

# CGIAR Research Program on Agriculture for Nutrition and Health (A4NH): 2014 Annual Performance Monitoring Report





Revised and resubmitted to the Consortium Office on June 22, 2015 Learn more about A4NH's latest progress in our <u>2014 Annual Report</u>

## ACRONYMS AND ABBREVIATIONS

A4NH	Agriculture for Nutrition and Health
A&T	Alive & Thrive
APPEAR	Aflatoxin Policy and Programs for the East Africa Region
BCC	Behavior Change Communication
BFN	Biodiversity for Food and Nutrition
CAADP	Comprehensive Africa Agriculture Development Program
CIC	Convergent Innovation Coalition
CRP	CGIAR Research Program
DFID	United Kingdom's Department for International Development
DRC	Democratic Republic of Congo
EAC	East African Community
E-HFP	Enhanced Homestead Food Production
FAO	Food and Agriculture Organization of the United Nations
GAAP	Gender, Agriculture and Assets Project
HANCI	Hunger and Nutrition Commitment Index
нкі	Helen Keller International
IDO	Intermediate development outcome
IFAD	International Fund for Agricultural Development
ISPC	Independent Science and Partnership Council
LANSA	Leveraging Agriculture for Nutrition in South Asia
MDD-W	Minimum Dietary Diversity - Women
MOU	Memorandum of Understanding
NQAEN	Nutritional Quality Assurance and Enhancement Network
OFSP	Orange-fleshed sweet potato
PACA	Partnership for Aflatoxin Control in Africa
PHFI	Public Health Foundation of India
POWB	Plan of Work and Budget
PM2A	Preventing Malnutrition in Children under Two Years of Age
PMU	Program Management Unit
PROMIS	Innovative Approaches for the Prevention of Childhood Malnutrition in Sub-Saharan Africa
RAIN	Realigning Agriculture to Improve Nutrition
ReSAKSS	Regional Strategic Analysis and Knowledge Support System
SGA	Strategic Gender Assessment
SRF	Strategy and Results Framework
SUN	Scaling up Nutrition
ТоС	Theory of Change
USDA-ARS	United States Department of Agriculture-Agricultural Research Service
W1/2/3	Window 1/2/3
WEAI	Women's Empowerment in Agriculture Index
WFP	World Food Program
WHO	World Health Organization

## A. KEY MESSAGES

Improving nutrition and health is at the center of the CGIAR Strategic Results Framework (SRF). The A4NH results framework contributes to intermediate development outcomes (IDOs) at scale for improving diet quality and reducing exposure to agriculture-associated disease, including food safety risks. Achieving these two nutrition and health IDOs relies on two other IDOs – empowering women and **poor communities** to make decisions related to agriculture, food, care, and health and enabling nutrition and health through better cross-sectoral policies, programs and investments. At the June 2013 Nutrition for Growth Summit, the CGIAR and national governments, donors, and private sector partners made a number of commitments. In 2014, contributions from A4NH and our partners were central to CGIAR progress towards fulfilling those commitments – in adoption of biofortified crops, in providing evidence on the impacts of integrated agriculture-nutrition programs, and on understanding and evaluating progress of national and sub-national efforts to achieve nutrition and health outcomes from agriculture and other sectors. Partners are critical for A4NH research to contribute to development outcomes. Public and private value chain actors, development program implementers, and policy and investment enablers play critical roles in our impact pathways. Given our focus on nutrition and health outcomes, we have built partnerships that span the agriculture, nutrition, and health communities. The research portfolio remains organized into four research flagships - Value Chains for Enhanced Nutrition, Biofortification, Agriculture-Associated Diseases, and Integrated Programs and Policies – with three clusters of activities under each flagship as described in our approved Extension Proposal.

Beyond the broader A4NH results framework and impact pathways, teams of A4NH researchers and partners made progress in 2014 in developing detailed theories of change (ToCs) around major research outputs, many of which will be published in 2015. The process of developing ToCs has clarified assumptions and the available supporting evidence on how agricultural research contributes to diet and health outcomes. We are using these detailed ToCs to refine how A4NH research and activities will lead to nutrition and health outcomes at scale through the delivery of biofortified crops in individual target countries, for improving food safety of animal source foods and vegetables, and in aflatoxin control.

### Synthesis of two most significant achievements/success stories

The growing evidence base and rising momentum for iron beans was a significant 2014 achievement for A4NH. Preliminary results from two efficacy studies conducted by HarvestPlus and its partners demonstrated that consumption of iron beans had a significant impact on micronutrient status and functional indicators of micronutrient status, like physical activity. Preliminary results were presented to the Rwanda Ministry of Health and to researchers attending a symposium at Experimental Biology. To date, nine varieties of beans with up to 94% of the target iron increment have been released in Rwanda. The Democratic Republic of Congo (DRC) has ten varieties of iron bean with up to 100% of the target iron increment. By the end of 2014, a cumulative estimated 800,000 households were reached with iron beans in Rwanda and about 350,000 households in eastern DRC. It is estimated that one-third of Rwanda's 1.9 million households grow and consume iron beans, largely due to an initiative between HarvestPlus and the Rwandan government. Progress on research and delivery of iron beans coincides with the increasing importance of nutrition in Rwandan public policies. Lastly, innovative marketing plans and outreach campaigns were implemented in 2014 to increase consumer awareness as iron beans start to enter urban markets. A music video and outreach tour by Rwanda's top musicians touted the benefits of growing and consuming iron beans, including live performances to more than 30,000 people alongside exhibitions and sales of iron bean seeds.

Data on the number of farming households reached are collected by the country teams in collaboration with their delivery partners. For planting material delivered through partnerships with NGOs and public extension officers, these partners keep records on the names and locations of the beneficiaries. For planting material that is delivered through partnerships with seed companies, the companies keep records of quantity of planting material sold in each location and the average quantity purchased by farming households, from which the number of households reached can be estimated. In both countries, country teams conduct spot checks in order to verify the reports by partners on how many households received planting material. It is assumed that households reached with planting material will grow and consume the crop. From time to time, HarvestPlus will conduct statistical surveys for further data verification, but not in all countries and not in all years as costs for doing so would be prohibitive. In 2015, HarvestPlus is undertaking a nationally representative survey of bean growers in Rwanda, and this will give us an independent estimate of the farming households growing and consuming biofortified beans in Rwanda.

A second noteworthy achievement was the publication of *Food Safety and Informal Markets*, a summary of 10 years of research on food safety in informal markets. With 25 case studies of meat, milk, egg, and fish products drawn from eight countries in East, West and Southern Africa, the book offers policy makers and public health experts several examples of challenges and solutions in managing food safety in informal markets. Most meat, milk, eggs, and fish produced in developing countries is sold in informal markets, or markets where actors are not licensed or do not pay tax, like wet markets, milk hawking systems, street food stalls, or backyard poultry systems. Most of these markets lack modern infrastructure and effective health and safety regulation and inspection. The book shows how the participatory food safety risk assessment can help provide a realistic and pragmatic strategy for reducing the risk of foodborne diseases for consumers while ensuring market access for poor producers. Evidence also highlighted the gendered aspects of food safety risks and control options. Another key message from the book is that effective food safety management in low-income contexts must start with making the distinction between the *potential* food-borne hazards, such as bacteria, chemical and toxins, and the *actual* health risks they pose to consumers. This book was published as part of the BMZ-GIZ funded project, *Safe Food, Fair Food*.

### **Overall financial summary**

Given that the 2012-2014 Program Implementation Agreement would be wrapped up by the end of 2014, we planned to expend all the expected revenues, including the 2013 carryover, early in 2014. We mainly continued with strengthening the new initiatives from 2013. Unfortunately, there was a 10% budget cut in late 2014, and by then most of the revenues were expended or entered into commitments to be carried forward to 2015. We continued as planned with no cuts to the 2014 budget to centers. This had an impact on the 2015 budget allocation. In 2014, similar to prior years, A4NH had a large proportion of Window 3/bilateral grants. With the constraints of Window 1/Window 2 (W1/W2) grants, A4NH research continues to depend on W3/bilateral grants. The low proportion of W1/W2 funding is a challenge to establishing and growing new areas of research and the necessary partnerships.

2012 - 2014 Cumulative, Financial Summary (in US millions)	Cumulative - Planned vs Actual expenditure (PIA/Consortium financial Plans)	Exp Cu	Actual Expenditure Cumulative		Planned Expenditure 2014		Actual penditure 2014	Cumulative Variance (PIA or POWB)	
Total Expenditure	\$191.40	\$	182.53	Γ	\$ 74.00	\$	92.95	-5%	
Window 1(\$10.4m income)	\$93.6 (PIA)	ć	61.2	Γ	\$43.6 (PIA)	ć	26.7		
Window 2 (\$52.4m income)	\$61.3	Ş	01.5		\$24	Ş	20.7	-33%	
Window 2/Pilatoral	\$96.7 (PIA)	ć	121.2	Γ	\$25.3 (PIA)	ć	66.2		
	\$121.3	Ş	121.5		\$50	Ş	00.2	+25%	
Gender Research Expenditure (estimated)*				Г		\$	12.5		

\*Estimated expenditure- Gender research expenditure is integrated within the flagships

A key resource in A4NH is our people. Below is a summary of the number of A4NH researchers, research and administrative support staff.

	Female	Male	Total	F/M
Director/Team Leader	8	19	27	0.42
Principal Investigator/Senior Scientist	12	37	49	0.32
Scientist	14	45	59	0.31
Post-doc/Research Fellows	31	26	57	1.19
Other Research and Admin Support staff	100	68	168	1.47
TOTAL	165	195	360	0.85

## B. IMPACT PATHWAY AND INTERMEDIATE DEVELOPMENT OUTCOMES (IDOS)

In 2014, A4NH made progress in developing four detailed ToCs that lay out the logical links between research outputs and IDOs and synthesize the available evidence about whether the links are likely to occur. We are developing <u>ToCs around major research outputs</u>, rather than by flagship or cluster of activity. ToCs are being used to assess the overall logic and plausibility of development-oriented research and identify gaps where further work is needed. Together with results from *ex ante* impact assessment and other analyses and consultations, ToCs are helping to guide research planning and the design of interventions.

Further progress was made on <u>defining IDOs and related indicators</u>. During 2014, A4NH remained active in the <u>CGIAR IDO working group</u> to identify common IDOs and to harmonize IDO definition and indicator selection among CRPs with IDOs on nutrition and gender. We provided substantial inputs into the process of developing the new CGIAR SRF. Once the SRF is finalized in 2015, the results of our ongoing work to use available secondary data, primarily from household consumption and expenditures surveys, to construct indicators of diet quality at national and sub-national levels should be useful for establishing baselines and as an input into the planned country consultations.

A4NH had important outputs this year related to identifying and validating nutrition-related indicators. A4NH researchers contributed evidence and support that led to consensus for a dichotomous indicator to measure women's dietary diversity, the <u>Minimum Dietary Diversity - Women (MDD-W</u>). Since then, the MDD-W has been featured in high-level discussions laying out desirable indicators for the post-2015 development agenda and goals. The focus on the first 1,000 days has been high on the nutrition and health development agenda as one strategy to reduce the global burden of stunting. <u>An article in the</u> <u>Journal of Nutrition</u> showed that the use of height-for-age Z-scores has led to a misconception that the process of growth faltering is generally over by the time children reach two years of age (i.e. the first 1,000 days). Using a new metric, the absolute "height-for-age difference," <sup>1</sup> the authors found a steady increase in children's height deficit from birth all the way through age five, with no plateauing after 1,000 days as previously thought. These findings *do not* challenge the global consensus that the first 1,000 days is the most critical period for intervening in nutrition, but expands the window of opportunity for maternal and child interventions aimed at improving nutrition.

## C. PROGRESS ALONG THE IMPACT PATHWAY

## C.1 Progress towards outputs

A4NH researchers generated a number of high-quality research outputs this year, including 15 products, 22 tools, and 137 articles in ISI journals. Major achievements are described in this next section by clusters of activity, starting with clusters where we have the most advanced ToC.

*Delivery and nutritional efficacy of biofortified varieties.* One of the major pathways through which A4NH will contribute to development outcomes is through delivery at scale of biofortified crop varieties. Many varieties have already been released (see Section C.2) and others are in the final stages of development. During 2014 in India, both zinc wheat and iron pearl millet hybrids were commercialized for test marketing. Wheat seed production is driven by demand. Seed companies monitor the market demand for varieties and collect information from their retail outlets and field representatives to forecast and implement seed production. In 2014, 62 tons of two biofortified varieties were distributed as mini-kit trials and for commercial sales through several seed companies and NGOs. HarvestPlus estimates that about 6,200 farmers were reached with an average of 10kg of seed each in these test marketing efforts in 2014. Pearl millet seed is multiplied and commercialized by private sector companies, and then sold through licensed agrodealers on a commission basis to farm households. In 2014, iron pearl millet hybrid Shakti-1201 was test marketed with 6,000 farmers in Uttar Pradesh, Haryana, and Rajasthan. Nine tons of seed was sold in Kharif season, mainly in 1.5 kg packs. With partners, HarvestPlus is experimenting with innovative marketing strategies to increase uptake and adoption of iron beans, including music videos in Rwanda and films in Nigeria.

The evidence base on the nutritional efficacy of biofortified crops, which supports a critical link in the pathway from consumption of biofortified foods to better nutritional status, was substantially strengthened. As previously mentioned, two nutritional efficacy studies for iron beans were completed in 2014. In Rwanda, iron-depleted university-age women showed a significant increase in hemoglobin and total body iron after consuming biofortified beans for 4.5 months. <u>Results of a vitamin A maize efficacy trial in Zambia</u> with 5–7-year-old children showed that, after three months, the total body stores of vitamin A in the children who were in the orange maize group increased significantly compared with those in the control group. Preliminary findings from efficacy trials presented at a symposium held at Experimental Biology suggested that vitamin A maize, iron beans, and iron pearl millet have demonstrated impact on micronutrient status and functional indicators of micronutrient status. Beyond the delivery and nutritional efficacy work in HarvestPlus priority countries, research is also ongoing on micronutrient-enhanced potato and sweet potato. Manuals on lab procedures for mineral analysis have been refined and used with the Rwanda Agricultural Board through the CIP-led Nutritional Quality Assurance and Enhancement Network (NQAEN).

<sup>&</sup>lt;sup>1</sup> The "height-for-age difference" (HAD) is the simple difference in centimeters between the actual height of the child and how tall the child should be according to the height standard.

The flagship on Biofortification is managed by the HarvestPlus team. The few biofortification development activities funded as part of A4NH that were not initially under HarvestPlus are now. HarvestPlus works with other flagships and the evaluation team in A4NH on gender research and the development and application of ToCs for delivery of biofortified varieties in target countries, which is in addition to past collaborations on evaluation. In 2015-2016, there will also be increased coordination on policy.

*Food safety of perishable products.* A4NH scientists generated a number of tools and products focused on supporting the supply and demand of nutrient-dense *and* safe foods. Of particular importance in terms of strengthening the evidence base around participatory risk-based approaches to managing food safety in informal markets was the publication of *Food Safety and Informal Markets*, which we described in Section A. Other food safety research conducted by ILRI and IFPRI in India was published in 2014 describing the positive economic impact of training and certification programs for milk traders in Assam, the role of credible certification on consumers' willingness-to-pay for safe food in a controlled market experiment on grapes in Mumbai, and a <u>risk-based assessment of the pork production chain</u>, from live animal to consumer, in Nagaland, which reported several important food-borne hazards in the region for the first time. In addition, results characterizing health hazards and possible control options for <u>goat</u> meat and <u>ready-to-eat chicken</u> in South Africa are now available.

*Food safety related to aflatoxin risks.* More evidence was published in 2014 by A4NH-affiliated scientists from ICRISAT, IFPRI, IITA, and ILRI on the drivers and scale of aflatoxin contamination in maize, groundnut, and cassava; human exposure to aflatoxin in the Gambia, India, Kenya, and Nigeria; and the effectiveness of different pre- and post-harvest control methods. Findings from a <u>framed field</u> <u>experiment</u> in western Kenya found that farmers valued maize they had grown themselves 20% higher than purchased maize. If information on taste and food safety was available, the gap could be reduced by about half. The findings support other studies that suggest consumers in developing countries care about food safety and would change their behavior based on credible information. The first report of a <u>field evaluation</u> of an endemic atoxigenic strains of *Aspergillus flavus* mixture, a form of biocontrol, found that the blended product was effective in reducing aflatoxin contamination during maize development in Nigeria.

Significant progress was made in 2014 in making biocontrol available to farmers in Africa. The National Agency for Food and Drug Administration and Control granted full registration status of the Aflasafe™ biocontrol product for Nigeria, paving the way for commercialization. In its first full year of production, an Aflasafe™ manufacturing and demonstration plant in Nigeria has become crucial for meeting Aflasafe™ demands in the continent. In 2014, the plant manufactured and supplied 135 tons of country-specific Aflasafe™ products to eight countries in Eastern, Southern and Western Africa. From the amount produced and sold by the factory, one can extrapolate the area reached, in hectares (ha), on the basis of recommended dosage of 10 kg of Aflasafe™ per ha. By the end of 2014, we estimate that more than 18,000 ha across the eight countries have been treated by farmers, implementers, and researchers.

	Amount of	Aflasafe prod	duced (tons)	Potential area treated (ha)			
Country	2013	2014	Total				
Nigeria	61.0	118.0	179.0	14,450			
Senegal	6.0	11.0	17.0	1,700			
The Gambia	-	1.0	1.0	100			
Zambia	12.0	3.4	15.4	1,540			
Ghana	-	1.0	1.0	100			
Mozambique	-	1.0	1.0	100			
Burkina Faso	1.5	-	1.5	150			
Kenya	2.0	-	2.0	200			
TOTAL	82.5	135.4	217.9	18,340			

CGIAR and non-CGIAR partners have collaborated in the development, testing, and promotion of biocontrol. All the strain identification work to develop Aflasafe<sup>™</sup> products have been completed as part of the CRP on MAIZE. After the strains have been identified to constitute a product, all activities from product testing to scaling up is performed under A4NH. For example, in Nigeria, private sector implementers in the multi-lateral Aflasafe<sup>™</sup> initiative that is part of AgResults have helped address barriers to adoption. In Senegal, the Department of Plant Protection (DPV) and the Société de Développement et des Fibres Textiles (SODEFITEX) used the product to treat farmers' groundnut fields

Interest from the private sector in being involved in the commercialization of Aflasafe<sup>™</sup> is growing: implementers of the AgResults initiative purchased Aflasafe<sup>™</sup> from this plant in 2014. In Kenya, ground was broken in November 2014 for the construction of a modular manufacturing plant, designed by IITA and the United States Department of Agriculture-Agricultural Research Service (USDA-ARS), at one of the Kenya Agriculture and Livestock Research Organization research stations.

Evaluating and strengthening nutrition-sensitive agriculture and development programs. The primary objective of our work on integrated programs is generating evidence on the effectiveness of alternative program models to deliver nutrition and health outcomes. Last year, two evaluations of nutrition-sensitive development programs - Alive and Thrive (A&T) in Bangladesh, Ethiopia, and Vietnam and Preventing Malnutrition in Children under Two Years of Age (PM2A) in Burundi and Guatemala were completed. In A&T, impacts were documented on health and nutrition behaviors, in particular. The evaluation of two nutrition-sensitive agriculture programs - Helen Keller International's (HKI) Enhanced-Homestead Food Production Programs (E-HFP) in Burkina Faso and the process evaluation round of Concern Worldwide's Realigning Agriculture to Improve Nutrition (RAIN) - were also completed. In the case of HKI, the findings showed positive impacts of the E-HFP program on women's empowerment, prevalence of thinness, and children's hemoglobin, prevalence of anemia, wasting and diarrhea as well as on a number of positive impacts of the program along the hypothesized program impact pathways. Two other projects wrapped up activities in 2014. A series of briefs from the IITA-led project Making Agricultural Innovations Work for Smallholder Farmers Affected by HIV and AIDS in Southern Africa (MIRACLE) targeted local level stakeholders in designing and implementing similar research and development programs. The longitudinal cohort study of vitamin A status among mothers and children participating in the CIP-led Mama SASHA project also ended in 2014.

*Understanding, supporting, and evaluating cross-sectoral policy processes.* Significant products and tools developed in 2014 were designed to improve the understanding of policy processes and support

an enabling environment for agriculture, nutrition, and health at national, regional, and global levels. A bibliography and toolkit on guidelines and lessons on how research can engage in and influence outcomes of cross-sector policy processes, from the 2013 A4NH-PIM workshop were made available online in 2014. A4NH-affiliated researchers contributed to the 2013 Hunger and Nutrition Commitment Index (HANCI) Report, which ranks governments on their political commitment to tackling hunger and undernutrition. With the launch of an interactive biofortification priority index, interested national governments and partners will be able to identify the "highest opportunity" countries for expanding biofortification.

A4NH involvement in national and global initiatives provided opportunities to raise awareness and understanding about particular issues and policy options that can improve human health and nutrition. In Kenya, the national project coordinator for the <u>Biodiversity for Food and Nutrition</u> (BFN) project, coordinated by Bioversity, was invited to represent BFN on the Nutrition Interagency Coordinating Committee of the Scaling up Nutrition (SUN) movement. This connection complements other country-level partnerships and activities to develop biodiversity conservation policies and promote best practices. The BFN team in Brazil has made progress with the National Fund for Education Development and the School Feeding Program to develop activities linked to policy reforms and the mainstreaming of agrobiodiversity into relevant policies and practices.

*Enhancing value chains at local and global levels.* A4NH researchers working on the new cluster of activities currently known as nutrition-sensitive landscapes developed and introduced their <u>research</u> <u>approach</u> to partners interested in understanding how to better integrate health and nutrition into existing ecological systems research. Five papers from the team were accepted for the International Conference on Integrated Systems. Following a March 2014 workshop on value chains for nutrition, a <u>preliminary framework</u> was prepared with inputs from researchers from several A4NH-participating Centers and partners. The framework is designed to support the identification, design and evaluation of value chain for nutrition interventions. The framework will be tested with the World Food Program (WFP) and the International Fund for Agricultural Development (IFAD) in 2015, particularly to identify potential entry points for gender-sensitive interventions in value chains for nutritious foods.

The concept of "<u>convergent innovation for food systems</u>," the integration of multi-sector innovations to achieve both economic growth and human development, was promoted with partners from academia and the private sector through a <u>series of workshops</u> in Canada and India and via two journal articles. A4NH researchers from Bioversity provided technical inputs into the identification of a shortlist of <u>15</u> <u>indicators for sustainable diets and food systems</u>. Results on the <u>cost-efficiency of models</u>, such as homegrown school feeding programs, which included a framework that is being applied in Mali and Ghana, were published. Scientists from ICRAF developed and disseminated 'seeds of nutrition' kits to female farmers in Kenya participating in training sessions on fruit processing. The kits contained seeds of important fruit trees for planning and information about the value of the respective fruit species for nutrition and health. A4NH experts in collaboration with experts from Humid Tropics published a <u>new</u> <u>set of maps</u> on global livestock distribution. One unique feature of the maps is that they can be easily updated as new data become available via a <u>dedicated geo-wiki</u>. The maps include a level of species detail that is important for epidemiological investigations and improves the ability of researchers to study zoonotic disease risk and estimate the impacts of diseases. The authors note that poultry distributions have already been used in <u>avian influenza risk assessments</u> in Asia.

## C.2 Progress towards the achievement of research outcomes and IDOs

A4NH is committed to not only generating relevant research, but also applying the knowledge 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 our progress by focusing on the recognition and use of research knowledge by our partners, extension of technology/materials, and support to decision makers to create a more enabling environment for nutrition and health.

