagship Project 2	29.18	23.33	5.85
Flagship Project 3			-
Flagship Project 4			-
Flagship Project 5			-
Total - All Costs	29.18	23.33	5.85
WORLD AGROFORESTRY CENTRE (ICRAF)			
Flagship Project 1			-
Flagship Project 2			-
Flagship Project 3			-
Flagship Project 4			-
Flagship Project 5			-
Total - All Costs	#REF!	#REF!	#REF!
WORLD FISH			
Flagship Project 1			-
Flagship Project 2			-
Flagship Project 3			-
Flagship Project 4			-
Flagship Project 5			-
Total - All Costs	#REF!	#REF!	#REF!

CRP No.4.0 - CGIAR Research Program on Agric

Period:

Amounts in USD 000's

CRP Partnership Report



Science for a food secure future

Report Description

Name of Report: CRP Partnerships Report

Frequency/Period: Annual

Deadline: Every April 15th

TOTAL FOR CRP 4.0				Actual Expenses - This Year				
Item	Institute Acronym	Institute Name	Country	Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
1	ACIPH	Addis Continental Institute Of Public Health	Ethiopia				377	377
2	AFRICA 2000 NETWORK UGANDA	Africa 2000 Network Uganda	Uganda		65			65
3	AFRICSANTE	Agence De Formation, De Recherche & D'E	Burkina Faso			675		675
4	AJEET SEED	Ajeet Seeds Ltd	India		3			3
5	AKADEP	Akwa Ibom Agricultural Development Progr	Nigeria		115			115
6	ALL OTHER PARTNERS (<\$50K)	All Other Partners (<\$50K)		424	1,960	896		3,280
7	ANSA	Associação De Nutrição E Segurança Alimen	Mozambique			87		87
8	APHRC	African Population & Health Research Ctr	Kenya			79		79
9	ARI-MARUKU	Agricultural Research Institute	Tanzania		16			16
10	ARTI ROLLER FLOUR INDUSTRIES LTD	Arti Roller Flour Industries Ltd	India			79		79
11	AVRDC BANARAS HINDU UNIVERSITY, VARANASI	Asian Vegetables Research and Developme	Taiwan		716	64	0	716
12	BAU	Banaras Hindu University	India					64
13	BAU	Banaras Hindul University	India	8				8
14	BAYER BIO	Bayer BioScience Pvt. Ltd	India		5			5
15	BIO SEED	Bioseed Research India Private Limited	India		8			8
16	BioAnalyt	BIOANALYT GMBH	Germany			3		3
17	BIOFCROPS	BioCrops Uganda Ltd	Uganda		6			6
18	BOKU	Universitat Fur Bodenkulfur Wien	Austria					-
19	BRI	Bangladesh Rice Research Institute	Bangladesh			102		102
20	CAAS-BRI	Chinese Academy Of Agri Sciences Biotech	China		75			75
21	CARE-ZAMBIA	CARE INTERNATIONAL ZAMBIA	Zambia					-
22	CARITAS JINJA	Caritas Jinja	Uganda		81			81
23	CCSHAU	CCS Haryana Agricultural University	India		16			16
24	CEDO	Community Enterprises Development Orga	Uganda		156			156
25	CHILDREN'S HOSPITAL	Children'S Hospital & Research Center At O	United States			166		166
26	CIENSA	Centro De Investigaciones En Nutricion Y Sa	Guatemala			123		123
27	CLAYUCA CORPORATION	Clayuca Corporation	Colombia		35	87		122
28	COLLEGE OF BASIC & APPLIED SCIENCES	College ofBasic and Applied Sciences				3		3
29	COMESA	Common Market for Eastern and Southern	Zambia					-
30	COMMUNITY EMPOWERMENT LAB	Community Empowerment Lab	India	72				72
31	CORNELL UNIVERSITY	Cornell University	United States	34	149	35		218
32	CORNUCOPIA GROUP, INC.	Cornucopia Group, Inc.	Canada	57				57
33	CORP CLAYUCA	Corporacion - Consorcio Latinoamericano y	Colombia	150	-	35	-	185
34	CRI - GHANA	Crops Research Institute ,Ghana	Ghana			15		15
35	CSRS	Centre Suisie De Recherches Scientetifique	Ivory Coast	-	-	95	-	95

37	DAPP	Development Aid from People to People in Zambia					46		46
38	DARS	Department of Agriculture Research Service Malawi							-
39	DARSS	Ministry of Agriculture - Department of Agr Swaziland	6						6
40	DATA ANALYSIS & TECH ASST	Data Analysis & Tech Asst Bangladesh					172		172
41	DEVGEN	DeVGen Seeds and Crop Technology Privat India				4			4
42	DR. ANNE MACKENZIE	Dr. Anne Mackenzie Canada				165			165
43	DR. COMPTON, JULIA	Dr. Compton, Julia United Kingdom	77						77
44	DR. MARILIA NUTTI	Dr. Marilia Nutti Brazil				60			60
45	DR. SRIVARDHINI K. JHA	Dr. Srivardhini K. Jha India	54			0			54
46	DWR	Directorate Of Wheat And Barley Research India				76			76
47	EIAR	Ethiopian Institute of Agriculture Research				15			15
48	EISMV	Ecole Inter-Etats des Sciences et Medecine Senegal	-			-	3	-	3
50	EMBRAPA/FUNARBRE	Empresa Brasileira de Pesquisa Agropecuar Brazil	402			12	-	-	414
	ENVOY CONSULT AGRICULTURE					195	11		206
51	PRODUCE	Envoy Consult Agric Prod Nigeria							
52	ETH-ZURICH	Eth-Zurich Switzerland				108			108
53	FAO	Food and Agriculture Organization of the U Italy					327		327
54	FECA	Federal College Of Agriculture Nigeria				53	0		53
55	FLINDERS UNIVERSITY	Flinders University Australia				875	477		1,352
56	FREIBURG UNIVERSITY	Freiburg University Germany				307	-7		300
57	FUNDIT	Fundacion Para La Innovacion Tecnologica Guatemala				0	108		108
58									
59	FVM/CMU	Faculty Of Veterinary Medicine, Chiang Mai Thailand	2			-	-	-	2
60	GANGA KAVERI	Ganga Kaveri Seeds Private Limited India				5			5
61	GBPU&T	G.B.Pant Univ Of Agriculture & Technolog India				59	0		59
62	GROUNDWORK LLC	Groundwork Group Llc Switzerland				69	15		84
63	HAWKES & B LIMITED	Hawkes & B Limited United Kingdom	5			24	24		53
64	HITECH	Hytech Seed India Pvt. Ltd India				6			6
65	HI-YIELD	Hi-Yield Agri Gnetics Pvt Ltd India				1			1
66	HKI	Helen Keller International United States				0	2110		2,110
67	HOCADEO	Hoima Caritas Development Organization Uganda				52			52
68	HSPH	Hanoi Sch of Public Health Vietnam	-			72	-	-	72
69	HUA	Hanoi University of Agriculture Vietnam	-			135	-	-	135
70	HUMANITAS GLOBAL	Humanitas Global Development United States				116			116
71	IAR	Institute for Agricultural Research Nigeria					15		15
72	ICAR	Indian Council of Agricultural Research India	7						7
73	ICDDR,B	International Center For Diarrheal And Des Bangladesh				0	516		516
74	ICRR	Indonesian Center for Rlce Reasearch Indonesia	40						40
75	ICTA	ICTA-Instituto De Ciencia Y Tecnologia Agric Guatemala	108			-	-	-	108
76	ICT-FUNDIT	Instituto De Ciencia Y Tecnologia Agricola Guatemala				0	0		-
77	IDS	Institute Of Dev Studies United Kingdom	15			0	975		990
78	IER	Institut d'Economie Rurale du Mali Mali					10		10
79	IIAAP	Inst Inv Agron Angola planting subtrop trial Angola	18						18
80	IITA	International Institute of Tropical Agricultur Nigeria							-
81	IKURU	Ikuru Sarl Mozambique							-
82	INERA	Institut De L'Environment Et De Recherch Burkina Faso				117	6		123
83	INERA CONGO	Institut de l'Environnement et de Recherch DR Congo					12		12
84	INFO-STAT	Info-Stat Mali				0	183		183
85	INIFAP	INSTITUTO NACIONAL DE INVESTIGACIONE Mexico	23						23
86	INRA	Institute National De La Recherche Agrono Democratic Republic of Congo				119	0		119
87	INRAB	Institut National des Recherches Agricole d Benin					10		10

88	IPA	Innovations For Poverty Action	Untied States		0	168	168
89	ISABU	Institut des Sciences Agronomiques du Bur	Burundi		18		18
90	ISTEEBU	Isteebu	Burundi		0	114	114
91	JAU	Junagadh Agricultural University	India		22		22
92	JAY H SOLOMON	Jay H Solomon	Untied States		94	0	94
93	JEAG SEEDS	J K Agri Genetics Limited	India		14		14
94	JOHNS HOPKINS UNIVERSITY	Johns Hopkins University	Untied States	38	375	115	528
95	KARLO	Kenya Agricultural and Livestock Research	Kenya	36		47	83
96	KAVERI SEEDS	Kaveri Seeds Private Limited	India		9		9
97	KSSC LTD	Karnataka State Seeds Corporation Limited	India		3		3
98	KUISAT	Luxembourg Institute of Science and Technology		23			23
99	MAKERERE UNIV.	Makerere University	Uganda		4		4
100	MANGALAM SEEDS	Mangalam Seeds Ltd	India		2		2
101	MAU	Vasantro Naik Marathwada Agricultural Un	India		18		18
102	McGILL	McGill University	Canada	25			25
103	METAHELIX	Metahelix Lifesciences Pvt. Ltd	India		7		7
104	MPKV	MPKV College of Agriculture	India		17		17
105	MSSC LTD	Maharashtra State Seeds Corporation Limit	India		2		2
106	N/A	Goettingen University	Germany	42			42
107	NaCRRU	National Crops Resources Research Institut	Uganda		8		8
108	NARO	National Agricultural Research Organisation	Uganda		134		134
109	NASFAM	National Smallholder Farmers' Association	Malawi				-
110	NATH BIO GENE LTD	Nath Bio-Genes India Ltd	India		4		4
111	NIMAL SEEDS	Nirmal Seeds Pvt. Ltd	India		7		7
112	NISIR	National Institute for Scientific and Industri	Zambia			3	3
113	NOA	National Orientation Agency	Nigeria		120	44	164
114	NRCRI	National Root Crops Research Institute	Nigeria		150	0	150
115	NU GENES	NuGenes Pvt Ltd	India		2		2
116	NUZIVEEDU	Nuziveedu Seeds Limited	India		8		8
117	Oruwera	Oruwera Limitada	Moçambique				-
118	OXFORD POLICY MANAGEMENT OYO STATE DEVELOPMENT	Oxford Policy Management Limited	United Kingdom		80	11	91
119	PROGRAMME	Oyo State Development Programme	Nigeria		0	53	53
120	PATH	Program for Appropriate Technology in Hea	USA		155		155
121	PDKV	Panjabrao Deshmukh Krishi Vidyapeeth	India		5		5
122	PHILIPS INNOVATION SERVICES	Philips Innovation Services	The Netherlands		97	0	97
123	PHILRICE	Philippine Rice Research Institute	Philippines	34			34
124	PIAM	Poultry Industry Association of Malawi	Malawi				-
125	PIONEER	Pioneer Overseas Corporation	India		5		5
126	PJTSAU	Prof Jayashankar Telanagana State Agri Uni	India		6		6
127	PUBLIC HEALTH FOUNDATION	Public Health Foundation	India		0	143	143
128	PUNJAB AGRICULTURAL UNIVERSITY	Punjab Agricultural University	India		95	0	95
129	RAB	Rwanda Agriculture Board	Rwanda		216	51	267
130	REGENTS OF THE UNIVERSITY OF CALIFORNIA	Regents Of The University Of California	Untied States	73	78	0	151
131	RVC	Royal Veterinary College	United Kingdom	112	-	-	112
132	SABANCI UNIVERSITY	Sabanci University	Turkey		145	370	515
133	SAMARITAN'S PURSE INTL	Samaritan'S Purse International	Uganda		173	0	173
134	SARI	Savanna Agricultural Research Institute -SA	Ghana		2		2
135	SAVE THE CHILDREN	Save The Children	India, Untied Kingdom		0	86	86
136	SCZ INTL (Z) LIMITED	Scz International (Z) Limited T/A Seed Co.	Zambia		0	228	228

