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

April 30, 2015

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.

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 PIA 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. It will be a challenge to establish and grow 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)	Actual Expenditure Cumulative	Planned Expenditure 2014	Actual Expenditure 2014	Cumulative Variance (PIA or POWB)
Total Expenditure	**$191.40**	**$ 182.53**	**$ 74.00**	**$ 91.84**	-5%
Window 1($10.4m income) Window 2 ($52.4m income)	$93.6 (PIA) $61.3	$ 61.3	$43.6 (PIA) $24	$ 26.7	-33%
Window 3/Bilateral	$96.7 (PIA) $121.3	$ 121.3	$25.3 (PIA) $50	$ 65.2	+25%
Gender Research Expenditure (estimated)*				$ 12.5	

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

B. IMPACT PATHWAY AND INTERMEDIATE DEVELOPMENT OUTCOMES (IDOS)

In 2014, A4NH made progress in developing four 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 ToCs around major research outputs, 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 defining IDOs and related indicators. During 2014, A4NH remained active in the CGIAR IDO working group 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 (HCES), 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 Minimum Dietary Diversity - Women (MDD-W). 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. An article in the *Journal of Nutrition* 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," [1] 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. 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. Results of a vitamin A maize efficacy trial in Zambia 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

[1] 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.

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).

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 risk-based assessment of the pork production chain, 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 goat meat and ready-to-eat chicken 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 framed field experiment 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 field evaluation 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 (NAFDAC) 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. The plant manufactured and supplied 218 tons of country-specific Aflasafe™ products to eight countries in Eastern, Southern and Western Africa. Interest from the private sector in being involved in the commercialization of Aflasafe™ is growing: implementers of the AgResults initiative purchased Aflasafe™ 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 USDA-ARS, at one of the Kenya Agriculture and Livestock Research Organization (KALRO)'s 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 for 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 Biodiversity for Food and Nutrition (BFN) project, coordinated by Bioversity, was invited to represent BFN on the Nutrition Interagency Coordinating Committee (NICC) 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 (FNDE) and the School Feeding Programme (PNAE) 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 research approach 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 preliminary framework 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 "convergent innovation for food systems," 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 series of workshops in Canada and India and via two journal articles. A4NH researchers from Bioversity provided technical inputs into the identification of a shortlist of 15

indicators for sustainable diets and food systems. Results on the cost-efficiency of models, 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 new set of maps on global livestock distribution. One unique feature of the maps is that they can be easily updated as new data become available via a dedicated geo-wiki. 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 avian influenza risk assessments 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 initative 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 (ICN2) 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 (CCAfrica) 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 *Global Nutrition Report* *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 endorsements 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 Together for Nutrition 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 *Transform Nutrition* consortium and Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India (POSHAN). 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 (LANSA) 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, "Child Stunting and Aflatoxins," which was part of the 2020 Vision series on aflatoxins, as a summary of the latest scientific evidence on aflatoxin and stunting. IDRC 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 expert meeting organized by the Global Donor Platform for Rural Development in Berlin, and at a meeting with Mercy Corps in Guatemala City. The 2012 study on zoonoses and poverty commissioned by 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 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 OFSP varieties released in Uganda. A4NH evaluation results have been used to design HKI's new E-HFP programs in Burkina Faso and Tanzania, as part of the CHANGE 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.

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 quality, 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 intra-household 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 results, 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. 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 (IDS), 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.

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 Gender-Nutrition Methods workshop. 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 co-organized with the 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 2nd 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 6th African Nutrition Epidemiology Conference (ANEC) 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 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, WHO convened delegates from countries with endemic neurocysticercosis[2], 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 ReSAKSS, in addition to the support on nutrition and gender have supported the African Union in its development of the 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

[2]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.

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 nutrition-sensitive landscapes. This year, this team started conducting multi-disciplinary 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 Convergent Innovation Coalition (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 Pulse Innovation Partnership 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 USAID 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™. 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 Center Performance Summary. 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.

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.

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.

I. FINANCIAL REPORTS

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**
	32%	**14%**	**54%**	**0%**	**100%**	**34%**	**15%**	**51%**	**0%**	**100%**	**10%**	**-4%**	**97%**	**-3%**	**100%**

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
Deadlin 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			17,805		17,805
HarvestPlus from other donor	-	-	5,814		5,814
HKI	-	-	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**	**44,352**	**342**	**91,944**

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

Annual Financial Summary by Centers

Report Description

Name of Report:	Annual Financial Summary by Centers & Other Participants
Frequency/Period:	Annual
Deadline:	Every April 15th

Summary Report - by CG Partners	(a) CRP 2014 POWB approved budget					(b) CRP 2014 Expenditure					(c) Variance this Year				
	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	-	-	-	795	651	-	-	-	651	144	-	-	-	144
12. WORLDFISH	196	-	238	-	434	182	-	181	-	363	14	-	57	-	71
Total for CRP	**27,927**	**18,314**	**37,564**	**527**	**84,332**	**26,670**	**20,522**	**44,302**	**342**	**91,835**	**1,257**	**(2,208)**	**(6,738)**	**185**	**(7,503)**
	33%	**22%**	**45%**	**1%**	**100%**	**29%**	**22%**	**48%**	**0%**	**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

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

	POWB Approved Budget					Actual					Unspent/Variance				
Total CRP"4.0"	**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**
Personnel	9,528	4,880	7,375	200	21,983	9,360	5,294	7,654	130	22,437	168	(414)	(279)	70	(454)
Collaborators Costs - CGIAR Centers	14,651	12,267	10,399	-	37,317	14,890	12,267	9,595	-	36,752	(239)	-	804	-	565
Collaborator Costs - Partners	3,980	7,012	13,975	148	25,115	3,044	8,374	18,621	96	**30,134**	936	(1,362)	(4,646)	52	(5,019)
Supplies and services	9,303	2,737	8,629	62	20,731	8,775	3,575	11,301	40	23,691	528	(838)	(2,672)	22	(2,960)
Operational Travel	1,044	698	1,865	22	3,629	1,406	698	1,747	14	3,865	(362)	0	118	8	(236)
Depreciation	289	913	1,310	6	2,518	282	303	471	4	1,060	7	611	839	2	1,459
Sub-total of Direct Costs	**38,795**	**28,507**	**43,553**	**438**	**111,293**	**37,756**	**30,509**	**49,389**	**284**	**117,938**	**1,038**	**(2,002)**	**(5,836)**	**154**	**(6,645)**
Indirect Costs	3,783	2,074	4,410	89	10,356	3,804	2,280	4,508	58	10,650	(21)	(206)	(98)	31	(294)
Total - All Costs	42,578	30,581	47,963	527	121,649	41,560	32,789	53,897	342	128,587	1,017	(2,208)	(5,934)	185	(6,939)
LESS Coll Costs CGIAR Centers	(14,651.0)	(12,267.0)	(10,399.0)	-	(37,317.0)	(14,890.0)	(12,267.0)	(9,595.0)	-	**(36,752)**	**239**	-	**(804)**	-	**(565)**
Total Net Costs	27,927	18,314	37,564	527	84,332	26,670	20,522	44,302	342	91,835	1,256	(2,208)	(6,738)	185	(7,504)