Support for more enabling environments for nutrition and health. Activities within A4NH are increasingly focused on raising awareness about the evidence-based options policy makers and other enablers have for scaling up nutrition and health. The 2nd Global Conference on Biofortification, hosted by the Government of the Republic of Rwanda and organized by HarvestPlus, was an interactive consultation on how to use biofortified crops to address hunger and malnutrition. Key outcomes were the Kigali Declaration on Biofortified Nutritious Foods, which identifies pressing challenges in access to more nutrition foods and proposes how policies, programs, and markets can address these challenges to support and sustain delivery at scale, and commitments from the WFP to incorporate biofortified crops into its nutrition policy and Purchase for Progress initiative and from CGIAR to mainstream breeding for mineral and vitamin traits into conventional food crop development programs. Momentum for biofortification is building. Statements by national policymakers at the 2nd International Conference on Nutrition of their support for biofortified crops and inclusion of these crops in national practices and strategies came from representatives of target countries (Uganda, Bangladesh, Nigeria, and Pakistan) and but also from others, like Malawi. There has also been progress toward recognition of biofortification by Codex Alimentarius, a collection of internationally recognized standards on foods, food production, and food safety. Delegates to the Codex Committee on Nutrition and Foods of Special Dietary Use agreed to refer a discussion paper and project document on biofortification to the Executive Committee of Codex for evaluation. Furthermore, members of the Codex Coordinating Committee for Africa consisting of 53 Member Governments have now officially recognized/endorsed biofortification as one nutritional intervention to address hidden hunger.

The publication and launch of the first ever <u>Global Nutrition Report</u> and associated products highlighted the data gaps necessary to monitor progress in reducing malnutrition. The nutrition country profiles, country datasets, and the events, which use the report as starting point for conversations that highlight country-specific nutrition issues and reflect on ways to strengthen accountability, was already evident in 2014. With <u>endorsements</u> from a wide-range of partners of the key messages in the report, this initiative has already proven to be a powerful tool for improving global, regional, and country-level policies, programs and investments for nutrition.

In 2014, A4NH had many opportunities to synthesize and present evidence to decisionmakers in South Asia, in particular. The <u>Together for Nutrition</u> conference in India brought together evidence that can inform and support current policy and program initiatives for nutrition that require multi-sectoral action. More than 150 decisionmakers representing 14 states, including representatives from more than 20 INGOs and NGOs, attended the conference, coordinated by the <u>Transform Nutrition</u> consortium and Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India (<u>POSHAN</u>). A series of policy notes, implementation notes, and research notes on working multisectorally to improve nutrition in India, were shared and posted online. Evidence generated by the Leveraging Agriculture for Nutrition in South Asia (<u>LANSA</u>) partnership on impact, design, delivery and cost-effectiveness of nutrition-sensitive agricultural programs has provided foundational work to ground understanding of

the agriculture-nutrition context in South Asia. Evidence reviews for India, Pakistan, and Bangladesh synthesized the current environment for nutrition-sensitive agriculture policy, which will guide future work on identifying and designing effective nutrition-sensitive agriculture policies and programs. A closer examination of the rapid progress in Bangladesh to reduce child undernutrition revealed factors key to their achievements, results which will complement IFPRI's policy engagement in Bangladesh through the Policy Research and Strategy Support Program and a new A4NH initiative which began in 2014 to analyze the drivers and pathways of change in nutrition in a set of country-level case studies. These Stories of Change, expected to be completed in 2015, will draw lessons for understanding how change happens and can be promoted in other contexts.

Donors and program implementers have been using the brief, "<u>Child Stunting and Aflatoxins</u>," which was part of the 2020 Vision series on aflatoxins, as a summary of the latest scientific evidence on aflatoxin and stunting. The International Development Research Center and their research grantees used the brief for the design of a research project in Zimbabwe looking at aflatoxin control and the links with stunting. The lead author of the brief was invited to present at an <u>expert meeting</u> organized by the Global Donor Platform for Rural Development in Berlin, and at a meeting with Mercy Corps in Guatemala City. The <u>2012 study on zoonoses and poverty</u> commissioned by the United Kingdom's Department for International Development (DFID) continues to influence both investors and researchers: DFID now requires that it be taken into account for applicants in their most recent call for zoonotic disease proposals. In 2014, A4NH was successful in obtaining funding to work on zoonoses in Kenya and the Food and Agriculture Organization of the United Nations (FAO) requested the data to use as part of a global disease report.

Donors are demanding more of the types of evaluations and evidence generated by A4NH research on integrated programs. A4NH started several new projects in 2014 including one with HKI - Innovative Approaches for the Prevention of Childhood Malnutrition in Sub-Saharan Africa (PROMIS), which aims at linking the prevention of chronic undernutrition with the treatment and management of severe acute malnutrition. Many of the current and new projects include components to explore women's empowerment as a pathway for improving nutritional outcomes. The A4NH researcher seconded to IFAD was the lead author on *Improving Nutrition through Agriculture*, which outlines its goals, vision, and approach to nutrition and the qualifying characteristics of a nutrition-sensitive project. This serves as an important framework for IFAD's nutrition strategy, of which the A4NH-supported researcher is supervising the development.

*Use of A4NH evidence by implementers.* During 2014, high-yielding micronutrient-rich varieties were made available to NARES and implementing partners, including zinc rice for boro season released in Bangladesh; three vitamin A cassava varieties released in Nigeria; and two orange-fleshed sweet potato (OFSP) varieties released in Uganda. HarvestPlus estimates that approximately 1.25 million farm households were reached with biofortified planting material in 2014, as indicated in the table below. Variety-specific reach is not currently available. The HarvestPlus Monitoring, Learning, and Action (MLA) team is developing models to better estimate the cumulative number of farmers growing and consuming biofortified crops, based on specific parameters for each crop. Preliminary models are expected to be deployed by late 2015. A4NH evaluation results have been used to design HKI's new E-HFP programs in Burkina Faso and Tanzania, as part of the Creating Homestead Agriculture for Nutrition and Gender Equity project, which started in 2013. The new programs specifically incorporated and are now testing several of the key recommended improvements made following the 2012 evaluation of the E-HFP program in Burkina Faso conducted by A4NH researchers. A piece in the Global Nutrition Report summarized the impacts of the E-HFP program on women's and children's nutritional outcomes and

women's empowerment as well as on the outputs and outcomes along the program impact pathways such as women's ownership of assets, women's agriculture production, household consumption and women's knowledge of optimal health and nutrition practices.

Country-Crop	2014 Actual Households Reached ('000)
Iron Bean Rwanda	332
Iron Bean DR Congo	128
Iron Pearl Millet India	62
Provitamin A Cassava Nigeria	360
Provitamin A Cassava DR Congo	75
Provitamin A Maize Zambia	104
Provitamin A Maize Ethiopia	0
Orange Sweet Potato Uganda	123
Iron Beans Uganda	43
Zinc Wheat India	6
Zinc Wheat Pakistan	0
Zinc Rice Bangladesh	18
Zinc Rice India	0
Total	1250

## C.3 Progress towards Impact

Biofortification is the nearest to achieving development impacts at scale, and systems are in place to track uptake among beneficiary populations. In 2014, HarvestPlus and its partners delivered biofortified crops to more than 1 million farming households, including iron beans to 330,000 farming households in Rwanda and 127,000 in DRC, and vitamin A maize to more than 100,000 households in Zambia. A critical piece in this next phase of HarvestPlus is the development of partnerships with actors that can disseminate biofortified varieties. Delivery partnerships have been developed in individual country contexts. For example, in India HarvestPlus works with Nirmal Seeds and other private seed companies to develop, test, and market iron pearl millet hybrids and develop zinc wheat. Two iron pearl millet hybrids were test marketed for the first time in 2014. In Zambia, HarvestPlus engaged private sector partners in food processing to support the market for biofortified crops. By working closely with the AgResults project, the links between farmers and millers were strengthened: in 2015, it is expected that 60 MT of maize grain will be procured by millers to be processed for retail markets. HarvestPlus is also expanding to include international NGOs, to deliver biofortified crops in both target and expansion countries. In 2014, HarvestPlus signed a Memorandum of Understanding (MOU) with World Vision. This partnership will initially focus its efforts on disseminating biofortified crops in Burundi, Tanzania, Malawi, Ghana, and Sierra Leone. HarvestPlus has started preparation to assess the impact of iron bean in Rwanda in 2015. The study will measure adoption and diffusion rates, as well as additional intake from iron bean. Additionally, it will assess the impact of biofortified crops specifically for women and girls, not only nutritional outcomes but also potentially gendered adoption outcomes, such as time allocation, income, and market participation.

In addition, A4NH made progress in 2014 to position for impact across other flagships, like Integrated Programs and Policies. An assessment of how development implementers use research to design and monitor and evaluate nutrition-sensitive agricultural programs was conducted and made available in 2015. The first *Global Nutrition Report* provides a great opportunity for A4NH to support the enabling environment for nutrition at global, national, and subnational levels.

## D. GENDER RESEARCH ACHIEVEMENTS

In addition to the gender dimensions of the outputs and outcomes described previously, a significant gender achievement in 2014 was the completion of the strategic gender assessment (SGA) for HarvestPlus. The SGA was conducted by a team of external gender experts (in agriculture, nutrition, food security) to evaluate what has been done to date and make recommendations for what more HarvestPlus could be doing to strengthen program results by explicitly addressing gender opportunities and constraints. The findings of the SGA on research suggested that even though HarvestPlus research outputs are "overall, excellent" in guality, and sex-disaggregated data are collected systematically, there are opportunities to improve the integration of gender considerations in hypothesis development, data collection and analysis. The SGA made several actionable recommendations, including re-analyzing previously collected data with a gender lens; developing a better understanding of gender and intrahousehold decision making among target households; and identifying key gender-related research hypotheses during the design of new research projects. Implementation of several recommendations began in 2014. For example, data on consumer acceptance of biofortified foods is being re-analyzed with a gender lens to understand better if men and women's acceptance of these crops differ. HarvestPlus is planning to include a version of the Women's Empowerment in Agriculture Index (WEAI) in the upcoming impact assessment study on the adoption of iron beans in Rwanda in order to investigate hypotheses on the role of gender in adoption of these varieties and the impact of varietal adoption on various outcomes for women (e.g., iron intake, time allocation, and income).

Findings from A4NH supported research is improving understanding and awareness of gender considerations in nutrition-sensitive agricultural programs and how women's empowerment can be a useful pathway for improving nutrition and health. For example, in the CIP-led Rwanda Super Foods project, the team understood that traditionally sweet potato is considered a woman's crop and were aware that when crops commercialize, men tend to dominate the value chain. The project design dictated that 75% of direct beneficiaries had to be female sweetpotato farmers. Preliminary results at the end of the project suggest that both male and female participants more than doubled their production and tripled the amount of sweetpotato sold on average compared to non-participants. A4NH-affilated researchers with USAID released a cross country baseline report in May 2014, based on analyses of the WEAI in 13 Feed the Future Initiative countries. As the WEAI has been rolled out to the Feed the Future countries, there is now growing interest in adapting it for project-level use. Work on the WEAI and on linkages between agriculture, gender and nutrition have led to interest by developing country governments (e.g., Bangladesh Ministry of Agriculture) to design interventions to close empowerment gaps identified by the WEAI. Work continued in 2014 on synthesizing findings from eight mixed-method evaluations of the impacts of agricultural development projects on individual and household assets in seven countries in Africa and South Asia, a collaboration between A4NH and PIM in the Gender, Agriculture and Assets Project (GAAP). The synthesis, to be published in 2015, show that assets both affect and are affected by projects, suggesting it is feasible and important to consider assets in the design, implementation, and evaluation of nutrition-sensitive agricultural projects. All projects were associated with increases in asset levels and other benefits at the household level; however, only four projects documented significant, positive impacts in women's ownership or control of assets

relative to a control group, and of those only one project provided evidence of a reduction in the gender asset gap.

Several A4NH-affiliated researchers participated in cross-CRP case studies for the CGIAR Global Study on Gender Norms and Agency in Agricultural Innovation study (GENNOVATE). A more in depth analysis of the OFSP system has been undertaken through RTB funding of three case studies, which will further illuminate the gender dimensions of the A4NH-linked work on OFSP in Bangladesh. An RTB-funded training course was carried out in December to train the teams to carry out these cases and this training has had the spill-over benefit of strengthening the team in gender analysis. Bioversity conducted a case study to complement the nutrition-sensitive landscapes case study in Vietnam. Together with the Institute for Development Studies, the data collection tools were modified to have more focus on diets and nutrition and any related gender differences. With IITA, a case study on the commercializing cassava value chains in Nigeria and Tanzania was conducted. Results on all three are expected in 2015.<sup>2</sup>

A4NH undertook a number of activities to build capacity for gender research across CGIAR and to external partners. In May, the Gender Nutrition Idea Exchange, a blog hosted on the A4NH web site was launched to improve understanding of how to conduct high-quality agriculture research that considers gender and nutrition issues. At the end of the year, researchers from nine CRPs and partners from FAO, IFAD, and other academic institutions attended the second <u>Gender-Nutrition Methods workshop</u>. Lastly, A4NH was a partner in several successful gender post doc proposals related to developing measures of women's empowerment, which will be hired in 2015.

## E. PARTNERSHIP BUILDING ACHIEVEMENTS

A4NH had a successful year in implementing its partnership strategy with enablers, implementers, and researchers. We increased awareness and knowledge among different groups working on understanding the concepts in integrating agriculture and food systems with nutrition and health goals. A4NH coorganized with the Independent Science and Partnership Council (ISPC), a joint meeting on nutrition as part of follow-up activities to the 2013 Science Forum. The meeting focused on research approaches for access to affordable, nutritious and safe diets and evaluating the impacts of interventions on nutrition. A4NH convened current and potential partners at the IFPRI 2020 Conference for two side events on resilience in local food systems and food safety.

*Enablers*. A4NH considers the two major partnership events in 2014 – the Together for Nutrition conference in India and the 2<sup>nd</sup> Global Conference on Biofortification in Rwanda – and associated outputs cited throughout this year's report as significant partnership building achievements in and of themselves and examples of progress. A4NH made contributions to the discussions and briefs of the Global Panel on Agriculture and Food Systems for Nutrition. Inputs from the A4NH seconded researcher to IFAD have supported the development of evidence-based nutrition strategies and the IFAD 10 Pledges, in which all country strategies and 30% of IFAD grants/loans will be nutrition-sensitive. Over the course of 2014, A4NH strengthened its involvement with the Scaling up Nutrition (SUN) movement. The SUN Civil Society Network and A4NH co-organized a workshop at the 6<sup>th</sup> African Nutrition Epidemiology Conference and HarvestPlus was accepted as a member of the Network. During 2014, the Aflatoxin Policy and Programs for the East Africa Region's (APPEAR) initiative, led by IITA, mobilized 13 research

<sup>&</sup>lt;sup>2</sup> The GENNOVATE study involves 11 CRPs and more than 20 PIs. To date, the original methodology has not yet been publicly shared as data collection is still taking place in some sites. Tools may be made available upon request from the A4NH Program Management Unit (PMU) and will eventually be posted to the CGIAR Gender & Agriculture Research Network site: <a href="http://gender-ag-research-network.cgxchange.org/home">http://gender-ag-research-network.cgxchange.org/home</a>.

teams to develop technical and policy papers spanning health, agriculture, trade, environment and communication issues related to aflatoxin control. The team will finalize and present the papers to leaders in the East African Community (EAC) in 2015 in order to increase awareness and understanding of aflatoxin issues and increase regional capacity to manage aflatoxin programs. In 2014, the World Health Organization (WHO) convened delegates from countries with endemic neurocysticercosis<sup>3</sup>, tropical disease experts and pharmaceutical industry executives to work out how best to lower or even eliminate the burden of the infection. An A4NH scientist, jointly appointed by ILRI and Liverpool University, chaired the meeting. Participants agreed to create a global network, led by WHO, to support efforts by endemic countries. The A4NH-supported event on nutrition at the Regional Strategic Analysis and Knowledge Support System (ReSAKSS), in addition to the support on nutrition and gender have supported the African Union in its development of the Comprehensive Africa Agriculture Development Program (CAADP) results framework for the next 10 years.

Development Implementers and Value Chain Actors. This year, we expanded food safety partnerships with value chain actors involved with fish in Zambia (with local partners and WorldFish and ILRI); vegetables in India (with a social enterprise called eKutir and McGill University and the Indian Institute of Management – Bangalore); and private seed companies in Bangladesh. In order to promote the production and distribution of Aflasafe™ across Africa, IITA strengthened its ties to the Partnership for Aflatoxin Control in Africa (PACA) to encourage engagement of the private sector and local partners. IITA has actively engaged private sector partners through an innovation platform between AgResults implementers and 20 Feed the Future companies in Nigeria. A4NH also responded to an invitation to participate in the bi-annual meeting of the International Union of Food Science and Technology in 2014, which will result in innovative partnership arrangements with the food science community in the future. As part of the MOU between HarvestPlus and World Vision, the teams held a workshop to identify priority expansion countries/crops on which the partnership will focus. Country-level MOUs with World Vision national offices are now being developed. A4NH continues to partner with HKI, Concern Worldwide, and BRAC, among others, in several ongoing program evaluations.

*Researchers.* Our research collaborations continue to grow and fill important gaps. The Public Health Foundation of India (PHFI) has become a strong partner with A4NH in our research on agriculture-associated diseases, agriculture-nutrition, and policy process research. PHFI is a core partner in *Transform Nutrition* and played a strong role in the Together for Nutrition conference in India in October 2014 and the first South Asian Transforming Nutrition short course. PHFI has committed to taking a leadership role in coordinating a regional consultation with agriculture and health stakeholders in India in 2015. Conversations with new partners in human health began in 2014 and will likely translate into new arrangements in 2015 following the series of regional public health consultations A4NH is planning in West/Central Africa, East/Southern Africa, and South Asia in order to expand this part of the portfolio in Phase 2.

*CRPs.* In 2014, systems CRPs began benchmarking the degree and type of nutrition and health mainstreaming in their programs, including utilizing common diet diversity indicators for monitoring. This achievement occurred primarily through a group of A4NH scientists in partnership with Wageningen University and Earth Institute/Columbia University collaborating on a research theme known as <u>nutrition-sensitive landscapes</u>. This year, this team started conducting multi-disciplinary

<sup>&</sup>lt;sup>3</sup>According to WHO estimates, cysticercosis has become the most common cause of acquired epilepsy in developing countries. Caused by infection with a stage of the pig tapeworm, the infection can also cause chronic headache, meningitis, hydrocephalus, dementia, blindness, and even death.

nutrition pilot studies together with the CRPs on Aquatic Agricultural Systems (AAS) in Zambia and Humid Tropics in Kenya and Vietnam. Joint outputs are expected in 2015. There is also substantial interaction between the research conducted in the Poverty, Health and Nutrition division (PHND) in IFPRI under A4NH and related research conducted for PIM in the same division. PHND's research on social protection under PIM is increasingly focused on the effects of social protection on agricultural productivity and nutrition outcomes. Another important strategic interaction concerns methods for conducting behavior change communication (BCC) around nutrition and how to measure the impacts of these approaches. PHND has done a great deal of research on effective BCC strategies and now these programs and approaches to measuring their impacts are being scaled up in several PIM social protection program evaluations in Bangladesh and Ethiopia. With McGill University and the INCLEN Trust in India, A4NH is a core partner in the <u>Convergent Innovation Coalition</u> (CIC). One of the primary activities is on food system innovations. With our CIC partners and the CRP on Grain Legumes, we are starting a <u>Pulse Innovation Platform</u> in 2015, which will be linked to activities led by the pulse sector as part of the United Nations' International Year of Pulses in 2016.

## 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 347,000 farmers, technicians, community resource persons, retailers and marketing representatives, caregivers, and policymakers. Three initiatives are highlighted here. In Bangladesh, a cadre of nutrition scholars received training on nutrition and agriculture themes as part of CIP's project in the Feed the Future region of Southern Bangladesh. By year's end, the scholars reached 21,840 women with nutrition and agriculture messages as well as hygiene and other health tips. Researchers from *Transform Nutrition* contributed to the three short courses for policymakers and practitioners designed to build understanding of the nature, causes and consequences of undernutrition, explore ways of addressing undernutrition, and examine nutrition's evolving role and profile in the development agenda. One course, tailored to the South Asia context, was offered for the first time in India, thanks to the leadership from partners at PHFI. As part of the APPEAR initiative, nine workshops were held with the EAC to build regional capacity and validate cross-sectoral aflatoxin policies in the health, agriculture, trade, and environment sectors. A knowledge platform has been formed for the EAC to support all stakeholder interests, including public health.

One hundred and eighty master's and PhD-level students received mentoring and support from A4NH researchers to conduct agriculture, nutrition and health research. More efforts are planned to support postgraduate capacity development with our partners in South Asia and Sub-Saharan Africa. With A4NH support, LANSA launched a responsive window call for research proposals in South Asia. From 90 concept notes, four were selected and research started in 2014. Efforts by A4NH and the Leverhulme Centre for Integrative Research on Agriculture and Health to develop ideas for the Agriculture, Nutrition and Health Academy have been fruitful; the Academy will be officially launched in June 2015.

## G. RISK MANAGEMENT

A4NH and other CRPs have been created to add value to existing research efforts by CGIAR Centers and partners by creating critical mass and coordinated action on larger research challenges, enhancing performance management and evaluation systems, and improving impact orientation. These are difficult tasks, particularly when bridging the agriculture, nutrition and health sectors. While A4NH has made significant progress in these added values in its first three years, there are still many risks to the

challenging tasks of supporting results sustainably and at scale. We provide below three major risks that we have planned for that may hinder our expected delivery of results. However, each of these risks have been exacerbated by the increasing uncertainty of core program funding which supports the additional efforts needed to add value. Surprisingly, given the growing importance of nutrition and health outcomes for the CGIAR, A4NH is in the group of CRPs with the lowest proportion of W1 and W2 funding. However, increasingly even the annual Window 1 (W1) and Window 2 (W2) budget is uncertain, either cut very late in the year or without a clear commitment until well into the year, undermining commitments to partners and interruption investments in coordination and management improvements that are central to CRP performance.

1. Fostering partnerships in order to achieve development impact. A4NH is working to make its partnerships more inclusive and effective so they reflect the central role of national partners in owning and leading country agriculture, nutrition and health plans and actions. The *Global Nutrition Report* was an excellent partnership for getting buy-in with supportive coordination by A4NH-affiliated researchers at IFPRI. The Together for Nutrition conference in India highlighted how individual states and partners in those states took the lead with support. A4NH support to ReSAKSS and the CAADP results framework managed by the African Union Commission is another example of how partnerships with regional bodies can provide evidence. These considerations also extend to partnerships around more specific technical research. Supporting the capacity of national partners to play a greater role is critical. Two examples from food safety research that we need to build on are the successful coalition of national partners involved in the *Safe Food Fair Food* program and in the partnership around the production and delivery of Aflasafe<sup>™</sup>. While these are good examples of what can be done, the demands and expectations of inclusive and effective partnerships with national partners exceed our ability to respond effectively. We will have to be innovative in developing and managing partnerships for impact with a smaller subset of national partners, and use the experiences to extend support more broadly to other countries.

2. Clarifying results – outputs, immediate and intermediate development outcomes – to demonstrate progress. Past systematic reviews have shown that agricultural research has been weak at demonstrating nutrition and health impacts. To meet the legitimate demands of donors and clients for more evidence of impact, A4NH has created a large portfolio of evaluations of integrated program interventions, which include agriculture. One of the key issues in demonstrating evidence of progress is to set the right expectations. Together with the ISPC, A4NH contributed to clarifying that the key contribution of agriculture can be improved diets. This is now reflected in the new CGIAR SRF. The other key risk is to show short-term progress in complex longer-term research for development. Again, considerable progress in developing impact pathways and ToCs, metrics and indicators, and understanding the enabling and empowering factors such as gender are all strengthening our ability to demonstrate short-term immediate results that are plausible in contributing to longer-term impacts.

3. Performance management and accountability systems. A key demand from donors and clients is for better performance management through improved monitoring and information systems. In 2014, we have been working on a number of recommendations from the internal audit of A4NH in strengthening project information systems, such as developing a project description database and repository for deliverables. Many of the internal audit recommendations cannot be met at the CRP level alone, but require system level (Consortium) actions as well. To clarify expectations with A4NH-participating Centers, A4NH developed a tool in 2014 called the <u>Center Performance Summary</u>. This document was

used as the framework for discussions with Center management on performance in Phase 1 of A4NH and provided an opportunity to clarify expectations for the 2015-16 Extension Phase and for Phase 2.<sup>4</sup>

Related to accountability are the issues of compliance with CGIAR Open Access conditions and ethics guidelines/regulations. In 2014, A4NH asked Centers to describe in their annual reports what measures they had taken over that year to comply with the CGIAR Open Access policy. A4NH will continue to discuss and monitor these issues with the affiliated Centers and partners. On ethics guidelines, A4NH also asked Centers to describe in their annual reports what processes they took to obtain ethical review and approval for research projects involving human subjects. Institutional procedures across CGIAR Centers for ethical review are variable and some are substandard, but at the same time there is an increasing amount of research involving human subjects. The A4NH PMU will use the mid-year discussions with the center focal points as an opportunity to encourage A4NH-affiliated researchers to complete training and courses on ethics. IFPRI has offered to let A4NH-affiliated researchers to share their institutional membership in the CITI Program (Collaborative Institutional Training Initiative at the University of Miami) to complete the course on Human Subjects Research.