137	SHAKHI VARDHAK SEEDS	Shakti Vardhak Hybrid Seeds Pvt Ltd	India		3				3
138	SKNAU	Sri Karan Narendra Agriculture University	India		23				23
142	SUA	Sokoine University Of Agriculture	Tanzania	-	-	7	-		7
143	TEMPEST ADVERTISING PVT L	Tempest Advertising Pvt L			76	0			76
144	UCG BUTEMBO	Université Catholique du Graben	Congo			20			20
145	UDS-GHANA	University For Development Studies, Dept	Ghana	4	0	147			151
146	UGENT	University of Ghent	Belgium	44					44
147	UNBARAGA	IMBARAGA Farmers Organization	Rwanda		136				136
148	UNEP	United Nations Environment Programme	Kenya			391			391
149	UniLurio	Lurio University	Mozambique			6			6
150	UNIVERSITY OF BRITISH COLUMBIA	University Of British Columbia	Canada		307	0			307
151	UNIVERSITY OF GEORGIA	University Of Georgia	Untied States	55	21	4			80
152	UNIVERSITY OF HOHENHEIM	University Of Hohenheim	Germany		0	51			51
153	UNIVERSITY OF MELBOURNE	University Of Melbourne	Australia		194	0			194
154	USDA-ARS	United States Department of Agriculture, A	United States		52	34			86
155	VEDCO	Volunteer Efforts For Development Concer	Uganda		116.00	0.00			116
156	VNMKV	Vasantrao Naik Marathwada Krishi Vidyape	India		8				8
157	VOX LATINA	Vox Latina	Guatemala		0.00	285.00			285
158	VSF-SUISSE	Veterinaires Sans Frontieres Suisse	Switzerland		0.00	55.50			56
159	VWF/VSF	VWF/VSF- Canada	Canada	-	-	-	-		-
160	WAGENINGEN UNIVERSITY	Wageningen University	The Netherlands		119.00				119
161	WHO	World Health Organization	Switzerland		200.00				200
162	WORLD VISION INTL UGANDA	World Vision International, Uganda	Uganda		373.00				373
163	WVI	World Vision Malawi	Malawi						-
164	YWCA	Young Women's Christian Association of R	Rwanda		80				80
165	ZAGRA	ZAGRA	Zambia		35				35
166	ZARI	Zambia Agricultural Research Insitute	Zambia			4			4
167	ZHEJIANG UNIVERSITY	Zhejiang University	China		56.00				56
168	ZOTEHRS	Others	Others	59	5	5,397			5,461
TOTAL					2,076	9,994	15,702	-	27,772
					2,075	9,994	15,703		27,772
					0	0	(1)	-	(1)
					2,075	9,994	15,702	-	27,771

2. BIOVERSITY				Actual Expenses - This Year				
Item	<u>Institute Acronym</u>	<u>Institute Name</u>	<u>Country</u>	Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
1	CU	Columbia University	United States	29				29
2	N/A	Goettingen University	Germany	42				42
3	UGENT	University of Ghent	Belgium	44				44
4	ARI-MARUKU	Agricultural Research Institute	Tanzania		16			16
5	NARO	National Agricultural Research Organisation	Uganda		18			18
6	FAO	Food and Agriculture Organization of the United Nations	Italy			327		327
7	KARLO	Kenya Agricultural and Livestock Research Organisation	Kenya			47		47
8	UCG BUTEMBO	Université Catholique du Congo	Congo			20		20
9	UNEP	United Nations Environment Programme	Kenya			391		391
10								-
11								-
Total for CRP				115	34	785	-	935

3. CIAT				Actual Expenses - This Year				
Item	<u>Institute Acronym</u>	<u>Institute Name</u>	<u>Country</u>	Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
1	Embrapa/Funarbre	Empresa Brasileira de Pesquisa Agropecuaria/ Fundacao Arthur Bernardes.	Brazil	402	-	-	-	402
2	Corporacion CLAYUCA	Corporacion - Consorcio Latinoamericano y del Caribe de Apoyo a la Investigacion y al Desarrollo de la Yuca	Colombia	150	-	35	-	185
3	ICTA	ICTA-Instituto De Ciencia Y Tecnologia Agricola	Guatemala	93	-	-	-	93
4	Others	Others	Others	45	-	5,326	-	5,371
5								-
6								-
Total for CRP				689	-	5,361	-	6,050

5. CIMMYT				Actual Expenses - This Year				
Item	<u>Institute Acronym</u>	<u>Institute Name</u>	<u>Country</u>	Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
1	ICTA	INSTITUTO DE CIENCIA Y TECNOLOGIA AGRICOLA	Guatemala	15				15
2	INIFAP	INSTITUTO NACIONAL DE INVESTIGACIONES CIENTIFICAS	Mexico	23				23
3	IIAAP	Inst Inv Agron Angola planting subtrop trial	Angola	18				18
4	OTEHRS							-
5								-
16								-
Total for CRP				56	-	-	-	56

6. CIP			
Item	Institute Acronym	Institute Name	Country
1	RAB	Rwanda Agriculture Board	Rwanda
2	BIOFCROPS	BioCrops Uganda Ltd	Uganda
3	MAKERERE UNIV.	Makerere University	Uganda
4	NaCRRU	National Crops Resources Research Institut	Uganda
5	AVRDC	Asian Vegetables Research and Developme	Taiwan
6	McGILL	McGill University	Canada
7	PATH	Program for Appropriate Technology in Hea	USA
8	YWCA	Young Women's Christian Association of Rw	Rwanda
9	UNBARAGA	IMBARAGA Farmers Organization	Rwanda
10	KUISAT	Luxembourg Institute of Science and Techno	
11	EIAR	Ethiopian Institute of Agriculture Research	
Total for CRP			

Actual Expenses - This Year				
Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
				50
				6
				4
				8
			716	716
25				25
			155	155
			80	80
			136	136
23				23
			15	15
				-
48	1,170	-	-	1,218

8. ICRAF			
Item	Institute Acronym	Institute Name	Country
1	Others		
2			
Total for CRP			

Actual Expenses - This Year				
Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
3	1			4
				-
3	1	-	-	4

9. ICRISAT			
Item	Institute Acronym	Institute Name	Country
1	AJEET SEED	Ajeet Seeds Ltd	ndia
2	BAYER BIO	Bayer BioScience Pvt. Ltd	ndia
3	BIO SEED	Bioseed Research India Private Limited	ndia
4	CCSHAU	CCS Haryana Agricultural University	ndia
5	DEVGEN	DeVGen Seeds and Crop Technology Priva	ndia
6	GANGA KAVERI	Ganga Kaveri Seeds Private Limited	ndia
7	HI-YIELD	Hi-Yield Agri Gnetics Pvt Ltd	ndia
8	HITECH	Hytech Seed India Pvt. Ltd	ndia
9	JEAG SEEDS	J K Agri Genetics Limited	ndia
10	JAU	Junagadh Agricultural University	ndia
11	KSSC LTD	Karnataka State Seeds Corporation Limite	ndia
12	KAVERI SEEDS	Kaveri Seeds Private Limited	ndia
13	MSSC LTD	Maharashtra State Seeds Corporation Limi	ndia
14	MANGALAM SEEDS	Mangalam Seeds Ltd	ndia
15	METAHELIX	Metahelix Lifesciences Pvt. Ltd	ndia
16	MPKV	MPKV College of Agriculture	ndia
17	NATH BIO GENE LTD	Nath Bio-Genes India Ltd	ndia
18	NIMAL SEEDS	Nirmal Seeds Pvt. Ltd	ndia
19	NU GENES	NuGenes Pvt Ltd	ndia
20	NUZIVEEDU	Nuziveedu Seeds Limited	ndia

Actual Expenses - This Year				
Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
				3
				5
				8
			16	16
			4	4
			5	5
			1	1
			6	6
			14	14
			22	22
			3	3
			9	9
			2	2
			2	2
			7	7
			17	17
			4	4
			7	7
			2	2
			8	8

21	PIONEER	Pioneer Overseas Corporation	India	5	5
22	PJ TSAU	Prof Jayashankar Telanagana State Agri Un	India	6	6
23	SHAKHI VARDHAK SEEDS	Shakti Vardhak Hybrid Seeds Pvt Ltd	India	3	3
24	SKNAU	Sri Karan Narendra Agriculture University	India	23	23
25	MAU	Vasantro Naik Marathwada Agricultural U	India	18	18
26	PDKV	Panjabrao Deshmukh Krishi Vidyapeeth	India	5	5
27	SARI	Savanna Agricultural Research Institute -S	Ghana	2	2
28	VNMKV	Vasantrao Naik Marathwada Krishi Vidyap	India	8	8
				-	216
				-	-
				-	216

