

**CGIAR
Research
Program 4**

Proposal Submitted by:
International Food
Policy Research
Institute

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**Agriculture
for Improved
Nutrition & Health**
Executive Summary

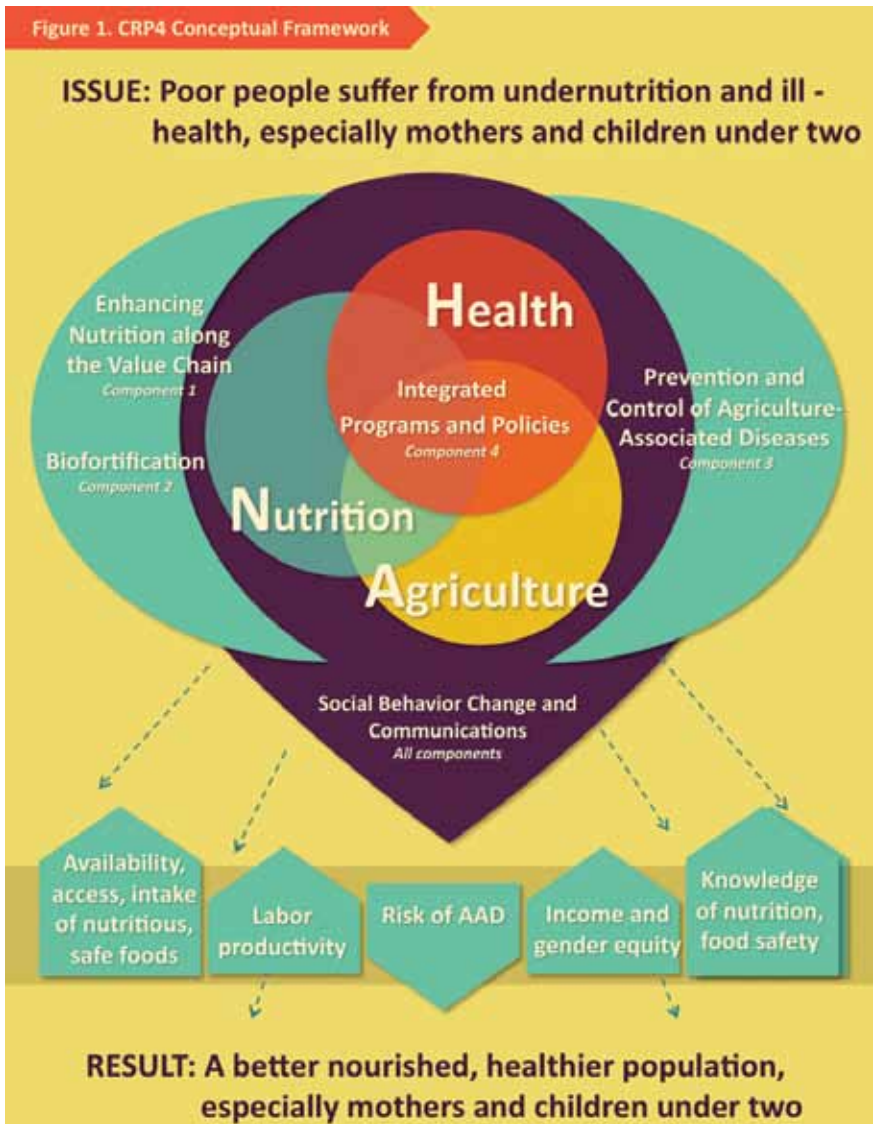
Executive Summary

Background

Hunger, malnutrition, and poor health are widespread and stubborn development challenges. Agriculture has made remarkable advances in the past decades, but progress in improving the nutrition and health of poor farmers and consumers in developing countries is lagging behind. A recent IFPRI 2020 Conference in New Delhi, “Leveraging Agriculture for Improving Nutrition and Health,” brought together about 1,000 stakeholders to examine how agriculture could be energized to become a more powerful tool to tackle the persistent problems of food insecurity, malnutrition, and poor health. Building on the momentum created by those discussions, the CGIAR Research Program on Agriculture for Nutrition and Health (CRP4) is designed to fill the existing gap between agricultural development and its unfulfilled health and nutritional benefits.

The starting point for CRP4 is that agricultural practices, interventions, and policies can be better adapted and redesigned to maximize health and nutrition benefits and to reduce health risks. This concept reflects the new vision of the CGIAR Strategic Results Framework (April 2011), which has four strategic objectives: improving human nutrition and health, reducing rural poverty, improving food security, and achieving sustainable management of resources. While CRP4 will contribute to the achievement of all four CGIAR strategic objectives, its

primary focus will be on improving human nutrition and health. In order to achieve this goal, CRP4 will bring together research and development professionals across the agriculture, nutrition, and health (ANH) sectors to jointly tackle key challenges and design joint solutions.



