

TERMS OF REFERENCE

for the Evaluation of the
CGIAR Research Program on
Roots, Tubers and Bananas (RTB)
October 2014



Independent
Evaluation
Arrangement

1. Background

1.1. Rationale and context

Research in CGIAR is guided by the Strategy and Results Framework (SRF), which sets forth the System's common goals in terms of development impact (System-Level Outcomes [SLOs])¹, strategic objectives and results. The SRF was approved in 2011, and is being revised with an update due in the first half of 2015. The CGIAR's research agenda is implemented by the CGIAR Centers and their partners through multi-partner CGIAR Research Programs (CRPs), of which there are currently 16². Each CRP is funded both through a pooled funding mechanism in the Fund³ and through bilateral funding directly to the Centers. A set of common Intermediate Development Outcomes (IDOs) links CRP-level targets to CGIAR-level goals for impact (the SLOs), framing the operational results framework of each CRP within the System as a whole.

In CGIAR, the Independent Evaluation Arrangement (IEA) is responsible for System-level external evaluations. IEA's principal mandate is to lead the implementation of the CGIAR Policy for Independent External Evaluations⁴ through the conduct of strategic evaluations of CRPs and of other institutional elements of CGIAR. IEA is also charged with developing a coordinated, harmonized and cost-effective evaluation system in CGIAR. IEA's first four-year Rolling Evaluation Work Plan 2014-17, approved in November 2013 by the Fund Council, foresaw the evaluation of 10 CRPs between 2013 and 2015.

The CRP on Roots, Tubers and Bananas (RTB), led by the International Potato Center (CIP), is one of the ten CRPs that IEA is evaluating. RTB encompasses nearly half of the research at CIP, which had its most recent EPMR (External Program Management Review) in 2007. The CRP brings together the mandates of four CGIAR Centers related to research on roots, tubers, and bananas: CIP, International Institute of Tropical Agriculture (IITA), Bioversity International, and International Center for Tropical Agriculture (CIAT). In 2013 CIRAD, representing French research organizations became a full global partner with representation in the Steering and Management Committees.

¹ The System-Level Outcomes are: reduction of poverty; improved food security; increased nutrition and health; and more sustainable management of natural resources.

² Including a research support program focusing on funding and management of CGIAR's genebank collections.

³ The CGIAR Fund is a multi-donor, multi-year funding mechanism that provides funding to (i) CRPs through two "Windows"; Window 1 across CRPs as per Consortium decision and Window 2 to donor-specified CRP; and to (ii) donor-specified Centers through Window 3.

⁴ http://www.cgiarfund.org/sites/cgiarfund.org/files/Documents/PDF/CGIAR_evaluation_policy_jan2012.pdf

1.2. Overview

Program Objectives and Structure

The CRP on Roots, Tubers and Bananas (RTB), which began in its current form in January 2012, holds its objective to be: “to more fully realize the potential of [mandate crops roots, tubers and bananas] for improving nutrition, income generation, and food security—especially among some of the world’s poorest and most vulnerable populations.”⁵

RTB is led by the International Potato Center (CIP) in Peru and it includes close collaboration and participation of three other CGIAR Centers: CIAT, Bioversity and IITA, as well as the French research partners represented by CIRAD.

The CRP’s mandate is thematically organized around its crops. The crops include banana, plantain, cassava, potato, sweetpotato, yams, and other tropical and Andean root and tuber crops—sometimes termed ‘vegetatively propagated staple crops’ (Figure 1). These crops have several issues in common, including similar breeding challenges for highly heterozygous crops, seed management with bulky planting materials, postharvest issues associated with perishability and the frequency with which women are involved in their production and postharvest use.

Figure 1. RTP crops by participating Centers

CENTER	PRIMARY CROP EXPERTISE					OTHER ROOTS AND TUBERS	
	BANANA	CASSAVA	POTATO	SWEETPOTATO	YAM	AROIDS	ANDEAN
Bioversity	■						
CIAT	■	■					
CIP			■	■			■
CIRAD	■	■			■	■	■
IITA	■	■			■	■	

RTB is a multi-Center initiative that aims to add value by exploiting cross-crop synergy: common workplans; collaborative genetic discovery and conservation; shared platforms for information systems, knowledge management, conferences and training; and joint investment in experiment stations. Additionally, for banana and cassava where two or three CGIAR centers share the mandate for research RTB provides a platform for joint research within a crop.

⁵ “Roots, Tubers and Bananas.” Final Revised Proposal, 9 September 2011.

Since its inception in 2012, RTB has been organized by seven Themes: (1) *in-* and *ex-situ* plant genetic resource management; (2) crop variety improvement; (3) plant pathology; (4) farmer access to quality inputs (planting material); (5) decision tools and models for crop management; (6) postharvest technologies, value chains and marketing; and (7) cross-cutting partnerships and capacity-building. Its eighth Theme is a pilot phase of Results-Based Management (RBM), begun in 2014. Each theme consists of a mix of existing research lines (from pre-CRP work), expanded research lines, and completely new research lines (fueled by the new CRP arrangement). Each theme contains a crosscutting section (cross center, cross crop) where joint work is brought together. Theme leaders appointed by RTB are responsible for the cross cutting part of the portfolio.