10. IFPRI				Actual Expenses - This Year				
Item	Institute Acronym	Institute Name	Country	Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
1	ACIPH	Addis Continental Institute Of Public Health	Ethiopia			377		377
2	AFRICA 2000 NETWORK UGANDA	Africa 2000 Network Uganda	Uganda		65			65
3	AFRICSANTE	Agence De Formation, De Recherche & D'	Burkina Faso			675		675
4	AKADEP	Akwa Ibom Agricultural Development Progr	Nigeria		115			115
5	ANSA	Associação De Nutrição E Segurança Alim	Mozambique			87		87
6	APHRC	African Population & Health Research Ctr	Kenya			79		79
7	ARTI ROLLER FLOUR INDUSTRIES LTD	Arti Roller Flour Industries Ltd	India			79		79
8	BANARAS HINDU UNIVERSITY, VARANASI	Banaras Hindu University	India		64	0		64
9	CAAS-BRI	Chinese Academy Of Agri Sciences Biotec	China		75			75
10	CARITAS JINJA	Caritas Jinja	Uganda		81			81
11	CEDO	CommunityEnterprises Development Orga	Uganda		156			156
12	CHILDREN'S HOSPITAL	Children'S Hospital & Research Center At	United States			166		166
13	CIENSA	Centro De Investigaciones En Nutricion Y S	Guatemala			123		123
14	CLAYUCA CORPORATION	Clayuca Corporation	Colombia		35	87		122
15	COMMUNITY EMPOWERMENT LAB	Community Empowerment Lab	India	72				72
16	CORNELL UNIVERSITY	Cornell University	United States	34	149	35		218
17	CORNUCOPIA GROUP, INC.	Cornucopia Group, Inc.	Canada	57				57
18	DATA ANALYSIS & TECH ASST	Data Analysis & Tech Asst	Bangladesh			172		172
19	DR. ANNE MACKENZIE	Dr. Anne Mackenzie	Canada		165			165
20	DR. COMPTON, JULIA	Dr. Compton, Julia	Untied Kingdom	77				77
21	DR. MARILIA NUTTI	Dr. Marilia Nutti	Brazil		60			60
22	DR. SRIVARDHINI K. JHA	Dr. Srivardhini K. Jha	India	54	0			54
23	DWR	Directorate Of Wheat And Barley Research	India		76			76
24	EMBRAPA/FUNARBE	Embrapa/Funarbe	Brazil		12	0		12
25	ENVOY CONSULTAGRICULTURE PRODUCE	Envoy Consult Agric Prod	Nigeria		195	11		206
26	ETH-ZURICH	Eth-Zurich	Switzerland		108			108
27	FECA	Federal College Of Agriculture	Nigeria		53	0		53
28	FLINDERS UNIVERSITY	Flinders University	Australia		875	477		1,352
29	FREIBURG UNIVERSITY	Freiburg University	Germany		307	-7		300
30	FUNDIT	Fundacion Para La Innovacion Technologic	Guatemala		0	108		108
31	GBPU&T	G.B.Pant Univ Of Agriculture & Technolog	India		59	0		59
32	GROUNDWORK LLC	Groundwork Group Llc	Switzerland		69	15		84
33	HAWKES & B LIMITED	Hawkes & B Limited	United Kingdom	5	24	24		53
34	HKI	Helen Keller International	Untied States		0	2110		2,110
35	HOCADEO	Hoima Caritas Development Organization	Uganda		52			52
36	HUMANITAS GLOBAL	Humanitas Global Development	Untied States		116			116
37	ICDDR,B	International Center For Diarrheal And Des	Bangladesh		0	516		516
38	ICT-FUNDIT	Instituto De Ciencia Y Tecnologia Agricola	Guatemala		0	0		-
39	IDS	Institute Of Dev Studies	Untied Kingdom		0	975		975
40	INERA	Institut De L'Environment Et De Recherch	Burkina Faso		117	6		123
41	INFO-STAT	Info-Stat	Mali		0	183		183
42	INRA	Institute National De La Recherche Agrono	Democratic Republic of Congo		119	0		119
43	IPA	Innovations For Poverty Action	Untied States		0	168		168
44	ISTEEBU	Isteebu	Burundi		0	114		114

45	JAY H SOLOMON	Jay H Solomon	Untied States		94	0	94
46	JOHNS HOPKINS UNIVERSITY	Johns Hopkins University	Untied States	38	375	115	528
47	NARO	Natl Agricultural Research Organization	Uganda		116	0	116
48	NOA	National Orientation Agency	Nigeria		120	44	164
49	NRCRI	National Root Crops Research Institute	Nigeria		150	0	150
50	OXFORD POLICY MANAGEMENT OYO STATE DEVELOPMENT PROGRAMME	Oxford Policy Management Limited	United Kingdom		80	11	91
51	PHILIPS INNOVATION SERVICES	Philips Innovation Services	The Netherlands		97	0	97
52	PUBLIC HEALTH FOUNDATION	Public Health Foundation	India		0	143	143
53	PUNJAB AGRICULTURAL UNIVERSITY	Punjab Agricultural University	India		95	0	95
54	RAB	Rwanda Agriculturure Board	Rwanda		166	51	217
55	REGENTS OF THE UNIVERSITY OF CALIFORNIA	Regents Of The University Of California	Untied States	73	78	0	151
56	SABANCI UNIVERSITY	Sabanci University	Turkey		145	370	515
57	SAMARITAN'S PURSE INTL	Samaritan'S Purse International	Uganda		173	0	173
58	SAVE THE CHILDREN	Save The Children	India, Untied Kingdom		0	86	86
59	SCZ INTL (Z) LIMITED	Scz International (Z) Limited T/A Seed Co.	Zambia		0	228	228
60	TEMPEST ADVERTISING PVT L	Tempest Advertising Pvt L			76	0	76
61	UDS-GHANA	University For Development Studies, Dept	Ghana	4	0	147	151
62	UNIVERSITY OF BRITISH COLUMBIA	University Of British Columbia	Canada		307	0	307
63	UNIVERSITY OF GEORGIA	University Of Georgia	Untied States	55	21	4	80
64	UNIVERSITY OF HOHENHEIM	University Of Hohenheim	Germany		0	51	51
65	UNIVERSITY OF MELBOURNE	University Of Melbourne	Australia		194	0	194
66	VEDCO	Volunteer Efforts For Development Concer	Uganda		116.00	0.00	116
67	VOX LATINA	Vox Latina	Guatemala		0.00	285.00	285
68	VSF-SUISSE	Veterinaires Sans Frontieres Suisse	Switzerland		0.00	55.50	56
69	WAGENINGEN UNIVERSITY	Wageningen University	The Netherlands		119.00		119
70	WHO	World Health Organization	Switzerland		200.00		200
71	WORLD VISION INTL UGANDA	World Vision International, Uganda	Uganda		373.00		373
72	ZHEJIANG UNIVERSITY	Zhejiang University	China		56.00		56
73	ALL OTHER PARTNERS (<\$50K)	All Other Partners (<\$50K)		434	1,960	896	3,290
74							-
15							-
		Total for CRP			903	8,258	9,117
						-	18,279

11. IITA				Actual Expenses - This Year				
Item	Institute Acronym	Institute Name	Country	Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
	ZARI	Zambia Agricultural Research Insitute	Zambia				4	4
	NISIR	National Institute for Scientific and Industri	Zambia				3	3
	ISABU	Institut des Sciences Agronomiques du Bur	Burundi		18			18
	NASFAM	National Smallholder Farmers' Association	Malawi					-
	PIAM	Poultry Industry Association of Malawi	Malawi					-
	DARS	Department of Agriculture Research Service	Malawi					-
	DARSS	Ministry of Agriculture - Department of Agr	Swaziland	6				6
	DAPP	Development Aid from People to People in	Zambia				46	46
	BioAnalyt	BIOANALYT GMBH	Germany				3	3
	COLLEGE	COLLEGE OF BASIC & APPLIED SCIENCES					3	3
	NARO	National Agricultural Research Organization	Uganda					-
	WVI	World Vision Malawi	Malawi					-
	RAB	Rwanda Agriculture Board	Rwanda					-
	IKURU	Ikuru Sarl	Mozambique					-
	UniLurio	Lurio University	Mozambique				6	6
	COMESA	Common Market for Eastern and Southern	Zambia					-
	CRI - GHANA	Crops Research Institute ,Ghana	Ghana				15	15
	IAR	Institute for Agricultural Research	Nigeria				15	15
	IER	Institut d'Economie Rurale du Mali	Mali				10	10
	RAB	Rwanda Agriculture Board	Rwanda					-
	MCGILL	McGill University	Canada					-
	INERA CONGO	Institut de l'Environnement et de Recherch	DR Congo				12	12
	CARE-ZAMBIA	CARE INTERNATIONAL ZAMBIA	Zambia					-
	BOKU	Universitat Fur Bodenkulfur Wien	Austria					-
	Oruwera	Oruwera Limitada	Moçambique					-
	INRAB	Institut National des Recherches Agricoled	Benin				10	10
	USDA-ARS	United States Department of Agriculture, A	United States		52		34	86
	ZAGRA	ZAGRA	Zambia		35			35
	IITA	International Institute of Tropical Agricultur	Nigeria					-
	OTHERS	Others			4		71	75
1								-
		Total for CRP		6	109	232	-	347

12. ILRI				Actual Expenses - This Year				
Item	Institute Acronym	Institute Name	Country	Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
1	IDS	Institute of Development Studies	United Kingdom	15	-	-	-	15
2	RVC	Royal Veterinary College	United Kingdom	112	-	-	-	112
3	HUA	Hanoi University of Agriculture	Vietnam	-	135	-	-	135
4	HSPH	Hanoi Sch of Public Health	Vietnam	-	72	-	-	72
5	CSRS	Centre Suisie De RecherchesScientetifique	Ivory Coast	-	-	95	-	95
6	SUA	Sokoine University Of Agriculture	Tanzania	-	-	7	-	7
7	EISMV	Ecole Inter-Etats des Sciences et Medecine	Senegal	-	-	3	-	3
8	FVM/CMU	Faculty Of Veterinary Medicine, Chiang Mai	Thailand	2	-	-	-	2
9	KALRO	KARI-Aflatoxin	Kenya	36	-	-	-	36
10	VWF/VSF	VWF/VSF- Canada	Canada	-	-	-	-	-
		Total for CRP		165	206	105	-	476

13. IRRI			
Item	Institute Acronym	Institute Name	Country
1	ICAR	Indian Council of Agricultural Research	India
2	BAU	Banaras Hindu University	India
3	BIRRI	Bangladesh Rice Research Institute	Bangladesh
4	ICRR	Indonesian Center for Rice Research	Indonesia
5	PHILRICE	Philippine Rice Research Institute	Philippines
Total for CRP			

Actual Expenses - This Year				
Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
7				7
8				8
		102		102
40				40
34				34
89	-	102	-	191

TOTAL FOR CRP "X.X"	
1. AFRICA RICE	
2. BIOVERSITY	
3. CIAT	
4. CIFOR	
5. CIMMYT	
6. CIP	
7. ICARDA	
8. ICRAF	
9. ICRISAT	
10. IFPRI	
11. IITA	
12. ILRI	
13. IRRI	
14. IWMI	
15. WORLD FISH	
Total for CRP	

Actual Expenses - This Year				
Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
				-
115	34	785	-	935
689	-	5,361	-	6,050
				-
56	-	-	-	56
48	1,170	-	-	1,218
				-
3	1	-	-	4
-	216	-	-	216
903	8,258	9,117	-	18,279
6	109	232	-	347
165	206	105	-	476
89	-	102	-	191
				-
				-
2,075	9,994	15,702	-	27,771