CRP4 Strategic Goal

CRP4 is a research program that will **work 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.

CRP4 Strategic Framework and Research Components

Figure 1 presents the overall strategic framework of CRP4. The key development challenges that the program will address are the stubborn problems of undernutrition and ill health that affect millions of poor people in developing countries. CRP4 will leverage agriculture to improve the nutrition and health of the poor through four research components that will directly address the problems of low diet quality—the main cause of undernutrition worldwide—and of vulnerability to agriculture-associated diseases. Component 1 focuses on opportunities to improve nutrition along value chains to increase the poor's access to nutritious foods. Component 2 aims to improve the availability, access, and intake of nutrient-rich, biofortified staple foods for the poor. Component 3 addresses food safety issues along the value chain, including the control of zoonotic diseases and the better management of agricultural systems to reduce the risk of human diseases. Component 4 addresses the need for integration among the agriculture, nutrition, and health sectors, at both the program and policy levels.

These four components were selected based on discussions and brainstorming with representatives from 12 CGIAR centers and a wide range of partners

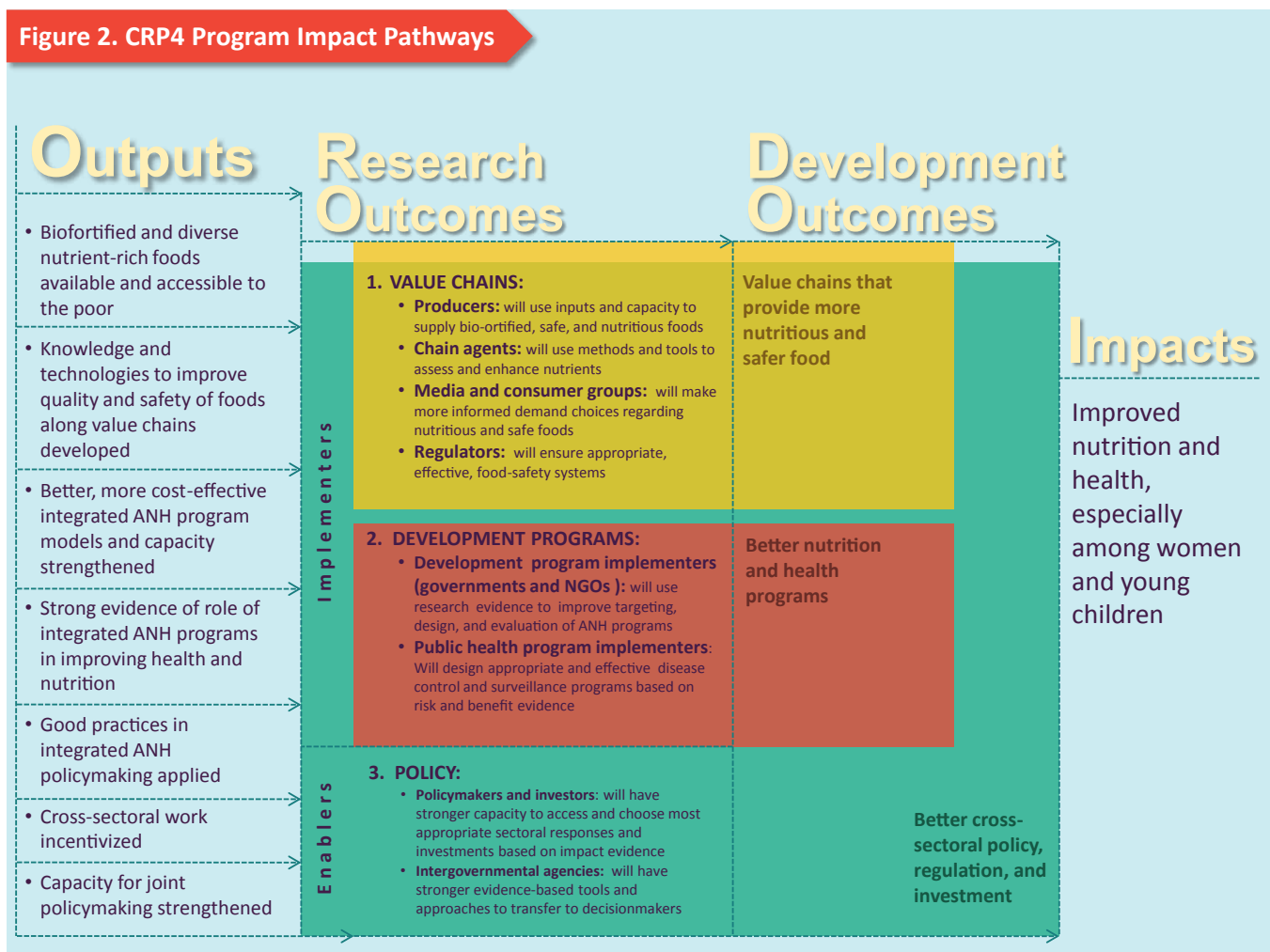
who participated in the CRP4 planning meeting in July 2010. Their selection arises from the recognition and consensus that poor diet quality and related micronutrient deficiencies are now the most pressing nutritional problem affecting the poor. Similarly, the severe disease burden from food-borne infections and zoonotic diseases is associated with changes in agricultural practice and policy, and therefore requires agricultural solutions. As agriculture is the main livelihood strategy for the poor, it is they who are disproportionately affected by these health and nutrition problems. For CRP4 to adequately tackle these challenges, the program team carefully assessed the opportunities that exist within the current (and future) research portfolio of the CGIAR and its partners in order to leverage agriculture to improve nutrition and health and to exploit their potentially powerful synergies to achieve the common goal of improving the nutrition and health of the poor.

