

TERMS OF REFERENCE

for the evaluation of the
CGIAR Research Program on Water, Land
and Ecosystems (WLE)
November 2014



Independent
Evaluation
Arrangement

1. Background

1.1. Rationale and context

Research in the 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—both outputs and outcomes. The SRF was approved in 2011, with an update due by the end of 2014. 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 15. Each CRP is funded both through a pooled funding mechanism in the CGIAR Fund² 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 the 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 Evaluations³ through the conduct of strategic evaluations of CRPs and of other institutional elements of the CGIAR. IEA is also charged with developing a coordinated, harmonized and cost-effective evaluation system in the 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 Water, Land and Ecosystems (WLE), is one of the ten CRPs that IEA is evaluating over the period 2013-15.

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

² 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.

³ http://www.cgiarfund.org/sites/cgiarfund.org/files/Documents/PDF/CGIAR_evaluation_policy_jan2012.pdf

1.2. Program Overview

Led by the International Water Management Institute (IWMI), WLE began operations in February 2012 after CGIAR Fund Council approval in late 2011. It encompasses nearly all research at IWMI, which had its most recent EPMR (External Program Management Review) in 2006. But WLE is also a partnership of 10 other participating CGIAR Centers and a variety of external partners in research, policy (“enabling”), investment, and capacity-strengthening. CIAT, Bioversity, ICRAF, and IFPRI are the most significant partners within the CGIAR System; FAO is WLE’s most significant extra-CGIAR partner.

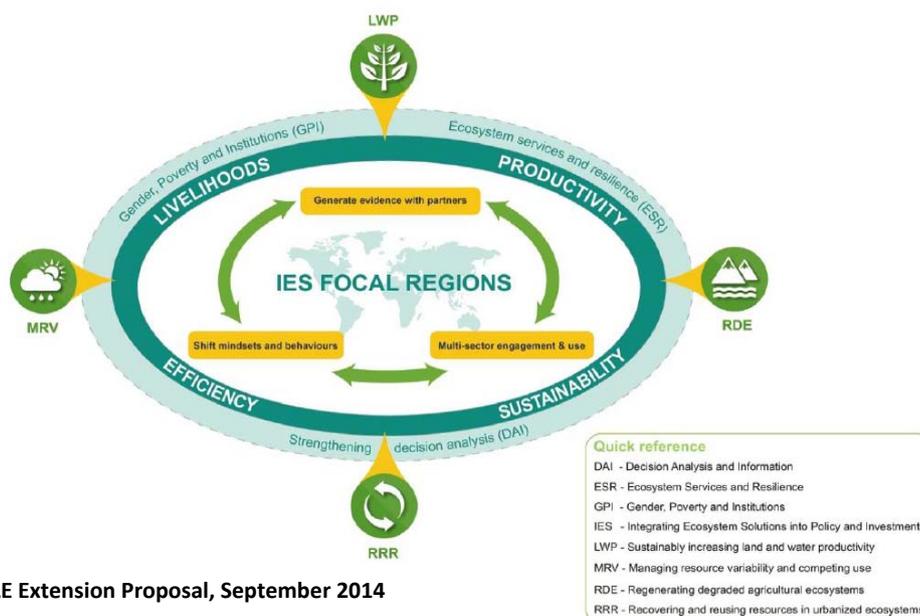
Program Objectives and Structure

According to its founding proposal in 2011, the objective of WLE is “to learn how to intensify farming activities, expand agricultural areas and restore degraded lands, while using natural resources wisely and minimizing harmful impacts on supporting ecosystems.”

Some principles and practices of WLE continue from the CGIAR Challenge Program on Water and Food (CPWF), including selected Focal Regions of WLE research; an emphasis on context-specific, development impact from scientific research (“participatory action research”); some of its research governance arrangements; and many boundary partners. Partnership is a lasting legacy of the CPWF, with 26 of its 36 projects led by non-CGIAR institutions in the current open and competitive call for the Focal Regions.

WLE is a larger and broader program than was CPWF. Prior to its 2015-16 Extension, WLE comprised five Strategic Research Portfolios (SRPs): (1) irrigated agriculture; (2) rainfed agriculture; (3) resource recovery and re-use; (4) river basins [into which CPWF merged]; and (5) information systems.