Amounts for each participating center below:

	POWB Approved Budget					Actual					Unspent/Variance				
BIOVERSITY															
Personnel	1,263	66	396		1,725	906	25	275		1,205	357	42	121	-	520
Collaborators Costs - CGIAR Centers					-					-	-	-	-	-	-
Collaborator Costs - Partners	311	33	871		1,215	208	61	**840**		**1,108**	103	(28)	31	-	107
Supplies and services	404	104	350		858	420	69	303		792	(16)	35	47	-	66
Operational Travel	36	7	54		97	65	3	24		92	(29)	4	30	-	5
Depreciation					-		4			4	-	(4)	-	-	(4)
Sub-total of Direct Costs	**2,014**	**210**	**1,671**	**-**	**3,895**	**1,598**	**160**	**1,442**	**-**	**3,200**	**416**	**50**	**229**	**-**	**695**
Indirect Costs	291	17	97		405	304	10	93		407	(13)	7	4	-	(2)
Total - All Costs	**2,305**	**227**	**1,768**	**-**	**4,300**	**1,902**	**170**	**1,535**	**-**	**3,607**	**403**	**57**	**233**	**-**	**693**
LESS Coll Costs CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Net Costs	**2,305**	**227**	**1,768**	**-**	**4,300**	**1,902**	**170**	**1,535**	**-**	**3,607**	**403**	**57**	**233**	**-**	**693**

	POWB Approved Budget					Actual					Unspent/Variance				
CIAT															
Personnel	897	3	1,887		2,787	912	40	2,442		3,394	(15)	(37)	(555)	-	(607)
Collaborators Costs - CGIAR Centers	5,740		4,725		10,465	5,979		3,921		9,900	(239)	-	804	-	565
Collaborator Costs - Partners	939	258	1,632		2,829	410		6,874		**7,284**	529	258	(5,242)	-	(4,455)
Supplies and services	984	7	3,624		4,615	1,120	9	5,618		6,747	(136)	(2)	(1,994)	-	(2,132)
Operational Travel	113	7	259		379	141		730		871	(28)	7	(471)	-	(492)
Depreciation	6	39	737		782	3		184		187	3	39	553	-	595
Sub-total of Direct Costs	**8,679**	**314**	**12,864**	**-**	**21,857**	**8,565**	**49**	**19,769**	**-**	**28,383**	**114**	**265**	**(6,905)**	**-**	**(6,526)**
Indirect Costs	556	21	1,650		2,227	571	7	1,956		2,534	(15)	14	(306)	-	(307)
Total - All Costs	**9,235**	**335**	**14,514**	**-**	**24,084**	**9,136**	**56**	**21,725**	**-**	**30,917**	**99**	**279**	**(7,211)**	**-**	**(6,833)**
LESS Coll Costs CGIAR Centers	(5,740.0)	-	**(4,725)**	-	**(10,465)**	**(5,979)**	-	**(3,921)**	-	**(9,900)**	**239**	-	**(804)**	-	**(565)**
Total Net Costs	**3,495**	**335**	**9,789**	**-**	**13,619**	**3,157**	**56**	**17,804**	**-**	**21,017**	**338**	**279**	**(8,015)**	**-**	**(7,398)**

	POWB Approved Budget					Actual					Unspent/Variance				
CIMMYT															
Personnel	1,089		113		1,202	993		61		1,054	96	-	52	-	148
Collaborators Costs - CGIAR Centers					-					-	-	-	-	-	-
Collaborator Costs - Partners	70		25		95	20		24		**44**	50	-	1	-	51
Supplies and services	1,642		42		1,684	1,640		124		1,764	2	-	(82)	-	(80)
Operational Travel	152		(18)		134	117		10		127	35	-	(28)	-	7
Depreciation	32		89		121	39		34		73	(7)	-	55	-	48
Sub-total of Direct Costs	**2,985**	**-**	**251**	**-**	**3,236**	**2,809**	**-**	**253**	**-**	**3,062**	**176**	**-**	**(2)**	**-**	**174**
Indirect Costs	441		37		478	419		36		455	22	-	1	-	23
Total - All Costs	**3,426**	**-**	**288**	**-**	**3,714**	**3,228**	**-**	**289**	**-**	**3,517**	**198**	**-**	**(1)**	**-**	**197**
LESS Coll Costs CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Net Costs	**3,426**	**-**	**288**	**-**	**3,714**	**3,228**	**-**	**289**	**-**	**3,517**	**198**	**-**	**(1)**	**-**	**197**

	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
CIP	**POWB 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	59	203	105		367	(14)	(81)	29	-	(66)
Total - All Costs	**461**	**1,059**	**977**	-	**2,497**	**460**	**2,073**	**906**	-	**3,439**	**1**	**(1,014)**	**71**	-	**(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)**
ICRISAT	**POWB Approved Budget**					**Actual**					**Unspent/Variance**				
Personnel	767	64	12		843	569	64	12		645	198	-	-	-	198
Collaborators Costs - CGIAR Centers					-					-	-	-	-	-	-
Collaborator Costs - Partners	64	223			287	61	89	9		**159**	3	134	(9)	-	128
Supplies and services	725	190	16		931	720	124			844	5	66	16	-	87
Operational Travel	79	10	4		93	55	9	8		72	24	1	(4)	-	21
Depreciation	50				50	4	3			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	**POWB 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)
Total - All Costs	**16,596**	**26,067**	**23,220**	**527**	**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)**
IITA	**POWB Approved Budget**					**Actual**					**Unspent/Variance**				
Personnel	869	592	926		2,387	1,250	495	702		2,447	(381)	97	224	-	(60)
Collaborators Costs - CGIAR Centers					-					-	-	-	-	-	-
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	**POWB 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
Total - 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Net Costs	**4,947**	**359**	**2,065**	-	**7,371**	**4,270**	**394**	**1,786**	-	**6,450**	**677**	**(35)**	**279**	-	**921**