## **H. LESSONS LEARNED**

In 2014, progress across the four flagships has been mixed, largely due to differences in resources (critical mass of people and funding) and experience. For the larger and more mature research flagships of Biofortification and Integrated Programs and Policies, there is much more experience and skill in managing all the elements of resource mobilization, and research planning, management, and reporting required to achieve results. These flagships are 80% funded by restricted grants. However, for newer research areas, like the flagships on Value Chains for Enhanced Nutrition and Agriculture-Associated Diseases, the relatively low W1 and W2 funding in A4NH (approximately 30% of total funding in 2014 and declining in 2015-16) constrains how quickly new research areas can grow. This constraint will be exacerbated in the 2015-16 extension period with W1/W2 budget reductions and all W1/W2 funding for 2012-14 expended by the end of 2014. We will be working to diversify funding and partnerships for these two flagships.

Currently, the issue in A4NH is less about research not producing expected results, but more about what can be done to accelerate outcomes and impacts at scale. The Integrated Programs and Policies flagship has completed, or will complete by the end of 2016, a range of evaluations that will provide support to governmental and non-governmental program implementers. We do not expect major changes to the research directions with the current stream of work until 2018, at the earliest. The policy research and analysis of country progress indicators is expanding. There are new results in terms of assessing implementation of country programs that will be shared with countries. As highlighted in the *Global Nutrition Report*, current analyses are constrained by lack of consistent data collection by countries for the six World Health Assembly indicators used to assess country progress in improving maternal and infant and young child nutrition.

In 2014, HarvestPlus began a new delivery phase. Each country team is preparing or has prepared delivery plans with impact pathways and ToCs. This is a new area of research and we expect some variability in the progress made in each of the nine target countries and potentially some adjustments in 2016-17.

<sup>&</sup>lt;sup>4</sup> The link is to the Center Performance Summary template. The completed Center Performance Summaries were finalized by June 2015 and were posted to the A4NH teamspace, which is accessible to registered CGIAR Center representatives and partners affiliated with A4NH.

In 2015, we will finalize a CRP-commissioned external evaluation of A4NH research on food safety. This is very timely, as improved food safety has an IDO in the new CGIAR SRF. The evaluation is expected to provide lessons on how to improve current work – mainly food safety in dairy value chains and aflatoxins in maize, groundnuts, and feed – and assess plans for scaling up food safety research in future. These lessons will be built into the food safety part of the Phase 2 pre-proposal.

In its first three years, analyses of A4NH research in evaluating nutrition outcomes has shown that improving diet diversity and increasing micronutrient bioavailability and consumption are achievable short-term targets for interventions. Acceptance of this evidence is reflected in the adoption of these indicators at CGIAR level. In order to reduce stunting, multi-sectoral inputs are required, which will have important implications for A4NH's contributions to broader partnerships. Initial results show that gender is critical to progress, so we will continue to intensify efforts to strengthen gender and nutrition tools and methods across the CGIAR. For most of A4NH, we have a high quality of research. However, in some areas there are opportunities to strengthen the quality of research design, measurement and collection of data and analysis. We plan to use our core capacity of nutrition and health epidemiology, linked to platforms such as the growing community of practice around gender and nutrition, and our support to nutrition studies in the systems CRP sites to support research quality improvements in all participating Centers and partner CRPs.

### **FINANCIAL REPORTS** ١.

CRP No.4.0 A4NH Period: 01/01/2014 - 12/31/2014 Amounts in USD (000's)

### **Cumulative Financial Summary**



Report Description	
Name of Report:	Cumuative Financial Summary (2012-2014)
Frequency/Period:	Annual
Deadline:	Every April 15th

Summary Report - by CG Partners		(a) Total POWB budget since inception				(b) Actual cumulative Expenses					(c) Variance / Balance				
	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
1. BIOVERSITY	5,160	404	6,193		11,757	4,759	260	3,858		8,877	401	144	2,335	-	2,880
2. CIAT	13,316	947	29,955		44,218	14,205	333	30,184		44,722	(889)	614	(229)	-	(504)
3. CIMMYT	3,425	-	3,245	-	6,670	3,228	-	3,041	-	6,270	197	-	204	-	400
4. CIP	1,380	1,723	3,647		6,750	1,379	2,737	905		5,021	1	(1,014)	2,742	-	1,729
5. ICARDA					-					-			-	-	-
6. ICRAF	1,120	230	2,136		3,486	1,120	230	558		1,908		-	1,578	-	1,578
7. ICRISAT	5,115	2,840	96		8,051	4,840	1,458	80		6,378	275	1,382	16	-	1,673
8. IFPRI	13,814	17,389	31,900	407	63,510	13,777	18,832	35,691	749	69,049	37	(1,444)	(3,791)	(342)	(5,540)
9. IITA	6,765	2,019	19,859		28,643	6,389	2,478	12,019		20,886	376	(459)	7,840	-	7,757
10. ILRI	10,112	1,427	7,294		18,833	9,434	1,138	6,093		16,664	678	289	1,201	-	2,169
11. IRRI	2,018				2,018	1,856				1,856	162	-	-	-	162
12. WORLDFISH	310		617		927	291		610		901	19	-	7	-	26
Total for CRP	62,535	26,978	104,942	407	194,862	61,278	27,466	93,039	749	182,532	1,257	(488)	11,903	(342)	12,330
1	32%	14%	54%	0%	100%	34%	15%	51%	0%	100%	10%	-4%	97%	-3%	100%

CGIAR

CRP : 4 "A4NH" Period: 01/01/2014 - 12/31/2014 Amounts in USD (000's)



Report Description Name of Report: Annual Funding Summary Frequency/Period: Annual Deadline Every April 15th

### PART 1 - Annual FINANCE PLAN (Totals for Windows 1 and 2 combined)

Approved Level for Year - Initial Approval (as per PIA) Approved Level for Year - Final Amount

### PART 2 - Funding Summary for Year

	2014 Actual Funding								
	Windows 1&2	Window 3	Bilateral Funding	Center Funds	Total Funding				
ACIAR		394			394				
AU-IBAR			265		265				
Austria	-	174			174				
BMGF		254	2,350		2,604				
Carasso Foundation	-	-	171		171				
CFC			138		138				
CGIAR Fund	26,670		319		26,989				
CIAT		158	735		894				
DELOITTTE			506		506				
DFATD	-	-	1,950		1,950				
DFID		855	1,660		2,515				
EC/IFAD	-	1,308			1,308				
FAO	-	-	94		94				
FAO/GEF	-	-	651		651				
FHI	-	-	4,488		4,488				
Finland	-	-	781		781				
GAIN	-	-	316		316				
Germany/GIZ			610		610				
(DFID, Syngenta Foundation,									
USAID, BMGF) through			18,812		18,812				
HarvestPlus	-	-	5,814		5,814				
НКІ	-	-	230		230				
IFAD		321			321				
IFPRI		326	228		554				
Imperial College	-	-	46		46				
JSI	-	-	314		314				
LSTM			110		110				
Luonnonvarakeskus (MTT)	-	-	373		373				
MERIDIAN			419		419				
MSSRF	-	-	279		279				
NERC			339		339				
NESTEC LTD			32		32				
Shiree					-				
SIDA			191		191				
UNEP/GEF	-	-	502		502				
UNIVERSITY OF EDINBURG			83		83				
USAID		54			54				
USAID/WB	-	5,678	1,397		7,075				
USDA			905		905				
Various	-	11,058	101		11,159				
WELCOME TRUST		•	77		77				
World Bank			42		42				
Others < \$30,000			31	342	373				
Total	26,670	20,580	45,359	342	92,951				

CRP No.4.0 A4NH Period: 01/01/2014 - 12/31/2014 Amounts in USD (000's)

### **Annual Financial Summary by Centers**



Report Description

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 2014 POWB ap	oproved budget				(b) CRP 2014 Exper	diture				(c) Variance this Yea	ar			
	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
1. BIOVERSITY	2,305	227	1,768		4,300	1,902	170	1,535	-	3,607	403	57	233	-	693
2. CIAT	3,495	335	9,789	-	13,619	3,157	56	17,804	-	21,017	338	279	(8,015)	-	(7,398)
3. CIMMYT	3,426	-	288	-	3,714	3,228	-	289	-	3,517	198	-	(1)	-	197
4. CIP	461	1,059	977	-	2,497	460	2,073	906	-	3,439	1	(1,014)	71	-	(942)
5. ICARDA										-		-	-	-	
6. ICRAF	528	230	-		758	528	230	-	-	758		-	-	-	-
7. ICRISAT	1,958	550	32	-	2,540	1,638	326	29	-	1,993	320	224	3	-	547
8. IFPRI	6,961	13,800	17,546	527	38,834	7,685	15,243	18,571	342	41,841	(724)	(1,443)	(1,025)	185	(3,007)
9. IITA	2,855	1,754	4,861	-	9,470	2,969	2,030	3,201	-	8,200	(114)	(276)	1,660	-	1,270
10. ILRI	4,947	359	2,065	-	7,371	4,270	394	1,786	-	6,450	677	(35)	279	-	921
11. IRRI	795	-	1,082	-	1,877	651	-	1,115	-	1,766	144	-	(33)	-	111
12. WORLDFISH	196	-	238	-	434	182	-	181	-	363	14	-	57	-	71
Total for CRP	27,927	18,314	38,646	527	85,414	26,670	20,522	45,417	342	92,950	1,257	(2,208)	(6,771)	185	(7,536)
	33%	21%	45%	1%	100%	29%	22%	49%	0%	6 100%	-17%	29%	90%	-2%	100%

### **Annual Financial Summary by Natural Classification**

### CRP No.4.0 A4NH Period: 01/01/2014 - 12/31/2014 Amounts in USD (000's)

Report Description



CIP		POWE	B Approved Budget					Actual				Unspent	/Variance		
Personnel	117	47	336		500	93	407	304		804	24	(360)	32		(304)
Collaborators Costs - CGIAR Centers					-					-	-	-	-	-	-
Collaborator Costs - Partners	56	634	149		839	49	1,084	181		1,314	7	(450)	(32)	-	(476)
Supplies and services	199	124	240		563	209	290	246		745	(10)	(166)	(6)	-	(182)
Operational Travel	44	12	118		174	46	51	70		167	(2)	(39)	48	-	7
Depreciation		120			120	4	38			42	(4)	82		-	78
Sub-total of Direct Costs	416	937	843	-	2,196	401	1,870	801	-	3,072	15	(933)	42	-	(877)
Indirect Costs	45	122	134		301	90	203	105		367	(14)	(10)	29	-	(00)
Total - All Costs	461	1,059	977		2,497	460	2,073	906	-	3,439	1	(1,014)	/1	-	(943)
LESS Coll Costs CGIAR Centers	-	-							-	-	-	-	-	-	-
Total Net Costs	461	1,059	977		2,497	460	2,073	906	-	3,439	1	(1,014)	71	-	(943)
					<u> </u>										
													<b></b>		
ICRISAT	707	POWE	s Approved Budget		0.10	500	04	Actual		0.45	100	Unspent	/variance		400
Collaborators Costs CCIAB Contors	/0/	04	12		843	209	04	12		040	198	-	-	-	190
Collaborator Costs - CalAk Centers	64	223			- 297	61	80	٥		159	-	- 134	- (9)	-	- 128
Supplies and services	725	100	16		207	720	124	9		844	5	66	(9)	-	120
Operational Travel	79	10	4		93	55	9	8		72	24	1	(4)		21
Depreciation	50	10	-		50	4	3	Ŭ		7	46	(3)		-	43
Sub-total of Direct Costs	1.685	487	32		2.204	1,409	289	29	-	1.727	276	198	3	-	477
Indirect Costs	273	63			336	229	37			266	44	26	-	-	70
Total - All Costs	1,958	550	32	-	2,540	1,638	326	29	-	1,993	320	224	3	-	547
LESS Coll Costs CGIAR Centers	-	-	-	-	-		-		-			-	-	-	
Total Net Costs	1,958	550	32	-	2,540	1,638	326	29	-	1,993	320	224	3	-	547
IFPRI		POWE	B Approved Budget					Actual				Unspent	/Variance		
Personnel	2,742	3,948	3,136	200	10,026	2,742	4,144	3,301	130	10,317	-	(196)	(165)	70	(291)
Collaborators Costs - CGIAR Centers	8,911	12,267	5,674		26,852	8,911	12,267	5,674		26,852	-	-	-	-	-
Collaborator Costs - Partners	1,953	5,628	9,661	148	17,390	1,953	6,640	10,519	96	19,208	-	(1,012)	(858)	52	(1,818)
Supplies and services	1,542	1,555	2,326	62	5,485	1,542	2,143	2,562	40	6,287	-	(588)	(236)	22	(802)
Operational Travel	233	415	372	22	1,042	233	438	393	14	1,078	-	(23)	(21)	8	(36)
Depreciation	140	655	481	6	1,282	140	190	139	4	473	-	465	342	2	809
Sub-total of Direct Costs	15,521	24,468	21,650	438	62,077	15,521	25,822	22,588	284	64,215	-	(1,354)	(938)	154	(2,138)
Indirect Costs	1,075	1,599	1,570	89	4,333	1,075	1,688	1,657	58	4,478		(89)	(87)	31	(145)
l otal - All Costs	16,596	26,067	23,220	52/	66,410	16,596	27,510	24,245	342	68,693	-	(1,443)	(1,025)	185	(2,283)
LESS Coll Costs CGIAR Centers	(8,911.0)	(12,267)	(5,674)	-	(26,852)	(8,911)	(12,267)	(5,674)	-	(26,852)	-	-		-	-
Total Net Costs	7,685	13,800	17,546	527	39,558	7,685	15,243	18,571	342	41,841		(1,443)	(1,025)	185	(2,283)
117.0		501/	A					A		_			() (		
Personnel	869	592	926		2 387	1 250	495	702		2 447	(381)	97	224		(60)
Collaborators Costs - CGIAR Centers	000	002	020		2,007	1,200	400	102		2,111	(001)	-	-	-	(00)
Collaborator Costs - Partners	150	145	1 155		1 450	13	293	46		352	137	(148)	1 109	-	1 098
Supplies and services	1.259	548	1.279		3.086	875	749	1.642		3.266	384	(201)	(363)	-	(180)
Operational Travel	156	195	864		1,215	331	171	331		833	(175)	24	533	-	382
Depreciation	55	99	3		157	65	68	63		196	(10)	31	(60)	-	(39)
Sub-total of Direct Costs	2,489	1,579	4,227	-	8,295	2,534	1,776	2,784	-	7,094	(45)	(197)	1,443	-	1,201
Indirect Costs	366	175	634		1,175	435	254	417		1,106	(69)	(79)	217	-	69
Total - All Costs	2,855	1,754	4,861	-	9,470	2,969	2,030	3,201	-	8,200	(114)	(276)	1,660	-	1,270
LESS Coll Costs CGIAR Centers												-	-		
Total Net Costs	2,855	1,754	4,861	-	9,470	2,969	2,030	3,201	-	8,200	(114)	(276)	1,660	-	1,270
ILRI		POWE	B Approved Budget					Actual				Unspent	/Variance		
Personnel	1,404	105	514		2,023	1,278	64	494		1,836	126	41	20	-	187
Collaborators Costs - CGIAR Centers					-					-		-		-	-
Collaborator Costs - Partners	428	79	335		842	258	195	128		581	170	(116)	207	-	261
Supplies and services	2,292	92	740		3,124	1,885	74	719		2,678	407	18	21	-	446
Operational Travel	178	36	210		424	295	10	169		474	(117)	26	41	-	(50)
Depreciation					-	15		49		64	(15)	-	(49)	-	(64)
Sub-total of Direct Costs	4,302	312	1,799	-	6,413	3,731	343	1,559	-	5,633	571	(31)	240	-	780
Indirect Costs	645	47	266		958	539	51	227		817	106	(4)	39	-	141
I otal - All Costs	4,947	359	2,065		7,371	4,270	394	1,786	-	6,450	677	(35)	279		921
LESS Coll Costs CGIAR Centers	-	-			-		-		-	<u> </u>		-	-	-	
Total Net Costs	4.947	359	2 065		7 371	4.270	394	1 786		6 450	677	(35)	279	-	921

# Annual Financial Summary by Flagship Project



### **CRP No.4.0 A4NH Period:** 01/01/2014 - 12/31/2014

Amounts in USD (000's)

Report D	Description
----------	-------------

Name of Report:	Financial Summary by Fla	gship Project	
Frequency/Period:	Annual		
Deadline:	Every April 15th		
	POWB Approved	Current Year Actual Expenditures	Unspent Budget
Summary Report - by Flagship Project			
FS-1 Value chains for enhanced nutrition	7,110	7,082	(7,370)
FS-2 Biofortification	44,596	52,375	(381)
FS-3 Agricultural Associated Diseases	13,241	11,670	1,571
FS-4 Integrated Programs and Policies	18,286	19,671	(1,385)
CRP Management/Coordination	2,185	2,153	32
Total - All Costs	85,417	92,950	(7,533)

DIOVERSITY			
FS-1 Value chains for enhanced nutrition	2,602	2,053	549
FS-2 Biofortification			-
FS-3 Agricultural Associated Diseases	1 600	4 554	-
FS-4 Integrated Programs and Policies	1,699	1,554	145
CRP Management/Coordination			-
Total - All Costs	4,301	3,607	694
CIAT			
FS-1 Value chains for enhanced nutrition			
FS-2 Biofortification	13,619	21,017	(7,398)
FS-3 Agricultural Associated Diseases			-
FS-4 Integrated Programs and Policies			-
CRP Management/Coordination			-
			(=

СІММҮТ			
FS-1 Value chains for enhanced nutrition FS-2 Biofortification FS-3 Agricultural Associated Diseases FS-4 Integrated Programs and Policies CRP Management/Coordination	3,714	3,518	- 196 - -
Total - All Costs	3,714	3,518	196
CIP			
FS-1 Value chains for enhanced nutrition	1,204	1,915	(711)
FS-2 Biofortification	1,065	1,235	(170)
FS-3 Agricultural Associated Diseases			-
FS-4 Integrated Programs and Policies	228	289	(61)
CRP Management/Coordination			-
Total - All Costs	2,497	3,439	(881)

ICRISAT			
FS-1 Value chains for enhanced nutrition			-
FS-2 Biofortification	1,238	908	330.00
FS-3 Agricultural Associated Diseases	1,302	1,085	217.00
FS-4 Integrated Programs and Policies			-
CRP Management/Coordination			-
Total - All Costs	2,540.00	1,993.00	547.00
IEDRI			
ES-1 Value chains for enhanced nutrition	1 158	1 248	(90)
FS-2 Biofortification	18 642	20.086	(1 444)
FS-3 Agricultural Associated Diseases	488	526	(38)
FS-4 Integrated Programs and Policies	16,359	17,828	(1,469)
CRP Management/Coordination	2,185	2,153	32
Total - All Costs	38,832	41,840	(3,009)
IITA			
FS-1 Value chains for enhanced nutrition	732	634	98
FS-2 Biofortification	4,441	3,845	596
FS-3 Agricultural Associated Diseases	4,297	3,721	576
FS-4 Integrated Programs and Policies			-
Total - All Costs	9.470	8 200	- 1 270
	3,470	8,200	1,270
ILRI			
FS-1 Value chains for enhanced nutrition	217	111	106
FS-2 Biofortification			
FS-3 Agricultural Associated Diseases	7,154	6,338	816
FS-4 Integrated Programs and Policies			-
CRP Management/Coordination			-
Total - All Costs	7,371	6,449	922
IKKI			
FS-1 Value chains for enhanced nutrition	1 877	1 766	- 111
FS-2 Agricultural Associated Diseases	1,077	1,700	-
FS-4 Integrated Programs and Policies			-
CRP Management/Coordination			-
Total - All Costs	1,877	1,766	111
WORLD AGROFORESTRY CENTRE (ICRAF)	750	750	
FS-1 Value chains for enhanced nutrition	/58	/58	-
FS-2 Biotortification			-
FS-3 Agricultural Associated Diseases			-
CRP Management/Coordination			-
Total - All Costs	758	758	-
WORLDFISH			
FS-1 Value chains for enhanced nutrition	439	363	76
FS-2 Biofortification			-
FS-3 Agricultural Associated Diseases			-
FS-4 Integrated Programs and Policies			-
CRP Management/Coordination			-
Total - All Costs	439	363	76

**CRP No.4.0 A4NH Period:** 01/01/2014 - 12/31/2014 Amounts in USD (000's)

# Annual Financial Summary of Gender by Flagship Project



 Report Description
 Science for

 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 - by Flagship			
Project			
FS-1 Value chains for enhanced nutrition	199	109	89.89
FS-2 Biofortification	1,427	1,428	
FS-3 Agricultural Associated Diseases	2,019	1,984	
FS-4 Integrated Programs and Policies	8,372	8,959	(586.28)
Total - All Costs	12,018	12,480	(496)
BIOVERSITY			
FS-1 Value chains for enhanced nutrition	26	21	5
FS-2 Biofortification	-	-	-
FS-3 Agricultural Associated Diseases	-	-	-
FS-4 Integrated Programs and Policies	170	16	154
Total - All Costs	196	36	160
CIAT			
ES-1 Value chains for enhanced nutrition			
FS-2 Biofortification	136	210	(74)
FS-3 Agricultural Associated Diseases			-
FS-4 Integrated Programs and Policies	-		-
Total - All Costs	136	210	(74)
Civilyi Yi			
FS-1 Value chains for enhanced nutrition	007	959	-
FS-2 Biolor(IIICation	507	858	49
FS-3 Agricultural Associated Diseases			-
FS-4 Integrated Programs and Policies			
Total - All Costs	907	858	49
CIP		10	(-)
FS-1 Value chains for enhanced nutrition	12	19	(7)
FS-2 Biofortification	11	12	(2)
FS-3 Agricultural Associated Diseases	-	-	-
FS-4 Integrated Programs and Policies	23	29	(6)

ICRISAT			
FS-1 Value chains for enhanced nutrition			-
FS-2 Biofortification	124	91	33
FS-3 Agricultural Associated Diseases	130	108	22
FS-4 Integrated Programs and Policies			-
Total - All Costs	254	199	55
IFPRI		10	
FS-1 Value chains for enhanced nutrition	12	12	(1)
FS-2 Biofortification	186	201	(14)
FS-3 Agricultural Associated Diseases	49	53	(4)
FS-4 Integrated Programs and Policies	8,180	8,914	(735)
Total - All Costs	8,426	9,180	(754)
ES 1 Value chains for enhanced putrition	7	6	1
ES 2 Riofortification	, АД	38	6
ES-3 Agricultural Associated Diseases	430	372	58
ES 4 Integrated Programs and Policies	430	572	-
Total - All Costs	481	417	65
ILRI			
FS-1 Value chains for enhanced nutrition	130	39	91
FS-2 Biofortification			-
FS-3 Agricultural Associated Diseases	1,411	1,451	(41)
FS-4 Integrated Programs and Policies			-
Total - All Costs	1,541	1,491	50
FS-1 Value chains for enhanced nutrition	-	10	-
FS-2 Biofortification	19	18	T
FS-3 Agricultural Associated Diseases	-		-
FS-4 Integrated Programs and Policies	-		-
Total - All Costs	19	18	1
WORLD AGROFORESTRY CENTRE (ICRAF)	0	O	
FS-1 Value chains for enhanced nutrition	8	8	-
FS-2 Biotortification	-	-	-
FS-3 Agricultural Associated Diseases	-	-	-
FS-4 Integrated Programs and Policies	-	-	-
Total - All Costs	8	8	-
WORLDFISH			
FS-1 Value chains for enhanced nutrition	4	4	1
FS-2 Biotortification	-	-	-
FS-2 Biofortification FS-3 Agricultural Associated Diseases	- -	-	-
FS-2 Biofortification FS-3 Agricultural Associated Diseases FS-4 Integrated Programs and Policies	- - -		

