Agriculture for Nutrition and Health

Gender Strategy

November 16, 2012

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1. Justification and rationale

The challenge of addressing food security is not simply a matter of ensuring that all people have enough food—or energy (calories)—to live a healthy life. A much more daunting problem is to ensure that poor people have access to *nutritious*[1] and high-quality diets. Typically, poor households subsist on monotonous staple-based diets; they lack access to nutritious foods, such as fruits, vegetables, animal source foods (fish, meat, eggs, and dairy products), or wild foods of high nutrient content. Lack of diversity in the diet is strongly associated with inadequate intake and risks of deficiencies of essential micronutrients (Ruel 2003; Leakey 1999; Arimond et al. 2010). The resulting deficiencies have far-reaching health and nutrition consequences, both in the short and the long term. Economic constraints, lack of knowledge and information, and related lack of demand for nutritious foods are critical factors that limit poor populations' access to such foods.

Food production is just one factor in the consumption and availability of nutrients. Food is stored, distributed, processed, retailed, prepared, and consumed in a range of ways that affect the access, acceptability, and nutritional quality of foods for the consumer. Producing for consumption in the home or for local markets remains important in many places; but today, the more market-oriented nature of agricultural policies means that more farmers are net-food buyers and are thus affected by commercial markets. Increased commercialization and market-orientation of agriculture has spawned much interest in value chain concepts, but while these concepts and approaches have been widely used in international development, they rarely incorporate nutritional and other health considerations (Hawkes and Ruel 2011). Moreover, despite the large literature on the gender implications of agricultural commercialization (see, for example, von Braun and Kennedy 1994), only recently have gender issues been brought into discussions of value chains (Rubin, Manfre, and Nichols Barrett 2009). Understanding gender is central to improving nutrition and health benefits and reducing health risks along food chains and in agriculture production.

Food production is not sufficient to determine health and nutrition of all—the kind and quality of food produced, the poor's access to the right kinds and quantities of food, and the distribution of food within the household also matter. Health especially is affected by many determinants outside the sphere of agriculture. We understand that men and women face differential health needs and risks that vary across contexts and the life cycle. Ultimately, whether an individual is

[1] Nutritious (or "nutrient-rich") foods are defined as foods high in essential nutrients, including animal source foods (fish, meat, eggs, and dairy products), fruits and vegetables, biofortified staples, fortified foods, and traditional local crops sourced from biodiverse systems (including neglected and underutilized species and wild foods). Specialized processed and/or fortified foods for populations with special needs (acutely malnourished children, people living with HIV/AIDS, infants) are also included in nutrient-rich (or nutritious) foods. Medicinal plants, although not classified as foods, represent an additional potential set of commodities that may be explored in this component, in partnership with CRP6.

healthy and well-nourished depends on whether he or she obtains the right food, both in terms of quality and quantity, and the right inputs of health, care, and time.

Gender, nutrition, and health

Both men and women have important roles in achieving good health and nutrition. Men and women work together on family farms and in the labor market to earn income to buy food and other goods and services for their families. In addition to their roles as agricultural producers and income earners, women are more likely to be caregivers and food providers within their families throughout much of the world, and thus are considered the guardians of household food security and nutrition. At the same time, economic and cultural factors, including gender roles – the socially-determined relationships between women and men – limit women and girls from actively participating in economic activities that may improve their status and the household's well-being, and decision-making related to food purchases and allocation that may improve their nutritional status. Biological factors increase women and girls' risk of experiencing micronutrient malnutrition and poor health, especially during their reproductive years. Adolescent girls in particular may be vulnerable owing to their youth and low social status in many societies, placing them at risk for early marriage or risky sexual behavior during a critical period for investment in their own human capital. Men face their own unique set of social and biological risks to attaining good health and nutrition. Gender roles in agriculture influence the difference occupational hazards men and women face: for example research from ILRI shows men are often more involved in slaughtering large animals and women in cleaning waste and caring for sick animals. To create synergies and impacts that are greater than the sum of the individual sectors (agriculture, nutrition, and health); there is a need to account for gender issues. It is not enough to focus on women as key to food and nutrition security; they must also be viewed in the context of their relationships with men, being influenced by, and also influencing, men. Therefore, this gender strategy sets out the ways to ensure gender is integrated into CGIAR Research Program No. 4: Agriculture for Nutrition and Health (A4NH).

Gender roles determine who raises which crops and which animals, how labor and other agricultural inputs are allocated among farm activities, how and by whom agricultural output is distributed and processed along the value chain, how food and income are distributed within the household, and which child gets more (or less) access to food and health care. Gender roles also determine exposure to hazards associated with agro-ecosystems. Addressing gender issues is necessary for the agricultural sector to contribute to better health and nutrition for all, given the evidence that:

- Households do not act in a unitary manner when allocating food and nonfood resources (Alderman et al. 1995; Haddad et al. 1997); males and females within households do not necessarily pool resources, and they often have different preferences on how to use limited household resources to achieve multiple objectives.
- Women tend to spend their additional income on food, healthcare, and children's education, while men spend more of their income on personal items. In Bangladesh, a higher share of women's assets is associated with better health outcomes for girls (Hallman 2000). Research from IFPRI finds that equalizing women's status would lower child malnutrition in South Asia by 13 percent (13.4 million children) and in Sub-Saharan Africa by 3 percent (1.7 million children), (Smith et al. 2002).
- Gender roles often dictate what men and women grow and how resources are allocated to men's and women's plots. Udry (1996) finds, for example, one reason why women's

maize yields were lower than men's, within the same household, was that fertilizer and labor tend to be allocated to men's plots.

- Women fulfill multiple household responsibilities, as the children's primary caregivers and as wage-earners. The literature suggests that factors such as poverty, an inflexible or time-intensive job, the type of alternative caregiver, and control over income earned can have a negative effect on child growth (Engle et al. 1999).
- Men and women have different roles in agriculture value chains from production to marketing (Aregu et al. 2011). Despite this evidence, Njuki et al. (2011) reports in Kenya and Tanzania that training on best practices is often still targeted mainly to men. In that same study, the researchers found that women and men did not have equal access to markets; women were more involved in the sale of livestock products, yet they had a lower number of market options available to them than the number available to men.
- The different roles men and women play in agricultural systems indicate men and women bear differential exposure to agriculture-associated health risks. For example, Wang et al. (2006) observed that women from a Tibetan nomadic pastoralist community had a significantly higher risk of *E. multilocularis* (a small tapeworm) infection than men. The authors speculated that this was because the traditional responsibilities of women put them in contact with dogs and dog feces more frequently than men, a risk factor for *E. multilocularis* infection.
- The reproductive role of women has significant implications not only for agricultural production during her lifetime, but also for the inter-generational impact of her nutrition and health status on future agricultural productivity through her children (Harris 2012). Frequent pregnancy and lactation may deplete a mother's nutrient reserves, which in turn can reduce the child's access to nutrients during gestation and through breastmilk (King 2003). This increases the risks that children will be born small, will continue to experience growth faltering during early childhood, will have impaired cognitive development and lower schooling performance, and will become smaller, less healthy and less economically productive adults (Martorell et al. 2009). In the many areas of the developing world where societal norms discriminate against girls, these effects will disproportionately affect girls and women, and perpetuate the transmission of poverty, poor health and undernutrition into the next generation. For example, early marriage and childbearing in many developing countries imply that many adolescent girls become mothers even if they have not yet attained full physical maturity, with negative implications on their own health and the health of their children.