Research Objectives

The CRP research objectives across the different components are as follows:

1. Generate knowledge and technologies to improve the nutritional quality and safety of foods along value chains (Components 1, 2, and 3).
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 (Components 1 and 2).
3. Generate knowledge and technologies for the control of zoonotic, food-borne, water-borne, and occupational diseases (Component 3).

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 (Components 1–4).
5. Produce evidence of nutritional and health burdens and benefits and of the returns to different interventions in different sectors. (Components 1–4).
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 (Components 1 and 3).



Impact Pathways

Figure 2 presents the overall program impact pathway. CRP4 is expected to enhance the contribution of agriculture research outputs to nutrition and health improvements through three major impact pathways and their respective actors: 1) *value chains* that provide more nutritious and safer foods accessible to the poor; 2) stronger and more effective *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. CRP4 will contribute to large-scale sustainable impacts by developing strong linkages with development implementers, including value chain actors and ANH program implementers, and with enablers such as international and national policy makers and governments.

Partnerships

Effective partnerships and new partnership practices will be essential for achieving CRP4's ambitious research outputs and development outcomes and impacts. A *partnership strategy* will be developed initially, to create the best conditions for carrying out the research and making full use of the subsequent findings. The unique complexity of CRP4, which requires working across sectors, calls for a range of partnership types and partnership depths. CRP4 will work with four broad categories of partners: enablers (policymakers and decisionmakers), development implementers, value-chain actors, and research partners. We are committed to a partnership process that incorporates strategic thinking, systematic processes with partners, innovative behaviors and resources, and implementation of best partnership performance practices. We regard partners as the essential ingredient of a successful joint effort.

Research Components: An Overview

Component 1: Value Chains for Enhanced Nutrition—will focus on increasing the demand for nutritious foods among poor rural and peri-urban households, and on identifying leverage points along the value chain where innovative nutrition interventions can be incorporated to stimulate both the supply and the demand for nutritious foods. It will build on work on value chains carried out by the CGIAR and other partners on nutritious (usually high-value) foods. Specifically, it will:

- develop innovative approaches and tools to analyze the value chain, using a “nutrition lens” combined with a consumer focus.
- implement research to identify leverage entry points to enhance the nutritional value of select nutrient-rich foods along the value chain.
- develop tools to assess and correct information asymmetries regarding nutrition among different value-chain actors, including consumers.

This component's impact will result from (1) enhanced nutritional knowledge and awareness created among value chain actors, including consumers, and (2) the greater selection of affordable nutrient-rich foods available and accessible to the poor through informal and formal markets.

Component 2: Biofortification—will develop and test biofortified nutrient-dense staple crops and make these novel crops available to the poor and undernourished. This component will have the desired impact via an increased production and consumption of biofortified staple foods; an increased intake of iron, zinc, and vitamin A; and a resulting

reduction in the prevalence of iron, zinc, and vitamin A deficiencies.

Component 3: Prevention and Control of Agriculture-Associated Diseases—will enhance environmental sustainability, reduce poverty, increase food security, and contribute to the health of poor communities by assessing, preventing, and mitigating agriculture-associated health risks, through research for improved food and water safety; control of bacterial, viral, parasitic, or fungal diseases that can be transmitted from animals to humans (zoonoses); and managing agroecosystems for better health. This component will find and develop solutions and innovations to reduce the risks of agriculture-associated diseases; understand and support appropriate institutions and incentives that will make these efforts sustainable; assess the impact of interventions; and develop communications, advocacy, and influence strategies that will enable the uptake and use of those interventions.