## **CRP** Partnership Report



Report Description Name of Report: CRP Partnerships Report Frequency/Period: Annual Deadline: Every April 15th

beaumen								
	TOTAL FOR CRP 4.0			Wile dawn	Actual	Expenses - This Ye	ar	
tem	Institute Acronym	Institute Name	Country	1 & 2	Window 3	Bilateral	Center Funds	TOTAL
1	AAU	Assam Agriclutral Univeirsty	India	3				3
2	ADAF	Adaf-Galle		1	-	-	-	1
3	AFEC	Accion Fraterna Ecology Centre	India Burkina Easo	4		-	-	4
4	ALKIGGANTE	En Sante Pour L'Afrique	Durkina i aso			227		227
5	ANGRAU	Acharya N G Ranga Agricultural University (Angrau)	India	1	-	-	-	1
	ANCA	Associação Do Nutrição E Cogurando Alimentor	Manamhigua			100		400
5	ANGA	Associação De Nutrição E Segurariça Alimentar Appropriate Rural Development Agriculture	Kenva	-	-	103		103
,	ANDAF	Programme	Kenya			10		10
8	ARI	Agricultural Research Institute	Tanzania	-	11	-	-	11
9	AS	Ajeet Seeds	India	-	0		-	0
10	AVRDC	The World Vegetable Center	Taiwan	-	1 1 084		-	1 1084
12	BAU	Bihar AgricutIrual University	India	4	1,004			4
13	BCience Pvt. Ltd	Bayer Bioscience Pvt. Ltd	India		2		-	2
14	BINARDA	Banaras Hindu University, Varanasi		-	-	70		70
15	BIOCROPS	Biocrops Uganda Ltd	Uganda	-		6		6
16	BORU	Bandadesh Rice Research Institute	Randadesh	/		119		/ 119
18	BSA&RD	Benue State Agricultural & Rural Dev	Nigeria		62	31		93
19	BScience	Bayer Bio Science	India	-	2		-	2
20	BSearch Private Limited	Bioseed Research India Private Limited	India		5	-	-	5
21	CARE-ZAMBIA	Care International Zambia	Zambia			(155)		-155
22	CEDO	Community Enterprises Development Organization	Ilganda		17		-	17
23	OLDO	community Enterprises Development organization	oganda		122			122
24	CELAGRID	Center For Livestock And Agriculture Development	Cambodia					0
35	Centre De Recherco Pou		Senegal	0	73			
25	Contre De Neurence Pou	DÉVELOPPEMENT ECONOMIQUE ET SOCIAI	Goneyai	U	12	-		72
29	COMESA	Common Market For Eastern And Southern Africa	Zambia			100		100
30	CORNELL UNIVERSITY	Cornell University	United States	95	8	117		220
31	Corporacion CLAYUCA	Corporacion - Consorcio Latinoamericano Y Del	Colombia	(4)	-	-	-	-4
		De La Yuca						
32	CP, LLC	Cultural Practice, Llc	United States		6	132		138
33	CREADIS	Community Research In Environment And	Kenya			9		9
24		Development Initiatives	Ghana			12		12
34	CRS CRS	Catholic Relief Services	Rwanda			39		39
36	CSRS	Centre Suisie De Recherches Sciencetifique En	Ivory Coast			96		96
		Cote D'Ivoire						
37	DAH-HCMC	Centre	Vietnam	4				4
38	DARS	Department Of Agriculture Research Services	Malawi			(15)		-15
39	DATA	Data Analysis & Tech Asst	Bangladesh	-	-	542		542
40	DDs And Crop Technology	Devgen Seeds And Crop Technology Private	India	-	6	-	-	6
41	Private Limited	Limited Directorate Of Groundput Reasearch (Dor)	India	4				4
41	DLF-MAF	Department Of Livestock And Fisheries, Ministry Of	Lao Pdr					0
		Agriculture And Forestry,						
43	EICU	Earth Institute Columbia University	Usa	-	7	-	-	7
44	Embrapa/Funarbre	Fundacao Arthur Bernardes.	DIAZII	913	-	30	-	943
45	ENVOY CONSULT	Envoy Consult Agric Prod	Nigeria	-	-	97		97
	AGRICULTURE PRODUCE	Eth Zurich	Switzorland		407			407
40	FARM RADIO	Farm Radio International	Canada		102	-		102
	INTERNATIONAL							
48	FL.	Firetail Limited	United Kingdom	-	-	64		64
49	FREIBURG UNIV.	Freiburg University Eédération Des Unions Des Producteurs De Maradi	Niger	- 2	320			320
50			- igoi	-				-
51	FUNBIO	Brazilian Biodiversity Fund	Brasil	-	-	287	-	287
52	Funiv.	Flinders University	Australia	-	698	276		974
53	FVM/GMU	Liniversity	Inaliand					U
54	GENOTYPIC	Genotypic In Bangalore, India	India	24			-	24
55	GHGI	Global Health Group International	Thailand					0
56	GRi Seeds PVT	Ganga Kaveri Seeds Private Limited	India	-	6	-	-	6
57	GU	Greundwork Group Lie	Belgium	100	-	-	-	100
50	HBF	Healthbridge Foundation	Vietnam	30				200
60	HD India Pvt. Ltd	Hytech Seed India Pvt. Ltd	India	-	2	-	-	2
61	HDs	Hytech Seeds	India		3	-	-	3
62	HGD	Humanitas Global Development	United States		168			168
63	HKI HSP	Helen Keller International Hanoi School Of Public Health	Vietnam		-	152		152
65	HUA	Hanoi University Of Agriculture	Vietnam		90			90
66	IAR	Institute For Agricultural Research	Nigeria			10		10
67	ICDDR	International Center For Diarrheal And Desease	Bangladesh	-	-	267		267
60	ICRAE	Research The International Centre For Research In	Kenva			2		2
00	IOIAI	Agroforestry	Kenya			2		2
69	ICRR	Indonesian Center for Rice Research	Indonesia			50		50
70		Icta-Instituto De Ciencia Y Tecnologia Agricola	Guatemala	49	-	-	-	49
71	IDS-UK	Institute Of Dev Studies	Germany The Netbork	76	191	593		859
72	IEHSD	Institute Of Environmental Health And Sustainable	Vietnam	- 113	132	57		189
, , ,	-	Development (lehsd) Of The Vietnam Union Of						115
	шта	Science And Technology Associations (Vusta	Nigoria	-	0			-
74	IKUAT	Jome Kenvatta Univeirsty Of Agriculture And	Kenva	ь 1	U			6
		Technology	,-	1				1
76	IKURU	Ikuru Sarl	Mozanbique			(1)		-1
77	IMBARAGA	Imbaraga Farmers Organization	Rwanda Burkipa Face		40	11		11
78	INERA CONGO	Institut De L'Environment Et De Recherches	Durkina Faso Dr Congo	-	43	188		231
79		Agricoles				15		10
80	INN	Instituto De Investigacion	Peru	50				50

81	INRAB	Institut National Des Recherches Agricole Du Bènin	Benin			2		2
82	IOOP	Institute Of Oil And Oil Plants (loop), Hochi Minh	Vietnam	5	-		-	5
		City, Viet Nam						
83	IOWA STATE UNIV.	Iowa State University	United States	-	-	151		151
84	IRD	Innovations For Poverty Action	Usa Burkina Faso	291	- 150	-		291
86	ISABU	Institut Des Sciences Agronomiques Du Burundi	Burundi	170	22			22
		(Institute Of Agronomic Sciences Of Burundi)						
87	ISDS	Institute For Social Developent Studies	Vietnam	26	-	-	-	26
88	ISTEERU	Isteehu	Burundi	-	-	242		242
90	JAU	Junagadh Agricultural University	India	-	4	-	-	4
91	JEnetics Limited	J K Agri Genetics Limited	India	-	5	-	-	5
92	JHU	Johns Hopkins University	United States		-	1,708		1708
93	JIC	John Innes Centre	United Kingdom	-	-	80		80
94	KARI	Kenva Agricultural Research Insitute	Kenva	- 24	12	- 48	-	84
96	KAZEMBE	Kazembe-2014/06/Hkaz/230	Malawi	-	-	9	-	9
97	KDs	Kaveri Seeds Private Limited	India	-	7	-	-	7
98	KRprises	Kesar Enterprises	India	-	3	-	-	3
99	LSHIM Makerere Univ	London School Of Hygiene And Tropical Medicine Makerere Lipixersity	London					0
100	MBARARA Univ.	Marara University Of Science & Technology	Uganda		56	- 4		4
101	MCGILL	Mcgill University	Canada	49	84			133
103	MG	Malawi Government	Malawi			7		7
104	MLifesciences Pvt. Ltd	Metahelix Lifesciences Pvt. Ltd	India	-	4	-	-	4
105	MTalix	Metalix	India	-	2	-	-	2
106	NARC	National Grops Resources Research Institute	Uganda Pakistan			18		18
107	NARO	National Agricultural Research Organisation	Uganda		- 234	-	-	234
100	NASFAM	National Smallholder Farmers' Association Of	Malawi			3		3
		Malawi						
110	NDs Pvt. Ltd	Nirmal Seeds Pvt. Ltd	India	-	4	-	-	4
111	NUUAI	Technology	nua	3	-			3
112	NIS INC.	Nutrition Impact Solutions Inc.	Canada		73	-		73
113	NISIR	National Institute For Scientific And Industrial	Zambia		12			12
		Research						
114	NLU	Nong Lam University, Department Of Animal Physiology And Biochemistry	Vietnam	6				6
115	NRCRI	National Root Crops Research Institute	Nigeria		-	132		132
116	NSeeds Limited	Nuziveedu Seeds Limited	India	-	4	-	-	4
117	Oruwera	Oruwera Limitada	Moçambique			6		6
118	OSDP	Oyo State Development Programme			-	74		74
119	PATH	Program For Appropriate Technology In Health	Usa			15		15
120	PEOS	Pioneer Seeus	India		4	- 100	-	4
121	PHILBICE	Philippine Rice Research Institute	Philippines	-	-	34		34
123	PIAM	Poultry Industry Association Of Malawi	Malawi			4		4
124	PIHCMC	Pasteur Institute	Vietnam	5				5
125	PSC	Productores De Semilla De Copandaro Spr De RI	Mexico			17		17
126	PUNJAB AGRIC. Univ.	Punjab Agricultural Univ	India	-	105	30		135
127	RAB	Rwanda Agriculture Board Pakupa Gakuen University	Rwanda	-	29	161		190
128	RVC	Royal Veterinary College	United Kingdom	24				24
130	SAN Ltd	Smile Africa Network Ltd	Nigeria	-	100	-		100
131	SAVE THE CHILDREN	Save The Children	India, United Kingdom		-	110		110
132	SAWEC	Senator Adeyemo Women Empowerment	Nigeria	-	-	56		56
122	SDbak Hybrid Seeds Pyt I td	Cooperative Shakti Vardhak Hybrid Seeds Pyt I td	India		1			1
134	SG. LLC	Satory Global, Llc	United States	-	150	_		150
135	SINA	Sina Gerard / Enterprise Urwibutso	Rwanda			3		3
136	SKNAU	Sri Karan Narendra Agriculture University	India	-	5	-	-	5
137	SLU	Swedish: Sveriges Lantbruksuniversitet) Swedish	Sweden	164	-	-		164
120	SPI	University Of Agricultural Sciences Samaritan'S Purse International	Uganda		87			87
139	SR&C PVT	Sambodhi Res & Comm Pvt	India		-	112		112
140	SRI	Ministry Of Environment	Sri Lanka	-	-	94	-	94
141	SUA	Sokoine University Of Agriculture	Tanzania	6		31		37
142	Suniv.	Sabanci University	Turkey	-	145	451		596
143	TAGEM	Policy	Тигкеу	-	-	391	-	391
144	TANGO	Tango International, Inc	United States	78	-	-		78
145	TNAU	Tamilnadu Agricultural University (Tnau)	India	3	-	-	-	3
146	U OF WISCONSIN-MADISON	University Of Wisconsin- Madison	United States	77	-	-		77
147	UAC	University Of Abomey-Calavi	Benin	-	-	20	-	20
148	Uniturio	University Of Agricultural Sciences, Raichur	Mozambique	4	-	-	-	4
149	UNIV. OF AARHUS	University Of Aarhus	Denmark	-	225	-		225
151	UNIV. OF BRITISH COLUMBIA	University Of British Columbia	Canada	191		-		191
152	UNIV. OF GREENWICH	University Of Greenwich	United Kingdom	64	-	70		134
153		University Of Oklahoma	United States	-	150	204		212
155	UO	University Of Oxford	Uk	17	-	-	-	17
156	USDA-ARS	United States Department Of Agriculture,	United States			117		117
		Agricultural Research Services, Beltsville Human						
157	VEDCO	Volunteer Efforts For Development Concerns		-	96	-		06
158	VOX LATINA	Vox Latina	Guatemala	-	-	740		740
159	WAGENINGEN UNIVERSITY	Wageningen University	The Netherlands	-	64	-		64
160	WHO	World Health Organization	Switzerland	-	250	-		250
161	WORLD VISION	World Vision International, Uganda	Uganda	-	116	-		116
162	WUK-FSE	wageningen University World Vision Malawi	Malawi	34	11	-	-	45
164⊥	YALE UNIVERSITY	Yale University	United States	-	-	.55		55
165	YWCA	Young Women'S Christian Association Of Rwanda	Rwanda			12		12
	71001	7	7					
166		Zagra	∠ambia Zimbabwe	13	24			24
168	ZARI	Zambia Agricultural Research Institute	Zambia	12	- 24	-	-	12
169	OTHER PARTNERS (<\$50K)	All Other Partners (<\$50K)		131	2,400	9,419	96	12047
					0.075			

Total for CRP

	1. BIOVERSITY				Actua	l Expenses - This Y	ear	
Item	Institute Acronym	Institute Name	Country	Windows	Window 3	Bilateral	Center Funds	TOTAL
				1&2				
	1 KARI	Kenya Agricultural Research Insitute	Kenya	-	-	48	-	48
	2 SRI	Ministry of Environment	Sri Lanka	-	-	94	-	94
	3 GU	Ghent University	Belgium	100	-	-		100
	4 UO	University of Oxford	UK	17	-	-		17
	5 WUR-FSE	Wageningen University	Netherlands	34	11	-		45
	6 HBF	HealthBridge Foundation	Vietnam	30	-	-		30
	7 ISDS	Institute for Social Developent Studies	Vietnam	26	-	-	-	26
	8 EICU	Earth Institute Columbia University	USA	-	7	-	-	7
	9 UAC	University of Abomey-Calavi	Benin	-	-	20	-	20
1	.0 TAGEM	General Directorate of Agricultural Research and	Turkey	-	-	391	-	391
1	1 FUNBIO	Brazilian Biodiversity Fund	Brasil	-	-	287	-	287
1	2 ARI	Agricultural Research Institute	Tanzania	-	11	-	-	11
1	3 NARO	National Agricultural Research Organisation	Uganda	-	32	-	-	32
	Total for Center			208	61	840	-	1108
	2.CIAT				Actua	I Expenses - This Y	ear	
Item	Institute Acronym	Institute Name	Country	Windows	Window 3	Bilateral	Center Funds	TOTAL

### Item 2.CIAT Institute Acronym

	2.CIAT		
	Institute Acronym	Institute Name	Country
1	Embrapa/Funarbre	Empresa Brasileira de Pesquisa Agropecuaria/ Fundacao Arthur Bernardes.	Brazil
2	Corporacion CLAYUCA	Corporacion - Consorcio Latinoamericano y del Caribe de Apoyo a la Investigacion y al Desarrollo de la Yuca	Colombia
3	ICTA	ICTA-Instituto De Ciencia Y Tecnologia Agricola	Guatemala
4	Others	Others	Others

	ear	uai Expenses - This Y	Acti	
TO	Center Funds	Bilateral	Window 3	Windows
				1&2
2	-	-	-	279
	-	-	-	(4)
	-	-	-	29
69	-	6,874	-	106
72	-	6,874	-	410
	ear	ual Expenses - This Y	Actu	
TO	Center Funds	Bilateral	Window 3	Vindows

### Total for Center

Total for Center

Total for Center

	3.CIMMYT			
Item	Institute Acronym	Institute Name	Country	Windows
1	ICTA	INSTITUTO DE CIENCIA Y TEC		1&2
2	MG	MALAWI GOVERNMENT	MALAWI	
3	PSC	PRODUCTORES DE SEMILLA D	E COPANDARO S MEXICO	

### 20 7 17 20 7 17 7284 20 24

		4. CIP				Actu	al Expense
Item		Institute Acronym	Institute Name	Country	Windows 1 & 2	Window 3	Bilate
	1 2	RAB	Rwanda Agriculture Board The International Centre for Research in	Rwanda			
		ICRAF	Agroforestry	Kenya			
	3	CRS	Catholic Relief Services	Rwanda			
	4	RAB	Rwanda Agriculture Board	Rwanda			
	5	BIOCROPS	BioCrops Uganda Ltd	Uganda			
	6	Makerere University	Makerere University	Uganda			
	7	,	National Crops Resources Research Institute of	•			
		NaCRRI	Naro	Uganda			
	8	AVRDC	The World Vegetable Center	Taiwan		1,084	
	9	MCGILL	MCGill University	Canada	49		
	10		Community Research in Environment and				
		CREADIS	Development Initiatives	Kenya			
	11		Appropriate Rural Development Agriculture				
		ARDAP	Programme	Kenya			
	12	PATH	Program for Appropriate Technology in Health	USA			
	13	SINA	SINA Gerard / Enterprise URWIBUTSO	Rwanda			
	14	YWCA	Young Women's Christian Association of Rwanda	Rwanda			
	15	IMBARAGA	IMBARAGA Farmers Organization	Rwanda			

	Actua	al Expenses - This Yo	ear	
Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
		25		25
		2		2
		39		39
		26		26
		6		6
		4		4
		18		18
	1,084			1,084
49				49
		9		9
		10		10
		15		15
		3		3
		12		12
		11		11
49	1,084	181	-	1253

	5. ICRAF				Actual Expenses - This Year					
Item	Institute Acronym	Institute Name	Country	Windows	Window 3	Bilateral	Center Funds	TOTAL		
				1&2						
	1 INN	Instituto de investigacion	Peru	50				50		
	2 IKUAT Jome Kenyatta Univeirsty of Agricutlure and Technol Kenya		l Technol Kenya	1				1		
	3 Other Partners costs			11				11		
	4 KARI	Kenya AgricutIrual Resarch Isnitue	Kenya		12			12		
Total fo	r Center			62	12	-	-	74		

Total for Center

	6. ICRISAT			Actual Expenses - This Year				
Item	Institute Acronym	Institute Name	Country	Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
	GENOTYPIC	Genotypic in Bangalore, India	India	24	0	0	0	24
	ZARI	Zambia Agriculture Research Institute.	Zimbabwe	12	0	0	0	12
		Institute of Oil and Oil Plants (IOOP), HoChi Minh		5	0	0	0	5
	IOOP	City, Viet Nam	Vietnam					
	DGR	Directorate of Groundnut Reasearch (DGR)	India	4	0	0	0	4
	UAS	University of agricultural sciences, raichur	India	4	0	0	0	4
	AFEC	Accion Fraterna Ecology Centre	India	4	0	0	0	4
	TNAU	Tamilnadu Agricultural University (TNAU)	India	3	0	0	0	3
		Fédération des unions des producteurs de Maradi		2	0	0	0	2
	FUMA		Niger					
		Acharya N G Ranga Agricultural University	1	1	0	0	0	1
	ANGRAU	(ANGRAU)	India					
	ADAF	ADAF-GALLE		1	0	0	0	1
		Ajeel Seeds Lid	INDIA	0	1	0	0	1
		Bayer BioScience Pvt. Ltd	INDIA	0	2	0	0	2
		Hytech Seed India Pvt. Ltd	INDIA	0	2	0	0	2
		J K Agri Genetics Limited	INDIA	0	5	0	0	5
	JAU	Junagadh Agricultural University	INDIA	0	4	0	0	4
		Kaven Seeds Private Limited	INDIA	0	3	0	0	3
		Kesar Enterprises Ltd	INDIA	0	1	0	0	1
		Metanelix Lifesciences Pvt. Ltd	INDIA	0	4	0	0	4
		Nirmai Seeds Pvt. Ltd	INDIA	0	3	0	0	3
		Nuziveedu Seeds Limited	INDIA	0	3	0	0	3
		Pioneer Overseas Corporation	INDIA	0	2	0	0	2
		Ajeet Seeds	INDIA	0	0	0	0	0
		Bayer Bio Science	INDIA	0	2	0	0	2
	0011411	Bioseed Research India Private Limited	INDIA	0	5	0	0	5
	CCHAU	CCS Haryana Agricultural University	INDIA	0	17	0	0	17
		Deviden Seeds and Crop Technology Private		0	6	0	0	6
		Canga Kaveri Seeds Brivate Limited		0	c	0	0	c
		Hytech Seeds		0	6	0	0	6
		IK Agricultural		0	3	0	0	3
		Kaveri Seeds		0	2	0	0	2
		KAZEMBE-2014/06/HKAZ/230		0	4	0	0	4
		Kasar Enterprises		0	0	9	0	9
		Metalix		0	2	0	0	2
		Nirmal Soods		0	2	0	0	2
		Numinal Seeds		0	1	0	0	1
		Dioneer Seeds		0	1	0	0	1
		Shakti Vardhak Hybrid Seeds Byt Ltd		0	2	0	0	2
	SKNALL	Sri Karan Narendra Agriculture University		0	1	0	0	1
	JUNNAU	on Narah Materiora Agriculture University	INDIA	0	5	0	0	5
Total for	Center			61	89	9	0	158