Knowledge gaps we will help overcome

There are a number of gaps in our understanding that we will seek to address through our research. Currently, value chain analysis lacks a systematic review of the household-level dynamics of gendered income distribution, decision-making power, and work load. As these issues have not been fully researched, critical points where capacity needs to be developed have not yet been identified. More value chain analysis that takes into consideration nutrition and health will help us assess whether value chain interventions designed to maximize nutritional benefits are an effective way to improve nutrition and health, particularly for women and young children during the 1000 days window of opportunity. Through the testing of different models in a variety of contexts, followed by rigorous evaluation, we can assemble a list of engendered principles of value chain development for program implementers and policymakers, which is currently missing.

Development researchers, program implementers, and donors are looking for answers on how to combine agriculture, nutrition, and health (ANH) interventions to match the types of agroecological zones and agricultural systems; levels of vulnerabilities within individuals, households, and communities; household and community-level capacities; and physiological stages of vulnerable groups. Situation analyses and assessment of the causes of malnutrition need to be improved, and appropriate, multi-disciplinary indicators to measure changes in nutrition, health, and gender equality in agriculture programs need to be developed and tested. National-level data on agriculture, health, and nutrition may exist, but linkages between the three or disaggregated by gender is frequently missing or not shared efficiently across sectors making it challenging for policymakers to justify and monitor policies. Gender disaggregated analysis is critical in identifying micronutrient deficient populations and the extent of deficiency, which can be used to set micronutrient breeding targets to ensure that women, adolescent girls and children are nourished. In order to optimize the benefits of biofortified foods through engendered adoption and delivery strategies, gender disaggregated data is necessary. For many zoonotic diseases, there remain critical gaps in knowledge of the risk and burdens of disease due to gaps in gender-disaggregated information in international and regional reporting systems. Public health leaders do not have the evidence or tools that would help them to confidently make decisions in the prevention of or response to outbreaks. Finally, the research community has gaps in their understanding of the decision-making process as it relates to gender-sensitive ANH polices and responses to health and nutrition emergencies.

Expected benefits of gender research

As a result of research that addresses these gaps, women will benefit from the development of nutrition-sensitive value chains and will be empowered to make decisions along critical points in the value chain in order to minimize health risks and maximize nutritional benefits. Biofortified foods will be developed to meet the unique nutrient needs of women and girls, and interventions designed to reduce the zoonotic, food- and water-borne and occupational disease risks associated with agriculture will consider gender differences in their approach. We expect that integrated agriculture, nutrition, and health development programs and policies will be designed, implemented, monitored and evaluated fully considering the impact on both women and men. These programs and policies will result in improved nutrition and health among the world's poor, especially women and young children.

2. Goals and objectives

Program goal and objectives

The *strategic goal* of A4NH is **to accelerate progress in improving the nutrition and health of poor people** by exploiting and enhancing the synergies between agriculture, nutrition, and health through four key research components: value chains, biofortification, control of agriculture-associated diseases, and integrated agriculture, nutrition, and health development programs and policies. This goal will be achieved through objectives tied to the different research components as listed in Table 1.

Table 1. Research objectives of Agriculture for Nutrition and Health (A4NH)

Research Objectives		Components[2]			
		1	2	3	4
1	Generate knowledge and technologies to improve the nutritional quality and safety of foods along value chains	x	x	x	
2	Develop, test, and release a variety of biofortified foods, as well as other nutrient-rich foods that are affordable for the poor and accessible to them	x	x		
3	Generate knowledge and technologies for the control of zoonotic, food-borne, water-borne, and occupational diseases			x	
4	Develop methods and tools to improve the effectiveness, efficiency, and timeliness of surveillance and monitoring systems and to permit meaningful evaluation of complex multisectoral programs and policies	x	x	x	x
5	Produce evidence of nutritional and health burdens and benefits and of the returns to different interventions in different sectors	x	x	x	x
6	Assess and document changes in dietary and nutritional patterns and risks of agriculture-associated diseases among poor people in intensifying systems, and identify and test agricultural options to enhance nutrition and health benefits and mitigate risks of agriculture intensification in these populations	x		x	

Our approach to gender research

Based on the background evidence outlined previously, gender is central to accelerating better nutrition and health outcomes. Therefore, gender research and analysis will be integral in each of A4NH's four components to ensure we meet the following objectives. More specific gender research questions are outlined in the next section on impact pathways. AN4H does not conduct strategic gender research (it is not a separate component of the CRP's agenda) but rather considers it as integral to its overall research program. Thus, gender analysis is integrated throughout the research to inform and deepen the relevance of other research themes.

Goals of gender research

The goal of the A4NH gender strategy is to facilitate the achievement of our nutrition and health objectives through greater attention to gender issues along the impact pathways as described in more detail below.

Objectives and expected outcomes of gender research

The objectives of our gender integrated analysis on **nutrition-sensitive value chains** are designed to ensure that:

- Women benefit, both as producers and consumers, from the development of nutrition-sensitive value chains (redressing problems that have often arisen whereby strengthening markets for agricultural produce has transferred control from women to men);
- Women have increased capacity for decision-making in the production, marketing, and consumption of nutrient-rich and safe foods along critical points in the value chain;

[2] The four components are known as Component 1: Nutrition-sensitive value chains; Component 2: Biofortification; Component 3: Control of agriculture-associated diseases; and Component 4: Integrated agriculture, nutrition and health development programs and policies.

- Both male and female actors have the ability to improve nutrition along the value chain, especially as it relates to improving women's access to better processing technologies, capacity building, or organizational capacity.

The objectives of our gender integrated analysis on **biofortification** are designed to ensure that:

- The development of biofortified foods takes into account the unique nutrient needs of women and girls;
- Marketing and messaging related to biofortified crops, particularly their nutritional value, are tailored to women in their role as primary decision maker of food purchasing and preparation within households;
- Data are gathered about gender and life-cycle differences in nutrition and health burdens.

The objectives of our gender integrated analysis on the **control of agriculture-associated diseases** are designed to ensure that:

- Men's and women's differential exposure to agriculture-related risks are better understood, particularly as it relates to health outcomes;
- Women have increased capacity to manage risks and are more involved in the surveillance of risks;
- Women directly benefit from interventions designed to reduce agriculture-associated diseases, taking into account roles and responsibilities that may put them at increased risk of exposure.

The objectives of our gender integrated analysis on integrated ANH **programs and policies** are designed to ensure that:

- Gender considerations are included in the design, implementation, monitoring, and evaluation of nutrition and health programs;
- Gender-disaggregated indicators are developed and used to assess the impact of ANH programs on women's social, health, and nutritional status and are presented in an integrated way to highlight nutrition and health issues facing women;
- Cross-sectoral, gender-sensitive policies are developed.

Gender is widely recognized as an integral part of the different systems of agriculture, nutrition, and health. Women are traditionally the guardians of household food security and nutrition, yet decisions about what foods to produce, where foods are sold and purchased, and how foods are allocated to different household members often differs by whether men or women are making the decision. These household decisions have varying degrees of effect on the health and nutritional status of household members and are therefore important to understand in ANH research. A selection of some of the researchable questions we seek to investigate through A4NH are summarized in Annex A. The questions are illustrated on each of the three impact pathway diagrams in the next section.

3. Theory of Change and Impact Pathways

The central premise of A4NH is that changes can be made to agricultural and food chain interventions and policies in order to improve nutrition and health benefits and reduce health risks for the poor. Nutrition and health benefits are expected through improved diets combining the greater availability, accessibility, utilization and safety of nutrient-rich foods and through the

availability, adoption and delivery of biofortified staple foods. A4NH has a critical role in supporting other agricultural actors with these changes. Likewise, the intensification of agriculture and food systems is associated with a number of health risks associated with food, water and the transmission of diseases from animals to people. We expect that the nutrition and health benefits and reduced health risks will be achieved through a combination of market-oriented approaches and specific program interventions targeting poor populations. Enabling policies, enriching current sectoral thinking, will be needed to support the agriculture change process envisaged.