Component 4: Integrated Agriculture, Nutrition, and Health Programs and Policies—will exploit and enhance the synergies between agriculture, nutrition, and health through operational and policy research that permits (i) more effective integrated community-level programming, and (ii) the cultivation and strengthening of an enabling policy and institutional environment to support relevant action. This component will harness both the synergy of integrated programming and the potential for sustained policy commitment, to best realize the benefits of agriculture, health, and nutrition.

Cross-Cutting Issues

Gender

Throughout much of the world, women are the guardians of household food security and nutrition.

At the same time, biological and cultural factors can put women and girls at particular risk of undernutrition, micronutrient malnutrition, and poor health, especially during the reproductive period. Good agriculture, nutrition, and health programming must therefore account for gender issues at all stages of the project cycle, from participatory assessment and analysis through surveillance, implementation of interventions, monitoring, and evaluation. CRP4 will focus on the following broad areas: (i) gender analysis of needs and differential exposure to risks; (ii) fostering women's participation in and benefits from agriculture, nutrition, and health programs; (iii) empowering women and increasing their access to assets; (iv) promoting equitable intrahousehold food allocation and consumption for all members; (v) ensuring gender-friendly technology and delivery systems; and (vi) building capacity.

Capacity Strengthening

Capacity strengthening is a crucial element for CRP4's longer-term and more sustainable impacts, essential for program scale-up and sustainability. Implementing CRP4 will require adequate capacity for translating research methods and outputs into adopted technologies and institutional and policy changes. Just as important, it will mean developing *cross-disciplinary capacity* at various levels, including government and development agencies as well as educational and research institutions. Research teams working on CRP4 will undertake, as a preliminary step, comprehensive assessments of capacity gaps and needs in targeted countries and institutions, to develop an appropriate capacity-development strategy.

Innovation

Bringing together agriculture, nutrition, and health is not a new idea, but CRP4 will be innovative in a number of areas. It will:

- foster new partnerships to ensure that agriculture, nutrition, and health are integrated and delivered—at the community level, in large development programs, and in policymaking.
- undertake cutting-edge research to meet emerging challenges—for instance, it will work with partners to design mechanisms for enhancing nutrition along the agricultural value chain and to apply new molecular biology tools informed by population biology and social research to improve our understanding of how agricultural intensification can be more sustainably managed.
- invest in designing new tools and approaches to build the evidence base to usefully guide policy and practice across sectors.

Management Structure

The governance and management arrangements for CRP4 follow the guidelines set out in the CGIAR Strategic Results Framework. IFPRI will be the lead center, and will have overall fiduciary and operational responsibility for the implementation of CRP4. The International Livestock Research Institute (ILRI) will play a strong supporting role, providing the Chair of the Planning and Management Committee (PMC) for the initial two years. The PMC will oversee the planning, management, implementation, and monitoring and evaluation of the CRP. An Independent Advisory Committee, composed of 6 members representing

scientists and program development experts, will provide advice on research program performance, research priorities and focus, and management and partnership issues.

Monitoring and Evaluation

Indicators for tracking and assessing achievements will be constructed according to the SMART framework—*specific, measurable, achievable, relevant, and time-bound*—allowing for clear, results-based management of the CRP. A monitoring and evaluation plan will be developed under each component and subcomponent. The plans will provide a framework to track both the process of implementation and the attainment of interim targets. They will include milestones for activities, outputs (such as publications, datasets, training materials, and training activities), communication, dissemination, and networking (to ensure appropriate uptake of project outcomes). Plans will also specify corrective actions to be taken if milestones are missed.

Conclusion

The CGIAR has long played a unique role as an internationally coordinated agricultural research system that provides international public goods. With its partners, it is well equipped to provide leadership in developing new technologies, evidence, and applied field research for leveraging agriculture to improve nutrition and health. The CGIAR can work closely with partners in all three sectors to develop innovative and evidence-based solutions, strategies, and policies. Fully utilizing the CGIAR's scientific competence and reputation in this complex interdisciplinary area and its vast collaborative network at all levels of the impact pathway, CRP4 will achieve meaningful outcomes and tremendously benefit the health and nutrition status of poor people, especially women and young children.

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**To read the full proposal, please visit
http://www.ifpri.org/sites/default/files/crp4proposal_final_oct06_2011.pdf**