	7. IFPRI				Actual	Expenses - This Year		
Item	Institute Acronym	Institute Name	Country	Windows	Window 3	Bilateral Cente	r Funds	TOTAL
1	AFRICSANTE	AGENCE DE FORMATION, DE RECHERCHE &	BURKINA FASO	1&2	-	227		227
2	ANSA	D'EXPERTISE EN SANTE POUR L'AFRIQUE Associação de Nutrição e Segurança Alimentar	MOZAMBIQUE	-	-	103		103
3	UNIVERSITY, VARANASI BENUE STATE	BINARAS HINDO UNIVERSI I Y	NIGERIA	-	- 62	31		93
	AGRICULTURAL & RURAL DEV							
5	CENTRE DE RECHERCE POUR LE DÉVELOPPEMENT	CENTRE DE RECHERCE POU	SENEGAL	-	72	-		72
6	CEDO	COMMUNITY ENTERPRISES DEVELOPMENT ORGANIZATION	UGANDA	-	122	-		122
7 8	CORNELL UNIVERSITY	CORNELL UNIVERSITY	UNITED STATES	95	8	117 132		220 138
9	DATA ANALYSIS & TECH ASST	DATA ANALYSIS & TECH ASST	BANGLADESH	-	-	542		542
10 11	EMBRAPA/FUNARBE ENVOY CONSULT	EMBRAPA/FUNARBE ENVOY CONSULT AGRIC PROD	BRASIL NIGERIA	634 -	-	30 97		664 97
12 13	ETH-ZURICH FARM RADIO	ETH-ZURICH FARM RADIO INTERNATIONAL	SWITZERLAND CANADA	-	407 102	-		407 102
14	INTERNATIONAL FIRETAIL LIMITED	FIRETAIL LIMITED	UNITED KINGDOM	-	-	64		64
15	FLINDERS UNIVERSITY	FLINDERS UNIVERSITY	AUSTRALIA	-	698	276		974
16 17	FREIBURG UNIVERSITY	FREIBURG UNIVERSITY	GERMANY	-	320	-		320
18	HKI	HELEN KELLER INTERNATIONAL	UNITED STATES	-	-	152		152
19	HUMANITAS GLOBAL	HUMANITAS GLOBAL DEVELOPMENT	UNITED STATES	-	168	-		168
20	ICDDR	AND DESEASE RESEARCH	BANGLADESH	-	-	267		267
21	IDS	INSTITUTE OF DEV STUDIES	UNITED KINGDOM	-	191	593		783
22 23	IPA ISMS	INNOVATIONS FOR POVERTY ACTION INSTITUTE OF SOCIAL AND MEDICAL STUDIES	USA VIETNAM	291	-	- 335		291 335
24	INERA	INSTITUT DE L'ENVIRONMENT ET DE	BURKINA FASO	-	43	188		231
25	INSTITUTE FOR DEV	RECHERCH INSTITUTE FOR DEVELOPMENT STRATEGIES	GERMANY, THE NET	-	152	37		189
26 27	IOWA STATE UNIVERSITY IRD	IOWA STATE UNIVERSITY INST DE RECHERCHE POUR LE	UNITED STATES BURKINA FASO	- 176	- 150	151		151 326
28	ISTEEBU	DEVELOPPEMENT ISTEEBU	BURUNDI	-	-	242		242
29	JIC	JOHN INNES CENTRE	UNITED KINGDOM	-	-	80		80
30 31	JOHNS HOPKINS	JOHNS HOPKINS UNIVERSITY MBARARA LINIVERSITY OF SCIENCE &	UNITED STATES	-	-	1,708		1708
01		TECHNOLOGY	CONIDA		50			50
32 33	NARC NARO	NATIONAL AGRICULTURAL RESEARCH NATL AGRICULTURAL RESEARCH	PAKISTAN UGANDA	-	- 75	66 -		66 75
34	NUTRITION IMPACT	NUTRITION IMPACT SOLUTIONS INC.	CANADA	-	73	-		73
35 36		NATIONAL ROOT CROPS RESEARCH		-	-	132		132
37	FOUNDATION			_	105	30		135
38	UNIV OYO STATE DEVELOPMENT	OYO STATE DEVELOPMENT PROGRAMME		-	-	74		74
39	PROGRAMME RAB	RWANDA AGRICULTURURE BOARD	RWANDA	-	29	80		109
40	SABANCI UNIVERSITY	SABANCI UNIVERSITY	TURKEY	-	145	451		596
41	SAMBODHI RES & COMM	SAMARITAN'S PORSE INTERNATIONAL SAMBODHI RES & COMM PVT	INDIA	-	- 62	112		112
43	SATORY GLOBAL, LLC	SATORY GLOBAL, LLC	UNITED STATES	-	150	-		150
44 45	SAVE THE CHILDREN SAWEC	SAVE THE CHILDREN SENATOR ADEYEMO WOMEN EMPOWERMENT	INDIA, UNITED KINGI NIGERIA	-	-	110 56		110 56
46	SLU	COOPERATIVE SWEDISH: SVERIGES	SWEDEN	164	-			16/
10		LANTBRUKSUNIVERSITET) SWEDISH UNIVERSITY OF AGRICULTURAL SCIENCES	oneben					
47	SMILE AFRICA NETWORK			-	100	-		100
40	U OF WISCONSIN-MADISON	UNIVERSITY OF MISCONSIN- MADISON	UNITED STATES	76	-	-		78
50	U.S. DEPT OF AGRICULTURE	U.S. DEPT OF AGRICULTURE	UNITED STATES	-	-	83		83
51 52	UNIVERSITY OF AARHUS UNIVERSITY OF BRITISH	UNIVERSITY OF AARHUS UNIVERSITY OF BRITISH COLUMBIA	DENMARK CANADA	- 191	225	-		225 191
53	UNIVERSITY OF GREENWICH	UNIVERSITY OF GREENWICH	UNITED KINGDOM	64	-	70		134
54	UNIVERSITY OF MELBOURNE	UNIVERSITY OF MELBOURNE	AUSTRALIA	-	130	81		212
55 56	UNIVERSITY OF OKLAHOMA VEDCO	UNIVERSITY OF OKLAHOMA VOLUNTEER EFFORTS FOR DEVELOPMENT CONCERNS	UNITED STATES	-	- 96	204		204 96
57	VOX LATINA	VOX LATINA	GUATEMALA	-	-	740		740
58	WAGENINGEN UNIVERSITY	WAGENINGEN UNIVERSITY	THE NETHERLANDS	-	64	-		64
60	WORLD VISION INTL	WORLD VISION INTERNATIONAL, UGANDA	UGANDA	-	250	-		250 116
61 62	YALE UNIVERSITY ALL OTHER PARTNERS	YALE UNIVERSITY ALL OTHER PARTNERS (<\$50K)	UNITED STATES	- 14	2,400	55 2,545	96	55 5056
-	(<\$50K)							
	Total for Center			1,953	6,640	10,519	96	19,208

	8. IITA			Actu	al Expenses - This Y	'ear		
Item	Institute Acronym	Institute Name	Country	Windows	Window 3	Bilateral	Center Funds	TOTAL
				1&2				
	1 ZARI	Zambia Agricultural Research Insitute	Zambia		24			24
	2 NISIR	National Institute for Scientific and Industrial Research	Zambia		12			12
	3 ISABU	Institut des Sciences Agronomiques du Burundi (Institute of Agronomic Sciences of Burundi)	Burundi		22			22
	4 NASFAM	National Smallholder Farmers' Association of Malawi	Malawi			3		3
	5 PIAM	Poultry Industry Association of Malawi	Malawi			4		4
	6 DARS	Department of Agriculture Research Services	Malawi			(15)		-15
	7 NARO	National Agricultural Research Organization	Uganda		127	()		127
	8 WVI	World Vision Malawi	Malawi					0
	9 RAB	Rwanda Agriculture Board	Rwanda					ō
	IO IKURU	Ikuru Sarl	Mozanbique			(1)		-1
	11 UniLurio	Lurio University	Mozambique			6		6
	12 COMESA	Common Market for Eastern and Southern Africa	Zambia			100		100
	13 CRI - GHANA	Crops Research Institute, Ghana	Ghana			12		12
	14 IAR	Institute for Agricultural Research	Nigeria			10		10
	15 RAB	Rwanda Agriculture Board	Rwanda			30		30
	16 MCGILL	McGill University	Canada		84			84
	17 INERA CONGO	Institut de l'Environnement et de Recherches	DR Congo			10		10
	18 CARE-ZAMBIA	CARE INTERNATIONAL ZAMBIA	Zambia			(155)		-155
	19 BOKU	Universitat Eur Bodenkulfur Wien	Austria	7		(100)		-100
	20 Oruwera	Oruwera Limitada	Mocambique			6		
2	1 INRAB	Institut National des Recherches Agricole du Bènin	Benin			2		2
2	22 USDA-ARS	United States Department of Agriculture, Agricultural Research Services, Beltsville Human Nutrition Research Center	United States			34		34
2	23 ZAGRA	ZAGRA	Zambia		24			24
2	24 IITA	International Institute of Tropical Agriculture	Nigeria	6	0			6
	Total for Center			13	293	46	-	352

	9. ILRI				Actual Expenses - This Year			
Item	Institute Acronym	Institute Name	Country	Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
1	HUA	Hanoi University of Agriculture	Vietnam		90			90
4	IFPRI	International Food Policy Research Institute	USA					0
5	RVC	Royal Veterinary College	United Kingdom					0
2	SUA	Sokoine University Of Agriculture	Tanzania	6		31		37
7	CIAT	International Center for Tropical Agriculture	Colombia					0
3	RGU	Rakuno Gakuen University	Japan	24				24
4	IEHSD	Institute of Environmental Health and Sustainable Development	Vietnam	113				113
10	IDS	Institute of Development Studies	United Kingdom					0
11	CMU	Chiang Mai University	Thailand					0
12	CIVAS	Center For Indonesia Veterinary Analytical Studies	Indonesia					0
13	CELAGRID	Center For Livestock And Agriculture Development	Cambodia					0
14	AAHL	Commonwealth Scientific And Industrial Research Organization Through Australian Animal Heath	Australia					0
5	CSRS	Centre Suisie De Recherches Sciencetifique En	Ivory Coast			96		96
16	DLF-MAF	Department of Livestock and Fisheries, Ministry of Anriculture and Forestry	Lao PDR					0
6	DAH-HCMC	Department of Animal Health, Regional Health Centre	Vietnam	4				4
18	FVM/CMU	Faculty Of Veterinary Medicine, Chiang Mai University	Thailand					0
19	GHGI	Global Health Group International	Thailand					0
20	IEHSD	Institute of Environmental Health and Sustainable Development (IEHSD) of the Vietnam Union of Science and Technology Associations (VUSTA	Vietnam					0
21	LSHTM	London School Of Hygiene And Tropical Medicine	London					0
22	MORU	Mahidol-Oxford Tropical Medicine Research Unit	Thailand					0
23	NLU	Nong Lam University, Department Of Animal Physiology And Biochemistry	Vietnam					0
7	KARI	Kenva Agricultural Research Institute	Kenva	24				24
8	IDS	Institute of Development Studies	United Kingdom	76				76
9	HSP	Hanoi School Of Public Health	Vietnam		105			105
10	NLU	Nong Lam University	Vietnam	6				6
11	PIHCMC	Pasteur Institute	Vietnam	5				5
	Total for Contor			250	105	407	0	E04
	rotarior Center			200	195	127	U	201

	10. IRRI				Actua	al Expenses - This	s Year	
ltem	Institute Acronym	Institute Name	Country	Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
1	NDUAT	Narendra Dev University Agriculture and Technolgoy	India	3	0			3
2	AAU	Assam Agriclutral Univeirsty	India	3				3
3	BAU	Bihar AgricutIrual University	India	4				4
4	BRRI	Bangladesh Rice Research Institute	Bangladesh			11	9	119
5	ICRR	Indonesian Center for Rice Research	Indonesia			5	0	50
6	PHILRICE	Philippine Rice Research Institute	Philippines			3	4	34

Total for Center		

TOTAL FOR A4NH	Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
	200	64	040		
1. BIOVERSITY	208	61	840	-	1108
2. CIAT	410	-	6,874	-	7284
3. CIMMYT	20	-	24	-	44
4. CIP	49	1,084	181	-	1314
5. ICARDA					0
6. ICRAF	62	12	-	-	74
7. ICRISAT	61	89	9	-	158
8. IFPRI	1,953	6,640	10,519	96	19208
9. IITA	13	293	46	-	352
10. ILRI	258	195	127	-	581
11. IRRI	10	-	203	-	213
12. WORLDFISH					
Total for CRP	3,044	8,375	18,822	96	30,337

## 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*	2013		2014		2015
				Target	Actual	Target	Actual	Target
KNOWLEDG	E, TOOLS, DATA							
All	1. Number of flagship "products" produced by CRP	See documentation in Annex 1a	*	13	7	8	15	12
All	2. % of flagship products produced that have explicit target of women farmers/NRM managers	See documentation in Annex 1a		0%	43%	67%	40%	40%
All	3. % of flagship products produced that have been assessed for likely gender- disaggregated impact	See documentation in Annex 1a		0%	29%	50%	40%	30%
All	4. Number of "tools" produced by CRP	See documentation in Annex 1a		26	20	22	22	15
All	5. % of tools that have an explicit target of women farmers	See documentation in Annex 1a		46%	55%	67%	27%	40%
All	6. % of tools assessed for likely gender-disaggregated impact	See documentation in Annex 1a		12%	5%	50%	22%	20%
All	7. Number of open access databases maintained by CRP	Databases include (not exhaustive): food composition tables, fruit trees, delivery of biofortified crops, biorepository, country-level data for Global Hunger Index, and country-level data for Global Nutrition Report	*	3	5	7	10	8
All	8. Total number of users of these open access databases			unknown	unknown	unknown	unknown	unknow n
All	9. Number of publications in ISI journals produced by CRP	See documentation in Annex 1b	*	72	93	115	137	120
1,2,3, 4, 6	10. Number of strategic value chains analyzed by CRP	Animal source food value chains: Pork value chain in Uganda Pork value chain in Vietnam Pork chain in Nagaland, India Ready to eat chicken value chain in South Africa	*	14	25	25	33	20

	Informal dairy chain in Assam, IndiaDairy chain in EthiopiaPoultry chain in EthiopiaSmall ruminant value chain in EthiopiaDairy chain in KenyaDairy value chain in TanzaniaTilapia value chain in EgyptMilk in IndiaMilk in SenegalSmall dried fish in BangladeshBiofortified crop value chains:OFSP processed product value chain in RwandaHarvestPlusOFSP planting material value chain, southernBangladeshOFSP root marketing system, southernBangladesh-DhakaOFSP in UgandaIron beans in UgandaIron beans in GuatemalaFruit and vegetable value chains:Rural fruit value chain in KenyaBaobab value chain in KenyaHmong apple value chain in VietnamVegetables in IndiaVegetables in South AfricaOther value chains:Maize in KenyaMaize in NigeriaCassava chips and flour in RwandaCassava chips and flour in TanzaniaPulses in IndiaGroundnuts in GhanaInfant foods in 22 countries			
CAPACITY ENHANCEMENT AND	Infant foods in 22 countries			
INNOVATION PLATFORMS				

All	13. Number of trainees in short-term programs facilitated by CRP (male)	Training topics (not exhaustive): productivity, processing and value addition, application of new technologies, business management, nutrition education, risk assessment, gender, and understanding and supporting enabling environments for nutrition and health	*	10,148	39,273	40,600	174,500	50,000
All	14. Number of trainees in short-term programs facilitated by CRP (female)	Same as above.	*	10,116	50,732	50,650	172,990	50,000
All	15. Number of trainees in long-term programs facilitated by CRP (male)	Not all were specified.	*	20	48	50	73	50
All	16.Number of trainees in long-term programs facilitated by CRP (female)	Not all were specified.	*	15	80	70	107	50
TECHNOLOG	BIES/PRACTICES IN VARIOUS							
STAGES OF I	JEVELOPMENT	See desumentation in Annov 1a		175.007	150.019	150.010	150.029	150,000
All	technologies/NRM practices under research in the CRP (Phase I)	See documentation in Annex 1a		175,007	150,018	150,010	130,038	130,000
All	19. % of technologies under research that have an explicit target of women farmers	See documentation in Annex 1a		0%	0%	50%	Less than 1%	0%
All	20. % of technologies under research that have been assessed for likely gender- disaggregated impact	See documentation in Annex 1a		0%	0%	50%	Less than 1%	0%
All, except 2	23. Number of technologies /NRM practices field tested (phase II)	Technologies (not exhaustive): mechanical and physical (maize dryers), biological (aflasafe, new varieties of staples and fruits, vaccines), chemical (insecticide treated nets), and management and cultural practices (OFSP vine distribution system, integrated ag-nutrition- health intervention) Geographical locations: Bangladesh, Burkina Faso, Ethiopia, the Gambia, Ghana, Kenya, Nigeria, Peru, Rwanda, Senegal, Tanzania, Uganda, and Sub Saharan Africa	*	1,209	1,050	1,000	1,031	1,000

All, except 2	27.Number of technologies/NRM practices released by public and private sector partners globally (phase III)	Technologies: release of new varieties; commercialized OFSP-based products; aflasafe products approved for use; and biogas for abattoirs in use Geographical locations: Bangladesh, India, Kenya, Nigeria, Rwanda, Uganda,		6	16	19	19	15
POLICIES IN	VARIOUS STAGES OF DEVELOPM	ENT			-	-		
All	28. Numbers of Policies/ Regulations/ Administrative Procedures Analyzed (Stage 1)	Type of policies/regulations/administrative procedures related to: agricultural resource, food, market standards and regulation, public investment, and natural resource or water management Examples (not exhaustive): biofortification and central Codex Alimentarius, trade policies and standards related to control of contagious animal diseases, four country study on factors enabling/constraining effective leaders in nutrition, the business case for One Health, agriculture-based development for nutrition and health, role of protected areas in safeguarding biodiversity for food and nutrition Geographical locations: global, East Africa, South Asia, Bangladesh, India, Malawi, Mozambique, Pakistan, Swaziland, Vietnam,	*	59	12	15	25	15
All	29. Number of policies / regulations / administrative procedures drafted and presented for public/stakeholder consultation (Stage 2)	ZambiaType of policies/regulations/administrative procedures related to: agricultural resource, food, market standards and regulation, and public investmentExamples (not exhaustive): biofortified crops part of draft version of National Food & Nutrition Policy, national food safety policy based on risk-based approaches, safety of animal source foods in the East African Community, 2nd Global Conference on Biofortification and briefs, Together for Nutrition Conference and briefs		2	6	7	7	5

[			1				-	
		Geographical locations: global, East Africa;						
All	30. Number of policies / regulations / administrative procedures presented for legislation(Stage 3)	Type of policies/regulations/administrative procedures related to: agricultural resource, food, and public investment Example: biofortification in state agriculture budgets		1	1	1	1	1
All	31. Number of policies / regulations / administrative procedures prepared passed/approved (Stage 4)	Type of policies/regulations/administrativeprocedures related to: agricultural resource,food, and public investmentExamples: OSFP production part of district-levelperformance targets, biofortification part of theFive-Year Economic Plans for the NationalEconomy, improving dietary diversity forchildren under 2 included as an objective in thenext phase of the Productive Safety NetProgram (in order to improve potential fornutrition outcomes)Geographical locations: Ethiopia, Pakistan, andRwanda	*	1	1	1	4	1
All	32. Number of policies / regulations / administrative procedures passed for which implementation has begun (Stage 5)			0	0	1	0	0
OUTCOMES	ON THE GROUND							
All	33. Number of hectares under improved technologies or management practices as a result of CRP research	New and continuing in Nigeria, Rwanda, and Zambia		unknown	231	unknown	7,408	unknow n
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		304,600	Total: 645,075 5,075 1,000	Total: 1,128,200 18,200 10,000	Total: 1,089,13 9 490 4,649	1,000,00

Deviation narrative: An (\*) indicates indicators where the actual exceeds the target by at least 10%, which can be explained by improved reporting procedures.

Indicator 34: Not all Center reports to A4NH provided gender-specific counts for this indicator. Therefore, the numbers reported for female and male farmers will not equal the total.