Without taking into account gender considerations, it will be impossible to achieve A4NH's overarching objectives for the poor and more specifically, for women and children in the first 1000 days between the start of a woman's pregnancy and the child's second birthday. Gender-sensitive analytical approaches, tools, data and evidence will be used throughout the priority-setting, research and development, extension, dissemination, M&E, and impact assessment of A4NH. The entire research cycle of A4NH will consider the differential rights, responsibilities, risks and vulnerabilities of males and females across the life cycle, in promoting nutrition-sensitive value chains, developing and disseminating biofortified crops, generating technologies to control agriculture-associated diseases, and designing, implementing, and monitoring integrated agriculture, health, and nutrition programs and policies. Each impact pathway has an associated theory of what changes need to occur for research outputs to contribute to these outcomes that will be explained in turn.

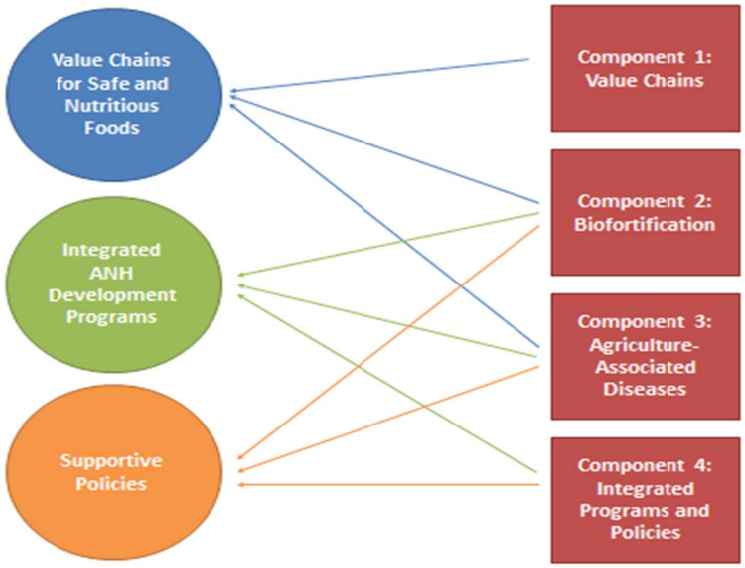
Before focusing on the A4NH components and associated impact pathways, it is important to place the A4NH theory of change and gender strategy in a broader CGIAR and research and development context. Market-oriented value chains for nutrient rich and biofortified staples are primarily the responsibility of programs and partners focusing on commodity value chains and agricultural systems development. A4NH will support them in shaping their work so that it can also lead to greater nutrition and health benefits and reduced health risks. To reduce health risks associated with agriculture and to achieve improved coordination of programs and policies, integration strategic collaboration between the nutrition and health research communities will be required. In all of this, A4NH will focus on integrative gender research focusing on nutrition and health outcomes and rely on the Policies, Institutions and Markets (CRP2 – PIM) program and other partners for more strategic gender research.

The four components serve to organize our research inputs and results into thematic areas; all of the research activities then feed into three impact pathways that lead to our expected outcomes. The figure below illustrates how the impact pathways and components are related. A4NH will enhance the contribution of agriculture research outputs to nutrition and health impacts through three major impact pathways and their respective actors: (1) *value chains* that provide more nutritious and safer foods; (2) *development programs* that successfully integrate agriculture, nutrition, and health; and (3) *policy* that promotes a supportive and enabling cross-sectoral policymaking process and investment environment. Expected outputs from A4NH are value chains that increase the poor's access to nutritious and safer foods; stronger and more effective integrated ANH programs; and better cross-sectoral policies, investments, and regulation.

These impact pathways underline the conceptual framework for developing the gender strategy. They provide the basis for understanding the role of gender in nutrition and health impacts as

well as indicate areas for integrating gender into the research planning and implementation, capacity strengthening, communications, partnerships, and monitoring and evaluation.

Figure 1. Relationship between our impact pathways and the four components



3.1 Value chains for nutritious and safe foods

Value chains are inherently gendered, reflecting several broad factors: the different roles that men and women play across the spectrum of value-chain activities; the preferences of men and women for different value chains; and different levels of engagement of men and women in specific value-chain components and activities. A4NH focuses on two nutrition-sensitive value chains important to poor people: value chains for nutrient-rich foods and value chains for improving the nutrition of staple foods. Value chains for nutrient-rich foods include fruits and vegetables, fish, meat, milk and eggs—as well as traditional and local foods—that are critical for improving nutrition in the critical 1000 days window of opportunity. These foods are also perishable and thus both food safety and nutritional quality need to be enhanced and verified along the chains. Research on value chains for staples will look at how those foods that dominate the diets of the poor and malnourished can deliver higher nutritional quality and how these foods can be effectively marketed to consumers who need them the most. Boosting these foods with micro- and macronutrients can provide nutritional benefits at scale.

A gender perspective can enhance this value chain work by:

- Assessing the best way to provide men and women food producers with the technical and knowledge inputs to produce more diverse, safer and higher nutritional value foods. This includes selectively targeting relevant extension messages and training to women and others to men; mobilizing men's and women's social networks for disseminating nutrient-rich crops; bundling extension messages with nutrition messages to appeal to women producers (value chains and biofortification);

mobilizing both community health workers and agricultural extension agents to provide information on nutrient-rich foods .

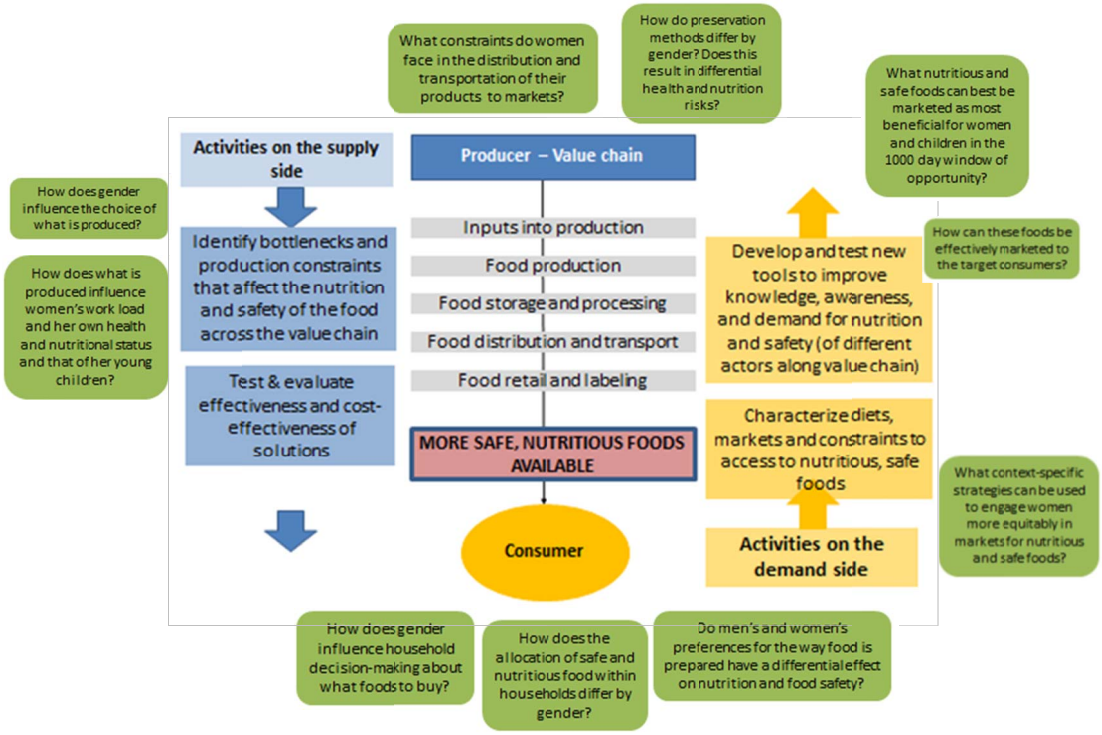
- Enhancing or protecting the nutritional value and safety of foods along the value chain, from production to postharvest handling and storage, through processing and distribution to consumers. Improving postharvest processing would potentially have a high impact on women, not only to enable them to reach high-value markets but also for food safety and reduction of drudgery, which evidence indicates is borne particularly by women in the household (Meinzen-Dick et al. 2012; Blackden and Wodon, eds. 2006)
- Develop and assess alternative market arrangements that allow women to participate and have greater control of income and opportunities for saving and asset control. Research on a project designed to increase the incomes of smallholder dairy farmers in Kenya though community-based hubs of animal and financial services alongside a chilling plant, indicated that targeted education and interventions to women would be necessary to ensure gender-equitable participation and benefits (Baltenwek and Omondi, 2011).
- Providing information and knowledge to consumers to positively influence behaviour in seeking more nutritious and safer foods (value chains, biofortification, and control of agriculture-associated diseases). In many societies, women are responsible for food decisions for their households, and thus are a natural target for nutrition messages. At the same time, men should not be neglected as targets of nutrition messages, because they not only care for their families, but also make major decisions regarding the allocation of household resources. Understanding what messages are most effective at increasing women's access to nutritious and safe foods, and increasing men's support to obtain these foods, will be key.
- Recognizing the multiple demands made on women's time and being sensitive to how changes along the value chain could unintentionally increase this burden. Time allocation studies can provide valuable information on the impacts of value chain interventions on women's time. Research on rural smallholder dairy farmers in Kenya indicated that women from households who fit the criteria of those who would be targeted by a dairy intensification intervention were already spending twice as much time on dairy activities than women in higher and lower dairy producing households (Sreenath et al., 2010). Women have to make tradeoffs, but we do not want these tradeoffs to have unintentional negative consequences on women's nutrition and health or that of their young children.