However, for the 2015-16 extension period—in a plan reviewed by the CGIAR Independent Science and Partnership Council and approved by the CGIAR Consortium Board, and by the Fund Council at 12th session—WLE management has proposed to restructure its portfolio of research activities, according to the diagram below:



Source: WLE Extension Proposal, September 2014

The new Flagship structure replaces the old SRP structure and moves existing projects into the new strategy while also starting up new programs, particularly under the new Flagship on **Integrating Ecosystem Solutions into Policies and Investments (IES)**. Flagships may include all or parts of previous SRPs while changing the strategic alignment of old activities.

The proposed Flagship on **Recovering and Reusing Resources in Urbanizing Ecosystems (RRR)** is the same as the previous SRP on RRR.

Old SRPs distinguishing between rainfed and irrigated agroecosystem research have been replaced in the 2015-16 Extension period by Flagships on **Sustainably Increasing Land and Water Productivity (LWP)**; and **Regenerating Degraded Agricultural Ecosystems (RDE)**. The **Managing Resource Variability and Competing Uses (MRV)** has elements of the previous SRP on river basins but further deepens research outside the CPWF. At the center of the above diagram, another new Flagship on **Integrating Ecosystem Solutions into Policies and Investments (IES)** points to WLE's greater focus on national and regional impacts in the 2015-16 period.

Two cross-cutting themes from the original structure remain: **Gender, Poverty, and Institutions (GPI)** and **Ecosystem Services and Resilience (ESR)**. To these have been added a third core theme on **Decision Analysis and Information Systems (DAI)**, which is similar to the former SRP on information systems. These first two themes are the subject of working groups composed of WLE scientists from across several Centers and external partners—the leader of GPI is a member of the WLE Operations Team and Management Committee; ESR is led externally—while DAI is a research cluster more than a working group.

Notwithstanding ongoing changes to WLE's SRP structure into Flagships, the program in 2014 issued a comprehensive gender strategy, to integrate gender themes into the WLE portfolio(s) of research—as well as into planning and management processes. Not only did this 2014 framework document lay out a gender-specific impact pathway applicable to all SRPs/Flagships, but it also placed gender at the center of its project design/fundraising and monitoring and evaluation efforts.

WLE Focal Regions

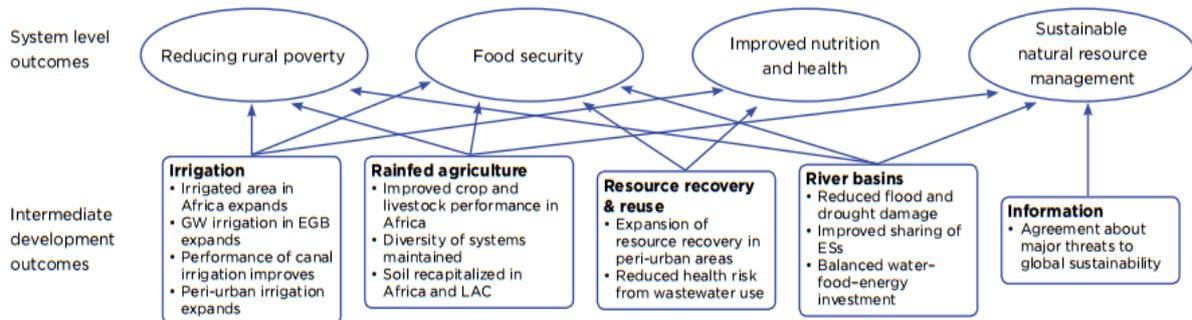
Focusing on Africa and Asia (not yet Latin America), WLE has selected the **Volta/Niger, Nile/East Africa corridor, Ganges, and the Greater Mekong Sub-region** for particular emphasis in its research, policy influence, and partnership outreach activities.

After inheriting specific research areas (among other program aspects) from the former CGIAR Challenge Program on Water and Food (CPWF), the WLE Steering Committee identified the Volta/Niger; Nile/East Africa corridor; Ganges; and Greater Mekong sub-regions as most important and relevant to the full range of WLE's work, across multiple Flagships. These four river basins were among the six featured in the CPWF phase II (along with *Limpopo* and *Andes river basins*); they have both rainfed and irrigated agricultural ecosystems; good potential for long-term engagement with local research partners; and they represent “critical poverty-environment hotspots.” These factors were among the selection criteria for WLE priority basins. Including the six featured in CPWF, there were a total of eight research (four priority “focal”) regions established in the WLE proposal. With greater resources the WLE research portfolio may yet extend further into the second tier focal regions. Beyond the Andes and Limpopo basins from CPWF, WLE would also focus on the *Amu*

Dharya/Syr Dharya river basin in Central Asia, the Indus river basin in Pakistan and in the Middle East on the Tigris/Euphrates river basin.