	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
IRRI	**POWB Approved Budget**					**Actual**					**Unspent/Variance**				
Personnel	380				380	337				337	43	-	-	-	43
Collaborators Costs - CGIAR Centers					-					-	-	-	-	-	-
Collaborator Costs - Partners	10				10	10				10	(1)	-	-	-	(1)
Supplies and services	256				256	203				203	53	-	-	-	53
Operational Travel	53				53	27				27	26	-	-	-	26
Depreciation	6				6					-	6	-	-	-	6
Sub-total of Direct Costs	**704**	-	-	-	**704**	**577**	-	-	-	**577**	**127**	-	-	-	**127**
Indirect Costs	91				91	74				74	17	-	-	-	17
Total - All Costs	**795**	-	-	-	**795**	**651**	-	-	-	**651**	**144**	-	-	-	**144**
LESS Coll Costs CGIAR Centers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Net Costs	**795**	-	-	-	**795**	**651**	-	-	-	**651**	**144**	-	-	-	**144**

	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding	Windows 1 & 2	Window 3	Bilateral Funding	Center Funds	Total Funding
WORLD AGROFORESTRY	**POWB Approved Budget**					**Actual**					**Unspent/Variance**				
Personnel	176	55			231	203	55			258	(27)	-	-	-	(27)
Collaborators Costs - CGIAR Centers	5				5					-	5	-	-	-	5
Collaborator Costs - Partners	100	12			112	62	12			74	38	-	-	-	38
Supplies and services	88	117			205	113	117			230	(25)	-	-	-	(25)
Operational Travel	70	16			86	70	16			86	-	-	-	-	-
Depreciation	20				20	12				12	8	-	-	-	8
Sub-total of Direct Costs	**459**	**200**	-	-	**659**	**460**	**200**	-	-	**660**	**(1)**	-	-	-	**(1)**
Indirect Costs	69	30			99	68	30			98	1	-	-	-	1
Total - All Costs	**528**	**230**	-	-	**758**	**528**	**230**	-	-	**758**	-	-	-	-	-
LESS Coll Costs CGIAR Centers	(5.0)	-	-	-	**(5)**	-	-	-	-	-	**(5)**	-	-	-	**(5)**
Total Net Costs	**523**	**230**	-	-	**753**	**528**	**230**	-	-	**758**	**(5)**	-	-	-	**(5)**

	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
WORLDFISH	**POWB Approved Budget**					**Actual**					**Unspent/Variance**				
Personnel	49		55		104	77		63		140	(28)	-	(8)	-	(36)
Collaborators Costs - CGIAR Centers	4				4					-	4	-	-	-	4
Collaborator Costs - Partners	17		147		164					-	17	-	147	-	164
Supplies and services	71		12		83	48		87		135	23	-	(75)	-	(52)
Operational Travel	34		2		36	26		12		38	8	-	(10)	-	(2)
Depreciation	2				2			2		2	2	-	(2)	-	-
Sub-total of Direct Costs	**177**	-	**216**	-	**393**	**151**	-	**164**	-	**315**	**26**	-	**52**	-	**78**
Indirect Costs	23		22		45	31		17		48	(8)	-	5	-	(3)
Total - All Costs	**200**	-	**238**	-	**438**	**182**	-	**181**	-	**363**	**18**	-	**57**	-	**75**
LESS Coll Costs CGIAR Centers	(4.0)	-	-	-	**(4)**	-	-	-	-	-	**(4)**	-	-	-	**(4)**
Total Net Costs	**196**	-	**238**	-	**434**	**182**	-	**181**	-	**363**	**14**	-	**57**	-	**71**

	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
PMU	**POWB Approved Budget**					**Actual**					**Unspent/Variance**				
Personnel	820	-	-	-	820	808	-	-	-	808	12	-	-	-	12
Collaborators Costs - CGIAR Centers	15	-	-	-	15	15	-	-	-	15	0	-	-	-	0
Collaborator Costs - Partners	558	-	-	-	558	550	-	-	-	550	8	-	-	-	8
Supplies and services	411	-	-	-	411	405	-	-	-	405	6	-	-	-	6
Operational Travel	64	-	-	-	64	63	-	-	-	63	1	-	-	-	1
Depreciation	33	-	-	-	33	32	-	-	-	32	0	-	-	-	0
Sub-total of Direct Costs	**1,901**	-	-	-	**1,901**	**1,873**	-	-	-	**1,873**	**28**	-	-	-	**28**
Indirect Costs	299	-	-		299	295	-	-	-	295	4	-	-	-	4
Total - All Costs	**2,200**	-	-	-	**2,200**	**2,168**	-	-	-	**2,168**	**32**	-	-	-	**32**
LESS Coll Costs CGIAR Centers	-15	-	-	-	**-15**	**(15)**	-	-	-	**(15)**	**(0)**	-	-	-	**(0)**
Total Net Costs	**2,185**	-	-	-	**2,185**	**2,153**	-	-	-	**2,153**	**32**	-	-	-	**32**

Annual Financial Summary by Flagship Project

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

Report Description

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

	POWB Approved	Current Year Actual Expenditures	Unspent Budget
Summary Report - by Flagship Project			
FS-1 Value chains for enhanced nutrition	7,110	7,082	28
FS-2 Biofortification	43,514	51,260	(7,746)
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	**84,335**	**91,835**	**(7,500)**
BIOVERSITY			
FS-1 Value chains for enhanced nutrition	2,602	2,053	549
FS-2 Biofortification			-
FS-3 Agricultural Associated Diseases			-
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			-
Total - All Costs	13,619	21,017	(7,398)
CIMMYT			
FS-1 Value chains for enhanced nutrition			-
FS-2 Biofortification	3,714	3,518	196
FS-3 Agricultural Associated Diseases			-
FS-4 Integrated Programs and Policies			-
CRP Management/Coordination			-
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)
ICARDA			
FS-1 Value chains for enhanced nutrition			-
FS-2 Biofortification			-
FS-3 Agricultural Associated Diseases			-
FS-4 Integrated Programs and Policies			-
CRP Management/Coordination			-
Total - All Costs	-	-	-

	POWB Approved	Current Year Actual Expenditures	Unspent Budget
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
IFPRI			
FS-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			-
CRP Management/Coordination			-
Total - All Costs	9,470	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
IRRI			
FS-1 Value chains for enhanced nutrition			-
FS-2 Biofortification	795	651	144
FS-3 Agricultural Associated Diseases			-
FS-4 Integrated Programs and Policies			-
CRP Management/Coordination			-
Total - All Costs	795	651	144
WORLD AGROFORESTRY CENTRE (ICRAF)			
FS-1 Value chains for enhanced nutrition	758	758	-
FS-2 Biofortification			-
FS-3 Agricultural Associated Diseases			-
FS-4 Integrated Programs and Policies			-
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