Promotion of the concept "Convergent Innovation for Food Systems" in two journals a series of workshops in India and Canada       assessed for likely gender-disaggregated impact         Promotion of the concept "Convergent Innovation for Food Systems" in two journals a series of workshops in India and Canada       No       No         Zinc rice fully deployed in Bangladesh       No       Yes       No       Yes         Zinc wheat test marketed in India       No       Yes       No       Yes         Strategic gender assessment       No       Yes       No       No         Biofortification Priority Index       No       No       No       No         2 <sup>m</sup> Global Conference on Biofortification in Rwanda and associated products       No       No       No         Interactive livestock distribution maps on geo-wiki       No       No       No       No         Publication and lauch of the Global Nutrition Report and related products       Yes       No       No         Together for Nutrition Comfirment Index (HANCI 2013): Measuring the Political Commitment to Reduce Hunger       Yes       No         Publication on linke Between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of       No       Yes         Publication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of       No       Yes
women farmers/NRMlikely gender- disaggregated impactPromotion of the concept "Convergent Innovation for Food Systems" in two journals a series of workshops in India and CanadaNoNoZinc rice fully deployed in BangladeshNoYesZinc wheat test marketed in IndiaNoYesZinc wheat test marketed in IndiaNoYesStrategic gender assessmentYesNoBiofortification Priority IndexNoNo2m Global Conference on Biofortification in Rwanda and associated productsNoNoInnovative marketing strategies to promote biofortified crops, such as music videos in Rwanda and films in NigeriaNoNoFood Safety and Informal Markets bookYesNoNoPublication and launch of the Global Nutrition Report and related productsYesNoHANCI products - The Hunger and Nutrition Commitment Index (HANCI 2013): Measuring the Political Commitment to Reduce Hunger and Undernutrition in Developing Countries, new primary research from 6 countries, and The 2013 HANCI Donor ReportYesYesPublication on linear growth deficit beyond the 1,000 days in Journal of NutritionNoYesYesPublication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of NutritionNoYesMeasuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative gender- disaggregatedYesYes4tools produced by CRP5 have esplicit target of gender- disaggregated6 assessed
farmers/ NRM managersdisaggregated impactPromotion of the concept "Convergent Innovation for Food Systems" in two journals a series of workshops in India and CanadaNoNoZinc rice fully deployed in BangladeshNoYesNoZinc wheat test marketed in IndiaNoYesYesStrategic gender assessmentNoNoYesBiofortification Priority IndexNoNoNo2 <sup>nd</sup> Global Conference on Biofortification in Rwanda and associated productsNoNoInnovative marketing strategies to promote biofortified crops, such as music videos in Rwanda and films in NigeriaNoNoFood Sofety and Informal Markets bookYesNoNoInteractive livestock distribution maps on geo-wikiNoNoNoPublication and launch of the Global Nutrition Report and related productsYesNoNoTogether for Nutrition Conference in India and associated productsYesNoNoHANCI products - The Hunger and Nutrition Commitment Index (HANCI 2013): Measuring the Political Commitment to Reduce Hunger and Undernutrition in Developing Countries, new primary research from 6 countries, and The 2013 HANCI Donor ReportNoYesPublication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of NutritionNoYesMeasuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative women farmers/NRMYesYes4tools produced by CRPS have explicit target of wom
managersimpactPromotion of the concept "Convergent Innovation for Food Systems" in two journals a series of workshops in India and CanadaNoNoZinc rice fully deployed in BangladeshNoYesZinc wheat test marketed in IndiaNoYesStrategic gender assessmentNoYesBiofortification Priority IndexNoNo2 <sup>nd</sup> Global Conference on Biofortification in Rwanda and associated productsNoNoInnovative marketing strategies to promote biofortified crops, such as music videos in Rwanda and films in NigeriaNoNoInnovative marketing strategies to promote biofortified productsYesNoNoInteractive livestock distribution maps on geo-wikiYesNoNoPublication and launch of the Global Nutrition Report and related productsYesNoNoTogether for Nutrition Conference in India and associated productsYesNoNoHANCI products - The Hunger and Nutrition Commitment Index (HANCI 2013): Measuring the Political Commitment to Reduce HungerYesYesPublication on linear growth deficit beyond the 1,000 days in Journal of NutritionNoYesYesPublication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of NutritionNoYesMeasuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative YesYesYes4tools produced by CRP5 have explicit target of vomen farmers/NRM5 assessed for li
Promotion of the concept "Convergent Innovation for Food Systems" in two journals a series of workshops in India and Canada       No       No         Zinc rice fully deployed in Bangladesh       No       Yes         Zinc wheat test marketed in India       No       Yes         Strategic gender assessment       Yes       No         Biofortification Priority Index       No       No         2 <sup>md</sup> Global Conference on Biofortification in Rwanda and associated products       No       No         Innovative marketing strategies to promote biofortified crops, such as music videos in Rwanda and films in Nigeria       No       No         Innovative marketus distribution maps on geo-wiki       Yes       No       No         Publication and launch of the Global Nutrition Report and related products       Yes       No       No         Together for Nutrition Conference in India and associated products       Yes       No       No         HANCI products - The Hunger and Nutrition Commitment Index (HANCI 2013): Measuring the Political Commitment to Reduce Hunger       Yes       No         Publication on linear growth deficit beyond the 1,000 days in Journal of Nutrition       No       Yes       Yes         Publication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of No       Yes       Yes         Quadrumer for a stoward Empowerment, a
Zinc rice fully deployed in BangladeshNoYesZinc wheat test marketed in IndiaNoYesStrategic gender assessmentYesNoBiofortification Priority IndexNoNo2 <sup>nd</sup> Global Conference on Biofortification in Rwanda and associated productsNoNo2 <sup>nd</sup> Global Conference on Biofortification in Rwanda and associated productsNoNo2 <sup>nd</sup> Global Conference on Biofortification in Rwanda and associated productsNoNo2 <sup>nd</sup> Global Conference on Biofortified crops, such as music videos in Rwanda and films in NigeriaNoNoInteractive livestock distribution maps on geo-wikiNoNoNoPublication and launch of the Global Nutrition Report and related productsYesNoNoPublication and launch of the Global Nutrition Commitment Index (HANCI 2013): Measuring the Political Commitment to Reduce HungerYesNoHANCI products - The Hunger and Nutrition Commitment Index (HANCI 2013): Measuring the 2013 HANCI Donor ReportYesNoPublication on linear growth deficit beyond the 1,000 days in Journal of NutritionNoYesPublication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of NutritionNoYesAtools produced by CRPS have explicit target of women farmers/NRMS have disaggregated6 assessed
Zinc wheat test marketed in IndiaNoYesStrategic gender assessmentYesNoBiofortification Priority IndexNoNoBiofortification Priority IndexNoNo2nd Global Conference on Biofortification in Rwanda and associated productsNoNoInnovative marketing strategies to promote biofortified crops, such as music videos in Rwanda and films in NigeriaNoNoFood Safety and Informal Markets bookYesNoNoInteractive livestock distribution maps on geo-wikiYesNoNoPublication and launch of the Global Nutrition Report and related productsYesNoNoTogether for Nutrition Conference in India and associated productsYesNoNoHANCI products - The Hunger and Nutrition Commitment Index (HANCI 2013): Measuring the Political Commitment to Reduce Hunger and Undernutrition in Developing Countries, new primary research from 6 countries, and The 2013 HANCI Donor ReportYesYesPublication on linear growth deficit beyond the 1,000 days in Journal of NutritionNoYesYesPublication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of NutritionNoYesMeasuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative women farmers/NRM6 assessed for likely gender- disaggregated
Strategic gender assessmentYesNoBiofortification Priority IndexNoNo2nd Global Conference on Biofortification in Rwanda and associated productsNoNoInnovative marketing strategies to promote biofortified crops, such as music videos in Rwanda and films in NigeriaNoNoFood Safety and Informal Markets bookYesNoNoPublication and launch of the Global Nutrition Report and related productsYesNoNoPublication and launch of the Global Nutrition Commitment Index (HANCI 2013): Measuring the Political Commitment to Reduce Hunger and Undernutrition in Developing Countries, new primary research from 6 countries, and The 2013 HANCI Donor ReportYesNoPublication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of NutritionNoYesMeasuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative explicit target of women farmers/NRM6 assessed explicit target of vomen farmers/NRM
Biofortification Priority Index       No       No         2nd Global Conference on Biofortification in Rwanda and associated products       No       No         Innovative marketing strategies to promote biofortified crops, such as music videos in Rwanda and films in Nigeria       No       No         Food Safety and Informal Markets book       Yes       No       No         Interactive livestock distribution maps on geo-wiki       No       No       No         Publication and launch of the Global Nutrition Report and related products       Yes       No       No         Together for Nutrition Conference in India and associated products       Yes       No       No         HANCI products - The Hunger and Nutrition Commitment Index (HANCI 2013): Measuring the Political Commitment to Reduce Hunger       Yes       Yes         Publication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of       No       Yes         Publication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of       No       Yes         Measuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative       Yes       Yes         4tools produced by CRP       So       assessed       for likely       gender-         disaggregated
2nd Global Conference on Biofortification in Rwanda and associated products       No       No         Innovative marketing strategies to promote biofortified crops, such as music videos in Rwanda and films in Nigeria       No       No         Food Safety and Informal Markets book       Yes       No       No         Interactive livestock distribution maps on geo-wiki       No       No       No         Publication and launch of the Global Nutrition Report and related products       Yes       No       No         Together for Nutrition Conference in India and associated products       Yes       No       No         HANCI products - The Hunger and Nutrition Commitment Index (HANCI 2013): Measuring the Political Commitment to Reduce Hunger       Yes       Yes         Publication on linear growth deficit beyond the 1,000 days in Journal of Nutrition       No       Yes       Yes         Publication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of Nutrition       No       Yes         Measuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative countries       Yes       Yes         4tools produced by CRP       5 have explicit target of women farmers/NRM       for likely gender-disaggregated
Innovative marketing strategies to promote biofortified crops, such as music videos in Rwanda and films in NigeriaNoNoFood Safety and Informal Markets bookYesNoInteractive livestock distribution maps on geo-wikiNoNoPublication and launch of the Global Nutrition Report and related productsYesNoTogether for Nutrition Conference in India and associated productsYesNoHANCI products - The Hunger and Nutrition Commitment Index (HANCI 2013): Measuring the Political Commitment to Reduce HungerYesYesPublication on linear growth deficit beyond the 1,000 days in Journal of NutritionNoYesYesPublication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of NutritionNoYesMeasuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative countriesYesS have explicit target of women farmers/NRM4tools produced by CRP5 have explicit target of likely6 assessed for likely gender- disaggregated
Food Safety and Informal Markets bookYesNoInteractive livestock distribution maps on geo-wikiNoNoPublication and launch of the Global Nutrition Report and related productsYesNoTogether for Nutrition Conference in India and associated productsYesNoHANCI products - The Hunger and Nutrition Commitment Index (HANCI 2013): Measuring the Political Commitment to Reduce Hunger and Undernutrition in Developing Countries, new primary research from 6 countries, and The 2013 HANCI Donor ReportYesYesPublication on linear growth deficit beyond the 1,000 days in Journal of NutritionNoYesYesPublication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of NutritionNoYesMeasuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative countriesYesYes4tools produced by CRP5 have explicit target of women farmers/NRM6 assessed for likely gender- disaggregated
Interactive livestock distribution maps on geo-wikiNoNoPublication and launch of the Global Nutrition Report and related productsYesNoTogether for Nutrition Conference in India and associated productsYesNoHANCI products - The Hunger and Nutrition Commitment Index (HANCI 2013): Measuring the Political Commitment to Reduce Hunger and Undernutrition in Developing Countries, new primary research from 6 countries, and The 2013 HANCI Donor ReportYesYesPublication on linear growth deficit beyond the 1,000 days in Journal of NutritionNoYesYesPublication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of NutritionNoYesMeasuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative countriesYesYes4tools produced by CRP5 have explicit target of women farmers/NRM6 assessed for likely gender- disaggregated
Publication and launch of the Global Nutrition Report and related products       Yes       No         Together for Nutrition Conference in India and associated products       Yes       No         HANCI products - The Hunger and Nutrition Commitment Index (HANCI 2013): Measuring the Political Commitment to Reduce Hunger and Undernutrition in Developing Countries, new primary research from 6 countries, and The 2013 HANCI Donor Report       Yes       Yes         Publication on linear growth deficit beyond the 1,000 days in Journal of Nutrition       No       Yes       Yes         Publication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of Nutrition       No       Yes         Measuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative countries       Yes       Yes         4tools produced by CRP       5 have explicit target of women farmers/NRM       6 assessed
Together for Nutrition Conference in India and associated productsYesNoHANCI products - The Hunger and Nutrition Commitment Index (HANCI 2013): Measuring the Political Commitment to Reduce Hunger and Undernutrition in Developing Countries, new primary research from 6 countries, and The 2013 HANCI Donor ReportYesYesPublication on linear growth deficit beyond the 1,000 days in Journal of NutritionNoYesYesPublication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of NutritionNoYesMeasuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative countriesYesYes4tools produced by CRP5 have explicit target of women farmers/NRM6 assessed for likely gender- disaggregated
HANCI products - The Hunger and Nutrition Commitment Index (HANCI 2013): Measuring the Political Commitment to Reduce Hunger       Yes       Yes         and Undernutrition in Developing Countries, new primary research from 6 countries, and The 2013 HANCI Donor Report       No       Yes         Publication on linear growth deficit beyond the 1,000 days in Journal of Nutrition       No       Yes       Yes         Publication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of Nutrition       No       Yes         Measuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative countries       Yes       Yes         4tools produced by CRP       5 have explicit target of women farmers/NRM       6 assessed for likely gender-disaggregated
and Undernutrition in Developing Countries, new primary research from 6 countries, and The 2013 HANCI Donor Report       No       Yes         Publication on linear growth deficit beyond the 1,000 days in Journal of Nutrition       No       Yes         Publication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of Nutrition       No       Yes         Measuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative countries       Yes       Yes         4tools produced by CRP       5 have explicit target of women farmers/NRM       6 assessed for likely gender-disaggregated
Publication on linear growth deficit beyond the 1,000 days in Journal of Nutrition       No       Yes         Publication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of Nutrition       No       Yes         Measuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative countries       Yes       Yes         4tools produced by CRP       5 have explicit target of women farmers/NRM       6 assessed for likely gender-disagregated
Publication on link between increasing income and associated changes in diet, unhealthy weight gain and child growth in Journal of Nutrition       No       Yes         Measuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative countries       Yes       Yes         4tools produced by CRP       5 have explicit target of women farmers/NRM       6 assessed for likely gender-disagregated
Nutrition       Image: Constraint of the section of the
Measuring Progress toward Empowerment, a cross country baseline report based on analyses of the WEAI in 13 Feed the Future Initiative       Yes       Yes         4tools produced by CRP       5 have       6 assessed       for       likely         gender-       farmers/NRM       disaggregated       disaggregated
countries     5 have     6 assessed       4tools produced by CRP     5 have     for       women     gender-       farmers/NRM     disaggregated
4tools produced by CRP 5 have 6 assessed explicit target of for likely women gender- farmers/NRM disaggregated
explicit target of for likely women gender- farmers/NRM disaggregated
farmers/NRM disaggregated
Tarmers/NKIVI disaggregated
managers Impact
Identification of 15 potential indicators for sustainable diets and food systems NO NO NO
diversifying digts through locally available recourses for community health workers in Kenya
Adapted methodology guide Innovation and Development through Transformation of Conder Norms in Agriculture and Natural Ves
Adapted methodology guide, innovation and Development through transformation of Gender Norms in Agriculture and Natural Tes
Suite of resources describing the putrition sensitive landscape approach
Suite on esoluties describing the huthor-sensitive landscape approach No Tes
Set of training manuals on fruit processing and fruit tree propagation in Kenya, plus a 'seeds of nutrition' kit with seeds and nutrition. Vos
and health information tailored to female farmers in Kenya
Typology: understanding the context for agriculture and nutrition research No. No.

# Annex 1a. Additional documentation (Indicators 2, 3, 5, 6, 19, 20)

Training manuals, plus brochures and guides for farmers and processors to raise awareness of East African standards for cassava and	No	No
Manual on procedures for sampling and sample preparation of sweet potato roots and potato tubers for mineral analysis: used in	No	No
training course at Rwanda Agriculture Board		
Manual on procedures for chemical analysis of potato and sweet potato samples at CIP's quality and nutrition lab; used in training course	No	No
at Rwanda Agriculture Board		
Orange maize info guide for Zambia	No	No
Orange maize training manual for Zambia	No	No
Cassava seed production guide for DRC	No	No
Cassava disease and pest identification manual for DRC	No	No
Agronomic manual guide for DRC	No	No
Guide for biocontrol application in Nigeria	No	No
Mycotoxin training manual and video	No	No
Decision support tool to predict risk of HPAI	No	No
Decision support tools for Rift Valley fever	No	No
Dichotomous indicator for Minimum Dietary Diversity for Women	Yes	Yes
Counseling cards for nurses in Kenya, Mama SASHA	Yes	Yes
Bibliography/toolkit providing guidelines and lessons on how research can engage in and influence outcomes of cross-sector policy	No	No
biologicaphy count providing buildenies and lessons on now rescaren can engage in and innactice outcomes of closs sector poincy		
processes (joint output with PIM)		
processes (joint output with PIM)  18. Number of technologies/NRM practices under research in the CRP (Phase I)	19 have an	20have been
processes (joint output with PIM)  18. Number of technologies/NRM practices under research in the CRP (Phase I)	19 have an explicit target of	20have been assessed for
processes (joint output with PIM) 18. Number of technologies/NRM practices under research in the CRP (Phase I)	19 have an explicit target of women farmers	20have been assessed for likely gender-
processes (joint output with PIM)  18. Number of technologies/NRM practices under research in the CRP (Phase I)	19 have an explicit target of women farmers	20have been assessed for likely gender- disaggregated
processes (joint output with PIM)  18. Number of technologies/NRM practices under research in the CRP (Phase I)	19 have an explicit target of women farmers	20have been assessed for likely gender- disaggregated impact
processes (joint output with PIM)  18. Number of technologies/NRM practices under research in the CRP (Phase I)  OFSP adapted varieties for southern Bangladesh	19 have an explicit target of women farmers No	20have been assessed for likely gender- disaggregated impact Yes
processes (joint output with PIM)         18. Number of technologies/NRM practices under research in the CRP (Phase I)         OFSP adapted varieties for southern Bangladesh         12 Varieties of 8 species of fruit trees for Kenya	19 have an explicit target of women farmers No No	20have been assessed for likely gender- disaggregated impact Yes No
Disingly providing guidelines and resons on now research can engage in and influence outcomes of closs sector pointy processes (joint output with PIM)         18. Number of technologies/NRM practices under research in the CRP (Phase I)         OFSP adapted varieties for southern Bangladesh         12 Varieties of 8 species of fruit trees for Kenya         Development and acceptability trials of two nutritious fish-based food products; a chutney for pregnant and lactating women and a	19 have an explicit target of women farmers No No Yes	20have been assessed for likely gender- disaggregated impact Yes No Yes
Distribution of the providing gates into a research in the CRP (Phase I)         18. Number of technologies/NRM practices under research in the CRP (Phase I)         OFSP adapted varieties for southern Bangladesh         12 Varieties of 8 species of fruit trees for Kenya         Development and acceptability trials of two nutritious fish-based food products; a chutney for pregnant and lactating women and a complementary food for infants and young children in Bangladesh	19 have an explicit target of women farmers No No Yes	20have been assessed for likely gender- disaggregated impact Yes No Yes
Distribution of the providing guidelines and resons on not rescarch can engage in and infectice outcomes of closs sector pointy processes (joint output with PIM)         18. Number of technologies/NRM practices under research in the CRP (Phase I)         OFSP adapted varieties for southern Bangladesh         12 Varieties of 8 species of fruit trees for Kenya         Development and acceptability trials of two nutritious fish-based food products; a chutney for pregnant and lactating women and a complementary food for infants and young children in Bangladesh         150,000 lines of biofortified crops in on-station testing	19 have an explicit target of women farmers No No Yes No	20have been assessed for likely gender- disaggregated impact Yes No Yes No
Distribution of the providing guidelines and research in the CRP (Phase I)         18. Number of technologies/NRM practices under research in the CRP (Phase I)         OFSP adapted varieties for southern Bangladesh         12 Varieties of 8 species of fruit trees for Kenya         Development and acceptability trials of two nutritious fish-based food products; a chutney for pregnant and lactating women and a complementary food for infants and young children in Bangladesh         150,000 lines of biofortified crops in on-station testing         Qualitative lateral flow strip for aflatoxin B1 in groundnuts tested in the lab	19 have an explicit target of women farmers         No         No         Yes         No	20have been assessed for likely gender- disaggregated impact Yes No Yes No No No
Distribution of the providing guardines and resonance of the processes (joint output with PIM) <b>18. Number of technologies/NRM practices under research in the CRP (Phase I)</b> OFSP adapted varieties for southern Bangladesh         12 Varieties of 8 species of fruit trees for Kenya         Development and acceptability trials of two nutritious fish-based food products; a chutney for pregnant and lactating women and a complementary food for infants and young children in Bangladesh         150,000 lines of biofortified crops in on-station testing         Qualitative lateral flow strip for aflatoxin B1 in groundnuts tested in the lab         2 aflasafe biocontrol products (Aflasafe ZM01 and Aflasafe ZM02)	19 have an explicit target of women farmers         No         No         Yes         No	20have been assessed for likely gender- disaggregated impact Yes No Yes No No No No
Discretion output with PIM)         18. Number of technologies/NRM practices under research in the CRP (Phase I)         OFSP adapted varieties for southern Bangladesh         12 Varieties of 8 species of fruit trees for Kenya         Development and acceptability trials of two nutritious fish-based food products; a chutney for pregnant and lactating women and a complementary food for infants and young children in Bangladesh         150,000 lines of biofortified crops in on-station testing         Qualitative lateral flow strip for aflatoxin B1 in groundnuts tested in the lab         2 aflasafe biocontrol products (Aflasafe ZM01 and Aflasafe ZM02)         11 pro-vitamin A enriched hybrids selected, multiplied and supplied to CRI to support trials in Ghana and Nigeria	19 have an explicit target of women farmers         No         No         Yes         No	20have been         assessed for         likely gender-         disaggregated         impact         Yes         No         Yes         No         No
Discrete providing performing generated and reasons on now research and engage in and innerfect outcomes of closs sector policy processes (joint output with PIM)         18. Number of technologies/NRM practices under research in the CRP (Phase I)         OFSP adapted varieties for southern Bangladesh         12 Varieties of 8 species of fruit trees for Kenya         Development and acceptability trials of two nutritious fish-based food products; a chutney for pregnant and lactating women and a complementary food for infants and young children in Bangladesh         150,000 lines of biofortified crops in on-station testing         Qualitative lateral flow strip for aflatoxin B1 in groundnuts tested in the lab         2 aflasafe biocontrol products (Aflasafe ZM01 and Aflasafe ZM02)         11 pro-vitamin A enriched hybrids selected, multiplied and supplied to CRI to support trials in Ghana and Nigeria	19 have an explicit target of women farmers         No         No         Yes         No	20have been assessed for likely gender- disaggregated impact Yes No Yes No No No No No No No
Displaying providing geneticity of the research	19 have an explicit target of women farmers         No         No         Yes         No          No	20have been assessed for likely gender- disaggregated impact Yes No Yes No No No No No No No No No
Displaying processes (joint output with PIM)         18. Number of technologies/NRM practices under research in the CRP (Phase I)         OFSP adapted varieties for southern Bangladesh         12 Varieties of 8 species of fruit trees for Kenya         Development and acceptability trials of two nutritious fish-based food products; a chutney for pregnant and lactating women and a complementary food for infants and young children in Bangladesh         150,000 lines of biofortified crops in on-station testing         Qualitative lateral flow strip for aflatoxin B1 in groundnuts tested in the lab         2 aflasafe biocontrol products (Aflasafe ZM01 and Aflasafe ZM02)         11 pro-vitamin A enriched hybrids selected, multiplied and supplied to CRI to support trials in Ghana and Nigeria         pro-vitamin A-rich synthetics identified from regional trials, multiplied, supplied to partners to support trials in Nigeria         Biocontrol for aflatoxins in food and feed in Kenya         application of animal vaccination and optimizing delivery	19 have an explicit target of women farmers         No         No         No         Yes         No         No	20have been assessed for likely gender- disaggregated impact Yes No Yes No No No No No No No No No No

Flagship	List of 20	14 ISI Publications
Value Chains for	1.	Allen, T., Prosperi, P., Cogill, B., & Flichman, G. (2014). Agricultural biodiversity, social-ecological systems and sustainable diets. Proceedings of the Nutrition
Enhanced Nutrition		Society, 73(04), 498-508.
	2.	Belton B, van Asseldonk JM, Thilsted SH (2014). Faltering fisheries and ascendant aquaculture: Implications for food and nutrition security in Bangladesh. Food
		Policy, 44, 77-87.
	3.	Boedecker, J., Termote, C., Assogbadjo, A. E., Van Damme, P., & Lachat, C. (2014). Dietary contribution of Wild Edible Plants to women's diets in the buffer zone
		around the Lama forest, Benin–an underutilized potential. Food Security, 6(6), 833-849.
	4.	De Brauw, A., & Eozenou, P. (2014). Measuring risk attitudes among Mozambican farmers. Journal of Development Economics, 111, 61-74.
	5.	Dubé, L., Jha, S., Faber, A., Struben, J., London, T., Mohapatra, A., & McDermott, J. (2014). Convergent innovation for sustainable economic growth and
		affordable universal health care: innovating the way we innovate. Annals of the New York Academy of Sciences, 1331(1), 119-141.
		http://dx.doi.org/10.1111/nyas.12548
	6.	Jha, S. K., McDermott, J., Bacon, G., Lannon, C., Joshi, P. K., & Dubé, L. (2014). Convergent innovation for affordable nutrition, health, and health care: the global
		pulse roadmap. Annals of the New York Academy of Sciences, 1331(1), 142-156. <a href="http://dx.doi.org/10.1111/nyas.12543">http://dx.doi.org/10.1111/nyas.12543</a>
	7.	Johnston, J. L., Fanzo, J. C., & Cogill, B. (2014). Understanding sustainable diets: a descriptive analysis of the determinants and processes that influence diets and
		their impact on health, food security, and environmental sustainability. Advances in Nutrition: An International Review Journal, 5(4), 418-429.
	8.	Termote, C., Raneri, J., Deptford, A., & Cogill, B. (2014). Assessing the potential of wild foods to reduce the cost of a nutritionally adequate diet: An example
		from eastern Baringo District, Kenya. Food & Nutrition Bulletin, 35(4), 458-479.
	9.	Wiehle M., Goenster S., Gebauer J., Mohamed S.A., Buerkert A., Kehlenbeck K. (2014). Effects of transformation processes on plant species diversity in
	4.0	homegardens of the Nuba Mountains, Sudan. Agrotorestry Systems 88: 539-562.
	10.	Wiehle M., Prinz K., Kehlenbeck K., Goenster S., Mohamed S.A., Buerkert A., Gebauer J. (2014). The role of homegardens and forest ecosystems for
	11	domestication and conservation of Zizipnus spina-crinisti (L.) Willia. In the Nuba Mountains, Sudah. Genetic Resources and Crop Evolution b1: 1491-1506.
	11.	wienie M., Prinz K., Kenienbeck K., Goenster S., Monamed S.A., Finkeldey K., Buerkert A., Gebauer J. (2014) The Arrican Baobab (Addissonia digitata L.) –
Diefestifischien	12	morphological and genetic variability of a neglected population in the Nuba Mountains, sugar. American Journal of Botany 101: 1498-1507.
Biotortification	12.	Aciksoz, SB; Ozturk, E; Yazici, A; Cakmak, I. 2014. Inclusion of urea in a S9FEEDTA solution stimulated leaf penetration and translocation of S9FE within wheat plante. Physiological Dipatement 151(2):249-267.
	10	pidits, Filyslologid Piditaruli, 151(5), 546-557. Brassban, KA: Chilasha II, Asrasti S, Nues E: Sudas D: Masi, C: Kafuamba E: Tapumihardia, SA, 2014. The Asute Dhase Despace Affected Traditional Massures
	15.	of Microputrional Status in Pural Zambian Childran during a Pandomized Controlled Ecoding Trial The Journal of Microputrional Status in Pural Zambian Childran during a Pandomized Controlled Ecoding Trial The Journal of Microputrion 40(6) 072 079
	1/	De Maura EE Palmer AC Einkalstein II: Haas In Guirray-Kolh JE Wanger MI: Birol E Roy E: Dena-Bossa ID 2014 Are Bioferial Food Crops Improving
	14.	Vitamin A and Iron Status in Women and Children? New Evidence from Efficacy Trials Advances in Nutrition 5(5): 568-570
	15	Fan Hualie: Zhang Zhaoliang: Wang Ning: Cui Yan Sin Hua: Liu Yi: Wu Huilan Zheng Shusong: Bao S: Ling H-O 2014 SKB1/PRMT5-mediated histore H4R3
	101	dimethylation of the subgroup bHLH genes negatively regulates iron homeostasis in Arabidonsis thaliana. The Plant Journal 77(2): 209-221
	16.	Fieder, II: Afidra, B: Musambi, G: Tehinse, I: Kabaghe, G: Zulu, B: Lividini, K: Smitz, M-F: Jallier, V: Guyondet, C: Bermudez, O. 2014. Maize flour fortification in
		Africa: markets, feasibility, coverage, and costs, Annals of the New York Academy of Sciences, 1312(1): 26-39
	17.	Guzman, C: Medina-Larque, AS: Velu, G: Gonzalez-Santovo, H: Singh, RP: Huerta-Espino, J: Ortiz-Monasterio, J: Pena, RJ, 2014. Use of wheat genetic resources to
		develop biofortified wheat with enhanced grain zinc and iron concentrations and desirable processing quality. Journal of Cereal Science. 60(3): 617-622.
	18.	Hogh-Jensen, H; Kamalongo, D; Ngwira, A; Myaka, FA. 2014. Yields And Quality Of Phaseolus Bean Cultivars Under Farmers' Conditions In Eastern And Southern
		Africa. Experimental Agriculture. 50(2): 178-190.
	19.	Kyriacou, B; Moore, KL; Paterson, D; de Jonge, MD; Howard, DL; Stangoulis, J; Tester, M; Lombi, E; Johnson, AAT. 2014. Localization of iron in rice grain using
		synchrotron X-ray fluorescence microscopy and high resolution secondary ion mass spectrometry. Journal of Cereal Science. 59(2): 173-180.
	20.	La Frano, MR; de Moura, FF; Boy, E; Lönnerdal, B; Burri, BJ. 2014. Bioavailability of iron, zinc, and provitamin A carotenoids in biofortified staple crops. Nutrition
		Reviews. 72(5): 289-307.
	21.	Menkir, A; Gedil, M; Tanumihardjo, S; Adepoju, A; Bossey, B. 2014. Carotenoid accumulation and agronomic performance of maize hybrids involving parental
		combinations from different marker-based groups. Food Chemistry. 148: 131-137.
	22.	Mugode, L., Ha, B., Kaunda, A., Sikombe, T., Phiri, S., Mutale, R., & De Moura, F. F. (2014). Carotenoid Retention of Biofortified Provitamin A Maize (Zea mays
		L.) after Zambian Traditional Methods of Milling, Cooking and Storage. Journal of agricultural and food chemistry, 62(27), 6317-6325.
		http://dx.doi.org/10.1021/jf501233f