After carrying out an in-depth priority-setting exercise in 2012/2013—which included stakeholder workshops and surveys, agroecological mapping, constraints analysis, and impact modeling—RTB has begun to reorganize its program structure with flagship projects for discovery, delivery and impact at scale; and will move to this new structure in 2016.

RTB Program Structure for 2016 (12th December 2014)

Flagship Projects:	Discovery Accelerated genetic gain	Delivery				Impact at scale
		Productive RTB varieties & seed	Resilient RTB cropping systems	Nutritious RTB food	Adding value to RTB crops	
Clusters of Activity:	<p>DI1 (NextGen)</p> <p>DI2 (Game changing traits)</p> <p>DI3 (<i>In situ</i>)</p> <p>DI4 (Breeding platform)</p>	<p>CA2 (Profitability)</p> <p>BA4/BA5 (Diversity and Varieties merged)</p> <p>PO1 (Seed)</p> <p>PO2 (Varieties)</p> <p>YA1 (Clean seed)</p> <p>LS4 (Seed/seed degeneration)</p>	<p>BA1 (Fungal)</p> <p>BA2 (Viral)</p> <p>BA3 (Bacterial)</p> <p>CA4 (Biol. constraints)</p> <p>CA5 (CMD, CBSD, etc)</p> <p>LS2 (IPM)</p> <p>PM1 (Prod Mod)</p>	<p>CA3 (Vit A)</p> <p>SW1 (OFSP)</p>	<p>CA1 (Varieties)</p> <p>CA6 (Processing)</p> <p>LS3 (Posth.)</p>	<p>(LS1) Dev store (data management, knowledge sharing/communication, CapDev- incl. impact culture/assessment)</p> <p>Partnership & regional integration</p> <p>Strategic Gender Research and Support</p> <p>Horizon scanning / global futures and strategic foresight</p>

Notes on codes: BA=banana; CA=cassava; PO=potato; SW sweetpotato; YA=yam; DI=discovery; LS=learning&support

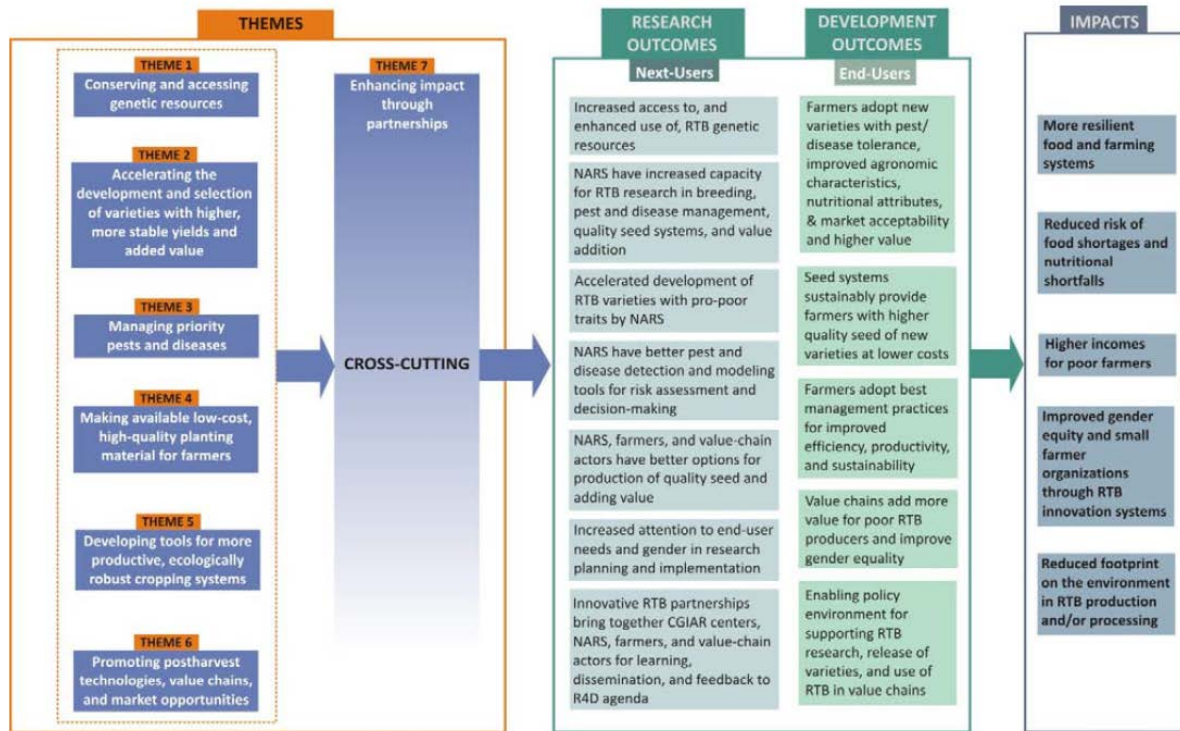
The geographical scope of RTB’s portfolio includes research sites on three continents; its largest investment is in Sub-Saharan Africa. RTB also has a substantial investment in “global” research (e.g. technological innovation of plant breeding tools).

IDO’s and Impact Pathways/Theory of Change

The impact pathways of RTB’s seven themes have been conceived according Figure 2, with IDOs preceding longer-term impacts. Linked to its development of impact pathways and at the instigation

of the Consortium Office, RTB initiated a pilot of results based management and this has been a central element in its 2015-16 extension request and planning for a second phase.