IDO's and Impact Pathways/Theory of Change

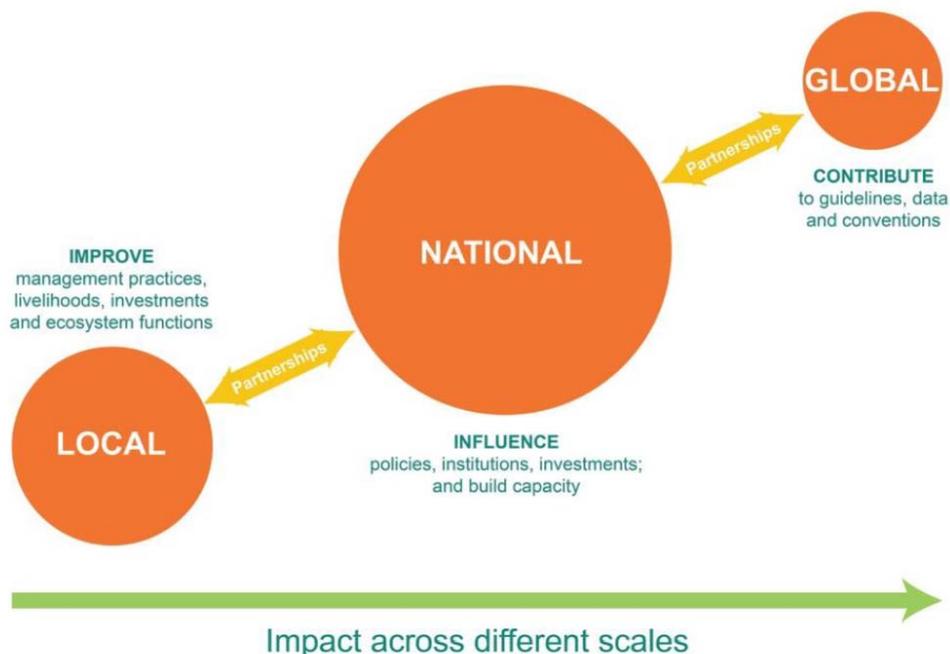
In WLE's initial structure each of the five SRPs corresponded to the CGIAR's SLOs (from the SRF) according to the following schematic diagram of impact pathways:



Source: WLE Strategic Plan, 2012

Each SRP was associated with the larger impact pathways of the CRP by a more complex graphic than the one above, and each SRP had its own distinct Theory of Change (hinted at by the diagram above).

The 2015-16 Extension period also brings a new theory of change for the program, according to the diagrams below:



Source: WLE Extension Proposal, September 2014

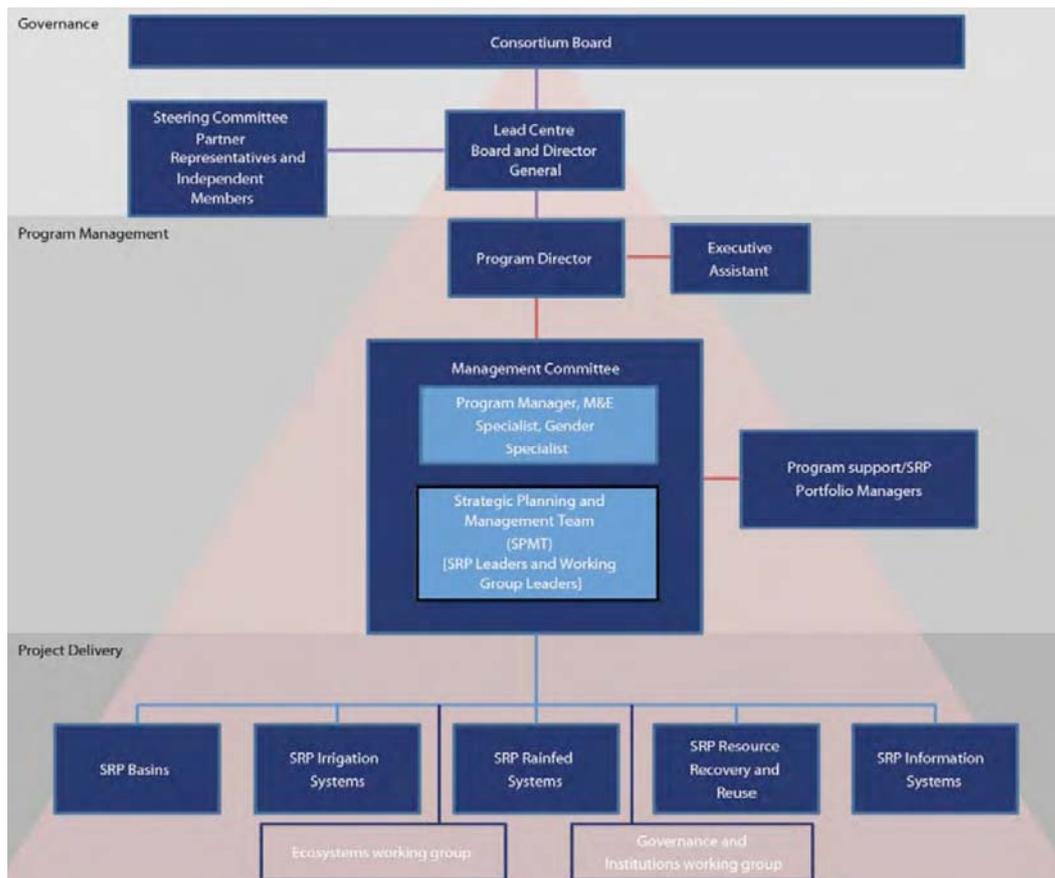
Just as each SRP had its own distinct impact pathways and Theory of Change, for the 2015-16 Extension period, the same will be true of the new Flagships—and of the cross-cutting core themes:

- IES pursues policy and investments in ecosystem services through influence and decision support—with unique, context-specific impact pathways in each of the four international river basin zones.
- LWP would impact small farmers and large-scale irrigation; gender equity and resource access equity; and the sustainability of ecosystem services.
- RDE hypothesizes change through research on degraded landscapes.
- RRR seeks to reduce negative footprints of urbanization through private sector investments, by promoting business models and supporting technological innovation.
- MRV focuses on resource variability and competing uses.
- GPI plans to integrate research on women’s decision-making power into WLE research areas and focal regions.
- ESR would create a platform for inter- and extra-CGIAR collaboration on research tools that are useful for investment decisions, especially in IES Flagship.
- DAI is to strengthen decision analysis and improve measurement of interventions’ impact, thereby building capacity of partners in both regards.

These impact pathways and Results-Based Management efforts will be piloted and measured against a new set of Intermediate Development Outcomes (IDOs). Whereas previous IDOs in WLE’s 2012 Strategic Plan were aligned with the old SRP structure without concrete metrics, the new IDOs for Extension 2015-16 have specific measures. These new IDOs flow from the new Flagships and are presented as five thematic results to achieve: Productivity; Income; Gender and Equity; Adaptation; and Resilience. For example, new IDOs to achieve by 2016 include policymaker and donor usage of WLE urban recycle/re-use business models (RRR Flagship), as well as regional and multilateral usage of urban ecosystem decision criteria (RRR Flagship). By 2025, WLE IDOs include \$50 million of public investment (RDE Flagship) and 1 million improved livelihoods (LWP Flagship). Each IDO corresponds to both a Flagship and to the additional thematic classification.

Governance and Management

WLE governance and management begins with the Program Implementation Agreement, according to which contract the lead center IWMI Board of Trustees is accountable to the CGIAR Consortium Board for all actions of WLE program activities. Governing bodies can be thought of according to the diagram below:



Source: WLE Proposal, 2011

While governance of WLE has remained relatively constant—although the Operations Team (program management) is now separate from the Management Committee—the base of the pyramid in the above diagram should be read with updated Flagships and core themes in mind.