Theory of Change

The new research evidence we provide to development agencies will help identify context-specific leverage points along nutrition-sensitive value chains to ensure that nutrition and health benefits are equitably maximized and risks equitably minimized for male and female actors along the value chain. Leverage points include choice of what is produced or consumed, women's workloads (both productive and reproductive), postharvest practices, marketing arrangements and food allocation within poor households. We will communicate this evidence so that it is useful to decision-makers and directly influences policy. Development agencies and farmers' groups will undertake training to enhance the application of this knowledge and information to design and implement more gender equitable interventions and will use this

evidence to shape knowledge dissemination, food safety, postharvest processing, organization and workload distribution in nutrition-sensitive value chains. More gender-responsive support for value chains in knowledge dissemination will help increase women's capacity for decision-making and their control over production, marketing, and consumption. Agencies implementing better-designed, evidence-based interventions will improve male and female actors' ability to enhance nutrition along the value chain, especially through women's better access to new processing technologies, capacity building, or organizational capacity. More gender equitable decision-making, control and workload distribution in nutrition-sensitive value chains will contribute to a more equal distribution of their benefits and risks between men and women. Greater gender equality will empower women as well as men to manage production, processing and consumption in ways that are more "pro-nutrition" so that increases in gender equality will be positively associated with an increase in the delivery of more nutritious and safer foods to the poor. Figure 2 highlights a few research questions that we expect will lead to change along the impact pathway.

Figure 2. Value chain impact pathway: Gender research questions A4NH will address



Partnerships

Gender work in A4NH will partner with the other CRPs working on nutritious and safe food value chains, notably the value chain component of CRP2-(PIM) and CRP3s work on high value and staple commodities. In order to achieve our goals, the value chain impact pathway will promote synergies across a wide variety of stakeholders representing a number of areas of expertise from NGOs (e.g., Catholic Relief Services, Concern Worldwide, Helen Keller International), UN agencies (e.g., FAO, REACH, WHO, UN Women), National Agriculture Research Systems (NARS), other research organizations (e.g. ICRW), public-private partnerships fostered in collaboration with the Global Alliance for Improved Nutrition (GAIN),

the International Fund for Agriculture Development (IFAD), and by the food industry, and in-country organizations working on gender.

3.2 Development programs integrating agriculture, nutrition, and health

A4NH will focus on generating knowledge for multisectoral development programs about the role that agriculture can play in improving nutrition and health in different contexts and the ways in which agriculture can be combined with other social and public health interventions. A4NH will provide evidence of what works and what does not, what interventions can go to scale, and what design modifications need to be made to bring promising programs to scale. It will also support program implementers as they develop cost-effective and efficient monitoring and evaluation systems to improve their performance.

Paying explicit attention to gender considerations can enhance the effectiveness of these large scale programs. Our component on integrated ANH programs and policies is already paying attention to gender-related impacts by developing and using a set of gender-disaggregated indicators to assess the impact of ANH programs and documenting and disseminating the impact of ANH programs on women's social, health, and nutritional status. Recognition of specific gender-based constraints that hinder the effectiveness of these programs can also improve the design of future programs.

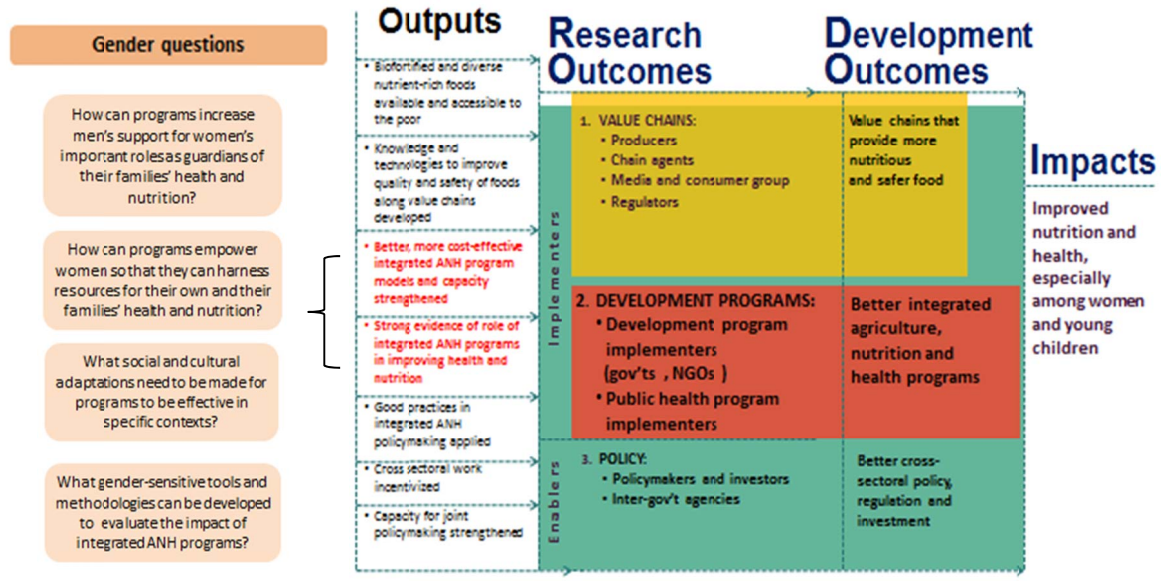
Other areas in which a gender perspective could enhance impact along the program pathway are:

- Examining systematically how variations in program design can be used to adapt product or service delivery to clients' needs, whether it involves changing the delivery mechanism for ANH messages; using explicit behavior change and communication strategies targeted to women and men; designing culturally appropriate and acceptable technology, or providing culturally acceptable ways of marketing agricultural produce. Indeed, unless interventions are tailored to meet clients' needs, they likely will fail.
- Considering interactions among inputs rather than treating each input in isolation. Berti et al. (2004) found that agriculture interventions that invested broadly in different types of capital (natural, physical, human, social, financial) were more likely to improve nutrition outcomes. Those projects which invested in human capital (especially nutrition education and consideration of gender issues), and other types of capital, had a greater likelihood of effecting positive nutritional and health changes, but such investment is neither sufficient nor always necessary to effect change.
- Examining whether there are cultural and non-program related constraints to achieving good health and nutrition, particularly those related to women's relationships with men. For example, there is now growing evidence that experience of domestic violence is associated with higher child malnutrition rates. If channeling resources to women increases the incidence of domestic violence, interventions to reduce domestic violence and to increase support for women's empowerment may also need to be implemented.
- Describing the differential health risks men and women face in agricultural systems based on responsibilities and how responsibilities change with the introduction of new ANH projects. For example, perhaps these risks could be mitigated by increasing knowledge and awareness of risks among both male and female farmers if such messages were tailored to the different cultural contexts.