CGIAR
Science for a food secure future

Report Description

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

	POWB Approved	Current Year Actual Expenditures	Unspent Budget
Summary Gender Report - by Flagship Project			
FS-1 Value chains for enhanced nutrition	199	109	89.89
FS-2 Biofortification	1,416	1,417	(0.74)
FS-3 Agricultural Associated Diseases	2,019	1,984	34.89
FS-4 Integrated Programs and Policies	8,372	8,959	(586.28)
Total - All Costs	**12,007**	**12,469**	**(462)**
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			
FS-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)
CIMMYT			
FS-1 Value chains for enhanced nutrition			-
FS-2 Biofortification	907	858	49
FS-3 Agricultural Associated Diseases			-
FS-4 Integrated Programs and Policies			-
Flagship Project 5			-
Total - All Costs	907	858	49
CIP			
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)
Total - All Costs	45	60	(15)
ICARDA			
FS-1 Value chains for enhanced nutrition			-
FS-2 Biofortification			-
FS-3 Agricultural Associated Diseases			-
FS-4 Integrated Programs and Policies			-
Total - All Costs	-	-	-

	POWB Approved	Current Year Actual Expenditures	Unspent Budget
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			
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)
IITA			
FS-1 Value chains for enhanced nutrition	7	6	1
FS-2 Biofortification	44	38	6
FS-3 Agricultural Associated Diseases	430	372	58
FS-4 Integrated Programs and Policies			-
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
IRRI			
FS-1 Value chains for enhanced nutrition	-		-
FS-2 Biofortification	8	7	1
FS-3 Agricultural Associated Diseases	-		-
FS-4 Integrated Programs and Policies	-		-
			-
Total - All Costs	8	7	1
WORLD AGROFORESTRY CENTRE (ICRAF)			
FS-1 Value chains for enhanced nutrition	8	8	-
FS-2 Biofortification	-	-	-
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 Biofortification	-	-	-
FS-3 Agricultural Associated Diseases	-	-	-
FS-4 Integrated Programs and Policies	-	-	-
Total - All Costs	4	4	1

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

CRP Partnership Report

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

TOTAL FOR CRP 4.0 — **Actual Expenses - This Year**

Item	Institute Acronym	Institute Name	Country	Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
1	AAU	Assam Agriclutral Univeirsty	India	3				3
2	ADAF	Adaf-Galle		1	-	-	-	1
3	AFEC	Accion Fraterna Ecology Centre	India	4	-	-	-	4
4	AFRICSANTE	Agence De Formation, De Recherche & D'Expertise En Sante Pour L'Afrique	Burkina Faso	-	-	227		227
5	ANGRAU	Acharya N G Ranga Agricultural University (Angrau)	India	1	-	-	-	1
6	ANSA	Associação De Nutrição E Segurança Alimentar	Mozambique	-	-	103		103
7	ARDAP	Appropriate Rural Development Agriculture Programme	Kenya			10		10
8	ARI	Agricultural Research Institute	Tanzania	-	11	-	-	11
9	AS	Ajeet Seeds	India	-	0	-	-	0
10	AS Ltd	Ajeet Seeds Ltd	India	-	1	-	-	1
11	AVRDC	The World Vegetable Center	Taiwan		1,084			1084
12	BAU	Bihar Agricutlrual University	India	4				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	BOKU	Universitat Fur Bodenkulfur Wien	Austria	7				7
17	BSA&RD	Benue State Agricultural & Rural Dev	Nigeria	-	62	31		93
18	BScience	Bayer Bio Science	India	-	2	-	-	2
19	BSearch Private Limited	Bioseed Research India Private Limited	India	-	5	-	-	5
20	CARE-ZAMBIA	Care International Zambia	Zambia			(155)		-155
21	CCHAU	Ccs Haryana Agricultural University	India	-	17	-	-	17
22	CEDO	Community Enterprises Development Organization	Uganda	-	122	-		122
23	CELAGRID	Center For Livestock And Agriculture Development	Cambodia					0
24	Centre De Recherce Pou	CENTRE DE RECHERCE POUR LE DÉVELOPPEMENT ECONOMIQUE ET SOCIAL	Senegal	0	72	-		72
25	CIAT	International Center For Tropical Agriculture	Colombia					0
26	CIVAS	Center For Indonesia Veterinary Analytical Studies	Indonesia					0
27	CMU	Chiang Mai University	Thailand					0
28	COMESA	Common Market For Eastern And Southern Africa	Zambia			100		100
29	CORNELL UNIVERSITY	Cornell University	United States	95	8	117		220
30	Corporacion CLAYUCA	Corporacion - Consorcio Latinoamericano Y Del Caribe De Apoyo A La Investigacion Y Al Desarrollo De La Yuca	Colombia	(4)	-	-	-	-4
31	CP, LLC	Cultural Practice, Llc	United States	-	6	132		138
32	CREADIS	Community Research In Environment And Development Initiatives	Kenya			9		9
33	CRI - GHANA	Crops Research Institute ,Ghana	Ghana			12		12
34	CRS	Catholic Relief Services	Rwanda			39		39
35	CSRS	Centre Suisie De Recherches Sciencetifique En Cote D'Ivoire	Ivory Coast			96		96
36	DAH-HCMC	Department Of Animal Health, Regional Health Centre	Vietnam	4				4
37	DARS	Department Of Agriculture Research Services	Malawi			(15)		-15
38	DATA	Data Analysis & Tech Asst	Bangladesh	-	-	542		542
39	DDs And Crop Technology Private Limited	Devgen Seeds And Crop Technology Private Limited	India	-	6	-	-	6
40	DGR	Directorate Of Groundnut Reasearch (Dgr)	India	4	-	-	-	4
41	DLF-MAF	Department Of Livestock And Fisheries, Ministry Of Agriculture And Forestry,	Lao Pdr					0
42	EICU	Earth Institute Columbia University	Usa	-	7	-	-	7
43	Embrapa/Funarbre	Empresa Brasileira De Pesquisa Agropecuaria/ Fundacao Arthur Bernardes.	Brazil	913	-	30	-	943
44	ENVOY CONSULT AGRICULTURE PRODUCE	Envoy Consult Agric Prod	Nigeria	-	-	97		97
45	ETH-ZURICH	Eth-Zurich	Switzerland	-	407	-		407
46	FARM RADIO INTERNATIONAL	Farm Radio International	Canada	-	102	-		102
47	FL.	Firetail Limited	United Kingdom	-	-	64		64
48	FREIBURG Univ.	Freiburg University	Germany	-	320	-		320
49	FUMA	Fédération Des Unions Des Producteurs De Maradi	Niger	2	-	-	-	2
50	FUNBIO	Brazilian Biodiversity Fund	Brasil	-	-	287	-	287
51	Funiv.	Flinders University	Australia	-	698	276		974
52	FVM/CMU	Faculty Of Veterinary Medicine, Chiang Mai University	Thailand					0
53	GENOTYPIC	Genotypic In Bangalore, India	India	24	-	-	-	24
54	GHGI	Global Health Group International	Thailand					0
55	GRi Seeds PVT	Ganga Kaveri Seeds Private Limited	India	-	6	-	-	6
56	GU	Ghent University	Belgium	100	-	-	-	100
57	GW LLC	Groundwork Group Llc	Switzerland	168	41	-		208
58	HBF	Healthbridge Foundation	Vietnam	30	-	-	-	30
59	HD India Pvt. Ltd	Hytech Seed India Pvt. Ltd	India	-	2	-	-	2
60	HDs	Hytech Seeds	India	-	3	-	-	3
61	HGD	Humanitas Global Development	United States	-	168	-		168
62	HKI	Helen Keller International	United States	-	-	152		152
63	HSP	Hanoi School Of Public Health	Vietnam		105			105
64	HUA	Hanoi University Of Agriculture	Vietnam		90			90