# Annex 1b. List of A4NH 2014 ISI publications, by flagship (Indicator 9)

	23.	Oliva, N; Chadha-Mohanty, P; Poletti, S; Abrigo, E; Atienza, G; Torrizo, L; Garcia, R; Duenas, C; Poncio, M; Balindong, J; Manzanilla, M; Montecillo, F; Zaidem, M;
		Barry, G; Herve, P; Shou, H; Slamet-Loedin, IH. 2014. Large-scale production and evaluation of marker-free indica rice IR64 expressing phytoferritin genes.
		Molecular Breeding. 33(1): 23-37.
	24.	Paget, M; Amoros, W; Salas, E; Eyzaguirre, R; Alspach, P; Apiolaza, L; Noble, A; Bonierbale, M. 2014. Genetic Evaluation of Micronutrient Traits in Diploid Potato
		from a Base Population of Andean Landrace Cultivars. Crop Science. 54(5): 1949-1959.
	25.	Petry, Nicolai; Egli, Ines; Gahutu, Jean B.; Tugirimana, Pierrot L.; Boy, Erick; and Hurrell, Richard. 2014. Phytic acid concentration influences iron bioavailability
		from biofortified beans in Rwandese women with low iron status. Journal of Nutrition 144(11): 1681-1687. http://dx.doi.org/10.3945/jn.114.192989
	26.	Pillay, K; Siwela, M; Derera, J; Veldman, FJ. 2014. Provitamin A carotenoids in biofortified maize and their retention during processing and preparation of South
		African maize foods. Journal of Food Science and Technology. 51(4): 634-644.
	27.	Pucher, A; Hogh-Jensen, H; Gondah, J; Hash, CT; Haussmann, BIG. 2014. Micronutrient Density and Stability in West African Pearl Millet-Potential for
	20	Biotorumcation. Crop Science, 54(4): 1709-1720 Debbi - Unarbit M. Continue D. Computer M. Unart A. C & Inspirit H. J. (2014). Constitution Constitution Construction in the Clause In-
	28.	Rabol, I., Hamblin, M., Geoli, M., Kulakow, P., Ferguson, M., Ikpan, A. S., & Jannink, J. L. (2014). Genetic Mapping Using Genotyping-by-sequencing in the Cionality Decement of Occurry Crons Science, 54(A), 1394 1306
	20	Flopagaleu Cassava. Clop Science, 34(4), 1504-1530. Sanshaz, T. Caballas, H. Duteni, D. Marzanta, N. Calla, E. Zum Falda, T. Dauriaux, E. 2014. Bradiction of caratanaide, cuanida and dru matter contants in
	29.	fresh cassaya root using NIRS and Hunter color techniques. Food Chemistry, 151: 444-451
	30	Schmaelzle Schannon B: Crawford Schrsont Echimiques, rood energies, 192, 494 492.
		Affect the Provitamin A Carotenoid Bioefficacy from Staple and Carot-Fortified Feeds in Mongolian Gerbils (Meriones unguiculatus). Journal of Agricultural and
		Food Chemistry. 62(1): 136-143
	31.	Smale, Melinda; Birol, Ekin; and Asare-Marfo, Dorene. 2014. Smallholder Demand for Maize Hybrids in Zambia: How Far do Seed Subsidies Reach? Journal of
		Agricultural Economics 65(2): 349-367. http://dx.doi.org/10.1111/1477-9552.12046
	32.	Suwarno, WB; Pixley, KV; Palacios-Rojas, N; Kaeppler, SM; Babu, R. 2014. Formation of Heterotic Groups and Understanding Genetic Effects in a Provitamin A
		Biofortified Maize Breeding Program. Crop Science. 54(1): 14-24.
	33.	Zarina, Y; Paltridge, N; Graham, R; Huynh, Bao- Lam; Stangoulis, J. 2014. Measuring genotypic variation in wheat seed iron first requires stringent protocols to
		minimize soil iron contamination. Crop Science. 54(1): 255-264.
	34.	Zhang, Y; Wu, H; Wang, N; Fan, H; Chen, C; Cui, Y; Liu, H; Ling, H-Q. 2014. Mediator subunit 16 functions in the regulation of iron uptake gene expression in
A sub- lb	25	Arabidopsis. New Phytologist. 203(3): 7/0-783.
Agriculture-	35.	Adass, A., Nounguru, G., Mamiro, P. *, Alenkne, B., Milingi, N. & Bekunda, M. (2014) Post-narvest food losses in a maize-based farming system of semi-and
Associated Diseases	36	savailian alea of ranzania. Journal of stored Frouducts Research, 57: 49–57. Amenu K. Spangler M. Markamann A and Zázta AV. 2014. Microbial guality of water in rural households of Ethionia: Implications for milk safety and public
	50.	handte is, speriger m, markemann a und zurete av 2014. Here bolin quarky of water in radia industributions of English markematical and a visit in a solution and distribution an
	27	Asite Solitation of reality, robustion and warned 52(2): 190-197. http://www.mpin.iet/index.pn//inpin/article/wew/2014/1025
	57.	Aminia, S., Ragnunaunando, D., Wanyar, F., Suumi, H., Palveen, W., Rady, K., & Kumar, P. L. (2014). The association between exposure to diatoxin, mutation in TDS2 infection with banatific Purjus, and accurrance of liver disease in a selected acoustician in Hyderabad. India Mutation Research/Genetic Taxicology and
		Provision method with repartices by mus, and occurrence of neer disease in a selected population in right abad, mula, mutation Research denetic rokicology and Envisionmental Mutatagenesis 766 23-28
	38.	Atehneng L. Oliambo, P. +. Cotty, P. & Bandyopadhyay, R. (2014) Field efficacy of a mixture of atoxigenic Aspergillus flavus Link: Fryegetative compatibility
		groups in preventing aflatoxin contamination in maize (zea mays L). Biological Control. 72. 62 – 70.
	39.	Birol, E., Karandikar, B., Roy, D., & Torero, M. (2014). Information, Certification and Demand for Food Safety: Evidence from an In-store Experiment in Mumbai.
		Journal of Agricultural Economics. doi: 10.1111/1477-9552.12089
	40.	Boqvist S, Dekker A, Depner K, Grace D, Hueston W, Stärk KDC and Sternberg-Lewerin S. 2014. Contagious animal diseases: The science behind trade policies and
		standards. The Veterinary Journal 202(1): 7-10. http://dx.doi.org/10.1016/j.tvjl.2014.06.020
	41.	Castelino JM, Dominguez-Salas P, Routledge MN, Prentice AM, Moore SE, Hennig BJ, Wild CP and Gong YY. 2014. Seasonal and gestation-stage associated
		differences in aflatoxin exposure in pregnant Gambian women. Tropical Medicine and International Health 19(3):348-354. http://dx.doi.org/10.1111/tmi.12250
	42.	Chotinun S, Rojanasthien S, Unger F, Tadee P and Patchanee P. 2014. Prevalence and antimicrobial resistance of Salmonella isolated from carcasses, processing
		facilities and the environment surrounding small scale poultry slaughterhouses in Thailand. Southeast Asian Journal of Tropical Medicine and Public Health 45(6):
		1392-1400. http://www.tm.mahidol.ac.th/seameo/2014-45-6-abstract/16-627110.pdf
	43.	Corman VM, Jores J, Meyer B, Younan M, Liljander A, Said MY, Gluecks I, Lattwein E, Bosch B-J, Drexler JF, Bornstein S, Drosten C and Müller MA. 2014.
		Antibodies against MERS coronavirus in dromedary camels, Kenya, 1992–2013. Emerging Infectious Diseases 20(8). http://dx.doi.org/10.3201/eid2008.140596

44.	Custer B, Koné B, Kouassi E, Ontiri E, Watts P and Yi Z-F. 2014. News from the IAEH. EcoHealth 11(3): 286-289. http://dx.doi.org/10.1007/s10393-014-0957-4
45.	Dewey C, Bottoms K, Carter N and Richardson K. 2014. A qualitative study to identify potential biosecurity risks associated with feed delivery. Journal of Swine
	Health and Production 22(5): 232-243. http://www.aasv.org/shap/issues/v22n5/v22n5p232.html
46.	Dione MM, Ouma EA, Roesel K, Kungu J, Lule P and Pezo D. 2014. Participatory assessment of animal health and husbandry practices in smallholder pig
	production systems in three high poverty districts in Uganda. Preventive Veterinary Medicine 117(3-4): 565-576.
	http://dx.doi.org/10.1016/j.prevetmed.2014.10.012
47.	Ezekiel, C. N., Atehnkeng, J., Odebode, A. C. *. & Bandyopadhyay, R. (2014) Distribution of aflatoxigenic Aspergillus section Flavi in commercial poultry feed in
	Nigeria. International Journal of Food Microbiology, 189. 18– 25.
48.	Ezekiel, C. N., Warth, B., Ogara, I. *., Abia, W. *., Ezekiel, V. *., Atehnkeng, J., Sulyok, M., Turner, P., Tayo, G. *., Krska, R. & Bandyopadhyay, R. (2014) Mycotoxin
	exposure in rural residents in northern Nigeria: A pilot study using multi-urinary biomarkers. Environment International, 66. 138–145.
49.	Fadiga ML and Katjiuongua HB. 2014. Issues and strategies in ex-post evaluation of intervention against animal disease outbreaks and spread. Food Policy 49(2):
	418-424. http://dx.doi.org/10.1016/j.toodpol.2014.10.007
50.	Fahrion AS, Jamir L, Richa K, Begum S, Rutsa V, Ao S, Padmakumar VP, Deka RP and Grace D. 2014. Food-safety hazards in the pork chain in Nagaland, North East
	India: Implications for human health. International Journal of Environmental Research and Public Health 11(1): 403-417.
	http://dx.doi.org/10.3390/ijerph110100403
51.	Gelan A and Omore A. 2014. Beyond tariffs: The role of non-tariff barriers in dairy trade in the East African Community free trade area. Development Policy
	Review 32(5): 523–543. <u>http://dx.doi.org/10.1111/dpr.12071</u>
52.	Gibbons CL, Mangen M-JJ, Plass D, Havelaar AH, Brooke RJ, Kramarz P, Peterson KL, Stuurman AL, Cassini A, Fèvre EM and Kretzschmar MEE. 2014. Measuring
	underreporting and under-ascertainment in infectious disease datasets: A comparison of methods. BMC Public Health 14: 147.
	http://www.biomedcentral.com/content/pdf/1471-2458-14-147.pdf
53.	Gilbert M, Golding N, Zhou H, Wint GRW, Robinson TP, Tatem AJ, Lai S, Zhou S, Jiang H, Guo D, Huang Z, Messina JP Xiao X, Linard C, Van Boeckel TP, Martin V,
	Bhatt S, Gething PW, Farrar JJ, Hay SI and Yu H. 2014. Predicting the risk of avian influenza A H7N9 infection in live-poultry markets across Asia. Nature
	Communications 5: 4116. http://dx.doi.org/10.1038/ncomms5116
54.	Grace D. 2014. The business case for One Health. Onderstepoort Journal of Veterinary Research 81(2), Art. #725, 6 pages.
	http://dx.doi.org/10.4102/ojvr.v81i2.725
55.	Hackett F, Berrang Ford L, Fèvre EM and Simarro P. 2014. Incorporating scale dependence in disease burden estimates: The case of human African
	trypanosomiasis in Uganda. PLoS Neglected Tropical Diseases 8(2): e2704. http://dx.doi.org/10.1371/journal.pntd.0002704
56.	Hamidou, F., Rathore, A., Waliyar, F., & Vadez, V. (2014). Although drought intensity increases aflatoxin contamination, drought tolerance does not lead to less
	aflatoxin contamination. Field Crops Research, 156, 103-110.
57.	Hoffmann, V., & Gatobu, K. M. (2014). Growing their own: Unobservable quality and the value of self-provisioning. Journal of Development Economics, 106, 168- 178.
58.	Hotez PJ, Alvarado M, Basáñez M-G, Bolliger I, Bourne R, Boussinesq M, Brooker SJ, Brown AS, Buckle G, Budke CM, Carabin H, Coffeng LE, Fèvre EM, Fürst T,
	Halasa YA, Jasrasaria R, Johns NE, Keiser J, King CH, Lozano R, Murdoch ME, O'Hanlon S, Pion SDS, Pullan RL, Ramaiah KD, Roberts T, Shepard DS, Smith JL, Stolk
	WA, Undurraga EA, Utzinger J, Wang M, Murray CJL and Naghavi M. 2014. The global burden of disease study 2010: Interpretation and implications for the
	neglected tropical diseases. PLoS Neglected Tropical Diseases 8(7): e2865. http://dx.doi.org/10.1371/journal.pntd.0002865
59.	Kanyima BM, Båge R, Owiny DO, Ntallaris T, Lindahl J, Magnusson U and Nassuna-Musoke MG. 2014. Husbandry factors and the resumption of luteal activity in
	open and zero-grazed dairy cows in urban and peri-urban Kampala, Uganda. Reproduction in Domestic Animals 49(4): 673-678.
	http://onlinelibrary.wiley.com/doi/10.1111/rda.12346/full
60.	Knight-Jones TJD, Bulut AN, Gubbins S, Stärk KDC, Pfeiffer DU, Sumption KJ and Paton DJ. 2014. Randomised field trial to evaluate serological response after
	foot-and-mouth disease vaccination in Turkey. Vaccine. http://dx.doi.org/10.1016/j.vaccine.2014.12.010
61.	Kouamé PK, Dongo K, Nguyen-Viet H, Zurbrügg C, Lüthi C, Hattendorf J, Utzinger J, Biémi J and Bonfoh B. 2014. Ecohealth approach to urban waste
	management: Exposure to environmental pollutants and health risks in Yamoussoukro, Côte d'Ivoire. International Journal of Environmental Research and Public

	Health 11(10): 10292-10309. <u>www.mdpi.com/1660-4601/11/10/10292</u>
62.	Levy M, Dewey C, Weersink A, Mutua F, Carter N and Poljak Z. 2014. Evaluating critical factors to the economic feasibility of semi-intensive pig rearing in
	western Kenya. Tropical Animal Health and Production 46(5): 797-808. <u>http://dx.doi.org/10.1007/s11250-014-0568-7</u>
63.	Lwande OW, Venter M, Lutomiah J, Michuki G, Rumberia C, Gakuya F, Obanda V, Tigoi C, Odhiambo C, Nindo F and Sang R. 2014. Genetic diversity of West Nile
	virus isolated from the tick, Rhipicephalus pulchellus, in Kenya. International Journal of Infectious Diseases 21(Suppl. 1): 229–230.
	http://dx.doi.org/10.1016/j.ijid.2014.03.899
64.	Lwande O, Venter M, Lutomiah J, Michuki G, Rumberia C, Gakuya F, Obanda V, Tigoi C, Odhiambo C, Nindo F, Symekher S and Sang R. 2014. Whole genome
	phylogenetic investigation of a West Nile virus strain isolated from a tick sampled from livestock in north eastern Kenya. Parasites & Vectors 7: 542.
	http://www.parasitesandvectors.com/content/7/1/542
65.	Maurice, John, 2014, Of pigs and people—WHO prepares to battle cysticercosis, <i>The Lancet</i> , 384 , (9943) , 571–572,
	http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(14)61353-2/fulltext
66.	Mc Laws M, Priyono W, Bett B, Al-Qamar S, Claassen I, Widiastuti T, Poole J, Schoonman L, Jost C and Mariner J. 2014. Antibody response and risk factors for
	seropositivity in backyard poultry following mass vaccination against highly pathogenic avian influenza and Newcastle disease in Indonesia. Epidemiology and
	Infection. FirstView Article, 11 pp. http://dx.doi.org/10.1017/S0950268814002623
67.	Müller MA, Corman VM, Jores J, Meyer B, Younan M, Liljander A, Bosch B-J, Lattwein E, Hilali M, Musa BE, Bornstein S and Drosten C. 2014. MERS coronavirus
	neutralizing antibodies in camels, eastern Africa, 1983–1997. Emerging Infectious Diseases 20(12). http://dx.doi.org/10.3201/eid2012.141026
68.	Mutiga, S. K., Were, V., Hoffmann, V., Harvey, J. W., Milgroom, M. G., & Nelson, R. J. (2014). Extent and drivers of mycotoxin contamination: inferences from a
	survey of Kenyan maize mills. Phytopathology, 104(11), 1221-1231.
69.	Nguyen V, Nguyen-Viet H, Pham-Duc P, Stephen C and McEwen SA. 2014. Identifying the impediments and enablers of ecohealth for a case study on health and
	environmental sanitation in Hà Nam, Vietnam. Infectious Diseases of Poverty 3: 36. http://www.idpjournal.com/content/3/1/36
70.	Nguyen V, Nguyen-Viet H, Pham-Duc P and Wiese M. 2014. Scenario planning for community development in Vietnam: a new tool for integrated health
	approaches? Global Health Action 7: 24482. http://dx.doi.org/10.3402/gha.v7.24482
71.	Nsadha Z, Thomas LF, Fèvre EM, Nasinyama G, Ojok L and Waiswa C. 2014. Prevalence of porcine cysticercosis in the Lake Kyoga Basin, Uganda. BMC Veterinary
	Research 10: 239. http://www.biomedcentral.com/1746-6148/10/239/abstract
72.	Oguttu JW, McCrindle CME, Makita K and Grace D. 2014. Investigation of the food value chain of ready-to-eat chicken and the associated risk for staphylococcal
	food poisoning in Tshwane Metropole, South Africa. Food Control 45: 87-94. http://dx.doi.org/10.1016/j.foodcont.2014.04.026
73.	Okello A, Ash A, Keokhamphet C, Hobbs E, Khamlome B, Dorny P, Thomas L and Allen J. 2014. Investigating a hyper-endemic focus of Taenia solium in northern
	Lao PDR. Parasites & Vectors 7: 134. http://dx.doi.org/10.1186/1756-3305-7-134
74.	Perrone, G., Haidukowsky, M., Stea, G., Epifani, F., Bandyopadhyay, R., Leslie, J. & Logrieco, A. (2014) Population structure and Aflatoxin production by
	Aspergillus Sect. Flavi from maize in Nigeria and Ghana. Food Microbiology, 41. 52— 59.
75.	Pham-Duc P, Nguyen-Viet H, Hattendorf J, Cam PD, Zurbrügg C, Zinsstag J and Odermatt P. Diarrhoeal diseases among adult population in an agricultural
	community Hanam province, Vietnam, with high wastewater and excreta re-use. BMC Public Health 14: 978. http://www.biomedcentral.com/1471-
	2458/14/978
76.	Probst, C., Bandyopadhyay, R. & Cotty, P. (2014) Diversity of aflatoxin-producing fungi and their impact on food safety in sub-Saharan Africa. IN International
77	JOURNAL OT FOOD MICRODIOLOgy, 1/4. 115—122.
//.	Tchwana DN, Michindie Civic and Oguttu JW. 2014. Designing a fisk communication strategy for health hazards posed by traditional strategy for health hazards posed by traditional strategy with the formation of the South African Vaterinary Association 95/1). Art #1025 A pages http://dx.doi.org/10.4102/isaya.y85i1.1025
79	Pohipson TP, Wint GPW, Conchodda G, Van Boockel TP, Ercoli V, Palamara E, Cinardi G, D'Aiotti L, Hay SLand Gilbort M, 2014, Manning the global distribution of
70.	100 hours of $1$ , which only conclude 0, van boecker (r, croin v, raiamata c, chidroi 0, D Aletti C, nay si and Gibert (vi. 2014. Wapping the global distribution of livestock <i>PLOS ONE</i> 9(5): e96084 http://dv.doi.org/10.1371/journal.pope.0096094
70	nvestore, 7 203 ONE 5(3), 630004, <u>Inter/Maddology 10.1371/Journal.polic.0030004</u> . Saint-Charles I. Wehl I. Sanchaz A. Mallee H. van Wendel de Joode B and Nguyen Viet H. 2014. Ecohoalth as a field: Looking forward. EcoHogith
79.	$\frac{1}{2}$
00	IIIIP//UX.UUI.VIR/10.100//310355-014-0550-Z
ōŪ.	shaw Arivi, whit Grw, Cecchi G, Mattion RC and Robinson TP. 2014. Mapping the economic benefits to investock keepers from intervening against bovine

		trypanosomosis in Eastern Africa. Preventive Veterinary Medicine 113(2): 197–210. http://dx.doi.org/10.1016/j.prevetmed.2013.10.024
	81.	Sindato C, Karimuribo ED, Pfeiffer DU, Mboera LEG, Kivaria F, Dautu G, Bett B and Paweska JT. 2014. Spatial and temporal pattern of Rift Valley fever outbreaks
		in Tanzania; 1930 to 2007. <i>PLoS ONE</i> 9(2): e88897. <u>http://dx.doi.org/10.1371/journal.pone.0088897</u>
	82.	Sudini, H., Rao, G. R., Gowda, C. L. L., Chandrika, R., Margam, V., Rathore, A., & Murdock, L. L. (2014). Purdue Improved Crop Storage (PICS) bags for safe storage
	83	or groundings, Journal of Stored Frontestation Research.
	05.	Rwanda by an LCMS/MS-based multi-toxin method, Food Additives & Contaminants: Part A, <u>http://dx.doi.org/10.1080/19440049.2014</u>
	84.	Torgerson PR, de Silva NR, Fèvre EM, Kasuga F, Rokni MB, Zhou X-N, Sripa B, Gargouri N, Willingham AL and Stein C. 2014. The global burden of foodborne
		parasitic diseases: An update. Trends in Parasitology 30(1): 20-26. http://www.cell.com/trends/parasitology/abstract/S1471-4922%2813%2900191-8
	85.	Tung Bui Huy, Tran Thi Tuyet-Hanh, Johnston R and Nguyen-Viet H. 2014. Assessing health risk due to exposure to arsenic in drinking water in Hanam Province,
		Vietnam. International Journal of Environmental Research and Public Health 11(8): 7575–7591. http://www.mdpi.com/1660-4601/11/8/7575
	86.	Usui M, Ozawa S, Onozato H, Kuge R, Obata Y, Uemae T, Ngoc PT, Heriyanto A, Chalemchaikit T, Makita K, Muramatsu Y and Tamura Y. 2014. Antimicrobial
		susceptibility of indicator bacteria isolated from chickens in Southeast Asian countries (Vietnam, Indonesia, and Thailand). Journal of Veterinary Medical Science
		76(5): 685-692. <u>http://dx.doi.org/10.1292/jvms.13-0423</u>
	87.	Waliyar, F., Osiru, M., Ntare, B. R., Kumar, K. V. K., Sudini, H., Traore, A., & Diarra, B. (2014). Post-harvest management of aflatoxin contamination in groundnut.
		World Mycotoxin Journal, 1-8.
	88.	Wesonga FD, Gachohi JM, Kitala PM, Gathuma JM and Njenga MJ. 2014. Theileria parva infection seroprevalence and associated risk factors in cattle in
		Machakos County, Kenya. Tropical Animal Health and Production. Online First <u>http://dx.doi.org/10.1007/s11250-014-0690-6</u>
	89.	Yapo R, Koné B, Bonfoh B, Cissé G, Zinsstag J and Nguyen-Viet H. 2014. Quantitative microbial risk assessment related to urban wastewater and lagoon water
		reuse in Abidjan, Côte d'Ivoire. Journal of Water and Health 12(2): 301-309. http://dx.doi.org/10.2166/wh.2013.051
	90.	Yobouet BA, Kouamé-Sina SM, Dadié A, Makita K, Grace D, Djè KM and Bonfoh B. 2014. Contamination of raw milk with Bacillus cereus from farm to retail in
		Abidjan, Côte d'Ivoire and possible health implications. Dairy Science & Technology 94(1): 51-60. http://dx.doi.org/10.1007/s13594-013-0140-7
Integrated	91.	Alderman, Harold; Hawkesworth, Sophie; Lundberg, Mattias; Tasneem, Afia; Mark, Henry; and Moore, Sophie E. 2014. Supplemental feeding during pregnancy
Programs and		compared with maternal supplementation during lactation does not affect schooling and cognitive development through late adolescence. American Journal of
Policies		Clinical Nutrition 99(1): 122-129. <u>http://dx.doi.org/10.3945/ajcn.113.063404</u>
	92.	Aberman, Noora-Lisa; Rawat, Rahul; Drimie, Scott; Claros, Joan M.; and Kadiyala, Suneetha. Food security and nutrition interventions in response to the aids
		epidemic: Assessing global action and evidence. AIDS and Behavior (June 2014). <u>http://dx.doi.org/10.1007/s10461-014-0822-z</u>
	93.	Alderman, Harold; Behrman, Jere R.; Grantham-McGregor, Sally; Lopez-Boo, Horencia; and Urzua, Sergio. 2014. Economic perspectives on integrating early child
		Sumulation and Early Childhood Development Interventions, http://dx.doi.org/10.1111/pyes 12331
	94.	Alderman, Harold: Haddad, Lawrence James: Headey, Derek D.; and Smith, Lisa C. 2014, Association between economic growth and early childhood nutrition.
		Lancet Global Health 2(9): e500. http://dx.doi.org/10.1016/S2214-109X(14)70266-9
	95.	Alderman, Harold. 2014. Review of Food security and sociopolitical stability by Christopher B. Barrett. Oxford and New York: Oxford University Press. Journal of
		Economic Literature 52(3): 859-61. <u>http://dx.doi.org/10.1257/jel.52.3.851.r5</u>
	96.	Avula, Rasmi; Kim, Sunny S.; Ved, Rajani; Pradhan, Mamata; and Menon, Purnima. 2014. Opportunities and challenges for intersectoral convergence in the
		delivery of nutrition interventions in India. FASEB Journal 28(1 Supplement): 632.16. <u>http://www.fasebj.org/content/28/1_Supplement/632.16</u>
	97.	Avula, Rasmi; Kosec, Katrina; Holtemeyer, Brian; Tyagi, Parul; Hausladen, Stephanie; and Menon, Purnima. 2014. Education and work incentives for frontline
		workers and household socioeconomic status influence delivery of health and nutrition interventions in Binar, India. FASEB Journal 28(1 Supplement): 624.5.
	98	Cox SE Makani L Soka D L'Esperance VS Kija E Dominguez-Salas P Newton CRI Birch & Prentice & M and Kirkham EL 2014 Hantoglobin alpha-thalassaemia
	50.	and glucose-6-phosphate dehydrogenase polymorphisms and risk of abnormal transcranial Doppler among patients with sickle cell anaemia in Tanzania. British
		Journal of Haematology 165(5): 699-706. http://dx.doi.org/10.1111/bjh.12791
	99.	Dominguez-Salas P, Moore SE, Baker MS, Bergen AW, Cox SE, Dyer RA, Fulford AJ, Guan Y, Laritsky E, Silver MJ, Swan GE, Zeisel SH, Innis SM, Waterland RA,
		Prentice AM and Hennig BJ. 2014. Maternal nutrition at conception modulates DNA methylation of human metastable epialleles. Nature Communications 5:
		3746. http://dx.doi.org/10.1038/ncomms4746