Theory of Change

Within integrated ANH programs, evidence generated by A4NH will demonstrate to donors and development agencies how large-scale programs can be designed in ways that effectively and equitably improve the social, health, and nutritional status of men and women. The theory of change for gender research in integrated health, nutrition and agriculture programs argues that new engendered tools and indicators developed through A4NH can be used to design, implement, and evaluate ANH programs at the community level. One assumption in this theory of change is that greater integration of agriculture and health through program delivery at community and national levels and in policy and investment formulation and implementation at national and regional levels will be required. With the regional focus, A4NH will be able to provide guidance on how to replicate and adapt programs to specific contexts to ensure they are sensitive to social issues and can be sustainable. Local capacity to design, implement, evaluate, and scale up integrated ANH programs to be gender equitable will be developed alongside partners.

Figure 3. Integrated programs impact pathway: Gender research questions A4NH will address



Partnerships

In order to achieve our desired impacts, development partners will be crucial to the application of learning to gender-sensitive agriculture-nutrition and agriculture-health programs. Some of these partners include NGOs, such BRAC International, Oxfam, Helen Keller International, and Catholic Relief Services. Academic institutions – such as the University of Pretoria, Columbia University, Cornell University, the London Centre for Integrated Research on Agriculture and Health, University of California at Davis, and the Public Health Foundation of India – will play a key role in training and capacity strengthening. A4NH will work with FAO to strengthen capacity and develop tools and methods for use in the field. Public-private partnerships, such as what has been modelled by Land 'O Lakes, will provide technical support and facilitate engagement with farmers' associations, cooperatives, and processors. Regional organizations and in-country organizations working on gender, such as BRAC in Bangladesh and NEPAD-CAADP in Africa will promote the implementation of cross-sectoral ANH programs.

3.3 Supportive policy

The success of policies and investments that result from A4NH research efforts will depend on how well they coordinate with broader economic and social transformation, other agriculture, health, and social development policies, and investment research and processes. Research on gender within A4NH will help increase awareness of the need to target gender inequality at the policy level in order to achieve health and nutrition objectives. While gender equality is one of the Millennium Development Goals and key to achieving other MDGs such as improving child and maternal health, this commitment at the global level still needs to be translated into country-specific policies.

Our policy research in A4NH will be integrated with the gender research in PIM. A4NH will rely on PIM's efforts to improve the sex-disaggregated database for decision making in agriculture and disseminate research on gender through its policymaking partnerships and platforms. A4NH will focus its gender policy efforts on two areas: 1) examining agricultural policies more broadly to identify where they enable or disable women, and where they contribute to closing (or widening) the gender gap relative to nutrition and health outcomes; and 2) promoting cross-sectoral policy and decision making that promotes gender equality across agriculture, health and nutrition, and social sectors.

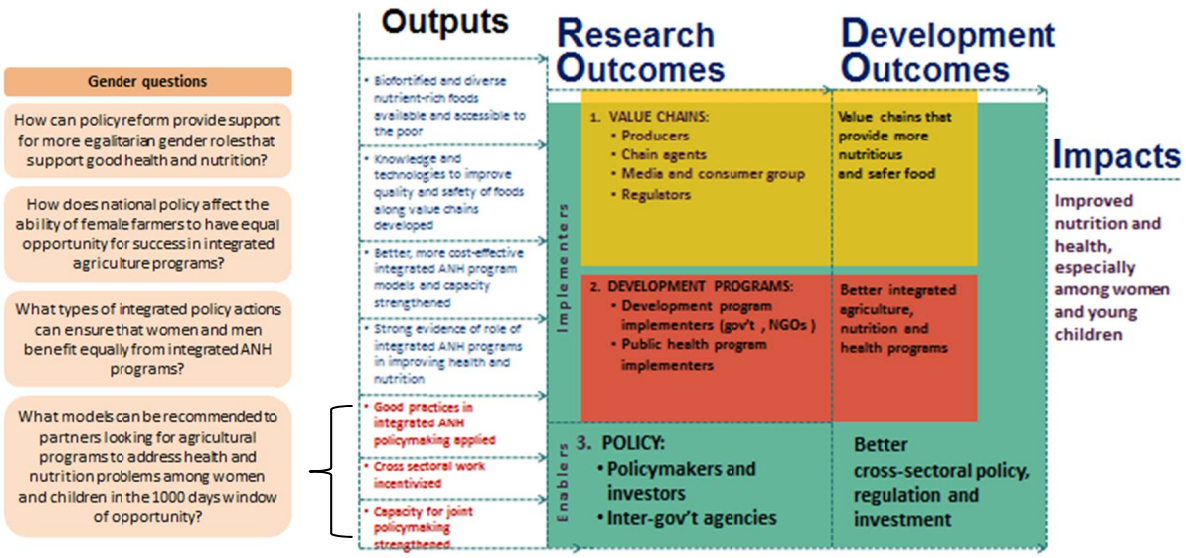
The five domains of empowerment laid out in the Women's Empowerment in Agriculture Index (WEAI) – production, resources, income, leadership, and time – will guide our policy analysis in the first area. Our goal will be to provide evidence to advocate for investments in order to increase women's empowerment in these five domains, as well as close the empowerment gap between men and women within the same households. This does not mean that we advocate policies to disempower men; rather, we want to close the empowerment gap, particularly in regions where gender disparities are marked and where they clearly contribute to poor health and nutrition. In addition, we will examine how different policy instruments can be used to shift power relations so as to increase the women's rights and decision making power so that they may be able to mobilize resources in support of their own and their families' health and nutrition.

Within the second area, we understand the demonstrated importance of using multiple levers to help women and involve men across the sectors of agriculture, nutrition, and health and we will be actively seeking to find and disseminate stories of both successes and failures. The case of Senegal is an example of the type of policy analysis work A4NH will do. Senegal has demonstrated remarkable success in the past 10 years in improving child health and nutrition. The government has committed resources to integrated programs, including setting up a national nutrition program with representatives from agriculture, nutrition and health; recruited partners to implement health and nutrition programs at the community level; and worked with the private sector to promote fortification. As a result, Senegal has some of the lowest rates in West Africa for child malnutrition and is on target to reach the MDGs for hunger. Relatedly, Senegal is making progress towards the MDG goals related to gender equality. Gaining an in-depth understanding of how these processes worked across different sectors of government and levels of governance and then taking these lessons learned from Senegal is one way A4NH can promote gender-sensitive agriculture, health and nutrition policies that promote health and nutrition.

