



Issued: 6 July 2016

A Coherent Research Portfolio to Deliver on the CGIAR Strategy and Results Framework

Purpose

This document, prepared by the Centers, was submitted to the 15th meeting of the Fund Council, to demonstrate the strengths of the proposed Phase 2 CGIAR Research Portfolio, for 2017 – 2022, as linked to the 2016 – 2030 Strategy and Results Framework.

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By the CGIAR centers; Downloaded from FC14 webpage

The second phase of CGIAR Research Programmes (CRPs) for 2017-2022 marks an important milestone in agricultural research for sustainable development. The programmes were designed through discussions involving the CGIAR Centres, Consortium Board/Office and Fund Council as well as close engagement with key partners and a broad group of stakeholders over a 15-month period starting in January 2015. A coherent portfolio of CGIAR Research Programs and Platforms was designed to address the strategy developed, The Strategic Results Framework (SRF). The Phase 2 research portfolio comprises eight Agri-food System Programmes, four Global Integrating Programmes and three platforms. The portfolio also includes active communities of practice dealing with gender, youth, capacity development, communications, and monitoring and evaluation. Overall, the 12 Phase-2 programmes, encompassing 57 flagships, are more sharply focused, with clearer priorities, than the 15 CRPs and 79 flagships of Phase 1.

The Direction of Change

Based on guidance from the CGIAR Fund Council and Consortium Board, the portfolio aims to meet the following objectives:

- (a) Implement and communicate a more cohesive CGIAR research agenda that is well aligned with relevant Sustainable Development Goals (SDGs) and their targets, and consistent with the total core and uplift budget indicated by the Fund Council;
- (b) Help guide priority investments, particularly for W1&2 funding, during the first 6 years of CGIAR's Strategy and Results Framework 2016-2030 (SRF), through:
 - a. Explicit prioritization within and between CRPs, with an appropriate balance between upstream science and downstream research for development, including research on scaling out new knowledge and technologies,
 - b. Effective partnerships, including those at the national level (e.g., to achieve site integration);
- (c) Address multiple SDGs through working on the System Level Outcomes defined in the SRF of the CGIAR (enhance food and nutrition security and health, reduce poverty, and improve natural resources by supporting climate change adaptation and mitigation, addressing concerns related to gender and youth, and building capacities, policies and institutions). This will address major development challenges in an integrated way, delivering international public goods that enhance resilience and can be rapidly scaled up for development impact.
 - a. Fostering resilient, carbon-neutral food systems, while addressing key issues in the sustainable management of natural resources,

- b. Including regional research focused on closing yield gaps and achieving sustainable intensification;
- (d) Pursue a forward-looking development approach that builds on CGIAR's high-quality science by:
 - a. Better managing the complexity involved in conducting high-quality science that contributes effectively to development,
 - b. Stimulating innovation in areas for which CGIAR has a unique comparative advantage compared with other R&D organisations
- (e) Create synergy between the Agri-food System CRPs and Global Integrating CRPs , and their constituent flagships and clusters of activities through a comprehensive site integration approach
- (f) Better benchmark the CRPs on the basis of common performance metrics, with the aim of boosting impact and value for money
- (g) Promote more streamlined CRP governance and management, based on cross-program mechanisms and lessons learned, and systems management approaches that are better focused and clearer prioritized

Independent reviews of Phase 1 CRPs, while endorsing much of the current research agenda, have also identified areas that need strengthening, particularly in outcome delivery and tracking, gender, and transdisciplinary science (see *Synthesis and reflections from five CRP Evaluations*, IEA, March 2016) or improved consolidation and integration (Agrifood systems research). The Phase 2 CRPs will close the gaps in these areas, incorporating into their flagships key lessons learned from Phase 1. The Phase 2 research portfolio will also feature improved governance and management arrangements that, by reducing the transaction costs generated by inefficiencies and overlapping functions between systems entities and the management entities of CRPs and Platforms, allow more human and financial resources to be focused on research for development. As a result, the CRPs will be able to work more efficiently toward research objectives that are highly relevant to smallholder farmers and food consumers.