65	IAR	Institute For Agricultural Research	Nigeria			10		10
66	ICDDR	International Center For Diarrheal And Desease Research	Bangladesh	-	-	267		267
67	ICRAF	The International Centre For Research In Agroforestry	Kenya			2		2
68	ICTA	Icta-Instituto De Ciencia Y Tecnologia Agricola	Guatemala	49	-	-	-	49
69	IDS	Institute Of Dev Studies	United Kingdom	76	191	593		859
70	IDS	Institute For Development Strategies	Germany, The Netherl	-	152	37		189
71	IEHSD	Institute Of Environmental Health And Sustainable Development (Iehsd) Of The Vietnam Union Of Science And Technology Associations (Vusta	Vietnam	113				113
72	IITA	International Institute Of Tropical Agriculture	Nigeria	6	0			6
73	IKUAT	Jome Kenyatta Univeirsty Of Agricutlure And Technology	Kenya	1				1
74	IKURU	Ikuru Sarl	Mozanbique			(1)		-1
75	IMBARAGA	Imbaraga Farmers Organization	Rwanda			11		11
76	INERA	Institut De L'Environment Et De Recherch	Burkina Faso	-	43	188		231
77	INERA CONGO	Institut De L'Environnement Et De Recherches Agricoles	Dr Congo			10		10
78	INN	Instituto De Investigacion	Peru	50				50
79	INRAB	Institut National Des Recherches Agricole Du Bènin	Benin			2		2
80	IOOP	Institute Of Oil And Oil Plants (Ioop), Hochi Minh City, Viet Nam	Vietnam	5	-	-	-	5
81	IOWA STATE UNIV.	Iowa State University	United States	-	-	151		151
82	IPA	Innovations For Poverty Action	Usa	291	-	-		291
83	IRD	Inst De Recherche Pour Le Developpement	Burkina Faso	176	150	-		326
84	ISABU	Institut Des Sciences Agronomiques Du Burundi (Institute Of Agronomic Sciences Of Burundi)	Burundi		22			22
85	ISDS	Institute For Social Developent Studies	Vietnam	26	-	-	-	26
86	ISMS	Institute Of Social And Medical Studies	Vietnam	-	-	335		335
87	ISTEEBU	Isteebu	Burundi	-	-	242		242
88	JAU	Junagadh Agricultural University	India	-	4	-	-	4
89	JEnetics Limited	J K Agri Genetics Limited	India	-	5	-	-	5
90	JHU	Johns Hopkins University	United States	-	-	1,708		1708
91	JIC	John Innes Centre	United Kingdom	-	-	80		80
92	JKTural	Jk Agricultural	India	-	2	-	-	2
93	KARI	Kenya Agricultural Research Insitute	Kenya	24	12	48		84
94	KAZEMBE	Kazembe-2014/06/Hkaz/230	Malawi	-	-	9	-	9
95	KDs	Kaveri Seeds Private Limited	India	-	7	-	-	7
96	KRprises	Kesar Enterprises	India	-	3	-	-	3
97	LSHTM	London School Of Hygiene And Tropical Medicine	London					0
98	Makerere Univ.	Makerere University	Uganda			4		4
99	MBARARA Univ.	Mbarara University Of Science & Technology	Uganda	-	56	-		56
100	MCGILL	Mcgill University	Canada	49	84			133
101	MG	Malawi Government	Malawi			7		7
102	MLifesciences Pvt. Ltd	Metahelix Lifesciences Pvt. Ltd	India	-	4	-	-	4
103	MTalix	Metalix	India	-	2	-	-	2
104	NaCRRI	National Crops Resources Research Institute	Uganda			18		18
105	NARC	National Agricultural Research Centre	Pakistan	-	-	66		66
106	NARO	National Agricultural Research Organisation	Uganda		234	-	-	234
107	NASFAM	National Smallholder Farmers' Association Of Malawi	Malawi			3		3
108	NDs Pvt. Ltd	Nirmal Seeds Pvt. Ltd	India	-	4	-	-	4
109	NDUAT	Narendra Dev University Agriculture and Technolœv	India	3	0			3
110	NIS INC.	Nutrition Impact Solutions Inc.	Canada	-	73	-		73
111	NISIR	National Institute For Scientific And Industrial Research	Zambia		12			12
112	NLU	Nong Lam University, Department Of Animal Physiology And Biochemistry	Vietnam	6				6
113	NRCRI	National Root Crops Research Institute	Nigeria	-	-	132		132
114	NSeeds Limited	Nuziveedu Seeds Limited	India	-	4	-	-	4
115	Oruwera	Oruwera Limitada	Moçambique			6		6
116	OSDP	Oyo State Development Programme		-	-	74		74
117	PATH	Program For Appropriate Technology In Health	Usa			15		15
118	PEds	Pioneer Seeds	India	-	4	-	-	4
119	PHFI	Public Health Foundation	India	-	-	188		188
120	PIAM	Poultry Industry Association Of Malawi	Malawi			4		4
121	PIHCMC	Pasteur Institute	Vietnam	5				5
122	PSC	Productores De Semilla De Copandaro Spr De Rl	Mexico			17		17
123	PUNJAB AGRIC. Univ.	Punjab Agricultural Univ	India	-	105	30		135
124	RAB	Rwanda Agriculture Board	Rwanda	-	29	161		190
125	RGU	Rakuno Gakuen University	Japan	24				24
126	RVC	Royal Veterinary College	United Kingdom					0
127	SAN Ltd	Smile Africa Network Ltd	Nigeria	-	100	-		100
128	SAVE THE CHILDREN	Save The Children	India, United Kingdom	-	-	110		110
129	SAWEC	Senator Adeyemo Women Empowerment Cooperative	Nigeria	-	-	56		56
130	SDhak Hybrid Seeds Pvt Ltd	Shakti Vardhak Hybrid Seeds Pvt Ltd	India	-	1	-	-	1
131	SG, LLC	Satory Global, Llc	United States	-	150	-		150
132	SINA	Sina Gerard / Enterprise Urwibutso	Rwanda			3		3
133	SKNAU	Sri Karan Narendra Agriculture University	India	-	5	-	-	5
134	SLU	Swedish: Sveriges Lantbruksuniversitet) Swedish University Of Agricultural Sciences	Sweden	164	-	-		164
135	SPI	Samaritan'S Purse International	Uganda	-	82	-		82
136	SR&C PVT	Sambodhi Res & Comm Pvt	India	-	-	112		112
137	SRI	Ministry Of Environment	Sri Lanka	-	-	94	-	94
138	SUA	Sokoine University Of Agriculture	Tanzania	6		31		37
139	Suniv.	Sabanci University	Turkey	-	145	451		596
140	TAGEM	General Directorate Of Agricultural Research And Policy	Turkey	-	-	391	-	391
141	TANGO	Tango International, Inc	United States	78	-	-		78
142	TNAU	Tamilnadu Agricultural University (Tnau)	India	3	-	-	-	3
143	U OF WISCONSIN-MADISON	University Of Wisconsin- Madison	United States	77	-	-		77
144	UAC	University Of Abomey-Calavi	Benin	-	-	20	-	20