Governance of WLE is based to some extent on principles and forms from the CPWF, headed by a Steering Committee of experts with international standing in WLE research areas, FAO representative with DG of IWMI and Director of WLE as *ex officio* members. The Steering Committee is responsible for scientific direction, quality of science and oversight of the WLE CRP. It includes a representative from FAO, the Deputy Director of the Land and Water Division.

Reporting to the Steering Committee, management of WLE is split into two bodies. The central Operations Team is responsible for day-to-day operations, while the Management Committee is responsible for performance of the SRPs (now Flagships) and comprised of their leaders and the Core Theme leaders (GPI, ESR, DAI). IWMI and the 10 partner centers each have a Science Focal Point for that center’s participation in WLE.

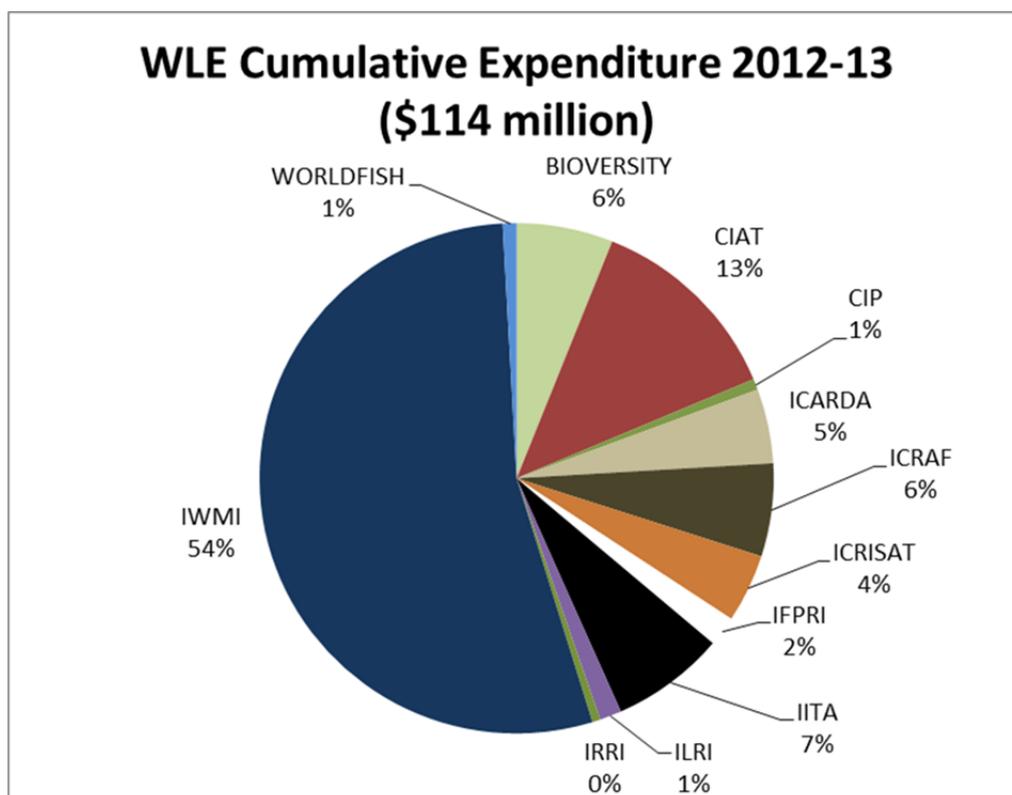
In the 2014 budget, Program Management and Coordination (PMEC) for WLE is listed as a \$5.3 million line item, to consist of *inter alia* management (Operations Team), research coordination, knowledge management, communications (including WLE’s popular blog), monitoring and evaluation (and learning), and support to WLE’s cross-cutting themes—gender; resilience; and

decision support tools—each of which is convened as a WLE working group to integrate with research strategies. Aside from these items of PMEC, program management also issued plans for partnership, capacity-building, marketing, fundraising, and regional implementation.

Budget and Expenditure

While 11 Centers participate in WLE, its lead center IWMI is by far the largest with 52 percent of 2013 budget expenditures (\$58.5 million total). CIAT, Bioversity, ICRAF, and IITA were each between five and 10 percent of total budget expenditure. Of the \$23.7 million in W1-2 expenditure, IWMI received \$14.2 million (or 60 percent).

Cumulative expenditures, according to funding sources, are shown in the figure below.