About the New Research Portfolio

The proposals for Phase 2 CRPs together comprise a coherent portfolio that addresses the issues and objectives identified in CGIAR's Strategic Results Framework 2016-2030. Through site integration, the new CRPs have combined complementary programs on commodities and agri-food systems in specific regions, making possible significant improvements in both efficiency and the quality of research results. Instead of looking at the issues from a single crop or livestock/fish perspective a systems approach can be implemented. Incorporating recommendations from rigorous engagement with producers and government as well as civil society organizations around the world, the portfolio represents a holistic effort to put global agriculture on track to meet the SDGs. Program leaders have made sure that, in consolidating their activity clusters and flagships, have maintained clear. and structured research objectives and have not raised transaction costs.

The 12 CRPs and three platforms that make up the revised portfolio build on 50 years of CGIAR research and respond to demands from farmers, consumers and partners as well as insights from numerous foresight studies. All of the Agri-food System Programmes and Global Integrating Programmes will engage in both biophysical and socio-economic research for development. The combined inputs of the CRPs and platforms will deliver results informing the SDG processes at national and global scales. Our research will contribute to SDG achievements according to our System Results Framework that links directly to the SDG's.

Agri-Food System CRPs

These programmes will focus on major commodities that are globally important for meeting dietary needs (carbohydrates, proteins, micronutrients) in support of greater food and nutrition security and health. Researchers will pursue a dual approach, aimed at making the most productive crops more nutritious (both as food and feed) and the naturally nutritious ones more productive. The programmes will also give increasing attention to companion perennial crops that provide fruit, fibre, bio-energy and oil. The geographical areas in which these programmes will work (pursuing a systems approach that includes crops, livestock and agroforestry) align well with the major farming system domains of Africa, Asia and Latin America, as defined by the Food and Agriculture Organization of the United Nations (FAO).

The Agri-food System CRPs are as follows:

1. Dryland Cereals and Legumes (DCL)
2. Fish (FISH)
3. Forests, Trees and Agroforestry (FTA)
4. Livestock (LIVESTOCK)
5. Maize (MAIZE)
6. Rice (RICE)
7. Roots, Tubers and Bananas (RTB)
8. Wheat (WHEAT)

The agri-food systems often overlap in mixed and mosaic landscapes, requiring that these CRPs blend their efforts at the farm, regional and country level. To this end, common value chain methods will be used across the programmes to better foster crop intensification and diversification. These CRPs have also made a concerted effort to set priorities jointly, with the aim of scaling out key findings more efficiently.

The Agri-food System CRPs will build on valuable work undertaken by CGIAR's Phase 1 system programs. These aimed to enhance the livelihoods of smallholder farmers through sustainable improvement of total factor productivity, and also focused on identifying key drivers of sustainable intensification and diversification in smallholder systems. The new programmes will

work closely with one another to mainstream systems research centered on the delivery of outcomes with maximum potential to reduce poverty in rural households and communities, strengthen food and nutrition security, and enhance environmental health.

Global Integrating CRPs

These CRPs will operate across multiple geographic areas, themes and commodities. They have been designed in such a way as to interact with one another and with the Agri-food System CRPs.

The Global Integrating CRPs are as follows:

1. Agriculture for Health and Nutrition (A4NH)
2. Climate Change, Agriculture and Food Security (CCAFS)
3. Policies, Institutions and Markets (PIM)
4. Water, Land and Ecosystems (WLE)

Working in major agro-ecological zones and taking into account rapid urbanization and other drivers of change, these cross-cutting programmes will deliver solutions at the national level that can be scaled out to other countries and regions. These CRPs will also continue to work on key themes associated with natural resources management, climate adaptation, policy interventions and a greater focus on nutrition at selected locations in partnership with advanced research institutions to leverage the best science in addressing major development challenges. CGIAR's Gender Community of Practice has been incorporated into PIM to heighten the importance of gender issues in the whole portfolio and ensure strong leadership from an experienced gender and agricultural research team. Agri-food systems CRPs and Global Integrating CRPs will pursue a progressively increasing integration which implies alignment of approaches and a more consistent scaling out of results beyond individual CRPs. A process of site integration by multiple CRPs has been initiated to facilitate a systems approach in addressing issues in the country or region of focus. First meetings have been held in 20 countries.