Annex 1. CRP indicators of progress, with glossary and targets

CRPs concerned by this indicator	Indicator	Glossary/guidelines for defining and measuring the indicator, and description of what the CRP includes in the indicator measured, based upon the glossary	Deviation narrative	2014		2015		2016
				Target	Actual	Target	Actual	Target
KNOWLEDGE, TOOLS, DATA								
All	1. Number of flagship “products” produced by CRP	See documentation in Annex 1a	*	8	15	12	30	12
All	2. % of flagship products produced that have explicit target of women farmers/NRM managers	See documentation in Annex 1a	*	67%	40%	40%	20% (6)	40%
All	3. % of flagship products produced that have been assessed for likely gender-disaggregated impact	See documentation in Annex 1a	*	50%	40%	30%	63% (19)	40%
All	4. Number of “tools” produced by CRP	See documentation in Annex 1a		22	22	15	15	15
All	5. % of tools that have an explicit target of women farmers	See documentation in Annex 1a	*	67%	27%	40%	20% (3)	40%
All	6. % of tools assessed for likely gender-disaggregated impact	See documentation in Annex 1a	*	50%	22%	20%	0%	30%
All	7. Number of open access databases maintained by CRP	Databases include (not exhaustive): value chains survey data for Kenya and Uganda; consumption survey data for Kenya and Uganda; HarvestPlus-Nigeria operations database; Brazilian food composition data; Global Nutrition Report 2015 datasets	*	7	10	8	10	10
All	8. Total number of users of these open access databases			unknown	unknown	unknown	unknown	unknown
All	9. Number of publications in ISI journals produced by CRP	See documentation in Annex 1a	*	115	137	120	151	120
1,2,3, 4, 6	10. Number of strategic value chains analyzed by CRP	<u>Animal source food value chains:</u> dairy, pork, camel meat/milk, beef, fish <u>Biofortified crop value chains:</u> OSP, high iron beans <u>Fruit and vegetable value chains:</u> amaranth, mango, tomatoes	*	25	33	20	36	20

		Other/multi- value chains: beans, groundnut, maize for animal feed, maize for human consumption, school meal supply chains, WFP supply chains,						
CAPACITY ENHANCEMENT AND INNOVATION PLATFORMS								
All	13. Number of trainees in short-term programs facilitated by CRP (male)	Training topics (not exhaustive): nutrition education; fruit tree propagation/management/harvest for farmers; advanced fruit processing and innovative technologies; agronomy; Transform Nutrition short courses; aflatoxin detection techniques, pre- and post-harvest management, sampling techniques, all for groundnuts; milk quality and hygiene practices for business development service providers See documentation in Annex 1a	**	40,600	174,500	50,000	25,477	30,000
All	14. Number of trainees in short-term programs facilitated by CRP (female)	Training topics (not exhaustive):similar as above See documentation in Annex 1a	*	50,650	172,990	50,000	92,032	30,000
All	15. Number of trainees in long-term programs facilitated by CRP (male)	See documentation in Annex 1a		50	73	50	45	50
All	16. Number of trainees in long-term programs facilitated by CRP (female)	See documentation in Annex 1a	*	70	107	50	66	50
TECHNOLOGIES/PRACTICES IN VARIOUS STAGES OF DEVELOPMENT								
All	18. Number of technologies/NRM practices under research in the CRP (Phase I)	See documentation in Annex 1a		150,010	150,038	150,000	150,025	100,000
All	19. % of technologies under research that have an explicit target of women farmers	See documentation in Annex 1a		50%	Less than 1%	0%	0%	0%
All	20. % of technologies under research that have been assessed for likely gender-disaggregated impact	See documentation in Annex 1a		50%	Less than 1%	0%	Less than 1% (1)	1%
All, except 2	23. Number of technologies /NRM practices field tested (phase II)	See documentation in Annex 1a		1,000	1,031	1,000	1,029	1,000

All, except 2	27. Number of technologies/NRM practices released by public and private sector partners globally (phase III)	See documentation in Annex 1a	**	19	19	15	9	12
POLICIES IN VARIOUS STAGES OF DEVELOPMENT								
All	28. Numbers of Policies/ Regulations/ Administrative Procedures Analyzed (Stage 1)	See documentation in Annex 1a	**	15	27	15	11	12
All	29. Number of policies / regulations / administrative procedures drafted and presented for public/stakeholder consultation (Stage 2)	See documentation in Annex 1a	*	7	7	5	6	5
All	30. Number of policies / regulations / administrative procedures presented for legislation(Stage 3)	See documentation in Annex 1a	*	1	1	1	2	1
All	31. Number of policies / regulations / administrative procedures prepared passed/approved (Stage 4)	See documentation in Annex 1a	*	1	4	1	2	1
All	32. Number of policies / regulations / administrative procedures passed for which implementation has begun (Stage 5)	See documentation in Annex 1a	*	1	0	0	2	1
OUTCOMES ON THE GROUND								
All	33. Number of hectares under improved technologies or management practices as a result of CRP research			unknown	7,408	unknown	11,290	5,000
All	34. Number of farmers and others who have applied new technologies or management practices as a result of CRP research	34 (a) number of women farmers concerned 34(b) number of male farmers concerned	***	Total:	Total:	1,000,000	Total:	1,500,000
				1,128,200	1,089,139		1,936,245	
				18,200			3,534	
				10,000			9,701	

Deviation narrative: An (*) indicates indicators where the actual exceeds the target by at least 10%. This is explained by the maturity of the research program; this is the fourth year of A4NH and for indicators related to products, publications, and policies, research teams have had time to assemble results and share them with partners. An (**) indicates indicators where the actual is less than the target by at least 10%. For the short-term trainings, there was an increased focus on trainings targeted to women; for phase III technologies, progress was slower than expected; and for stage 1 policies, progress was faster than expected (more policies had reached stages 2-5 than expected). For (***), not all numbers are available in sex-disaggregated form so 34(a) and 34(b) will not sum to the total.

Annex 1a. Additional documentation

1. ...flagship “products” produced by CRP (n=30)	2. ... have explicit target of women farmers/ NRM managers	3. ... have been assessed for likely gender-disaggregated impact
Connecting Global Priorities: Biodiversity and Human Health - A State of Knowledge Review	No	No
Value chains framework and its application with partners	No	No
Zinc wheat recommended for release in Pakistan	No	Yes
Two zinc rice varieties released in Bangladesh, one each for aman and boro season	No	Yes
Three vitamin A orange maize varieties released in Zambia	No	Yes
Iron pearl millet efficacy demonstrated in India	No	Yes
Review of high iron beans nutritional efficacy	No	Yes
Nutritional efficacy demonstrated for vitamin A cassava	No	Yes
OSP consumption demonstrated to reduce diarrhea in children	No	Yes
Aflasae KE01 registered in Kenya, enabling its commercialization and allocation of resources by the Kenyan government to scale-up adoption	No	No
Contributions to the WHO Estimates of the Global Burden of Foodborne Diseases	Yes	Yes
Set of evidence reviews for DFID livelihood officers on food safety , on AMR , and on MERS	No	No
Publication describing improved preparedness and response to RVF in Kenya	No	Yes
Publication on improved Ecohealth capacity and leadership in Southeast Asia	Yes	Yes
Global Food Policy Report 2014-2015 Chapter 6 on Food Safety: Reducing and Managing Food Scares	No	No
Discussion paper on gender roles and food safety in 20 informal livestock and fish value chains	Yes	No
Global Food Policy Report 2014-2015 Chapter 9 on Regional Developments: Central Asia	No	No
Global Nutrition Report 2015	No	Yes
POSHAN Costing Study for India	Yes	Yes
Special issue of the <i>Journal of Development Studies</i> - Farm-Level Pathways to Improved Nutritional Status	No	Yes
Dissemination of results from long-term evaluation of gender- and nutrition-sensitive agricultural program	Yes	Yes
The Other Asian Enigma: Explaining the Rapid Reduction of Undernutrition in Bangladesh	No	Yes
Scaling up Impact on Nutrition: What Will it Take?	Yes	Yes
Contributions to the India Health Report on Nutrition 2015	No	No
Contributions to special section of <i>Food Security - Strengthening the links between nutrition and health outcomes and agricultural research</i>	No	No
Set of discussion papers describing three cluster-level A4NH theories of change	No	No
Systematic review on agriculture, gendered time use, and nutritional outcomes , plus related policy seminar, and two videos	Yes	No
4. ...tools produced by CRP (n=12)	5. ... have explicit target of women farmers/NRM managers	6. ... assessed for likely gender-disaggregated impact
Foraging collecting guide of wild edible plants	Yes	No
Set of nutrition education materials for use in Kenya, Vietnam, and Zambia, including posters, dietary diversity calendars, and videos	Yes	No
Fruit tree portfolio approach and manual for use in Kenya	Yes	No
Near infrared analysis method for vitamin in mango	No	No
Contributions to <i>eKutir's Agripreneur Guidebook</i>	No	No
Near infrared analysis method for beta carotene in fresh sweet potato	No	No

XRF analysis method for iron and zinc in fresh sweet potato and potato	No	No
Capacity development manual on of application of XRF in sweetpotato and potato	No	No
Biofortification Priority Index (BPI) enhanced Mapping Tool and Country Charts	No	No
Capacity development training manual on parasite control in pigs in Uganda	No	No
Silage-based diets for local and crossbred pigs in Uganda. ILRI Extension Brief	No	No
Set of hygiene messages for dairy farmers and abattoirworkers	No	No
Contributions to Kyrgyzstan Spatial , an interactive online analytical tool and knowledge platform	No	No
Stories of Change in Nutrition: A Tool Pool	No	No
IFAD <i>Scaling up Note</i> on Scaling up results in nutrition-sensitive agriculture and rural development	No	No