Theory of change

The theory of change for the policy pathway argues that disseminating research evidence from improved sex disaggregated databases on gender, health, and nutrition will increase the attention of policy makers and development agencies to target gender inequality through coherent policymaking across agriculture, health, nutrition, and social sectors. The country and regional-specific case studies will be shared with broad national, regional, and global audiences, facilitated in part through the formal and informal partnerships facilitated by our working relationship with PIM. These lessons learned combined with other policy analysis efforts serve to generate interest and commitment from political leaders and donors in taking an active role in reducing gender disparities in nutrition and health through agriculture. Furthermore, case studies are a useful way of spelling out how to make policies functional, which can increase the likelihood of buy-in. PIM and other partnerships/networks will ensure that we involve those institutions that can support and monitor policies in our research and dissemination process. Strategic communication of the evidence to political leaders, stakeholders, and donors will be crucial to the development of better cross-sectoral policy, regulation and investment and improved nutrition and health for men, women, and children.

Figure 4. Policy impact pathway: Gender research questions A4NH will address



Partnerships

The research team of A4NH recognizes that evidence needs to be communicated effectively so that it is useful to decision makers and directly influences policy. The role of A4NH will be to bring the cross-sectoral ANH knowledge and tools into broader policy processes, in close partnership with PIM and other relevant CRPs. This partnership will also include collaboration on the dissemination of findings related to gender, agriculture, health, and nutrition. A4NH is already investigating policy outreach in Africa through the AU-NEPAD CAADP process and in South Asia through policy networks at the regional and national levels. Collaborations with FAO, WHO, and the World Organization for Animal Health (OIE) will promote good practices and policy changes to the international nutrition and health communities, and many other local, national, regional, and international partners identified in the value chain and integrated

programs pathways will play a role in the policy pathway as well. Gender issues will be highlighted in planned policy outreach activities.

Gender focus mapped to the impact pathways

Given the impact pathways of A4NH, some areas of focus for gender analysis and research emerge: (1) conducting gender analysis to understand the roles of men and women in a particular context; (2) assessing gender-specific risks that men and women face through their participation in agricultural value chains; (3) fostering women's participation in and benefits from agriculture, nutrition, and health programs; (4) empowering women and increasing their access to and control of assets, so as to reduce the gender asset gap; (5) promoting equitable intrahousehold food allocation and consumption for all members; (6) ensuring gender-sensitive technology and delivery systems; and (7) building capacity at the local and national levels, among implementation partners, researchers, and policymakers to be better able to address gender issues in the design and implementation of multisectoral ANH programs. Given the complexity of the research agenda, the strategy will identify priorities at the household, community, subnational, national, regional, and global level. Each area of focus is not expected to be relevant across all impact pathways, but Table 2 provides a suggested mapping of focus areas to impact pathways.

Table 2. Mapping of gender focus areas to A4NH impact pathways

Focus area	**Impact Pathway**		
	Value chains for nutritious and safe foods	**Development programs that integrate agriculture, nutrition, and health**	**Supportive policy environment**
Gender analysis to understand roles of men and women	x	x	
Assessing gender specific risks in agricultural value chains	x		
Fostering women's participation in ANH programs		x	x
Empowering women and strengthening women's control of assets	x	x	x
Promoting equitable intrahousehold food consumption	x	x	
Ensuring gender-sensitive technology and delivery systems	x	x	x
Building capacity to address gender issues	x	x	x

4. Gender-related Activities

A gender-responsive agricultural research, development and extension (R, D & E) system calls for a comprehensive look at the system: who are the actors, who are the users of the technology,

and whose needs are addressed at each stage, from priority setting, through implementation, to monitoring and evaluation, and impact assessment (Meinzen-Dick et al., 2011). AN4H does not conduct strategic gender research (it is not a separate component of the CRP's agenda), but rather considers it as integral to its overall research program. Thus, A4NH aims to address gender and nutrition linkages throughout the research cycle to inform and deepen the relevance of its own research, to inform other research themes, as well as to help the other CRPs use a gender lens to understand the nutrition implications and outcomes of their innovations.

In order to assess the extent to which A4NH activities integrate gender across the stages of the research cycle, we sought the feedback of Centers and component leaders using a simple questionnaire that was distributed in February 2012. In total, eleven Centers – Bioversity International, CIAT, CIMMYT, CIP, ICARDA, ICRAF, ICRISAT, IFRPI, IITA, ILRI, and WorldFish – are involved in A4NH, although only six Centers completed the questionnaire. These six Centers reported how they took gender issues into account across the stages of the research cycle for 18 different projects; the current number of A4NH projects is more than 45. Thus, while the results of the consultation cannot be said to be representative of all the Centers or projects in A4NH, they are indicative of the attention paid to gender throughout the R, D, &E cycle. The results of this consultation are summarized below.

Table 3 indicates that all four program components do consider gender issues across the R, D & E cycle, albeit to different degrees. This variation is to be expected: attention to gender is likely to be greater at some stages of the research cycle, and for some projects more than others. What is important is that there is a rationale behind the varying explicit attention to gender throughout the R, D, & E cycle. This may have to do with the technical aspects of the research. Laboratory evaluation of beans does not in and of itself need to take gender issues into account, but the testing and selection of beans could do more to take into account men's and women's different nutritional needs and preferences for growing, cooking, and eating beans. Similarly, a study on T lymphocyte reaction to ECF antigens does not require a gendered approach. However, the extent to which researchers themselves think that attention to gender is important in the research process must also be considered. It is interesting to note, for example, the attention to gender was not highlighted in projects related to the testing and release of biofortified beans in five countries (Bolivia, Colombia, El Salvador, Haiti, Mexico), while it was emphasized in another biofortification project on developing high B-carotene cassava for Colombia and Haiti. This may indicate that different research teams may assign varying degrees of importance to gender issues in the development of biofortified crops. But a more fundamental issue might be that researchers working in health and nutrition find it difficult to identify whether they pay specific attention to gender issues, because gender is deeply embedded in many of the outcomes being studied – particularly because health and nutritional status are measured at the individual level. In this case, the attention to gender needs to be stated more explicitly rather than assumed.

Table 3. Percentage of projects in each component that show attention to gender across the research, development and extension process, n=18

Stage of research process	Value chains (n=3)	Biofortification (n=3)	Agriculture-Associated Diseases (n=4)	Programs & Policy (n=8)	Average across stages
Using a gender-balanced consultation process	33%	33%	100%	100%	**67%**
Setting priorities based on identified men and women needs for intervention and technology	66%	33%	75%	100%	**69%**
Considering the extent of women's representation in beneficiaries in proportion to representation in the population	100%	33%	75%	88%	**74%**
Identifying factors responsible for gender disparities in the adoption or impact of new technologies and interventions	100%	33%	50%	88%	**68%**
Involving men and women in the innovation process in proportion to their share of the rural population	33%	33%	50%	100%	**54%**
Using a gender-responsive M&E and impact assessment system	0%	33%	50%	88%	**43%**
Average by component	**55%**	**33%**	**67%**	**94%**	

Among the six (out of 11 Centers) that responded to the questionnaire, we also see varying degrees of attention to gender across the R, D, &E cycle (Table 4). Again, while the specific projects that each Center leads are different, these numbers highlight not only gaps, but more importantly areas where it might be beneficial to strengthen attention to gender in the research cycle.