Figure 2. RTB impact pathways from six themes to long-term impacts



RTB engages in a large number of partnerships. Examples of CRP collaboration include; CCAFS (Climate Change, Agriculture and Food Security) “to synergize expertise towards improving risk assessments of pests and diseases under current and changing climates”⁶, Humidtropics on collaboration in joint Action Sites to expand the outreach of commodity research with NARS and other stakeholders as well as RBM experimentation, and PIM (Policies, Institutions and Markets) on foresight modeling. In 2013 RTB projects at the four Centers subcontracted to 155 different partner organizations a total of USD 12 million.

Budget and Expenditures

The approved budget for RTB in 2012-13 from all funds (Window 1 & 2, Window 3 and Bilateral Funds) was USD 136 million; in the same period, the cumulative expenditure was USD 124 million (Table 1). In this cumulative expenditure from all funds, CIP has got the larger share (46%), followed by IITA (28%), Bioversity (15%), CIAT (9%) and Program Management Unit - PMU (2%) respectively.

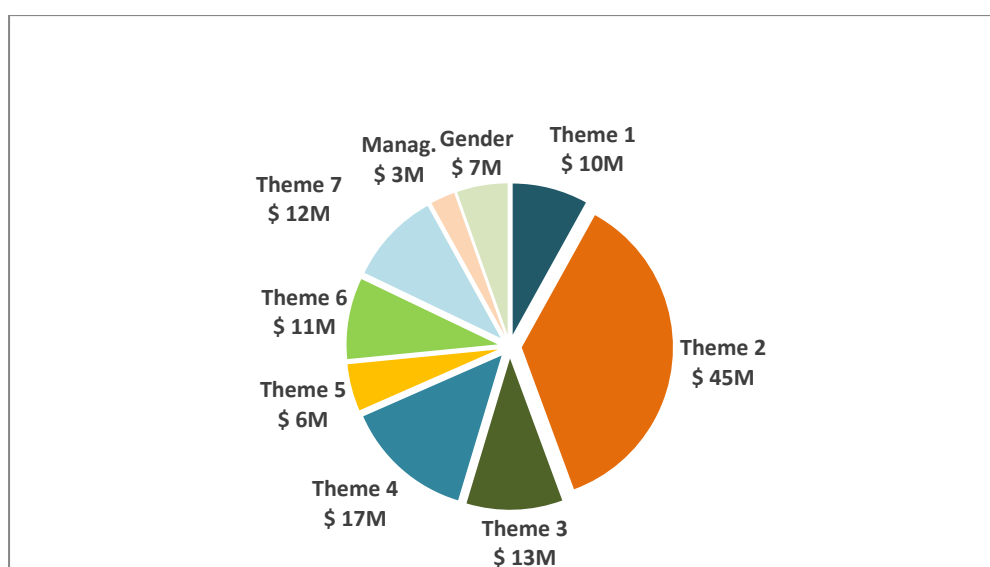
⁶ Kroschel J., et al. (2012). “Management of critical pests and diseases through enhanced risk assessment and surveillance and understanding climate impacts through enhanced modeling.” CCAFS and RTB Workshop Report. CCAFS and RTB. Copenhagen, Denmark; Lima, Peru. Available online at: www.ccafs.cgiar.org or www.rtb.cgiar.org

Table 1. 2012-13 RTB Cumulative Expenses, by Center

CENTER (USD Millions)	W1&2	W3	BILATERAL	TOTAL
BIOVERSITY	12.1	0.2	6.2	18.5
CIAT	7.7	0.4	3.1	11.1
CIP	18.5	8.6	30.1	57.1
IITA	11.0	8.2	15.2	34.5
PMU	2.3			2.3
TOTAL	51.7	17.3	54.6	123.6

The CGIAR Windows 1 & 2 cumulative expenditure in 2012-13 was USD 51.7 million; from which CIP has got 36%, Bioversity 23%, IITA 21%, CIAT 15% and PMU 5%. Additionally, the Window 3 & Bilateral cumulative expenditure reached USD 71.9 million; with a distribution of: CIP 54%, IITA 33%, Bioversity 9% and 5% of CIAT. The cumulative expenditure for Themes (see page 3) from all funds is shown in Figure 3.

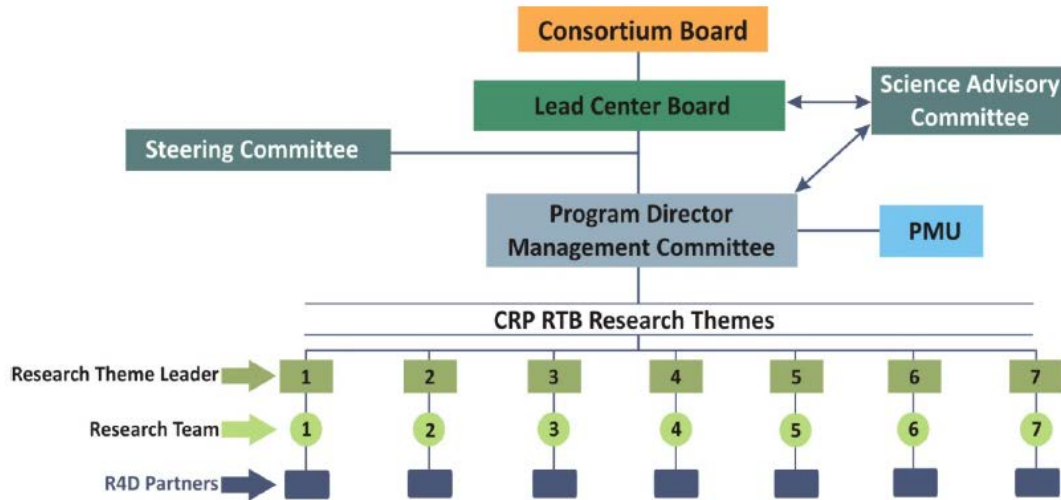
Figure 3. RTB Cumulative expenditure 2012-13 by Themes