9. Publications in ISI journals produced by CRP (n=151)		
List of 2015 ISI Publications, in alphabetical order	Center	Impact Factor
Flagship 1. Value Chains for Enhanced Nutrition (n=11)		
1. Birthal, P. S., Roy, D., & Negi, D. S. (2015). Assessing the Impact of Crop Diversification on Farm Poverty in India. <i>World Development</i> , 72, 70-92.	MTID	1.965
2. Bogard, J. R., Thilsted, S. H., Marks, G. C., Wahab, M. A., Hossain, A. R., & Jakobsen, J. (2015). Nutrient composition of important fish species in Bangladesh and potential contribution to recommended nutrient intakes. <i>Journal of Food Composition and Analysis</i> , 42, 120–133. Retrieved from http://www.sciencedirect.com/science/article/pii/S0889157515000976	WorldFish	1.985
3. De Brauw, A. 2015. Gender, control, and crop choice in northern Mozambique. <i>Agricultural Economics</i> . 46(3): 435-448 .	MTID	1.193
4. de Brauw, A., & Suryanarayana, M. H. (2015). Linkages between poverty, food security and undernutrition: evidence from China and India. <i>China Agricultural Economic Review</i> , 7(4), 655-667.	MTID	0.898
5. Joshi N., Siwakoti M., Kehlenbeck K. (2015). Wild vegetable species in Makawanpur District, Central Nepal: Developing a priority setting approach for domestication to improve food security. <i>Economic Botany</i> 69:161-170	ICRAF	1.200
6. Mu, R., & De Brauw, A. (2015). Migration and young child nutrition: evidence from rural China. <i>Journal of Population Economics</i> , 28(3), 631-657.	MTID	1.109
7. Ng'endo, M., Keding, G. B., Bhagwat, S., & Kehlenbeck, K. (2015). Variability of On-Farm Food Plant Diversity and Its Contribution to Food Security: A Case Study of Smallholder Farming Households in Western Kenya. <i>Agroecology and Sustainable Food Systems</i> , 39(10), 1071-1103.	Bioversity/ICRAF	1.719
8. Padulosi, S., Mal, B., King, O. I., & Gotor, E. (2015). Minor Millets as a Central Element for Sustainably Enhanced Incomes, Empowerment, and Nutrition in Rural India. <i>Sustainability</i> , 7(7), 8904-8933.	Bioversity	0.942
9. Powell, B., Thilsted, S. H., Ickowitz, A., Termote, C., Sunderland, T., & Herforth, A. (2015). Improving diets with wild and cultivated biodiversity from across the landscape. <i>Food Security</i> , 7(3), 535-554.	Bioversity	1.495
10. Remans, R., DeClerck, F. A., Kennedy, G., & Fanzo, J. (2015). Expanding the view on the production and dietary diversity link: Scale, function, and change over time. <i>Proceedings of the National Academy of Sciences</i> , 201518531.	Bioversity	9.674
11. Waswa, L. M., Jordan, I., Herrmann, J., Krawinkel, M. B., & Keding, G. B. (2015). Community-based educational intervention improved the diversity of complementary diets in western Kenya: results from a randomized controlled trial. <i>Public health nutrition</i> , 18(18), 3406-3419.	Bioversity	2.679
Flagship 2 - Biofortification (n=42)		
1. Ajiboye, B; Cakmak, I; Paterson, D; de Jonge, MD; Howard, DL; Stacey, SP; Torun, AA; Aydin, N; McLaughlin, MJ. 2015. X-ray fluorescence microscopy of zinc localization in wheat grains biofortified through foliar zinc applications at different growth stages under field conditions. <i>Plant and Soil</i> . 392(1-2): 357-370.	HARVESTPLUS	2.952
2. Andre, C.M., Evers, D., Ziebel, J., Guignard, C., Hausman, J.F., Bonierbale, M., zum Felde, T. and Burgos, G.2015. In Vitro Bioaccessibility and Bioavailability of Iron from Potatoes with Varying Vitamin C, Carotenoid, and Phenolic Concentrations. <i>J. Agric. Food Chem.</i> , 2015, 63 (41), pp 9012–9021	CIP	2.912
3. Armah, SM; Boy, E; Chen, D; Candal, P; Reddy, MB. 2015. Regular Consumption of a High-Phytate Diet Reduces the Inhibitory Effect of Phytate on Nonheme-Iron Absorption in Women with Suboptimal Iron Stores. <i>The Journal of Nutrition</i> . doi:10.3945/jn.114.209957	HARVESTPLUS	3.875

4.	Bechoff, A; Chijioko, U; Tomlins, KI; Govinden, P; Ilona, P; Westby, A; Boy, E. 2015. Carotenoid stability during storage of yellow gari made from biofortified cassava or with palm oil. <i>Journal of Food Composition and Analysis</i> . 44: 36-44.	HARVESTPLUS	1.985
5.	Berni, P; Chitchumroonchokchai, C; Canniatti-Brazaca, SG; De Moura, FF; Failla, ML. 2015. Comparison of Content and In vitro Bioaccessibility of Provitamin A Carotenoids in Home Cooked and Commercially Processed Orange Fleshed Sweet Potato (<i>Ipomea batatas</i> Lam). <i>Plant Foods for Human Nutrition</i> . 70(1): 1-8.	HARVESTPLUS	1.976
6.	Bhatnagar-Panwar, M; Bhatnagar-Mathur, P; Bhaaskarla, VVA; Dumbala, SR; Sharma, KK. 2015. Rapid, accurate and routine HPLC method for large-scale screening of pro-vitamin A carotenoids in oilseeds. <i>Journal of Plant Biochemistry and Biotechnology</i> . 24(1): 84-92.	HARVESTPLUS	1.094
7.	Biol, E; Meenakshi, JV; Oparinde, A; Perez, S; Tomlins K. 2015. Developing country consumers' acceptance of biofortified foods: a synthesis. <i>Food Security</i> . 7(3): 555-568.	HARVESTPLUS	1.495
8.	Bohra, A; Sahrawat, KL; Kumar, S; Joshi, R; Parihar, AK; Singh, U; Singh, D; Singh, NP. 2015. Genetics- and genomics-based interventions for nutritional enhancement of grain legume crops: Status and outlook. <i>Journal of Applied Genetics</i> . 56(2): 151-161.	HARVESTPLUS	1.477
9.	Chomba, E; Westcott, CM; Westcott, JE; Mpabalwani, EM; Krebs, NF; Patinkin, ZW; Palacios, N; Hambidge, KM. 2015. Zinc Absorption from Biofortified Maize Meets the Requirements of Young Rural Zambian Children. <i>The Journal of Nutrition</i> . 145(3): 514-519.	HARVESTPLUS	3.875
10.	De Brauw, A; Eozenou, P; Moursi, M. 2015. Programme Participation Intensity and Children's Nutritional Status: Evidence from a Randomised Control Trial in Mozambique. <i>The Journal of Development Studies</i> 51(8): 996-1015 .	HARVESTPLUS /MTID	0.983
11.	De Moura, FF; Miloff, A; Boy, E. 2015. Retention of Provitamin A Carotenoids in Staple Crops Targeted for Biofortification in Africa: Cassava, Maize and Sweet Potato. <i>Critical Reviews in Food Science and Nutrition</i> . 55(9): 1246-1269.	HARVESTPLUS	5.176
12.	De Moura, FF; Moursi, M; Lubowa, A; Ha, B; Boy, E; Oguntona, B; Sanusi, RA; Maziya-Dixon, B. 2015. Cassava Intake and Vitamin A Status among Women and Preschool Children in Akwa-Ibom, Nigeria. <i>PLoS ONE</i> 10(6): e0129436. doi: 10.1371/journal.pone.0129436	HARVESTPLUS /IITA	3.234
13.	Ekesa, B; Nabuuma, D; Blomme, G; van den Bergh, I. 2015. Provitamin A carotenoid content of unripe and ripe banana cultivars for potential adoption in eastern Africa. <i>Journal of Food Composition and Analysis</i> . 43: 1-6.	HARVESTPLUS /BIOVERSITY	1.985
14.	Fiedler, JL; Keith, L; Odilia, B. 2015. Estimating the impact of vitamin A-fortified vegetable oil in Bangladesh in the absence of dietary assessment data. <i>Public Health Nutrition</i> 18(3): 414-420 .	HARVESTPLUS /PHND	2.679
15.	Fiedler, JL; Lividini, K; Guyonnet, C; Bermudez, OI. 2015. Assessing alternative industrial fortification portfolios: A Bangladesh case study. <i>Food and Nutrition Bulletin</i> . 36(1): 57-74 .	HARVESTPLUS /PHND	1.148
16.	Fiedler, JL; Puett, C. 2015. Micronutrient program costs: Sources of variations and noncomparabilities. <i>Food and Nutrition Bulletin</i> . 36(1): 43-56 .	HARVESTPLUS /PHND	1.148
17.	Finkelstein, JL; Mehta, S; Udipi, SA; Ghugre, PS; Luna, SV; Wenger, MJ; Murray-Kolb, LE; Przybyszewski, EM; Haas JD. 2015. A Randomized Trial of Iron-Biofortified Pearl Millet in School Children in India. <i>The Journal of Nutrition</i> . 145(7): 1576-1581.	HARVESTPLUS	3.875
18.	García, OP; Martínez, M; Romano, D; Camacho, M; de Moura, FF; Abrams, SA; Khanna, HK; Dale, JL; Rosado, JL. 2015. Iron absorption in raw and cooked bananas: a field study using stable isotopes in women. <i>Food & Nutrition Research</i> . 59. doi:10.3402/fnr.v59.25976	HARVESTPLUS	2.162
19.	Jani, R; Salian, N; Udipi, S; Ghugre, P; Lohia, N; Haas, J; Boy, E. 2015. Folate status and intake of tribal Indian adolescents aged 10 to 17 years. <i>Food and Nutrition Bulletin</i> . 36(1): 14-23.	HARVESTPLUS	1.148
20.	Jones, KM; de Brauw, A. 2015. Using Agriculture to Improve Child Health: Promoting Orange Sweet Potatoes Reduces Diarrhea. <i>World Development</i> . 74: 15-24 .	MTID	1.965
21.	Li, S; Wang, J; Zhang, L. 2015. Inclusive Composite Interval Mapping of QTL by environment interactions in biparental populations. <i>PLoS ONE</i> 10(7): e0132414. doi:10.1371/journal.pone.0132414	HARVESTPLUS	3.234
22.	Lividini, K; Fiedler, JL. 2015. Assessing the promise of biofortification: A case study of high provitamin A maize in Zambia. <i>Food Policy</i> . 54: 65-77 .	HARVESTPLUS /PHND	1.799
23.	Ma, J; Wingen, Luzie U; Orford, S; Fenwick, P; Wang, Jiankang; Griffiths, S. 2015. Using the UK reference population Avalon × Cadenza as a platform to compare breeding strategies in elite Western European bread wheat. <i>Molecular Breeding</i> . 35(70): 1380-3743.	HARVESTPLUS	2.246
24.	Menkir, A; Rocheford, T; Maziya-Dixon, B; Tanumihardjo, S. 2015. Exploiting natural variation in exotic germplasm for increasing provitamin-A carotenoids in tropical maize. <i>Euphytica</i> . 205(1): 203–217.	HARVESTPLUS /IITA	1.385
25.	Mukamuhirwa, F; Tusiime, G; Mukankusi, MC. 2015. Inheritance of high iron and zinc concentration in selected bean varieties. <i>Euphytica</i> . 205(2): 349–360.	HARVESTPLUS	1.385