145	UAS	University Of Agricultural Sciences, Raichur	India	4	-	-	-	4
146	UniLurio	Lurio University	Mozambique			6		6
147	UNIV. OF AARHUS	University Of Aarhus	Denmark	-	225	-		225
148	UNIV. OF BRITISH COLUMBIA	University Of British Columbia	Canada	191	-	-		191
149	UNIV. OF GREENWICH	University Of Greenwich	United Kingdom	64	-	70		134
150	UNIV. OF MELBOURNE	University Of Melbourne	Australia	-	130	81		212
151	UNIV. OF OKLAHOMA	University Of Oklahoma	United States	-	-	204		204
152	UO	University Of Oxford	Uk	17	-	-	-	17
153	USDA-ARS	United States Department Of Agriculture, Agricultural Research Services, Beltsville Human Nutrition Research Center	United States			117		117
154	VEDCO	Volunteer Efforts For Development Concerns		-	96	-		96
155	VOX LATINA	Vox Latina	Guatemala	-	-	740		740
156	WAGENINGEN UNIVERSITY	Wageningen University	The Netherlands	-	64	-		64
157	WHO	World Health Organization	Switzerland	-	250	-		250
158	WORLD VISION	World Vision International, Uganda	Uganda	-	116	-		116
159	WUR-FSE	Wageningen University	Netherlands	34	11	-	-	45
160	WVI	World Vision Malawi	Malawi					0
161	YALE UNIVERSITY	Yale University	United States	-	-	55		55
162	YWCA	Young Women'S Christian Association Of Rwanda	Rwanda			12		12
163	ZAGRA	Zagra	Zambia		24			24
164	ZARI	Zambia Agriculture Research Institute.	Zimbabwe	12	-	-	-	12
165	ZARI	Zambia Agricultural Research Insitute	Zambia		24			24
166	OTHER PARTNERS (<$50K)	All Other Partners (<$50K)		131	2,400	9,419	96	12047
	Total for CRP			**3,044**	**8,375**	**18,619**	**96**	**30,134**
					-	-	-	-
				3,044	**8,375**	**18,619**	**96**	**30,134**

1. BIOVERSITY

Item	Institute Acronym	Institute Name	Country	Actual Expenses - This Year Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
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**
10	TAGEM	General Directorate of Agricultural Research and	Turkey	-	-	391	-	**391**
11	FUNBIO	Brazilian Biodiversity Fund	Brasil	-	-	287	-	**287**
12	ARI	Agricultural Research Institute	Tanzania	-	11	-	-	**11**
13	NARO	National Agricultural Research Organisation	Uganda	-	32	-	-	**32**
	Total for Center			**208**	**61**	**840**	**-**	**1108**

2.CIAT

Item	Institute Acronym	Institute Name	Country	Actual Expenses - This Year Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
1	Embrapa/Funarbre	Empresa Brasileira de Pesquisa Agropecuaria/ Fundacao Arthur Bernardes.	Brazil	279	-	-	-	**279**
2	Corporacion CLAYUCA	Corporacion - Consorcio Latinoamericano y del Caribe de Apoyo a la Investigacion y al Desarrollo de la Yuca	Colombia	(4)	-	-	-	**-4**
3	ICTA	ICTA-Instituto De Ciencia Y Tecnologia Agricola	Guatemala	29	-	-	-	**29**
4	Others	Others	Others	106	-	6,874	-	**6980**
								0
	Total for Center			**410**	**-**	**6,874**	**-**	**7284**

3.CIMMYT

Item	Institute Acronym	Institute Name	Country	Actual Expenses - This Year Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
1	ICTA	INSTTITUTO DE CIENCIA Y TECHNOLOGIA AGRICOLA	GUATEMALA	20				**20**
2	MG	MALAWI GOVERNMENT	MALAWI			7		**7**
3	PSC	PRODUCTORES DE SEMILLA DE COPANDARO SPR DI	MEXICO			17		**17**
								-
	Total for Center			**20**	**-**	**24**	**-**	**7284**