Governance and Management

RTB is governed by the Program Implementation Agreement signed between the lead-Center Board and the Consortium, Program Participant Agreements and Task Orders between the participating Centers and CIP. In 2014 a Program Advisory Committee (PAC) was established for complementing the existing scientific/research advisory governing bodies at the Center level. The PAC’s six members have expertise in gender, partnership, capacity-strengthening and evaluation. The governance structure of RTB as at inception in 2012 is shown in Figure 4.

Figure 4. Corporate structure of RTB (as of 2012)



A Steering Committee consists of the four Center Directors-General, as well as a representative of CIRAD (Program Director is ex-officio member). Its purpose includes making recommendations on the overall direction of the program; to ensure that monitoring and evaluation processes comply with CGIAR systemwide standards; and to approve strategic plans and annual plans of work and budget. In January 2015 RTB changes to a single governance body made up of a majority of independent members drawn from the PAC with CIP DG as permanent member plus one other DG on a rotating basis.

Operational decisions are taken by the Management Committee (MC) that consists of the Deputy Director Generals for Research of each of the participating Centers as well as a representative from CIRAD and the Program Director as head of MC. The Program Director has a small Program Management Unit (PMU) for support. The MC makes a recommendation for use of the budget to be agreed with the Steering Committee and ultimately approved by the Board of Trustees of CIP. Additionally it reviews progress, including for scientific output and to ensure Center-level fulfillment of obligations. The PMU represents RTB centrally and monitors the agreed-upon goals, with special responsibility for the RTB Gender Strategy (from 2013).

2. Evaluation Focus

2.1. Evaluation purpose and clients

The primary purpose of this evaluation is to increase the contribution that RTB is likely to make toward CGIAR goals, enhancing the productivity and sustainability of mandate-crop farming systems, as well as the livelihoods of poor producers and consumers of these crops in developing countries.

As in all CRP evaluations, the purpose of the evaluation of RTB is to provide essential, evaluative information for decision-making—by both CRP management and funders—on issues such as extension, expansion and structure of the program, as well as adjusting some aspects of the program.

In November 2013 the CGIAR Fund Council agreed that all current CRPs should undergo some form of evaluation before the call for the second round of CRPs and full proposal development is initiated. In that context, the evaluation of RTB will also provide information for decisions on program formulation and selection in the forthcoming call for second-cycle CRP funding. Taking into account the stage of the program and given its nature and timelines for results, the evaluation aims to provide an overview and critical analysis of the relevance of the program, as well as its achievements and progress to date.

The evaluation provides both accountability and learning. It re-enforces the principle of mutual accountability and responsibility among program, donors and partners. It fosters institutional learning among the CRP and its stakeholders, for improving program relevance, efficiency, and the likelihood of sustainable results. Therefore, it will look at the extent to which RTB is responding, within its mandate, to the vision and focus underlying the CGIAR reform—especially through delivery orientation, clear accountability, and synergy through efficient partnerships.

Stakeholders of this evaluation include the management of RTB, all participating Centers, partners associated to the Program (including NARS that are both partners and beneficiaries), the CGIAR Fund Council, and the Consortium Board (Table 2). These stakeholders will be consulted and engaged throughout the evaluation through structured interviews, surveys, and site visits. A reference group is convened to represent RTB management, governance, partners and stakeholders closely involved in the CRP.

Table 2: RTB Evaluation stakeholders

Type of stakeholder	Role in CRP	Interest in evaluation
CRP level		
RTB management	Program management	Lessons learned to increase performance of CRP
RTB Steering Committee and PAC	Program oversight and strategic advice	Accountability CRP performance Lessons learned about effectiveness of Governance committees
RTB Researchers	Carry out research in line with CRP IDOs	Research performance
Center level		
CIP Management	Contribution to program management	Organizational performance Comparative advantage
CIP Board	Fiduciary responsibility Oversight of the CRP	Organizational performance Comparative advantage
Boards and management of participating centers	Oversight of CRP activities carried out by its center	Organizational performance Comparative advantage
CGIAR level		
CGIAR Fund Council	Oversight on use of funds for CRP	Accountability CRP performance Decision making for resource allocation
Donors of bilateral projects	Funding source	Accountability CRP performance Decision making for resource allocation

CGIAR Consortium	Signatory to Program Implementation Agreements with RTB lead-Center, strategic advisor and oversight body.	Lessons learned to increase the effectiveness and relevance of the work of CGIAR; Lessons learned to increase the efficiency and accountability of CGIAR.
Partners		
Research partners	Participate in the design and conduct of CRP research	Research Performance Collaboration mechanisms, Capacity development
Development and Boundary Partners	Targeted stakeholders for implementing change	Relevance of CRP and its research, Research Performance, Collaboration mechanisms, Capacity development
Beneficiaries; e.g. farmers and policy-makers	Targeted clientele for development oriented research	Relevance, effectiveness and impact of CRP and its research

2.2. Evaluation scope

The evaluation will cover all research activities of RTB, thus including activities funded by Window 1, 2 and 3 as well as bilaterally funded projects. In the new CGIAR programmatic approach, RTB represents a major component of CGIAR commodity research—that of plant breeding and RTB crop systems—bringing together the long-standing research of CIP, IITA, Bioversity and CIAT, and that of the CIRAD/French partners. In the evaluation's assessment of RTB's research performance, given that some of the research is so long-standing, particular emphasis will be placed on RTB's research pipeline, where results maturing to outcomes and impact can be expected.