26. Mulungu, K; Tembo, G. 2015. Effects of Weather Variability on Crop Abandonment. <i>Sustainability</i> . 7(3):2858-2870.	HARVESTPLUS	0.942
27. Njoku, DN; Gracen, VE; Offei, SK; Asante, IK; Egesi, CN; Kulakow, P; Ceballos, H. 2015. Parent-offspring regression analysis for total carotenoids and some agronomic traits in cassava. <i>Euphytica</i> . 206(3): 657-666. DOI 10.1007/s10681-015-1482-4 (already uploaded to SP)	HARVESTPLUS	1.385
28. Ova, EA; Kutman, UB; Ozturk, L; Cakmak, I. 2015. High phosphorus supply reduced zinc concentration of wheat in native soil but not in autoclaved soil or nutrient solution. <i>Plant and Soil</i> . 393(1):147-162.	HARVESTPLUS	2.952
29. Petri, N; Boy, E; Wirth, JP; Hurrell, RF. 2015. The Potential of the Common Bean (<i>Phaseolus vulgaris</i>) as a Vehicle for Iron Biofortification. <i>Nutrients</i> . 7(2): 1144-1173.	HARVESTPLUS	3.270
30. Rai, KN; Govindaraj, M; Pfeiffer, WH; Rao, AS. 2015. Seed Set and Xenia Effects on Grain Iron and Zinc Density in Pearl Millet. <i>Crop Science</i> . 55(2): 821-827	HARVESTPLUS	1.575
31. Rai, KN; Velu, G; Govindaraj, M; Upadhyaya, HD; Rao, AS; Shivade, H; Reddy, KN. 2015. India pearl millet germplasm as a valuable genetic resource for high grain iron and zinc densities. <i>Plant Genetic Resources: Characterization and Utilization</i> . 13(1): 75–82.	HARVESTPLUS	0.580
32. Ram, H; Sohu, VS; Cakmak, I; Singh, K; Buttar, GS; Sodhi, GPS; Gill, HS; Bhagat, I; Singh, P; Dhaliwal, SS; Mavi, GS. 2015. Agronomic fortification of rice and wheat grains with zinc for nutritional security. <i>Current Science</i> . 109(6): 1171-1176.	HARVESTPLUS	0.926
33. Slamet-Loedin, IH; Johnson-Beebout, SE; Impa, S; Tsakirpaloglou, N. 2015. Enriching rice with Zn and Fe while minimizing Cd risk. <i>Frontiers in Plant Science</i> . 6(121): 1-9.	HARVESTPLUS	3.948
34. Smale, M; Moursi, M; Birol, B. 2015. How does adopting hybrid maize affect dietary diversity on family farms? Micro-evidence from Zambia. <i>Food Policy</i> . 52(): 44-53.	HARVESTPLUS	1.799
35. Smale, M; Simpungwe, E; Birol, E; Kassie, GT; de Groote, H; Mutale, R. 2015. The Changing Structure of the Maize Seed Industry in Zambia: Prospects for Orange Maize. <i>Agribusiness</i> . 31(1):132–146.	HARVESTPLUS	0.672
36. Suwarno, WB; Palacios-Rojas, N; Kaeppler, S; Babu, R. 2015. Genome-wide association analysis reveals new targets for carotenoid biofortification in maize. <i>Theoretical and Applied Genetics</i> . 128(5): 851-864.	HARVESTPLUS	3.790
37. Talsma, EF; Verhoef, H; Brouwer, ID; Mburu-de Wagt, AS; Hulshof, PJM, Melse-Boonstra, A. 2015. Proxy markers of serum retinol concentration, used alone and in combination, to assess population vitamin A status in Kenyan children: a cross-sectional study. <i>BMC Medicine</i> 13:30. doi:10.1186/s12916-014-0256-5	HARVESTPLUS	7.249
38. Thurnham, DI; Northrop-Clewes, CI; Knowles, J. 2015. The Use of Adjustment Factors to Address the Impact of Inflammation on Vitamin A and Iron Status in Humans. <i>The Journal of Nutrition</i> . 145(5):1137S-1143S.	HARVESTPLUS	3.875
39. Wang, XZ; Liu, DY; Zhang, W; Wang, CJ; Cakmak, I; Zou, CQ. 2015. An effective strategy to improve grain zinc concentration of winter wheat, Aphids prevention and farmers' income. <i>Field Crops Research</i> . 184: 74-79.	HARVESTPLUS	2.976
40. Zhang, L; Li, H; Wang, J. 2015. Linkage analysis and map construction in genetic populations of clonal F1 and double cross. <i>G3 Genes Genomics Genetics</i> 5(3): 427-439.	HARVESTPLUS	3.198
41. Zhou, W; Malabanan, PB; Abrigo, E. 2015. OsHox4 regulates GA signaling by interacting with DELLA-like genes and GA oxidase genes in rice. <i>Euphytica</i> . 201(1): 97-107.	HARVESTPLUS	1.385
42. Zhu, C; Cai, Y; Gertz, ER; La Frano, MR; Burnett, DJ; Burri, BJ. 2015. Red palm oil-supplemented and biofortified cassava gari increase the carotenoid and retinyl palmitate concentrations of triacylglycerol-rich plasma in women. <i>Nutrition Research</i> . 35: 965-974.	HARVESTPLUS	2.472
Flagship 3 – Agriculture-Associated Diseases (n=64)		
1. Adachi, Y. and Makita, K. 2015. Real time detection of farm-level swine mycobacteriosis outbreak using time series modeling of the number of condemned intestines in abattoirs. <i>Journal of Veterinary Medical Science</i> 77(9): 1129-1136. http://dx.doi.org/10.1292/jvms.14-0675	ILRI	0.782
2. Ahlberg, S.H., Joutsjoki, V. and Korhonen, H.J. 2015. Potential of lactic acid bacteria in aflatoxin risk mitigation. <i>International Journal of Food Microbiology</i> 207: 87-102. http://dx.doi.org/10.1016/j.ijfoodmicro.2015.04.042	ILRI	3.082
3. Atehkneng, J., Donner, M., Ojiambo, P.S., Ikotun, B., Augusto, J., Cotty, P.J., and Bandyopadhyay, R. 2015. Environmental distribution and genetic diversity of vegetative compatibility groups determine biocontrol strategies to mitigate aflatoxin contamination of maize by <i>Aspergillus flavus</i> . <i>Microbial Biotechnology</i> DOI: 10.1111/1751-7915.12324	IITA	3.081
4. Atherstone, C., Smith, E., Ochungo, P., Roesel, K. and Grace, D. 2015. Assessing the potential role of pigs in the epidemiology of Ebola virus in Uganda. <i>Transboundary and Emerging Diseases</i> . http://dx.doi.org/10.1111/tbed.12394	ILRI	2.944

5.	Barongo, M.B., Ståhl, K., Bett, B., Bishop, R.P., Fèvre, E.M., Aliro, T., Okoth, E., Masembe, C., Knobel, D. and Ssematimba, A. 2015. Estimating the basic reproductive number (R0) for African swine fever virus (ASFV) transmission between pig herds in Uganda. PLOS ONE 10(5): e0125842. http://dx.doi.org/10.1371/journal.pone.0125842	ILRI	3.234
6.	Bett, B., McLaws, M., Jost, C., Schoonman, L., Unger, F., Poole, J., ... Mariner, J. (2015). The effectiveness of preventative mass vaccination regimes against the incidence of highly pathogenic avian influenza on Java Island, Indonesia. <i>Transboundary and Emerging Diseases</i> , 62(2), 163–73.	ILRI	2.944
7.	Biol, E; Karandikar, B; Roy, D; Torero, M. 2015. Information, Certification and Demand for Food Safety: Evidence from an In-store Experiment in Mumbai. <i>Journal of Agricultural Economics</i> . 66(2): 470–491 .	MTID	1.278
8.	Burniston, S., Okello, A.L., Khamlome, B., Inthavong, P., Gilbert, J., Blacksell, S.D., Allen, J. and Welburn, S.C. 2015. Cultural drivers and health-seeking behaviours that impact on the transmission of pig-associated zoonoses in Lao People's Democratic Republic. <i>Infectious Diseases of Poverty</i> 4:11. http://dx.doi.org/10.1186/2049-9957-4-11	ILRI	4.111
9.	Carter, N.A., Dewey, C.E., Lukuyu, B., Grace, D. and Lange, C.F.M. de. 2015. Nutrient composition and seasonal availability of local feedstuffs for pigs in western Kenya. <i>Canadian Journal of Animal Science</i> 95(3): 397-406. http://dx.doi.org/10.4141/CJAS-2015-003	ILRI	1.081
10.	Carter, N.A., Dewey, C.E., Thomas, L.F., Lukuyu, B., Grace, D. and Lange, C. de. 2015. Nutrient requirements and low-cost balanced diets, based on seasonally available local feedstuffs, for local pigs on smallholder farms in western Kenya. <i>Tropical Animal Health and Production</i> . http://dx.doi.org/10.1007/s11250-015-0957-6	ILRI	0.817
11.	Chauhan, Y., Tatnell, J., Krosch, S., Karanja, J., Gnonlonfin, B., Wanjuki, I., Wainaina, J. and Harvey, J. 2015. An improved simulation model to predict pre-harvest aflatoxin risk in maize. <i>Field Crops Research</i> 178: 91-99. http://dx.doi.org/10.1016/j.fcr.2015.03.024	ILRI	2.976
12.	Deem, S.L., Fèvre, E.M., Kinnaird, M., Browne, A.S., Muloi, D., Godeke, G.-J., Koopmans, M. and Reusken, C.B. 2015. Serological evidence of MERS-CoV antibodies in dromedary camels (<i>Camelus dromedarius</i>) in Laikipia County, Kenya. PLOS ONE 10(10): e0140125. http://dx.doi.org/10.1371/journal.pone.0140125	ILRI	3.234
13.	Devleeschauwer, B., Haagsma, J.A., Angulo, F.J., Bellinger, D.C., Cole, D., Döpfer, D., Fazil, A., Fèvre, E.M., Gibb, H.J., Hald, T., Kirk, M.D., Lake, R.J., Noordhout, C.M. de, Mathers, C.D., McDonald, S.A., Pires, S.M., Speybroeck, N., Thomas, M.K., Torgerson, P.R., Wu, F., Havelaar, A.H. and Praet, N. 2015. Methodological framework for World Health Organization estimates of the global burden of foodborne disease. PLOS ONE 10(12): e0142498. http://dx.doi.org/10.1371/journal.pone.0142498	ILRI	3.234
14.	Dione, M.M., Akol, J., Roesel, K., Kungu, J., Ouma, E.A., Wieland, B. and Pezo, D. 2015. Risk factors for African swine fever in smallholder pig production systems in Uganda. <i>Transboundary and Emerging Diseases</i> . http://dx.doi.org/10.1111/tbed.12452	ILRI	2.944
15.	Dulo, F., Feleke, A., Szonyi, B., Fries, R., Baumann, M.P.O. and Grace, D. 2015. Isolation of multidrug-resistant <i>Escherichia coli</i> O157 from goats in the Somali region of Ethiopia: A cross-sectional, abattoir-based study. PLOS ONE 10(11): e0142905. http://dx.doi.org/10.1371/journal.pone.0142905	ILRI	3.234
16.	Eltholth, M., Fornace, K., Grace, D., Rushton, J. and Häslér, B. 2015. Characterisation of production, marketing and consumption patterns of farmed tilapia in the Nile Delta of Egypt. <i>Food Policy</i> 51: 131-143. http://dx.doi.org/10.1016/j.foodpol.2015.01.002	ILRI	1.799
17.	Gilbert, M., Conchedda, G., Van Boeckel, T.P., Cinardi, G., Linard, C., Nicolas, G., Thanapongtharm, W., D'Aiotti, L., Wint, W., Newman, S.H. and Robinson, T.P. 2015. Income disparities and the global distribution of intensively farmed chicken and pigs. PLOS ONE 10(7):e0133381. http://dx.doi.org/10.1371/journal.pone.0133381	ILRI	3.234
18.	Grace, D. 2015. Food safety in low and middle income countries. <i>International Journal of Environmental Research and Public Health</i> 12(9): 10490-10507. http://dx.doi.org/10.3390/ijerph120910490	ILRI	2.063
19.	Grace, D. 2015. The fever on the farm. [Review of the book <i>Arresting Contagion: Science, Policy, and Conflicts over Animal Disease Control</i> by A.L. Olmstead and P.W. Rhode]. <i>Science</i> , 17 April 2015, 348(6232): 294. doi 10.1126/science.aaa7672 http://www.sciencemag.org/content/348/6232/294.full	ILRI	33.611
20.	Grace, D., Mahuku, G., Hoffmann, V., Atherstone, C., Upadhyaya, H. D., & Bandyopadhyay, R. 2015. International agricultural research to reduce food risks: case studies on aflatoxins. <i>Food Security</i> , 1-14.	IITA/IFPRI/ILRI	1.495
21.	Gray, G.C., Anderson, B.D., LaBeaud, D., Heraud, J.-M., Fèvre, E.M, Andriamandimby, S.F., Cook, E.A.J., Dahir, S., Glanville, W.A. de, Heil, G.L., Khan, S.U., Muiruri, S., Olive, M.-M., Thomas, L.F., Merrill, H.R., Merrill, M.L.M. and Richt, J.A. 2015. Seroepidemiological study of interepidemic Rift Valley fever virus infection among persons with intense rural exposure in Madagascar and Kenya. <i>American Journal of Tropical Medicine and Hygiene</i> 93(6): 1364-1370. http://dx.doi.org/10.4269/ajtmh.15-0383	ILRI	2.699
22.	Havelaar, A.H., Kirk, M.D., Torgerson, P.R., Gibb, H.J., Hald, T., Lake, R.J., Praet, N., Bellinger, D.C., Silva, N.R. de, Gargouri, N., Speybroeck, N., Cawthorne, A., Mathers, C., Stein, C., Angulo, F.J. and Devleeschauwer, B. on behalf of World Health Organization Foodborne Disease Burden	ILRI	14.429