CRP Support Platforms

CGIAR's collective work on unique genetic resources, which it holds "in trust" for humanity, is vital for sustainably increasing the productivity of smallholder agriculture. This work will take place within a Genebank Platform. The Genebank platform will focus on: (a) promoting effective, data-driven use of genetic resources to broaden the genetic base of crops; (b) enhancing global conservation of genetic resources; and (c) promoting on-farm and in situ approaches to conservation through use.

The genetic improvement programs will be part of the Agri-food System Programmes, with use of best practices and state-of-the art genomics, phenotyping and bioinformatics tools and research management approaches supported and accelerated by the Genetic Gains Platform. This will reduce reinvestments in developing similar tools in different improvement programs

and accelerate returns to investment to the most unique strength of the CGIAR, the development of improved (for productivity, resilience, nutritional value) germplasm and breeds which are being made available, as international public goods, for research, further development and dissemination.

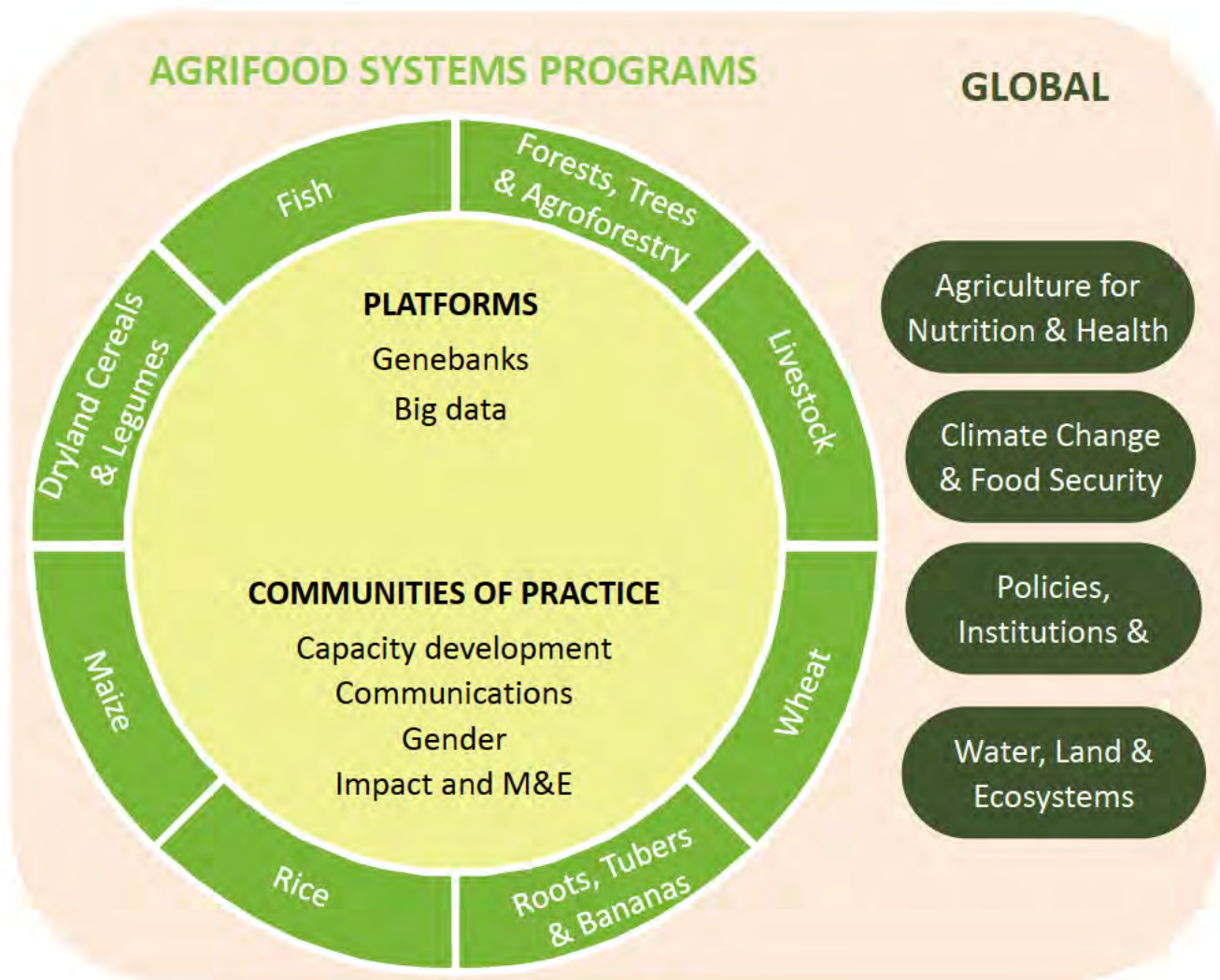
Novel scientific methods, involving the use of remote sensing and mobile technologies, are generating datasets of unprecedented size. CGIAR has designed a new Big Data Platform to devise improved approaches for handling such large datasets. This platform will better enable the CRPs and implementing centers to strengthen capacity for generating, accessing and managing data, with the aim of improving the delivery of development outcomes. It will also serve as a focus for external partnerships, which are critical for realizing the potential of big data analytics to benefit resource-poor farmers and consumers.