Given that the most recent previous CGIAR-level evaluations (EPMRs) covering research on RTB crop were conducted in 2007 (CIP, IITA and CIAT) and 2009 (Bioversity), the scope of this RTB evaluation is quite broad, covering both **past research** for results and impact, and current program relevance, efficiency, likely effectiveness and quality of science. The **summative** dimension of this evaluation will determine to what extent results at outcome- and impact-level have been achieved from RTB research continuing from the past.

The evaluation is being undertaken at a time when the CRP will be completing its first funding phase (2012-2014) and is adjusting its program design in accordance with guidance from the CGIAR Consortium Office. This adjustment includes restructuring the program into Flagship Projects, and within them clusters of activities, defining program theories of change as well as impact pathways for each Flagship Project as detailed in RTB proposal for 2015-16 extension period. These key components of the CRP also entail IDOs with target achievement goals for the medium-term (about a 10-year time span), according to specific agroecologies of RTB mandate crops and the beneficiary groups for each of them. IDOs will comprise measurable indicators of progress and results. Therefore, the **formative** dimension of this evaluation will evaluate the **programmatic approach** undertaken to enhance the relevance and efficiency of RTB, examining the likelihood of its effectiveness to contribute to the CGIAR SRF vision, SLOs and outcomes as defined in the results framework.

The evaluation will also examine the institutional context of RTB and its relation to other CRPs. This includes examining the effectiveness and efficiency of the institutional structure and management

systems of the CRP and the extent to which it creates incentives among scientists and partners for high quality research oriented towards tangible outcomes.

The strategic issues and evaluation questions that address the main evaluation criteria are structured around two dimensions: Research/programmatic performance and organizational performance.

Research/programmatic performance

The RTB evaluation will have its focus on two time frames:

- Results from research prior to establishment of RTB—outputs, outcomes and impacts—emerged and now emerging from the RTB program pipeline (summative); and
- Progress since 2012, during which time RTB has been set up and continues to evolve with a newly defined structure, targets and impact pathways (formative).

As part of programmatic performance, the evaluation will look at **quality of science**, both in terms of what can be expected from a leading international research program and as a prerequisite for effectiveness. It will look at factors in the program design and implementation that determine the **relevance** of RTB within the CGIAR strategic framework and in the context of research opportunities and beneficiary needs. The value-added of the program will be assessed, including the comparative advantage and synergy in addressing research approaches across the RTB crops. It will look at the CRP's likely **effectiveness**, as characterized by the logic and analytical rigor of RTB's impact pathways, including the plausibility of linkages between outputs and outcomes (first to the IDOs, then beyond toward the SLOs), as well as the nature of the process to develop this theory of change. This criterion of the evaluation will also examine RTB's assumptions, especially those that relate to external factors crucial for the planned outcomes and impact. It will look at the validity of the assumptions underlying the program impact pathways as captured in its theory of change—and how the Theory of Change is used in program design and learning.

The evaluation will examine the extent to which RTB addresses the challenges of linking research outputs to development outcomes—and of scaling out promising results for greater **impact** and **sustainability**. It will also assess the nature and magnitude of impact from past research, with particular relevance to RTB.

The evaluation will give emphasis to three cross-cutting topics particularly as they pertain to programmatic performance: **gender**, **capacity-building** and **partnerships**. Specific evaluation questions will address these cross-cutting topics, particular regarding the relevance, effectiveness, and efficiency of the program.

The evaluation will assess RTB's gender strategy and the adequacy of its funding and implementations, particularly in terms of integrating gender in research design and targeting (theories of change and impact pathways), strategic research on gender and gender aspects across the research portfolio.

Integration of capacity building needs assessment and funding into program design and research activities will be assessed, particularly regarding assumptions and risks in the impact pathways

related to capacity; sustainability of research results and outcomes; equity among gender; and the comparative advantage of the CRP.

Regarding partnerships, the evaluation will consider both partnerships and integration of research among the implementing centers, linkages with other CRPs, and partnerships with both research and development partners as well as boundary partners upon whom the development outcomes depend. It will assess the strategic relevance and management of partnerships for efficiency and effectiveness of generating results and achieving program objectives, the evaluation will also examine the institutional relations that RTB has with the governing and administrative bodies of CGIAR.

Organizational performance

Evaluation of organizational performance will primarily pertain to aspects of **efficiency**, focusing on CRP design, structure and processes from a management point of view. In addition to efficiency, the evaluation will examine the independence, accountability, transparency and fairness of the CRP's **governance** and **management** arrangements and functions.