Epidemiology Reference Group. 2015. World Health Organization global estimates and regional comparisons of the burden of foodborne disease in 2010. <i>PLOS Medicine</i> 12(12): e1001923. http://dx.doi.org/10.1371/journal.pmed.1001923 [Eric Fèvre is a member of the group]		
23. Hernandez-Vargas, H., Castelino, J., Silver, M.J., Dominguez-Salas, P., Cros, M.-P., Durand, G., Le Calvez-Kelm, F., Prentice, A.M., Wild, C.P., Moore, S.E., Hennig, B.J., Herceg, Z., Yun Yun Gong and Routledge, M.N. 2015. Exposure to aflatoxin B1 in utero is associated with DNA methylation in white blood cells of infants in The Gambia. <i>International Journal of Epidemiology</i> 44(4): 1238-1248. http://dx.doi.org/10.1093/ije/dyv027	ILRI	9.176
24. Hibi, J. Kurosawa, A., Watanabe, T., Kadowaki, H., Watari, M. and Makita, K. 2015. Post-traumatic stress disorder in participants of foot-and-mouth disease epidemic control in Miyazaki, Japan, in 2010. <i>Journal of Veterinary Medical Science</i> 77(8): 953-959. http://dx.doi.org/10.1292/jvms.14-0512	ILRI	0.782
25. Hoang Van Minh, Tran Tuan Anh, Anh Duc Ha and Hung Nguyen-Viet. 2015. Cost of hospitalization for foodborne diarrhea: A case study from Vietnam. <i>Journal of Korean Medical Science</i> 30(Suppl 2): S178-S182. http://dx.doi.org/10.3346/jkms.2015.30.S2.S178	ILRI	1.266
26. Hoffmann, V., Jones, K., & Leroy, J. 2015. Mitigating aflatoxin exposure to improve child growth in Eastern Kenya: study protocol for a randomized controlled trial. <i>Trials</i> , 16(1), 552 .	MTID/PHND	1.731
27. Hung Nguyen-Viet, Doria, S., Dinh Xuan Tung, Mallee, H., Wilcox, B.A. and Grace, D. 2015. Ecohealth research in Southeast Asia: Past, present and the way forward. <i>Infectious Diseases of Poverty</i> 4:5. http://dx.doi.org/10.1186/2049-9957-4-5	ILRI	4.111
28. Kihu, S.M., Gachohi, J.M., Ndungu, E.K., Gitao, G.C., Bebola, L.C., Njenga, J.M., Wairire, G.G., Maingi, N., Wahome, R.G. and Ireri, R. 2015. Sero-epidemiology of Peste des petits ruminants virus infection in Turkana County, Kenya. <i>BMC Veterinary Research</i> 11: 87. http://dx.doi.org/10.1186/s12917-015-0401-1	ILRI	1.777
29. Knight-Jones, T.J.D., Bulut, A.N., Gubbins, S., Stärk, K.D.C., Pfeiffer, D.U., Sumption, K.J. and Paton, D.J. 2015. Randomised field trial to evaluate serological response after foot-and-mouth disease vaccination in Turkey. <i>Vaccine</i> 33(6): 805-811. http://dx.doi.org/10.1016/j.vaccine.2014.12.010	ILRI	3.624
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Flagship 4 – Integrated Programs and Policies (n=32)		
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32. Young, Melissa F.; Nguyen, Phuong Hong; Addo, O. Yaw; Hao, Wei; Nguyen, Hieu; Pham, Hoa; Martorell, Reynaldo; and Ramakrishnan, Usha. 2015. The relative influence of maternal nutritional status before and during pregnancy on birth outcomes in Vietnam. European Journal of Obstetrics & Gynecology and Reproductive Biology. 194(November 2015): 223-227. http://dx.doi.org/10.1016/j.ejogrb.2015.09.018	PHND	1.695
Cross-Flagship (n=1)		
1. Mayne, J., & Johnson, N. (2015). Using theories of change in the CGIAR Research Program on Agriculture for Nutrition and Health. Evaluation, 21(4), 407-428.	PMU	1.906
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	Total trainees	Africa	East Asia and the Pacific	Europe	North America	South Asia	Not specified
13. Total trainees in short-term programs facilitated by CRP (male)	25,477	20,396	70	2	0	4,636	373
14. Total trainees in short-term programs facilitated by CRP (female)	92,032	62,724	126	3	0	26,653	2,526
15. Total trainees in long-term programs facilitated by CRP (male)	45	19	1	5	2	0	18
16. Total Trainees in long-term programs facilitated by CRP (female)	66	19	4	13	9	2	19

18. Number of technologies/NRM practices under research in the CRP (Phase I)	19. ... have an explicit target of women farmers	20. ...have been assessed for likely gender-disaggregated impact
12 new varieties introduced in Kenya: 9 citrus, 1 pomegranate and 1 guava	No	No
150,000 lines of biofortified crops in on-station testing	No	No
3 experimental aflatoxin biocontrol products in Tanzania	No	No
3 experimental aflatoxin biocontrol products in Mozambique	No	No
Weather based surveillance for climate sensitive disease	No	No
APSIM model for predicting aflatoxin	No	No
Diagnostic: potential of Luminex-based fluorescence microsphere immunoassay for Rift Valley fever diagnosis	No	No
Diagnostic: time series modeling of the number of condemned intestines in abattoirs	No	No
Lactic acid bacteria for aflatoxin control	No	No
Optimal drug control for African animal trypanosomosis	No	No
Business models for biocontrol (aflasafe™) in Kenya	No	Yes
23. Number of technologies/NRM practices field tested in the CRP (Phase II)	Geographical Location	
Incentive scheme with nutrition objectives for small, semi-nomadic milk producers in Senegal	Senegal	
Value chains for nutrition framework (testing in multiple sites)	Multiple countries	
VeggeKart/VeggieLite model in India (micro-enterprise retail outlets and distribution channels to make fresh and healthy produce of women smallholder farmers accessible for low-income rural and urban consumers)	India	
1,000 lines in multi-locational field trials in target countries	Multiple countries	
3 post-harvest technologies	Multiple countries	
6 value addition technologies	Multiple countries	
Triple layer plastic bags for safe storage of groundnuts at farmers' level	India	
1 aflatoxin biocontrol product under testing in Senegal and The Gambia	The Gambia, Senegal	
2 aflatoxin biocontrol products under testing in Ghana	Ghana	
2 aflatoxin biocontrol products under testing in Zambia	Zambia	
Willingness to pay for food safety – Uganda and pork	Uganda	
Willingness to pay for food safety – Kenya and aflatoxins	Kenya	
Low-cost balanced diets for East African pigs	Uganda	
Decision support for assessing disease impacts (foot and mouth disease)	Regional	
Optimum vaccination strategies	Turkey	
SMS messages for health	Multiple countries	
Livestock identification and traceability systems	East Africa	
Mobile maize dryer in Kenya	Kenya	
Tarps for drying maize and groundnuts in Ghana	Ghana	

Enhanced-Homestead Food Production (E-HFP) model in Burkina Faso and Tanzania	Burkina Faso, Tanzania
Agriculture interventions to increase year-round availability of good-quality foods at household level combined with social behavior change communication around optimal nutrition and health practices in Zambia	Zambia
27. Number of technologies/NRM released by public and private sector partners globally by the CRP (Phase III)	
3 vitamin A maize varieties released or commercialized in Zambia	
2 zinc rice varieties released or commercialized in Bangladesh	
Aflasafe KE01 released for aflatoxin mitigation on maize in Kenya	
Methodological framework for World Health Organization estimates of the global burden of foodborne disease	
Mapping the benefit-cost ratios of interventions against bovine trypanosomosis in Eastern Africa	
Rift Valley fever decision support framework in eastern Africa	

28. Number of Policies/ Regulations/ Administrative Procedures Analyzed (Stage 1)	Supporting Evidence
Brief on Dietary Diversity and Biofortification	http://www.harvestplus.org/sites/default/files/AtIssue1_Dietary_Diversity.pdf
Support to task force on risk assessment for food safety in Vietnam	http://hdl.handle.net/10568/69432 http://hdl.handle.net/10568/68287
Brief on Legitimizing informal markets: A case study of the dairy sector in Kenya	http://pubs.iied.org/pdfs/17316IIED.pdf?
One Health approach recommended in investigating and communicating the potential role of pigs in transmitting Ebola in Uganda	http://dx.doi.org/10.1111/tbed.12394
Multidrug-resistant pathogens in sheep and goat value chains in Ethiopia - implications for public health	http://hdl.handle.net/10568/66332
Aflatoxin contamination of milk and feeds in the greater Addis Ababa milk shed in Ethiopia	http://hdl.handle.net/10568/67739 http://hdl.handle.net/10568/67380 http://hdl.handle.net/10568/67369
Akhter Ahmed and Shenggen Fan discussed BIHS and WEAI survey data with Bangladesh's Prime Minister; the data show high levels of women's disempowerment, linked with poor child nutrition outcomes. IFPRI consulted with the Minister of Agriculture. In 2015, the ANGeL project launched by the Ministry of Agriculture.	https://www.youtube.com/watch?v=5Gbei83o_oE http://www.ifpri.org/blog/international-womens-day-2016-empowering-women-data-and-evidence-bangladesh
Agricultural policies in East Africa analyzed in the context of improving nutrition	http://fnb.sagepub.com/content/36/4/503.short
Agricultural policies in South Asia and East Africa analyzed in the context of improving nutrition	http://link.springer.com/article/10.1007/s12571-015-0449-6
Contributions to India Health Report on Nutrition 2015	http://www.transformnutrition.org/india-health-report-on-nutrition-2015/
Contributions to the Global Nutrition Report 2015	http://globalnutritionreport.org/ http://globalnutritionreport.org/events/
29. Number of policies / regulations / administrative procedures drafted and presented for public/stakeholder consultation (Stage 2)	Supporting Evidence
Codex Alimentarius Commission (CAC) approved new work to develop a definition for biofortification. Stakeholder consultation via an e-Working Group has addressed concerns by national governments and narrowed 18 potential definitions for biofortification to four.	http://www.fao.org/fao-who-codexalimentarius/sh-proxy/fr/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FMeetings%252FCX-720-37%252FWD%252Fmf37_06-Add%2B1e.pdf
Results from studies analyzing impact of subsidies and market incentives on adoption of aflatoxin control in Ghana and Kenya presented at First International Congress on the Prevention of Post-Harvest Losses (Rome, Italy, October 4-7, 2015) and PACA / GAIN / AMREF Workshop on "Engaging the Health and Nutrition Sectors in Aflatoxin Control in Africa" (Addis Ababa, Ethiopia, March 23-24, 2016)	http://phlcongress.illinois.edu/Session3F.html http://aflatoxinpartnership.org/?q=node/413
WHO - framework for intensified control of taeniasis and neurocysticercosis caused by Taenia solium	http://hdl.handle.net/10568/58475