Table 4. Percentage of projects in each Center that show attention to gender across the research, development and extension process, n=18

Stage of research process	Bioversity International (n=3)	CIAT (n=3)	ICARDA (n=1)	ICRAF (n=1)	IFPRI (n=7)	ILRI (n=3)
Using a gender-balanced consultation process	66%	33%	100%	0%	100%	100%
Setting priorities based on identified men and women needs for intervention and technology	66%	33%	100%	100%	100%	66%
Considering the extent of women's representation in beneficiaries in proportion to representation in the population	100%	33%	100%	100%	86%	66%
Identifying factors responsible for gender disparities in the adoption or impact of new technologies and interventions	100%	33%	0%	100%	86%	66%
Involving men and women in the innovation process in proportion to their share of the rural population	66%	33%	100%	0%	100%	33%
Using a gender-responsive M&E and impact assessment system	0%	33%	0%	0%	100%	66%
Average by Center	**66%**	**33%**	**67%**	**50%**	**95%**	**66%**

5. Monitoring and Evaluation

We will track our progress toward achieving gender-responsive objectives by monitoring the achievement of deliverables in each of the four components. We will use participatory methods, such as outcome mapping and net mapping, tailored to each of the impact pathways and their associated theory of change. This ex ante assessment will be followed by an evaluation. In the value chains pathway, we will conduct some initial baseline surveys both at the household level and of actors along the value chains, in collaboration with value chain partners like other CRPs or Centers. For the integrated ANH programs pathway, we plan to do a baseline study at the start of any intervention to be evaluated, and for the integrated ANH policies pathway, we will supplement standard surveys, such as DHS, with more targeted baseline studies, as needed.

The evaluation will focus on achievement of integrated, gendered intermediate development outcomes (IDOs) at CRP and system level through the three impact pathways and associated theories of change. We will review our progress towards reaching our outcomes and impacts annually and update the associated theories of change in each impact pathway accordingly. As has been described, gender research and outreach are central to the impact pathways and the theories of change for improving nutrition and health outcomes through agriculture. For each IDO, gender disaggregated data will be collected and gender disaggregated indicators derived. A4NH will not have a separate M&E system to monitor the integration of gender into the project. Engendered indicators, such as those from the engendering research cycle outlined below and in the WEAI, outputs, and outcomes will be included in the M&E system.

Meinzen-Dick et al. (2011, pp. 100-102) propose a list of indicators for monitoring and evaluating the extent of gender integration in agricultural development programs. Among these, they identify the following as the most important:

- Extent to which women's involvement in an agricultural development project has changed (increased, decreased or not changed) as a result of the project;
- Reduction of gender disparities in access to productive resources and control of incomes as a result of the project; and
- Improvements in diets or nutritional status of individuals, particularly in areas where there are marked gender disparities in nutritional status / nutrient adequacy.

In addition, capacity and process indicators for research will be monitored for both participating Centers and partners. At present, there is considerable capacity in gender research in the integrated programs and policies component and also in the agriculture-associated diseases component. Improvement in the capacity of research teams in other parts of the research portfolio, tracking of gender-research activities (described in Section 4) and peer-assessment of gender research quality will be used in monitoring progress across the CRP portfolio and with partners.

This short list of indicators is consistent with the theory of change and could be used to monitor progress along the output-outcome-impact pathway. Our monitoring and evaluation efforts will allow program management to assess how Center-specific activities are or are not taking gender into account and where more or less resources need to be invested. We anticipate that with this process, the Program Manager will have the opportunity to meet with Centers to make any mid-course corrections on an annual basis, at minimum. The evaluation and impact assessment efforts will help us learn and help fill the demonstrated gap in the evidence on gender-sensitive, ANH research.

6. Budget

Disaggregating gender from the overall A4NH budget is difficult because gender is embedded into much of the research. A number of Centers collect very basic gender disaggregated data, but do not yet have explicitly-stated gender hypotheses or a theory of change about gender in the research they proposed under A4NH. These Centers – HarvestPlus, CIAT, CIMMYT, CIP, ICARDA, ICRAF, ICRISAT, IITA, and WorldFish – are categorized as Group 1. A large

proportion of this research is around plant breeding for better nutrition or reduced toxins. We estimate that about 1% of their budget goes toward gender research (Table 5). The next group – ILRI and Bioversity – collects gender disaggregated data and tests gender-sensitive hypotheses. We estimate that about 10% of their budget is designated for gender research and analysis. In the third group, IFPRI (PHND), gender is completely integrated into the research and the gender-sensitive researchers and research produced are well-regarded across the sectors of agriculture, nutrition, and health. We estimate that about 50% of their budget goes toward gender research and analysis.

Our strategy in 2013 and 2014 will be to use additional funding to help these Centers make concerted efforts in research that increases their understanding of gender at the household level and to identify areas of need along value chains for developing women's capacity. Funds will likely be used to hire gender experts, add gendered research components to existing studies, and establish strategic partnerships to complement our efforts. The goal will be to increase the gender budget among the Centers in Group 1 by 3-5% in 2013 and by 10% in 2014 (Table 5).

Table 5. Estimated proportion of budget for A4NH gender research, current and projected[3]

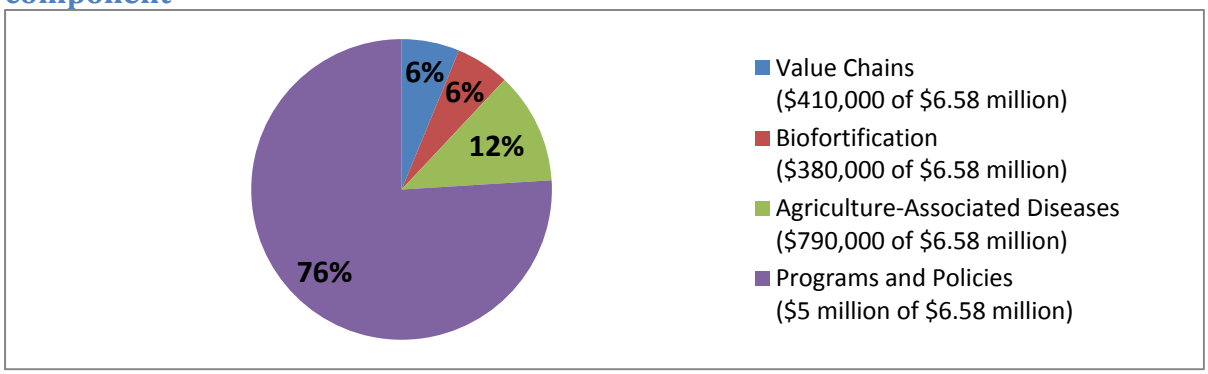
Group[4]	Approximate Budget 2012	Approximate Gender Budget 2012	Projected Gender Budget 2013	Projected Gender Budget 2014
Group 1	$38 million	$380,000	$899,000	$1 million
Group 2	$12 million	$1.2 million	$1.26 million	$1.32 million
Group 3	$10 million	$5 million	$5.25 million	$5.51 million
Total	**$60 million**	**$6.58 million (11%)**	**$7.41 million**	**$7.84 million**

Given these goals, we plan that in the next year, at least $500,000 in new funding will be devoted to enhancing gender-related research being done by Centers from Group 1. This additional amount will be contingent upon successful application of funds from the Consortium and anticipated growth of A4NH funding. This new funding would be applied to helping the Centers currently in Group 1 move into Group 2 by building both human resources capacity within the Centers and our joint capacity with partners. The figure below illustrates how funds for gender research are currently distributed across the four components (Figure 5). In the more immediate future, resources will be focused on building gender research capacity in value chains and biofortification.

[3] Projected budgets for 2013 assume 5% growth in each group, with Group 1 receiving an additional $500,000 from new funding. In 2014, projected budgets assume at least 10% growth (~11%) from the previous year in Group 1 and 5% growth in Groups 2 and 3.

[4] We have categorized the centers as such to describe the allocation of resources for gender research: Group 1 - HarvestPlus, CIAT, CIMMYT, CIP, ICARDA, ICRAF, ICRISAT, IITA, and WorldFish; Group 2 – ILRI and Bioversity; and Group 3 – IFPRI (PHND).