Areas of emphasis within these performance evaluation criteria include the changes and value-added brought about by the CRP structure relative to the previous center programs. Important aspects include organizational efficiency and effectiveness, including management of transaction costs; partnership management; financial management, including resource mobilization, transparency of resource allocation and alignment of different funding sources with program objectives; intellectual property management; and, importantly, learning for improving likely efficiency and effectiveness.

3. Evaluation Criteria and Questions

The RTB evaluation will assess both programmatic and organizational performance through a set of evaluation questions that address the evaluation criteria referred to above. A tentative list of evaluation questions is given below. These will be refined, further elaborated and prioritized during the inception phase by the Evaluation Team, in consultation with relevant stakeholders. Furthermore, during the inception phase the team will identify emerging issues and overarching questions that will help focus the evaluation questions related to specific criteria.

3.1. Research/Programmatic Performance

Relevance

Coherence

- Is the RTB CRP strategically coherent and consistent with the main goals and System Level Outcomes presented in the CGIAR's Strategy and Results Framework?
- Is the RTB structure as evolving rational and conducive for a coherent program?
- Is research on the different crops optimally integrated for internal program synergy?
- Is the core funding (Windows 1 and 2) used strategically in key areas of the program, and to align bilateral projects within program strategy?

Comparative advantage

- What is the comparative advantage of RTB and the participating Centers—considering both the CGIAR’s mandate of delivering international public goods and obligation towards outcomes—relative to other international initiatives/research efforts, including the private sector, partner country research institutions, and development agencies?
- Is the CRP’s role clearly defined relative to that of the boundary partners?

Program design

- Does the program target an appropriate set of Intermediate Development Outcomes (IDOs) and are the activities relevant for targeting the IDOs?
- Are the impact pathways being developed so that they logically link the principal clusters of activities to the IDOs, and are the IDOs linked to the SLOs through plausible theories taking into account trade-offs?
- Have RTB research activities been adequately prioritized considering research opportunities and user demands, in line with resource availability?
- Has gender analysis adequately informed program design and targeting and are gender issues incorporated in the design?

Quality of science

- Do research design, problem-setting, and choice of approaches reflect high quality in scientific thinking, state-of-the-art knowledge and novelty in all areas of research?
- Is it evident that the program builds on the latest scientific thinking and research results?
- Are the internal processes and conditions, including research staff and leadership quality, adequate for assuring science quality?
- Are the research outputs, such as publications, of high quality?

Likely effectiveness

- Has RTB stayed on track in terms of progress and milestones toward outputs, and along the impact pathway toward outcomes?
- Is the monitoring system used effectively for adjusting the program on basis of lessons learned?
- Have constraints to outcomes and impacts been considered in the program design, for example through assessment of the assumptions and risks in reliance on policies, actions of national institutions, capacity and partnerships? To what extent have *ex post* studies informed the assumptions?
- Is RTB adequately addressing enabling factors for outscaling outcomes?
- Has gender been adequately considered in RTB impact pathway analysis and implementation, understanding the differential roles of women and men along the impact pathway, generating equitable benefits for both women and men, and enhancing the overall likelihood of enhancing the livelihoods of women?
- Are capacity building activities sufficiently and appropriately incorporated into the program?
- Does RTB engage with appropriate partners, given their roles in implementation and achieving the objectives of the program?

Impact and sustainability

- What has been the research record of the RTB participating centers, in terms of documenting and demonstrating outcomes and impacts from past research?
- Have there been sufficient efforts to document outcomes and impact from past research, with reasonable coverage over all research areas?
- What can be concluded from the findings of *ex post* studies, regarding the magnitude of impact in different geographical regions—and the equity of benefits?
- To what extent have benefits from past research been—or to what extent are they likely to be—sustained?

3.2. Organizational Performance

Governance and management

- Do the governance and management arrangements and functions conform to the program partnership requirements of independence, accountability, transparency, legitimacy and fairness?
- Are RTB institutional arrangements, management and governance mechanisms efficient?
- Does RTB research management provide effective leadership, culture and ethos for advancing the program's objectives?
- To what extent have the reformed CGIAR organizational structures and processes increased (or decreased) efficiency for successful program implementation?
- Is the level of collaboration and coordination with other CRPs appropriate and efficient for reaching maximum synergies and enhancing partner capacity?
- Is RTB management using a monitoring and evaluation system efficiently for recording and enhancing CRP processes, progress, and achievements?

4. Evaluation approach and methodology

4.1. Approach and Methodologies

RTB builds on a long history and strong foundation of research related to roots, tubers, and bananas—and their related cropping systems—so its program components are often more mature than would suggest the 2012 start date of their integration into RTB. Therefore, the accountability-oriented, **summative** component of this evaluation will be as important as the forward-looking, **formative** component. The summative component will draw on existing studies, adoption and impact assessments, records and other data for conducting meta-analysis of available evaluative information, and estimating the achievements from past research. It will also assess the adequacy of RTB's M&E system in documenting results. This approach will be complemented by other means, such as field observations during site visits and analysis of responses during structured interviews with program participants and stakeholders.

The forward-looking, formative component will review, among other pieces: program design and processes; progress made so far towards results; gender mainstreaming, governance and partnership aspects; and other innovative modalities of work introduced with the reform of CGIAR. Approaches will be selected that use, for instance, benchmarking with other comparable programs,

lessons and good practices in research and management established elsewhere, and information from primary contacts.