4. CIP

Item	Institute Acronym	Institute Name	Country	Actual Expenses - This Year Windows 1 & 2	Window 3	Bilateral	Center Funds	TOTAL
1	RAB	Rwanda Agriculture Board	Rwanda			25		**25**
2	ICRAF	The International Centre for Research in Agroforest	Kenya			2		**2**
3	CRS	Catholic Relief Services	Rwanda			39		**39**
4	RAB	Rwanda Agriculture Board	Rwanda			26		**26**
5	BIOCROPS	BioCrops Uganda Ltd	Uganda			6		**6**
6	Makerere University	Makerere University	Uganda			4		**4**
7	NaCRRI	National Crops Resources Research Institute of Nar	Uganda			18		**18**
8	AVRDC	The World Vegetable Center	Taiwan		1,084			**1,084**
9	MCGILL	MCGill University	Canada	49				**49**
10	CREADIS	Community Research in Environment and Developn	Kenya			9		**9**
11	ARDAP	Appropriate Rural Development Agriculture Prograr	Kenya			10		**10**
12	PATH	Program for Appropriate Technology in Health	USA			15		**15**
13	SINA	SINA Gerard / Enterprise URWIBUTSO	Rwanda			3		**3**
14	YWCA	Young Women's Christian Association of Rwanda	Rwanda			12		**12**
15	IMBARAGA	IMBARAGA Farmers Organization	Rwanda			11		**11**
	Total for Center			**49**	**1,084**	**181**	**-**	**1253**

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

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
	IOOP	Institute of Oil and Oil Plants (IOOP), HoChi Minh City, Viet Nam	Vietnam	5	0	0	0	5
	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
	FUMA	Fédération des unions des producteurs de Maradi	Niger	2	0	0	0	2
	ANGRAU	Acharya N G Ranga Agricultural University (ANGRAU)	India	1	0	0	0	1
	ADAF	ADAF-GALLE		1	0	0	0	1
		Ajeet Seeds Ltd	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
		Kaveri Seeds Private Limited	INDIA	0	3	0	0	3
		Kesar Enterprises Ltd	INDIA	0	1	0	0	1
		Metahelix Lifesciences Pvt. Ltd	INDIA	0	4	0	0	4
		Nirmal 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
		Bioseed Research India Private Limited	INDIA	0	5	0	0	5
	CCHAU	CCS Haryana Agricultural University	INDIA	0	17	0	0	17
		DeVGen Seeds and Crop Technology Private Limited	INDIA	0	6	0	0	6
		Ganga Kaveri Seeds Private Limited	INDIA	0	6	0	0	6
		Hytech Seeds	INDIA	0	3	0	0	3
		JK Agricultural	INDIA	0	2	0	0	2
		Kaveri Seeds	INDIA	0	4	0	0	4
		KAZEMBE-2014/06/HKAZ/230	MALAWI	0	0	9	0	9
		Kesar Enterprises	INDIA	0	2	0	0	2
		Metalix	INDIA	0	2	0	0	2
		Nirmal Seeds	INDIA	0	1	0	0	1
		Nuziveedu Seeds	INDIA	0	1	0	0	1
		Pioneer Seeds	INDIA	0	2	0	0	2
		Shakti Vardhak Hybrid Seeds Pvt Ltd	INDIA	0	1	0	0	1
	SKNAU	Sri Karan Narendra Agriculture University	INDIA	0	5	0	0	5
Total for Center				**61**	**89**	**9**	**0**	**158**

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
KNOWLEDGE, 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	unknown
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	*	14	25	25	33	20

		Pork chain in Nagaland, India Ready to eat chicken value chain in South Africa Informal dairy chain in Assam, India Dairy chain in Ethiopia Poultry chain in Ethiopia Small ruminant value chain in Ethiopia Dairy chain in Kenya Dairy value chain in Tanzania Tilapia value chain in Egypt Milk in India Milk in Senegal Small dried fish in Bangladesh <u>Biofortified crop value chains:</u> Orange-fleshed sweet potato (OFSP) processed product value chain in Rwanda HarvestPlus OFSP planting material value chain, southern Bangladesh OFSP root marketing system, southern Bangladesh-Dhaka OFSP in Uganda Iron beans in Uganda Iron beans in Guatemala <u>Fruit and vegetable value chains:</u> Rural fruit value chain in Kenya Baobab value chain in Kenya Hmong apple value chain in Vietnam Vegetables in Bangladesh Vegetables in India Vegetables in South Africa <u>Other value chains:</u> Maize in Kenya Maize in Nigeria Cassava chips and flour in Rwanda Cassava chips and flour in Tanzania Pulses in India Groundnuts in Ghana Infant foods in 22 countries						

CAPACITY ENHANCEMENT AND 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
TECHNOLOGIES/PRACTICES IN VARIOUS STAGES OF DEVELOPMENT								
All	18. Number of technologies/NRM practices under research in the CRP (Phase I)	See documentation in Annex 1a		175,007	150,018	150,010	150,038	150,000
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,	*	1,209	1,050	1,000	1,031	1,000

		Nigeria, Peru, Rwanda, Senegal, Tanzania, Uganda, and Sub Saharan Africa						
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 DEVELOPMENT								
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 of water management	*	59	12	15	27	15
All	29. Number of policies / regulations / administrative procedures drafted and presented for public/stakeholder consultation (Stage 2)	Type of policies/regulations/administrative procedures related to: agricultural resource, food, market standards and regulation, and public investment Geographical locations: global, East Africa; Rwanda, Vietnam, and India		2	6	7	7	5
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 Geographical location: Nigeria		1	1	1	1	1
All	31. Number of policies / regulations / administrative procedures prepared passed/approved (Stage 4)	Type of policies/regulations/administrative procedures related to: agricultural resource, food, and public investment Geographical locations: Ethiopia, Pakistan, and Rwanda	*	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	unknown
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	Total: 1,128,200	Total: 1,089,139	1,000,000
					5,075	18,200		
					1,000	10,000		

Deviation narrative: An (*) indicates indicators where the actual exceeds the target by at least 10%. This is explained by improved reporting procedures in A4NH.

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

1. …flagship "products" produced by CRP	**2. … have explicit target of women farmers/ NRM managers**	**3. … have been 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
Zinc wheat test marketed in India	No	Yes
Strategic gender assessment	Yes	No
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
Interactive livestock distribution maps on geo-wiki	No	No
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
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
4. …tools produced by CRP	**5. … have explicit target of women farmers/NRM managers**	**6. … assessed for likely gender-disaggregated impact**
Identification of 15 potential indicators for sustainable diets and food systems	No	No
Manual, plus fact sheets, poster, brochure, and seasonal food availability calendars for nutrition training on complementary feeding and diversifying diets through locally available resources for community health workers in Kenya	Yes	Yes
Adapted methodology guide, Innovation and Development through Transformation of Gender Norms in Agriculture and Natural Resource Management	Yes	Yes
Suite of resources describing the nutrition-sensitive landscape approach	No	Yes
Flyers on OFSP and vegetables developed for use in Bangladesh	Yes	No
Set of training manuals on fruit processing and fruit tree propagation in Kenya, plus a 'seeds of nutrition' kit with seeds and nutrition and health information, tailored to female farmers in Kenya	Yes	No
Typology: understanding the context for agriculture and nutrition research	No	No