Figure 5. Estimated proportion of current A4NH gender research budget by component



In addition to this targeted capacity development, we will actively seek new partners whose comparative strengths are in gender research to work with A4NH in the implementation and analysis of gender research across its portfolio, and build on existing partnerships, such as with Oxford University and Emory University. There were some specific requests for support for gender analysis that emerged in our consultation with the Centers, notably from CIAT and ILRI, for work on biofortification and control of agriculture-associated diseases. Since the consultation, Bioversity International has expressed interest in support for gender analysis in A4NH in the upcoming year to boost existing gender work in other sectors. These requests document a growing demand from Centers within A4NH to build gender capacity.

7. Management System

The Program Director and the four component leaders will take responsibility for ensuring that gender is integrated into A4NH activities. An IFPRI Senior Research Fellow who has done extensive research on gender issues will provide overall guidance and advice to the Program Director and component leaders in implementing an engendered program. The Program Manager will be responsible for monitoring how Centers' activities are meeting gender-responsive goals and objectives. We have recently recruited a Senior Research Fellow with gender expertise at 67% time for A4NH evaluation and impact assessment at the overall program level. This researcher will work closely with the existing gender in value chains agenda within PIM and the commodity CRPs for nutrient-rich foods, and CRP 3.7 (Livestock and Fish) to ensure that A4NH-affiliated gender researchers are sharing lessons learned, tools, and research approaches. In addition, we expect this researcher to play a leadership and support role to Centers and partners for evaluation.

A4NH activities will be monitored twice a year for progress toward gender goals when the Planning and Management Committee (PMC) convenes for their bi-annual meeting. We plan to ask Centers to provide specific annual reporting to A4NH and we anticipate that gender will be included as part of an annual independent review of the program by the Independent Advisory Committee (IAC). In an effort to objectively assess our strengths and weaknesses in meeting gender objectives in our research, we will likely ask for periodic external review on specific topics, as needed.

Gender expertise and leadership within A4NH is particularly well-recognized in two of our components, control of agriculture-associated diseases and integrated agriculture, health and nutrition development programs and policies. Management will focus on building upon the relative strengths in these components and use resources to strategically distribute funds and seek partners in such a way that gender research is elevated in our other research components.

8. Capacity

A4NH will build on the internationally-recognized research capability of IFPRI and its partners in studying the implications of gender in relation to agricultural research and food and nutrition security. For the past 15 years, IFPRI has collected data, tested models, and generated important findings on how gender relates to food and nutrition security, power and resource allocation within the household, market development and trade, institution-building, land tenure, natural resource management and overall economic development and poverty reduction. Notable examples include a multi-country program on gender and intrahousehold research that "shifted the burden of proof" by demonstrating that households do not behave as monolithic units with common interests and preferences (Alderman et al., 1995; Quisumbing, ed., 2003); the background research drawn upon for the FAO SOFA 2011 (Quisumbing et al., forthcoming); the background paper on gender for GCARD1 (Meinzen-Dick et al., 2011); and the development of the WEAI (see http://www.ifpri.org/publication/womens-empowerment-agriculture-index), and numerous guides for collecting sex-disaggregated data and conducting gender analysis (see http://gaap.ifpri.info/files/2010/12/GAAP_Toolkit_Feb_14.pdf). IFPRI and ILRI are also working together on a large multi-country project on "Evaluating the Impact of Agricultural Development Programming on the Gender Asset Gap," which examines the impact of agricultural development programs on a whole range of assets, including human capital (health and nutritional status). The biofortification component has fielded many impact evaluations that pay explicit attention to gender in varietal choice, dissemination, and adoption of biofortified crops. The gender specialists in A4NH work closely with those in PIM, making sure that there is cross-CRP exchange of methods and learning; a number of projects do cut across both CRPs.

However, not all research teams have equal gender expertise (Table 6). Just because the ultimate outcomes are health and nutrition at the individual level does not mean that all gender-related factors are adequately taken into account and appreciated by researchers. Indeed, some A4NH researchers assume that just because the project addresses women's nutritional deficiencies or is targeted to women, that it has done an adequate gender analysis. The ability of the teams to undertake the gender-related research in each activity will be assessed by the respective members of the A4NH management team, building on the initial consultation, and additional training or collaborators with expertise will be sought, as needed. Some of these needs and strategies to meet them are identified in the last column of Table 6. It may be unrealistic to expect that this need will be met by drawing on IFPRI, for whom conducting gender and nutrition training is not its comparative advantage. Capacity strengthening will need to build on efforts of the nutrition community to build a common set of tools and methods for nutritional assessment, such as a recent guidance note that includes a section on women's empowerment, although gender issues are discussed in other parts of the document (Herforth 2012). Online training courses such as those developed by the London School of Hygiene and Tropical Medicine for DfID are also an important resource (see http://www.lshtm.ac.uk/eph/nphir/research/nutrition/programming_nutrition_outcomes_module.html)

Table 6. Current capacity for gender research within A4NH, organized by component (*table incomplete – not all Centers have responded*)

	Position types	**No. of scientists (PhD)**	**No. of scientists (master's level)**	**Disciplines or fields**	**Plans for 2013**
Value Chains	-Gender research consultant -Senior research fellow -Division director	2 (IFPRI)	1 (Bioversity – consultant)	Agriculture economics, gender studies, development studies, anthropology, geography	Hire an additional consultant, MSc level (Bioversity)
Biofortification	-Manager, nutrition -Research fellow -Impact and policy consultant -Manager, impact and policy -Gender and advocacy advisor	4 (HP) 1 (CIP)		Nutrition, economics, sociology with training in gender analysis	Hire 3 gender specialists consultants for A4NH research projects (ICRISAT) Utilize the work of a PhD consultant with a background in education and gender policy into more A4NH projects, ~5% (CIP)
Control of agriculture-associated diseases	-Technician -Post-doctoral scientist -Scientist -Sr. scientist -Team lead	4 (ILRI)	1 (ILRI)	Gender, agriculture economics, development, monitoring & evaluation (ILRI)	Hire 2 more PhD-level scientists for the Poverty, Gender, and Impact Team (ILRI)
Integrated programs and policies	-Division Director -Senior Research Fellows -Research Fellows -Postdoctoral Fellows	28 (IFPRI)		Nutrition, economics, agricultural economics	

9. Annex

Summary of Some Researchable Questions Organized by Impact Pathway

Impact Pathway: Value chains for nutritious and safe foods
How do gender relations influence of the choice of what is produced, and how do production choices influence women's work load and their own and their families' health and nutritional status (particularly young children)?
What nutritious and safe foods can best be marketed as most beneficial for women and children in the 1000 day window of opportunity? How can these foods be effectively marketed to the target consumers?
What context-specific strategies can be used to engage women more equitably in markets for nutritious and safe foods? What constraints do women face in the distribution and transportation of their products to markets?
Do men's and women's preference for the way food is prepared and the choice of preservation methods have a differential effect on nutrition and food safety?
How do gender relations influence household decision-making about what foods to buy, and how safe and nutritious foods are allocated within households?
Impact Pathway: Integrated Programs
How can programs increase men's support for women's important roles as guardians in their families' health and nutrition?
How can programs empower women so that they can harness resources for their own and their families' health and nutrition?
What social and cultural adaptations need to be made for programs to be effective in specific contexts?
What gender-sensitive tools and methodologies can be developed to evaluate the impact of integrated ANH programs?
Impact Pathway: Cross-sectoral Policy
How can policy reform provide support for more egalitarian gender roles that support good health and nutrition?
How does national policy affect the ability of female farmers to have equal opportunity for success in integrated agriculture programs?
What types of integrated policy actions can ensure that women and men benefit equally from integrated ANH programs?
What models can be recommended to partners looking for agricultural programs to address health and nutrition problems among women and children in the 1000 days window of opportunity?

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