The evaluation process will be attentive that in developing its findings, there is broad consultation among stakeholders for capturing a representative range of viewpoints. The evaluation team should ensure that the findings are informed by evidence. This implies that all perceptions, hypotheses and assertions obtained in interviews will be validated through secondary filtering, and cross-checked through triangulation and comparison of alternative sources, data, methods, and theories.

4.2. Evaluation Phases

Preparatory phase

During the Preparatory Phase the IEA, in consultation with relevant stakeholder, will review key documents, carry out a preliminary mapping of RTB activities, and define the scope and issues surrounding the evaluation.

The IEA will carry out the following tasks:

- Finalize these Terms of Reference
- Compile information on research projects under RTB and existing evaluation material and other key documents pertaining to RTB
- Set up a Reference Group (see 5.2) for the evaluation
- Select the evaluation team leader and in consultation with her/him, the evaluation team; and then contract all team members

Inception phase

The inception phase is the responsibility of the Evaluation Team, with support from the IEA. The evaluation's scope, focus, approaches and methods, and detailed evaluation questions will be defined during the inception phase. Actions during the inception phase include:

- Review of monitoring information pertaining to RTB that form basis evaluation plan as presented in the inception report, including: (i) information derived from RTB's monitoring and evaluation system; (ii) impact assessments; and (iii) management related materials
- Development of an analytical framework for the assessment of RTB research
- Building on the TOR, refining the evaluation questions around evaluation criteria as they apply to programmatic and organizational performance and the cross-cutting topics. This includes identifying means of addressing the questions and developing an outline of the data collection methods and instruments. An evaluation matrix will specify the methods to be used for each criterion or evaluation question. Annex 1 presents a form for the evaluation matrix for identifying the most suitable methods for each purpose.
- Detailed specification of the evaluation timetable, which includes a plan for field visits and country missions
- Division of roles and responsibilities among the team
- List of strategic areas of importance prioritized for emphasis in the course of the inquiry phase.

These elements will be drawn together in an evaluation Inception Report which, once agreed between team and IEA, represents the contractual basis for the team's work. Subject to the

agreement of the IEA Director, adjustments can be made during evaluation implementation, in the light of experience, but would be done so in a transparent fashion.

Inquiry phase (conduct of evaluation)

The evaluation's main phase will build on the outputs of the inception phase and proceed with the inquiry, by acquiring more information and data from documents and relevant stakeholders, to deepen the analysis. The methods and approaches refined from the Inception Report may include:

- Documents needed for specific evaluation questions (desk review)
- Structured interviews with a variety of stakeholders both within and outside CGIAR for qualitative hypotheses on, for instance, relevance and quality of research; likely effectiveness; and aspects of partnership management.
- Surveys among RTB researchers, partners and other stakeholders for measurement of relationships and of satisfaction with RTB relevance, progress and achievements.
- Site visits to RTB research sites to observe and verify information on program activities and partner relations. Visits may be coordinated around management and research meetings, allowing engagement with a wide range of stakeholders in the countries of project sites.
- Case studies of selected research areas or projects.

Dissemination phase

See 5.4

4.3. Quality Assurance

In order to ensure technical rigor to the Evaluation, the following quality assurance mechanisms will be implemented during the evaluation exercise:

The IEA and manager of the evaluation will conduct quality control throughout the evaluation process. The IEA will work closely with the evaluation team throughout the evaluation and will ensure that the conduct of the evaluation and its approaches, methods and deliverables are in line with CGIAR Evaluation Policy and IEA Standards.

Advice on evaluation process quality will be sought from external evaluation experts. Optionally, an expert panel consisting of external, independent experts in subject matter areas of research may be called to examine the quality of the Evaluation Report in terms of substance, including the technical, contextual, and financial soundness of evaluation findings and conclusions.

Evaluation findings and conclusions are to consider actual resources available to RTB and to state what recommendations are resource-neutral and what recommendations imply a greater or smaller budget.

4.4. Main limitations and constraints of evaluation

The CRP research is conducted by four main CGIAR partner with roughly about half of the funding coming from bilateral sources. This may constrain the collection of accurate project information and defining of CRP boundaries. The large number and institutional and geographic spread of partnerships of the CRP may limit the ability of the evaluation team to collect information sufficiently representative of stakeholder groups. Therefore, there is need to select suitable methods

to assess the CRP that allow representative evidence to be gathered across heterogeneous operations, stakeholder groups and target domains. The size and geographic spread of the CRP may limit the scope of the evaluation, which will need to select suitable methods to assess the CRP through, for example, representative project and site sampling.

5. Organization and Timing of the Evaluation

5.1. Evaluation team qualifications

The evaluation team leader will have a suitable background to RTB and the CGIAR's mandates, as well as solid experience in leading evaluations of complex programs. The team leader will be supported by a team of experts who will among them have extensive and proven experience at international level, working for research or development agencies on issues, programs and policies related to crop production and farming systems in developing country contexts. They will also have demonstrated knowledge of the main global institutions involved in RTB-crop production systems improvement.