UNEP/CBD/SBSTTA/19/INF/1 Strategic Scientific and Technical issues related to the implementation of the strategic plan for biodiversity	https://www.cbd.int/kb/record/meetingDocument/105616?RecordType=meetingDocument&Event=SBSTTA-19
Kenya prepared a draft policy framework for biodiversity protection in Busia County. The framework was discussed during a stakeholders workshop held 8-10 September	Busia County Biodiversity Policy (upon request) http://www.busiacounty.go.ke/?p=2325
Scaling up impact on nutrition: what will it take?	http://www.ncbi.nlm.nih.gov/pubmed/26178028 . The SUN movement has highlighted this paper to their members on their website and cited it as a key reference framework for their guidance on documenting and enabling access to systematic research expertise on the implementation strategies, effective coverage, and impact of evidence-based actions in SUN countries.
30. Number of policies / regulations / administrative procedures presented for legislation (Stage 3)	Supporting Evidence
The EAC Multi-sectoral Ministerial Council reviewed the 11 Technical papers prepared by IITA and partners and adopted all policy recommendations included in the papers. The knowledge platform established by the papers and the preceding production process to build a regional aflatoxin abatement action plan is underway. IITA provided support to the EAC through the drafting of 11 Policy Papers delivered under the EAC cover for the “Regional Expert Working Group on Aflatoxin” (REGWA) conferences. The papers reflected a condensed version of the larger technical policy papers and included all recommendations previously approved by the EAC Expert Working Groups during the preceding the workshop series.	Available upon request
Brazil National Pact for Healthy Food (Decree n. 8553/2015) [Pacto Nacional para Alimentação Saudável] was published by the Brazilian government. The decree supports the increased supply (especially by family farmers), availability and consumption of healthy foods (particularly sociobiodiversity products) and the fight against overweight, obesity and diet-related diseases	http://crn9.org.br/noticias/conheca-o-pacto-pela-alimentacao-saudavel/
31. Number of policies / regulations / administrative procedures prepared passed/approved (Stage 4)	Supporting Evidence
In DRC, biofortification has been integrated as a program in the National Strategic and Multisectoral Plan on Nutrition. This plan was adopted by a decree passed by the Prime Minister.	Available upon request
7th Five Year Plan for the Government of Bangladesh includes Transform Nutrition research to inform the nutrition background paper	http://www.plancomm.gov.bd/wp-content/uploads/2015/02/23_FINAL-Nutrition-Background-Paper-for-7th-Five-Year-Plan--23-Feb-2015.pdf Section on the enabling environment for nutrition (section 5.2.1 on page 34), cites Stuart Gillespie and John Hoddinott, A4NH-affiliated researchers
32. Number of policies / regulations / administrative procedures passed for which implementation has begun (Stage 5)	Supporting Evidence
Orange maize is included in the Zambia Farmer Input Support Program (FISP) as one of the subsidized seed varieties for distribution to eligible farmers throughout Zambia	http://www.harvestplus.org/content/zambia-launches-widespread-sales-vitamin-maize Zambia Agricultural Minister’s fullspeech
In Nigeria, two states (Anambra and Delta) are funding the multiplication and marketing of vitamin A cassava through their state development plans	Available upon request

Annex 2: Successes and challenges in mainstreaming gender research

A4NH has met the requirements for gender mainstreaming defined by the Consortium for Office for the performance indicator 'gender inequality targets defined' and has exceeded expectations for the performance indicator 'Institutional architecture for integration of gender is in place'.

In 2015, A4NH continued to systematically collect from projects information on their gender research questions, whether sex-disaggregated data has been collected and the level of gender focus on project deliverables. Gender was a cross-cutting question in the [CRP-commissioned external evaluation](#) and the A4NH gender team was actively engaged. A [background paper on 'gender and equity'](#) prepared for the evaluation concluded that 'very good progress' has been made on gender issues in A4NH. At the evaluation's recommendation, the A4NH Gender Strategy was updated to broaden the focus of gender research to include health and equity and a theory of change (ToC) was constructed to show how gender research and activities will lead to desired outcomes.

Gender inequality targets defined

- The current status of A4NH indicators and targets have been summarized in the Performance Indicator Matrix Table A submitted as part of the Phase II proposal. A4NH researchers contributed to the [development of a new indicator to measure diet diversity](#) (Minimum Diet Diversity for Women – MDD-W) which can be used to assess and track the quality of diets at the population level. Moreover, in 2015, the second round of the Gender, Assets and Agriculture Program (GAAP2) started which aims to [develop a project-level indicator for measuring women's empowerment](#). In 2015, the Monitoring, Learning and Action (MLA) Functional Team of HarvestPlus took into consideration recommendations from its Strategic Gender Assessment report when developing the new M&E system for HarvestPlus. Many of the indicators that will be tracked by country-level MLA teams are sex-disaggregated.
- The A4NH external evaluation noted that the A4NH Gender Team has been active in monitoring the integration of gender in the A4NH research portfolio. Four-fifths of the projects that were active in 2015 self-reported to have a gender dimension in their research. The gender quotient of project deliverables continued to increase. Over 60 per cent of the 2015 project deliverables have a gender focus with a fifth of 2015 deliverables significantly focused on gender.¹ In 2014, 49 per cent of deliverables had a gender focus and 11 per cent had a significant gender focus. Since the gender dimension of projects and deliverables in self-reported, the Gender Team has plans to further review these deliverables to validate the self-reported assessments and to track which projects had gender research questions but were not able to produce gender-focused deliverables, why this was the case and how the Gender Team can support these projects.

Institutional architecture for integration of gender is in place

- The A4NH Gender Strategy that was updated in 2015 acted as a resource for flagship teams while developing the Phase II pre-proposal (and the full proposal in 2016), especially for the new flagships added to the A4NH portfolio. The strategy lists the gender research questions and milestones for each of the flagships. It emphasizes the role of the new Gender, Equity and Empowerment (GEE) unit to build capacity within participating centers and within the other CRPs working towards nutrition and health outcomes. In 2015, the [Gender-Nutrition Idea Exchange](#) continued to publish blogs to a growing readerships on new topics such as the relationship between nutrition and time-use in agriculture, impact of agricultural interventions on health (based on a Gender Methods Seminar organized by the team), new indicators of diet diversity for women and on the interaction of climate change with gender-nutrition pathways.
- In 2015, A4NH hired two new gender postdoctoral fellows through the CGIAR Gender Postdoctoral Fellowship Award, who are supporting cross-CRP gender work within A4NH and the CRPs on Livestock and Fish, Grain Legumes, and Policies, Institutions, and Markets. The two postdocs are expected to have preliminary outputs in 2016.
- The GAAP2 project which is part of strategic gender research being conducted by A4NH, has several capacity building initiatives. Gender researchers from CGIAR centers were invited to apply to be part of the GAAP2 research team and two fellows from different CGIAR Centers were selected in 2016. GAAP2 will also develop a Community of Practice which will first be opened up to participating projects, and eventually to a wider community, including researchers from A4NH as well as other CRPs.
- A4NH continued to conduct cross-cutting gender research on frontier research topics that provide evidence and methodologies useful to A4NH research projects. In 2015, this included research on [time-use in agriculture and its impact on nutrition](#) and the use of the Women's Empowerment in Agriculture Index (WEAI) to establish the [relationship between women's empowerment and nutrition outcomes](#). A4NH also provided grants and support to research projects on [gender roles and food safety outcomes](#) and the role of gender in nutrition-sensitive school feeding programs.

¹The following definitions are used to assess gender quotient of a deliverable:

- Some: Gender and/or women are not the primary focus of the research activity but there is some analysis of sex-disaggregated data
- Significant: At least one research question is focused on gender and/or women and the deliverable explicitly analyses sex-disaggregated data

Performance Indicator	CRP performance approaches requirements	CRP performance meets requirements	CRP performance exceeds requirements
1. Gender inequality targets defined	Sex-disaggregated social data is being collected and used to diagnose important gender-related constraints in at least one of the CRP's main target populations	Sex-disaggregated social data collected and used to diagnose important gender-related constraints in at least one of the CRP's main target populations And The CRP has defined and collected baseline data on the main dimensions of gender inequality in the CRP's main target populations relevant to its expected outcomes (IDOs)	Sex-disaggregated social data collected and used to diagnose important gender-related constraints in at least one of the CRP's main target populations And The CRP has defined and collected baseline data on the main dimensions of gender inequality in the CRP's main target populations relevant to its expected outcomes (IDOs) And CRP targets changes in levels of gender inequality to which the CRP is or plans to contribute, with related numbers of men and women beneficiaries in main target populations
2. Institutional architecture for integration of gender is in place	- CRP scientists and managers with responsibility for gender in the CRP's outputs are appointed, have written TORS. - Procedures defined to report use of available diagnostic or baseline knowledge on gender routinely for assessment of the gender equality implications of the CRP's flagship research products as per the Gender Strategy -CRP M&E system has protocol for tracking progress on integration of gender in research	- CRP scientists and managers with responsibility for gender in the CRP's outputs are appointed, have written TORS and funds allocated to support their interaction. - Procedures defined to report use of available diagnostic or baseline knowledge on gender routinely for assessment of the gender equality implications of the CRP's flagship research products as per the Gender Strategy -CRP M&E system has protocol for tracking progress on integration of gender in research And A CRP plan approved for capacity development in gender analysis	CRP scientists and managers with responsibility for gender in the CRP's outputs are appointed, have written TORS and funds allocated to support their interaction. - Procedures defined to report use of available diagnostic or baseline knowledge on gender routinely for assessment of the gender equality implications of the CRP's flagship research products as per the Gender Strategy -CRP M&E system has protocol for tracking progress on integration of gender in research And A CRP plan approved for capacity development in gender analysis And The CRP uses feedback provided by its M&E system to improve its integration of gender into research