100.	Fiedler, John L.; and Lividini, Keith. 2014. Managing the vitamin A program portfolio: A case study of Zambia, 2013–2042. Food and Nutrition Bulletin 35(1): 105-
	125. http://nsinf.publisher.ingentaconnect.com/content/nsinf/fnb/2014/00000035/00000001/art00012
101.	Fiedler, John L.; Mubanga, Freddie; Siamusantu, Ward; Musonda, Mofu; Kabwe, Kabaso F.; and Zulu, Charles. 2014. Child health week in Zambia: Costs,
	efficiency, coverage and a reassessment of need. Health Policy and Planning 29(1): 12-29. <u>http://dx.doi.org/10.1093/heapol/czs129</u>
102.	Fiedler, John L.; Afidra, Ronald; Mugambi, Gladys; Tehinse, John; Kabaghe, Gladys; Zulu, Rodah; Lividini, Keith; Smitz, Marc-Francois; Jallier, Vincent; Guyondet,
	Christophe; and Bermudez, Odilia. 2014. Maize flour fortification in Africa: Markets, feasibility, coverage, and costs. Annals of the New York Academy of Sciences
	1312(April 2014): 26-39. http://onlinelibrary.wiley.com/doi/10.1111/nyas.12266/abstract
103.	Fiedler, John L. 2014. Food crop production, nutrient availability, and nutrient intakes in Bangladesh: Exploring the agriculture–nutrition nexus with the 2010
	Household Income and Expenditure Survey. Food and Nutrition Bulletin 35(4): 487-508.
	http://nsinf.publisher.ingentaconnect.com/content/nsinf/fnb/2014/00000035/00000004/art00010
104.	Fiedler, John L.; and Semakula, Richard. 2014. An analysis of the costs of Uganda's Child Days Plus: Do low costs reveal an efficient program or an underfinanced
	one? Food and Nutrition Bulletin 35(1): 92-104. http://nsinf.publisher.ingentaconnect.com/content/nsinf/fnb/2014/00000035/00000001/art00011
105.	Gelli, Aulo; Masset, Edoardo; Diallo, Amadou Sekou; Assima, Amidou; Hombrados, Jorge; Watkins, Kristie; and Drake, Lesley. 2014. Agriculture, nutrition and
	education: On the status and determinants of primary schooling in rural Mali before the crises of 2012. International Journal of Educational Development
	39(November 2014): 205-215. http://dx.doi.org/10.1016/i.ijedudey.2014.07.003
106.	Gelli, Aulo: and Suwa, Yuko, 2014, Investing in innovation: Trade-offs in the costs and cost-efficiency of school feeding using community-based kitchens in
	Bangladesh, Food and Nutrition Bulletin 35(3): 327-337. http://nsinf.publisher.ingentaconnect.com/content/nsinf/fnb/2014/00000035/00000003/art00005
107.	Gonzalez-Casanova, Ines: Nguyen, Phuong Hong: Hao, Wei: Pham, Hoa: Truong, Truong: Nguyen, Son: Martorell, Revnaldo: and Ramakrishnan, Usha, 2014.
	Preconception anemia and birth outcomes in Vietnam, FASEB Journal 28(1 Supplement): 804.6, http://www.fasebi.org/content/28/1 Supplement/804.6
108.	Hendriks, M. E., Wit, F. W., Akande, T. M., Kramer, B., Osagbemi, G. K., Tanović, Z., & Schultsz, C. (2014). Effect of health insurance and facility quality
	improvement on blood pressure in adults with hypertension in Nigeria: a population-based study. JAMA internal medicine, 174(4), 555-563.
109.	Jones, Andrew D.; Ickes, Scott B.; Smith, Laura E.; Mbuya, Mduduzi N. N.; Chasekwa, Bernard; Heidkamp, Rebecca A.; Menon, Purnima; Zongrone, Amanda A.;
	and Stoltzfus, Rebecca J. 2014. World Health Organization infant and young child feeding indicators and their associations with child anthropometry: A synthesis
	of recent findings. Maternal and Child Nutrition 10(1): 1-17. http://dx.doi.org/10.1111/mcn.12070
110.	Jones, Andrew D.; Mbuya, Mduduzi N.N.; Ickes, Scott B.; Heidkamp, Rebecca A.; Smith, Laura E.; Chasekwa, Bernard; Menon, Purnima; Zongrone, Amanda A.;
	and Stoltzfus, Rebecca J. 2014. Reply to correspondence: Is the strength of association between indicators of dietary quality and the nutritional status of
	children being underestimated? Maternal and Child Nutrition 10(1): 161-162. http://dx.doi.org/10.1111/mcn.12107
111.	Kadiyala, Suneetha; Harris, Jody; Headey, Derek D.; Yosef, Sivan; and Gillespie, Stuart, 2014. Agriculture and nutrition in India: Mapping evidence to pathways.
	Annals of the New York Academy of Sciences 1331(December 2014): 43-56. Issue on Paths of Convergence for Agriculture, Health, and Wealth.
	http://dx.doi.org/10.1111/nyas.12477
112.	Kazianga, Harounan; de Walque, Damien; and Alderman, Harold. 2014. School feeding programs, intrahousehold allocation and the nutrition of siblings:
	Evidence from a randomized trial in rural Burkina Faso. Journal of Development Economics 106(January 2014): 15-34.
	http://dx.doi.org/10.1016/j.jdeveco.2013.08.007
113.	Khandelwal, S., & Kurpad, A. (2014). Nurturing public health nutrition education in India. Eur J Clin Nutr, 68, 539-540.
114.	Khandelwal, Shweta; Paul, Tanusree; Haddad, Lawrence; Bhalla,Surbhi; Gillespie, Stuart; and Laxminarayan, Ramanan. 2013. Postgraduate education in nutrition
	in south Asia: A huge mismatch between investments and needs. BMC Medical Education 14(3). http://dx.doi.org/10.1186/1472-6920-14-3
115.	Kim, Sunny; Ali, Disha; Kennedy, Andrew; Tesfaye, Roman; Rawat, Rahul; and Menon, Purnima. 2014. Assessing implementation fidelity of a community-based
	infant and young child feeding intervention in Ethiopia identifies gaps in delivery that limit reach to communities. FASEB Journal 28(1 Supplement): 624.11.
	http://www.fasebj.org/content/28/1 Supplement/624.11
116.	Lapping, Karin; Frongillo, Edward A.; Nguyen, Phuong Hong; Coates, Jennifer; Webb, Patrick; and Menon, Purnima. 2014. Organizational factors, planning
	capacity, and integration challenges constrain provincial planning processes for nutrition in decentralizing Vietnam. Food and Nutrition Bulletin 35(3): 382-391.
	http://www.ingentaconnect.com/content/nsinf/fnb/2014/00000035/00000003/art00010
117.	Leroy, Jef L.; Ruel, Marie T.; Habicht, Jean-Pierre; and Frongillo, Edward A. 2014. Linear growth deficit continues to accumulate beyond the first 1000 days in
	low- and middle-income countries: Global evidence from 51 national surveys. Journal of Nutrition 144(9): 1460-1466. http://dx.doi.org/10.3945/jn.114.191981
118.	Leroy, Jef L.; Habicht, Jean-Pierre; de Cossío, Teresa González; and Ruel, Marie T. 2014. Maternal education mitigates the negative effects of higher income on
	the double burden of child stunting and maternal overweight in rural Mexico. Journal of Nutrition 144(5): 765-770. http://dx.doi.org/10.3945/jn.113.188474

119.	Leroy, Jef L.; Ruel, Marie T.; Habicht, Jean-Pierre; and Frongillo, Edward A. 2014. Reply to Victora et al. Journal of Nutrition 144(12): 2093.
	http://dx.doi.org/10.3945/jn.114.203083
120.	te Lintelo, D. J., Haddad, L. J., Leavy, J., & Lakshman, R. (2014). Measuring the commitment to reduce hunger: A hunger reduction commitment index. Food
	Policy, 44, 115-128.
121.	Menon, Purnima; Covic, Namukolo M.; Harrigan, Paige B.; Horton, Susan E.; Kazi, Nabeeha M.; Lamstein, Sascha; Neufeld, Lynnette; Oakley, Erica; and Pelletier,
	David. Strengthening implementation and utilization of nutrition interventions through research. Annals of the New York Academy of Sciences 1331(December
	2014): 39-59. Issue on A Global Research Agenda for Nutrition Science. <a href="http://dx.doi.org/10.1111/nyas.12447">http://dx.doi.org/10.1111/nyas.12447</a>
122.	Naher, Firdousi; Barkat-e-Khuda; Ahmed, Shaikh Shamsuddin; and Hossain, Mahabub. 2014. How nutrition-friendly are agriculture and health policies in
	Bangladesh? Food and Nutrition Bulletin 35(1): 133-146. <u>http://www.ingentaconnect.com/content/nsinf/fnb/2014/0000035/00000001/art00014</u>
123.	Nguyen, Phuong Hong; Ramakrishnan, Usha; Katz, Benjamin; Gonzalez-Casanova, Ines; Lowe, Alyssa E.; Nguyen, Hieu; Pham, Hoa; Truong, Truong; Nguyen, Son;
	and Martorell, Reynaldo. 2014. Mid-upper-arm and calf circumferences are useful predictors of underweight in women of reproductive age in northern
	Vietnam. Food and Nutrition Bulletin 35(3): 301-311. http://www.ingentaconnect.com/content/nsinf/fnb/2014/00000035/00000003/art00003
124.	Nguyen, Tuan T.; Nguyen, Phuong Hong; and Hajeebhoy, Nemat. 2014. Determinants of the gap between breastfeeding knowledge and practices in Vietnamese
	mothers. FASEB Journal 28(1 Supplement): 119.1. <u>http://www.fasebj.org/content/28/1_Supplement/119.1?related-</u>
405	urls=yes&legid=tasebj;28/1_Supplement/119.1
125.	Nguyen, Phuong H.; Menon, Purnima; Keithiy, Sarah C.; Hajeebhoy, Nemat; Iran, Lan M.; Ruel, Marie T.; and Rawat, Rahul. 2014. Understanding the
	implementation, utilization, and potential impact of a social refanchise model to improve infant and young child feeding practices in Vietnam: A program impact
120	pathway analysis. FASEB Journal 28(1 Supplement): 624.10. http://www.iasebj.org/content/28/1 Supplement/624.10
120.	Nguyen, Phuong Hong, Nguyen, Intel, Golizalez-Casaliova, Intes, Goleania, Erika, Scizicci, Garrett, Lowe, Alyssa, Phani, Hoa, Huong V., Nguyen, Son; Mastaroll, Daviadus and Demokrishens, Licha 2014. Microaniziantica tracks compare of concorducting acts in Victoram, DL 65, OVER 0(2), e00504
	Martorell, Reynaldo, allo Ramakisimali, Osila. 2014. Micronutrient intakes anong women of reproductive age in vietnam. PLos Oke 5(2). 805304.
127	Muyen Bhuong H Kim Sunny S Keithly Sarah C Haigebhoy Nemat Tran Lan M Ruel Marie T Rawat Babult and Menon Purnima 2014 Incorporating
127.	Aguyer, Houng Hr, King Sumy S, Kettiny, Salah C, Hajeebioy, Kethad, Han, Kate, Mare H, Kawa, Katin, and Kethol, Hummit. 2014. Incorporating alamants of social franchistics in government health senders in the second
	centres in Vietnam. Health Policy and Planning 29(8): 1008-1020 http://dx.doi.org/10.1093/heapol/czt083
128.	Nerven, Phylong H.; Menon, Purnima; Keithly, Sarah C.; Kim, Sunny S.; Hajeebhoy, Nemat; Tran, Lan M.; Ruel, Marie T.; and Rawat, Rahul. 2014. Program impact
	pathway analysis of a social franchise model shows potential to improve infant and young child feeding practices in Vietnam. Journal of Nutrition 144(10): 1627-
	1636. http://dx.doi.org/10.3945/in.114.194464
129.	Nguyen, Phuong Hong; Gonzalez-Casanova, Ines; Nguyen, Hieu; Pham, Hoa; Truong, Truong; Nguyen, Son; Martorell, Reynaldo; and Usha Ramakrishnan. 2014.
	Multi-causal determinants of anemia among women of reproductive age in Vietnam. FASEB Journal 28(1 Supplement): 804.7.
	http://www.fasebj.org/content/28/1_Supplement/804.7
130.	Nisbett, Nicholas; Gillespie, Stuart; Haddad, Lawrence James; and Harris, Jody. 2014. Why worry about the politics of childhood undernutrition? World
	Development 64(December 2014): 420-433. http://dx.doi.org/10.1016/j.worlddev.2014.06.018
131.	Padonou, Géraud; Le Port, Agnès; Cottrell, Gilles; Guerra, José; Choudat, Isabelle; Rachas, Antoine; Bouscaillou, Julie; Massougbodji, Achille; Garcia, André; and
	Martin-Prevelf, Yves. 2014. Prematurity, intrauterine growth retardation and low birth weight: Risk factors in a malaria-endemic area in southern Benin.
	Transactions of the Royal Society of Tropical Medicine and Hygiene 108(2): 77-83. <u>http://dx.doi.org/10.1093/trstmh/trt099</u>
132.	Phuong H. Nguyen, Kuntal K. Saha, Disha Ali, Purnima Menon, Swetha Manohar, Lan Mai Tran, Rahul Rawat, and Marie T. Ruel. 2014. Maternal mental health is
	associated with child undernutrition and illness in Bangladesh, Vietnam and Ethiopia. Public Health Nutrition 17(6): 1318-1327.
	http://dx.doi.org/10.1017/S1368980013001043
133.	Rawat, Rahul; Saha, Kuntal K.; Kennedy, Andrew; Rohner, Fabian; Ruel, Marie T.; and Menon, Purnima. Anaemia in intancy in rural Bangladesh: Contribution of
	Iron deficiency, infections and poor feeding practices. British Journal of Nutrition (2014). British Journal of Nutrition 111(1): 1/2-181.
124	http://dx.doi.org/10.101//S000/114513001852
134.	Smith, Ellen's Gorzalez-Casanova, ines's Nguyen, Phuong Hong, Nguyen, Hieu; Pham, Hoa's Truong, Truong, Nguyen, Son's Martorell, Reynaloo; and Ramakrishnan,
	Usha. 2014. Low vitanini D intake is associated with allernia in women of reproductive age in vietnam. FASEB Journal 26(1 Supplement): 804.17.
125	Scaboni, Echa: Malanit, Hazel L: Ouisumbing, Agnes R: and Abmed, Akhter LL 2014, Women's empowerment in agriculture: What role for feed security in
192.	Bangladesh? World Development 61/Sentember 2014): 11-52, http://dx.doi.org/10.1016/j.worlddey.2014.03.025
	bangradesh: wond beveropment of Jeptember 2014). 11-32. http://dx.doi.org/10.1010/j.wonddev.2014.03.025

136. Tuan, Nguyen T.; Nguyen, Phuong H.; Hajeebhoy, Nemat; Frongillo, Edward A. 2014. Gaps between breastfeeding awareness and practices in Vietnamese
mothers result from inadequate support in health facilities and social norms. Journal of Nutrition 144(11): 1811-1817. http://dx.doi.org/10.3945/jn.114.198226
137. Young, Melissa; Nguyen, Phuong Hong; Addo, O. Yaw; Hao, Wei; Nguyen, Hieu; Pham, Hoa; Truong, Truong V.; Nguyen, Son; Martorell, Reynaldo and
Ramakrishnan, Usha. 2014. The relative influence of prepregnancy weight and gestational weight gain on offspring birth size in Vietnam. FASEB Journal 28(1
Supplement): 620.7 http://www.fasebj.org/content/28/1 Supplement/620.7

# Annex 1c. A4NH 2014 ISI publications, by ISI impact factor (Indicator 9)

Total 2014 ISI publications	137
ISI impact factor greater than 10.000	5
ISI impact factor between 7.000 to 9.999	2
ISI impact factor between 5.000 to 6.999	16
ISI impact factor between 3.001 to 4.999	39
ISI impact factor between 1.001 to 2.999	63
ISI impact factor less than 1.000 or n/a	12

## Annex 2: Successes and challenges in mainstreaming gender research

<u>A4NH has met, and in some areas exceeded the requirements for gender mainstreaming defined by the</u> <u>Consortium Office for both performance indicators.</u> In 2014, A4NH started systematically collecting project-level information on projects' gender research questions, sex-disaggregated data collected, and the level of gender focus of each project deliverable (none, some, significant). A4NH expects to continue refinement of its protocol for tracking progress of integration of gender in research, and to continue using the feedback received to respond to constraints and opportunities for better gender integration.

- 1. Gender inequality targets defined
  - A number of A4NH projects use both primary and secondary sex-disaggregated social data, such as the DHS and other surveys collecting the WEAI module, to diagnose important gender-related constraints among our target populations. In addition, the A4NH projects database indicate that 53% of active projects in 2014 report collecting primary sex-disaggregated data including, but not limited to, anthropometry, dietary intakes, food consumption, production, and decision-making. Furthermore, 76% of projects that collect sex-disaggregated data also address gender-related constraints. Based on the 2014 project-level information available, we estimate that 40% of projects use data to address gender-related constraints in our target population.
  - A4NH has well-defined indicators, metrics and individual-level targets for women and children for dietary diversity, dietary intake of select micronutrients, and exposure to pathogen/hazard in target food at point of consumption. Targets for the WEAI and other empowerment indicators are still being defined in collaboration with PIM and the working group on the common gender IDO. The current status of A4NH indicators, metrics and targets are summarized in Table 1 of the Extension Proposal 2015-2016.
- 2. Institutional architecture for integration of gender is in place
  - In May 2014, a <u>portfolio review</u> was completed to assess the status of gender research and capacity in A4NH. The review found that there was limited information on how and to what extent gender is addressed in projects, and recommended we develop a simple way for projects to self-assess their gender research performance and share their gender research questions and methods.
  - In response to this recommendation, A4NH developed a new work plan template in 2014 together with guidelines to systematically collect information on the gender research focus of projects. The information collected include the following: whether or not there is a gender research dimension to the project (and why not if there is no gender dimension), the gender research questions to be addressed, the types of sex-disaggregated data collected<sup>5</sup>, the level of gender focus of each project deliverable (none, some, significant), and the name of the person responsible for gender research. Responses to these questions allow us to assess how well the gender research questions identified are reflected in project deliverables. A4NH is also working with PIM to harmonize its M&E systems for tracking progress on the integration of gender in research. Further guidelines and updates to the

<sup>&</sup>lt;sup>5</sup> In 2014, responses to this question gave us the information on the topics for which sex-disaggregated data were collected like anthropometry, consumption, production. This was later revised to ask what primary data is collected (panel, cross-sectional, FGD...) and which of those are sex-disaggregated.

gender section of the work plan template are expected to be used as part of the 2016 work planning process.

- The completion of the strategic gender assessment (SGA) for HarvestPlus in 2014 provided another opportunity to strengthen program results by explicitly addressing gender opportunities and constraints.<sup>6</sup> The findings of the SGA on research suggested that even though HarvestPlus research outputs are "overall, excellent" in quality, and sexdisaggregated data are collected systematically, there are opportunities to improve the integration of gender considerations in hypothesis development, data collection and analysis. The SGA made several actionable recommendations, including re-analyzing previously collected data with a gender lens; developing a better understanding of gender and intra-household decision making among target households; and identifying key genderrelated research hypotheses during the design of new research projects. Implementation of several recommendations began in 2014. For example, data on consumer acceptance of biofortified foods is being re-analyzed with a gender lens to understand better if men and women's acceptance of these crops differ. HarvestPlus is planning to include a version of the Women's Empowerment in Agriculture Index (WEAI) in the upcoming impact assessment study on the adoption of iron beans in Rwanda in order to investigate hypotheses on the role of gender in adoption of these varieties and the impact of varietal adoption on various outcomes for women (e.g., iron intake, time allocation, and income).
- A4NH undertook a number of activities to build capacity for gender research across CGIAR and to external partners. In May, the <u>Gender Nutrition Idea Exchange</u>, a blog hosted on the A4NH web site was launched to improve understanding of how to conduct high-quality agriculture research that considers gender and nutrition issues. At the end of the year, researchers from nine CRPs and partners from FAO, IFAD, and other academic institutions attended the second <u>Gender-Nutrition Methods workshop</u>.
- Lastly, A4NH was a partner in several successful proposals that received matching funds from the Consortium Office to hire postdoctoral fellows in 2015. The fellows will support cross-CRP work to validate gender and empowerment indicators (with PIM, HumidTropics and Maize), integrate gender considerations in the M&E of nutrition-sensitive value-chain projects (with L&F and GL), and analyze gender-based preferences for crop traits and its impact on plant breeding and adoption (with DC and GL).

<sup>&</sup>lt;sup>6</sup> The full SGA report is an internal document although key messages have been shared online, with all staff, and with stakeholders. Findings will inform a HarvestPlus brief about gender, which is under development.