The team is likely to include 3-4 experts in addition to the team leader. Among its members, the team will have an excellent understanding and knowledge of the research issues and international debate on the following areas:

- crop production and genetic enhancement
- natural resource and crop management in RTB-mandate agroecologies
- sustainability in RTB-mandate cropping systems
- factors influencing research strategies and impact for vegetatively propagated staple crops
- consumer and nutritional perspectives
- policy environments relevant to root, tuber and banana production systems

In addition the team will have competence to assess:

- program governance, organization and management, including financial management
- theories of change and results based management
- equity and gender issues
- capacity building issues
- institutional and policy analysis in the context of development
- research planning, methods and management
- intellectual property issues
- communication and partnership

5.2. Evaluation governance/roles and responsibilities

The Evaluation will be conducted by a team of **independent external experts**. The team leader has final responsibility for the Evaluation Report and all findings and recommendations, subject to adherence to CGIAR Evaluation Standards. The evaluation team is responsible for submitting the deliverables as outlined in more detail below.

The **IEA** will be responsible for planning, initially designing, initiating, and managing the evaluation. The IEA will also be responsible for the quality control of the evaluation process and outputs, and dissemination of the results. The IEA will take an active role in the preparatory phase of the

evaluation by collecting background data and information and by carrying out preliminary analysis on the RTB CRP. An evaluation manager supported by an evaluation analyst will provide support to the team throughout the evaluation.

A **Reference Group** will be set-up to work with the IEA evaluation manager to ensure good communication with, learning by, and appropriate accountability to primary evaluation clients and key stakeholders, while preserving the independence of evaluators. The Reference Group, composed of CRP stakeholders, can be thought of as a ‘sounding board’ and it will give views and inputs at key decision stages in the evaluation design and implementation process, such as finalizing the TOR, the Inception Report and Evaluation Report.

5.3. Timeline

The CRP evaluation is scheduled to take place in about 10 months starting in late 2014 (see Table 3).

Table 3: Proposed timeline for evaluation

Phase	Period	Main outputs	Responsibility
Preparatory Phase	Sep 2014 – Jan 2015	Final TOR Evaluation team recruited	IEA
Inception Phase	Feb 2015 – Apr 2015	Inception Report	Evaluation team
Inquiry phase	May 2015 – Sep 2015	Various reports and analysis products as defined in inception report	Evaluation team
Presentation of preliminary findings	Oct 2015	Presentation of preliminary findings Feedback from main stakeholders	Evaluation team IEA
Reporting phase			
Drafting of Report	Oct 2015 – Nov 2015	Draft Evaluation Report	Evaluation team
Final Evaluation Report	Dec 2015	Final Evaluation Report	Evaluation team
Management and CGIAR Consortium Responses	Feb 2016	Management and Consortium Responses	CRP Management Consortium Board

5.4. Deliverables and dissemination of findings

The **Inception Report** builds on the original terms of reference for the evaluation and outlines the emerging issues as well as the proposed approach to the main phase of the evaluation. It constitutes the guide for conducting the evaluation by: (i) outlining the scope of the evaluation; (ii) clarifying the analytical frameworks which will be utilized by the evaluation; (iii) developing the methodological tools; (iv) providing a detailed evaluation matrix; and (v) providing a detailed work plan for the Evaluation.

The **Evaluation Report**—which is the principal output of this evaluation—will describe findings, conclusions, and recommendations, based on the evidence collected in the framework of the evaluation questions defined in the Inception Report. The recommendations will be evidence-based, relevant, focused, clearly formulated and actionable. They will be prioritized and addressed to the

different stakeholders responsible for their implementation. The main findings and recommendations will be summarized in an executive summary.

Presentations will be prepared by the Team Leader for disseminating the Report to targeted audiences. The exact forms of these presentations will be agreed upon during the inception phase. Adequate consultations with RTB stakeholders will be ensured throughout the process, with debriefings on key findings held at various stages of the evaluation. The final report will be presented to key CGIAR stakeholders. Following this, the IEA will interact with RTB management during preparation of the Management Response.

RTB Management will prepare a Management Response to the evaluation for the consideration of the Consortium Board. The management response will be specific in its response to evaluation recommendations, regarding the extent to which it accepts each recommendation and reasons for partial acceptance or non-acceptance. For those recommendations which it accepts partially or in full, management will enumerate the follow-up action(s) it intends to take, and in what timeframe. The consolidated response of RTB management and the Consortium Board will be a public document made available as a package together with the Evaluation Report, for the consideration of the CGIAR Fund Council.

Several events will be organized and several additional means considered in order to disseminate evaluation results. A dissemination strategy will be developed during the inception phase.

Annex 1. Guide for preparing evaluation matrix

The evaluation matrix will be prepared and adjusted following a guide shown below, for identifying the most suitable methods to address the evaluation criteria and questions, including overarching questions. For triangulation of findings, several sources of evaluative evidence and information will be selected and examined and a plan will be presented in the evaluation matrix for analyzing of the information. In the model below, the cells present assessment of the suitability of method in terms of the power of the evidence the method provides, and the feasibility of collecting the evidence. The evaluation matrix is developed by corresponding each evaluation question (or set of questions) with method of collecting evidence in adequate detail and the associated analysis needed.

Evaluation criteria	Potential methods of evaluation						
	Document review ¹	Expert knowledge	Field observations	Interviews	In-depth case studies	Portfolio and matching analysis	Surveys of staff and partners
Overarching questions							
Programmatic performance, including cross-cutting topics							
Relevance							
Quality of Science							
Likely effectiveness							
Impact and sustainability							
Governance and Management							
Independence, accountability, legitimacy, transparency and fairness							
Efficiency and effectiveness							

¹ The types of documents used as sources of evaluative information/evidence will vary by evaluative criteria and line of inquiry