Training manuals, plus brochures and guides for farmers and processors to raise awareness of East African standards for cassava and potato and associated processed products and improve quality assurance	No	No
Manual on procedures for sampling and sample preparation of sweet potato roots and potato tubers for mineral analysis; used in training course at Rwanda Agriculture Board	No	No
Manual on procedures for chemical analysis of potato and sweet potato samples at CIP's quality and nutrition lab; used in training course at Rwanda Agriculture Board	No	No
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 processes (joint output with PIM)	No	No
18. Number of technologies/NRM practices under research in the CRP (Phase I)	**19. … have an explicit target of women farmers**	**20. …have been assessed for likely gender-disaggregated impact**
OFSP adapted varieties for southern Bangladesh	No	Yes
12 Varieties of 8 species of fruit trees for Kenya	No	No
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	Yes	Yes
150,000 lines of biofortified crops in on-station testing	No	No
Qualitative lateral flow strip for aflatoxin B1 in groundnuts tested in the lab	No	No
2 aflasafe biocontrol products (Aflasafe ZM01 and Aflasafe ZM02)	No	No
11 pro-vitamin A enriched hybrids selected, multiplied and supplied to CRI to support trials in Ghana and Nigeria	No	No
pro-vitamin A-rich synthetics identified from regional trials, multiplied, supplied to partners to support trials in Nigeria	No	No
Biocontrol for aflatoxins in food and feed in Kenya	No	No
application of animal vaccination and optimizing delivery	No	No
optimising integrated disease control	No	No

Annex 1b. List of A4NH 2014 ISI publications (Indicator 9)

Flagship	List of 2014 ISI Publications
Value Chains for Enhanced Nutrition	1. Allen, T., Prosperi, P., Cogill, B., & Flichman, G. (2014). Agricultural biodiversity, social–ecological systems and sustainable diets. Proceedings of the 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. http://dx.doi.org/10.1111/nyas.12543 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 homegardens of the Nuba Mountains, Sudan. Agroforestry 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 domestication and conservation of *Ziziphus spina-christi* (L.) Willd. in the Nuba Mountains, Sudan. Genetic Resources and Crop Evolution 61: 1491-1506. 11. Wiehle M., Prinz K., Kehlenbeck K., Goenster S., Mohamed S.A., Finkeldey R., Buerkert A., Gebauer J. (2014) The African Baobab (*Adansonia digitata* L.) – morphological and genetic variability of a neglected population in the Nuba Mountains, Sudan. American Journal of Botany 101: 1498-1507.
Biofortification	12. Aciksoz, SB; Ozturk, L; Yazici, A; Cakmak, I. 2014. Inclusion of urea in a 59FeEDTA solution stimulated leaf penetration and translocation of 59Fe within wheat plants. Physiologia Plantarum. 151(3): 348-357. 13. Bresnahan, KA; Chileshe, J; Arscott, S; Nuss, E; Surles, R; Masi, C; Kafwembe, E; Tanumihardjo, SA. 2014. The Acute Phase Response Affected Traditional Measures of Micronutrient Status in Rural Zambian Children during a Randomized, Controlled Feeding Trial. The Journal of Nutrition. 44(6): 972-978. 14. De Moura, FF; Palmer, AC; Finkelstein, JL; Haas, JD; Murray-Kolb, LE; Wenger, MJ; Birol, E; Boy, E; Pena-Rosas, JP. 2014. Are Biofortified Staple Food Crops Improving Vitamin A and Iron Status in Women and Children? New Evidence from Efficacy Trials. Advances in Nutrition. 5(5): 568-570. 15. Fan, Huajie; Zhang, Zhaoliang; Wang, Ning; Cui, Yan; Sun, Hua; Liu, Yi; Wu, Huilan; Zheng, Shusong; Bao, S; Ling, H-Q. 2014. SKB1/PRMT5-mediated histone H4R3 dimethylation of Ib subgroup bHLH genes negatively regulates iron homeostasis in Arabidopsis thaliana. The Plant Journal. 77(2): 209-221. 16. Fiedler, JL; Afidra, R; Mugambi, G; Tehinse, J; Kabaghe, G; Zulu, R; 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-Santoyo, H; Singh, RP; Huerta-Espino, J; Ortiz-Monasterio, I; 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 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 Biofortification. Crop Science. 54(4): 1709-1720 28. Rabbi, I., Hamblin, M., Gedil, M., Kulakow, P., Ferguson, M., Ikpan, A. S., ... & Jannink, J. L. (2014). Genetic Mapping Using Genotyping-by-Sequencing in the Clonally Propagated Cassava. Crop Science, 54(4), 1384-1396. 29. Sanchez, T; Ceballos, H; Dufour, D; Ortiz, D; Morante, N; Calle, F; Zum Felde, T; Davrieux, F. 2014. Prediction of carotenoids, cyanide and dry matter contents in fresh cassava root using NIRS and Hunter color techniques. Food Chemistry. 151: 444-451. 30. Schmaelzle, S; Gannon, B; Crawford, S; Arscott, SA; Goltz, S; Palacios-Rojas, N; Pixley, KV; Simon, PW; Tanumihardjo, SA. 2014. Maize Genotype and Food Matrix Affect the Provitamin A Carotenoid Bioefficacy from Staple and Carrot-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 Arabidopsis. New Phytologist. 203(3): 770-783.
Agriculture-Associated Diseases	35. Abass, A., Ndunguru, G., Mamiro, P. *., Alenkhe, B., Mlingi, N. & Bekunda, M. (2014) Post-harvest food losses in a maize-based farming system of semi-arid savannah area of Tanzania. Journal of Stored Products Research, 57. 49— 57. 36. Amenu K, Spengler M, Markemann A and Zárate AV. 2014. Microbial quality of water in rural households of Ethiopia: Implications for milk safety and public health. *Journal of Health, Population and Nutrition* 32(2): 190-197. http://www.jhpn.net/index.php/jhpn/article/view/2614/1023 37. Anitha, S., Raghunadharao, D., Waliyar, F., Sudini, H., Parveen, M., Rao, R., & Kumar, P. L. (2014). The association between exposure to aflatoxin, mutation in TP53, infection with hepatitis B virus, and occurrence of liver disease in a selected population in Hyderabad, India. Mutation Research/Genetic Toxicology and Environmental Mutagenesis, 766, 23-28. 38. Atehnkeng, J., Ojiambo, P. +., Cotty, P. & Bandyopadhyay, R. (2014) Field efficacy of a mixture of atoxigenic Aspergillus flavus Link: Fr vegetative 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

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Annex 2: Performance indicators for gender mainstreaming with targets defined

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