The Genebanks, Genetic Gains and Big Data Platforms include a total of 11 modules, as described in their respective proposals.

CRP Support Communities of Practice

Improved technologies are likely to be adopted on a large scale only if greater attention is given to **gender, youth, communications, capacity development**, and effective **evaluation and monitoring of impact for learning**. To ensure that these issues have a major influence on technology design, they will be thoroughly integrated into the value chain work of the agri-food system flagships, with the aim of making agriculture more commercially viable and sustainable, and better able to support diversified food systems. All of these programmes recognize that the future of agriculture depends on continued involvement of youth in farming, and to this end, they will work to enhance its appeal for youth by cultivating their interest in modern technologies and new knowledge. These efforts will receive support from the communities of practice, with the one on gender to be coordinated by PIM and that on monitoring and evaluation to be co-led by the future CGIAR Systems Office. In time, the communities of practice could evolve into larger, better-funded initiatives. The small budgets needed to maintain the communities of practice have been incorporated into the CRP proposals and proposed budget of the CGIAR System Office.

Figure 1: An integrated portfolio of CGIAR Systems Programs



A Forceful Response to Global Needs

By restructuring its research agenda between Phase 1 and Phase 2, CGIAR seeks to optimize the shared efforts of centres, partners and individual projects, offering a “value-for-money” proposition that strengthens effectiveness, efficiency, economy and equity. Developed in close consultation with scientific and development partners at all levels, the new portfolio has tremendous potential to meet global development needs. This is and will be defined by the

targets of the Strategic Results Framework and by further work that align indicators and methodologies for assessing progress and impact across all CRPs and Platforms.

On the strength of its new integrated design, the revised research portfolio will better position CGIAR to respond to key demands – including increased food demand, ecosystem decline, climate change, and surprise shocks – and thus realize its vision of a world free of poverty, malnutrition and environmental degradation in keeping with the SDGs. By ensuring that rural communities and families have the tools and support they need to improve their livelihoods, CGIAR's research agenda will help create new enthusiasm for farming and stronger skills among youth.

CGIAR's new research portfolio will deliver on the System Level Objectives and Intermediate Development Outcomes laid out in its new Strategy and Results Framework. Building on the core strengths of centres, strategic partnerships and a shared programme framework, CGIAR will sharpen the focus of its work and achieve higher adoption of technologies that respond to farmers' needs. Through close collaboration and mutual learning with universities, NGOs and other grassroots stakeholders in agricultural research for development, the new programmes will have a profound and positive impact on the well-being of the world's poorest consumers and farming communities.