Source: IEA Elaboration from CGIAR Financial Reports, 2013

Not only is IWMI the largest shareholder in WLE, but WLE is a very large part of IWMI's budget. According to IWMI's 2013 Financial Statements, its research budget in 2013 was \$43 million, while in 2012 research expenditure at IWMI totaled \$42 million.⁴ Therefore, for FY2013 research activities

⁴ In 2011 IWMI expenditure was \$27 million (according to the 2012 Financial Statements).

mapped to the WLE CRP comprised 70% of IWMI's research portfolio; and W1-2 funding for WLE accounted for 33% of IWMI's total research budget.

Total budget approval for the first three years of operation 2012-2014 was \$246 million, although WLE anticipated a final expenditure of only \$189 million during the three years. In its 2015-16 Extension Proposal, WLE management suggested a final expenditure of \$323 million over five years, 2012-16.

2. Evaluation Focus

2.1. Evaluation purpose and clients

The primary purpose of this evaluation is to increase the contribution that WLE is likely to make toward CGIAR goals, enhancing the productivity and sustainability of water and land resources in agroecosystems, as well as the livelihoods of poor producers and consumers in developing countries.

As in all CRP evaluations, the purpose of the evaluation of WLE 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 WLE will also provide information for decisions on program formulation and selection in the 2016 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. And 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 WLE is responding within its mandate, to the vision and focus underlying the CGIAR reform—especially through a, delivery orientation, clearer accountability, and synergy through efficient partnerships.

Stakeholders of this evaluation include the management of WLE, all participating Centers, partners associated to the Program, the CGIAR Fund Council, and the Consortium Board (Table 1). These stakeholders will be consulted and engaged throughout the evaluation through structured interviews, surveys, and site visits. A reference group will be convened to represent WLE management, governance, partners and stakeholders closely involved in the CRP.

Table 1: CRP evaluation stakeholders

Type of stakeholder	Role in CRP	Interest in evaluation
CRP level		
WLE management (Operations Team and Management Committee)	Program management	Lessons learned to increase performance of CRP
WLE Steering Committee	Program oversight and strategic advice	Accountability CRP performance Lessons learned about effectiveness of Governance committees
CRP Researchers	Carry out research in line with CRP IDOs	Research performance
Center level		
IWMI Management	Contribution to program management	Organizational performance Comparative advantage
IWMI 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 WLE lead-Center, strategic advisor and oversight body.	Lessons learned to increase the effectiveness and relevance of the work of the CGIAR; Lessons learned to increase the efficiency and accountability of the 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 has the responsibility to strategically cover in its breadth all research activities of WLE as defined in the initial proposal and covered in the Program Agreements, thus including activities funded by Window 1, 2 and 3 as well as bilaterally funded projects. In the new CGIAR programmatic approach, WLE represents a major component of CGIAR systems research.

The scope of the evaluation includes assessing results of **past research** which is continuing within WLE. This part of the **summative** dimension will determine to what extent results at outcome- and impact-level have been achieved from WLE research continuing from the past.

The evaluation is being undertaken at a time when the CRP has completed its first funding phase 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. These key components of the CRP also entail Intermediate Development Outcomes with target achievement goals for the medium-term (about a 10-year time span), according to specific agroecologies and beneficiary groups for them, with measurable indicators for progress and results.

Therefore, the **formative** dimension of this evaluation will evaluate the **programmatic approach** undertaken to enhance the relevance and efficiency of WLE, examining the likelihood of its effectiveness to contribute to the CGIAR SRF vision, SLOs and outcomes as defined in the results framework.

Furthermore, **research** will be evaluated for relevance, quality of science, efficiency, likely effectiveness and sustainability.

The evaluation will also examine the institutional context of WLE 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.

1. Research/programmatic performance:

Research/programmatic performance refers to the program design and results of WLE, and assesses WLE against the IEA standard evaluation criteria of relevance, quality of science, effectiveness, impact and sustainability.

In assessing results and sustainability, the evaluation will take into account different time frames:

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

2. Organizational performance

The evaluation organizational performance will pertain to aspects of efficiency and effectiveness related to CRP governance and management structure and management/coordination processes from the institutional and CRP management point of view.

Areas of emphasis include: the changes and value-added brought about by the CRP structure relative to the previous programs, including in areas of:

- organizational effectiveness
- governance and management structure
- partnership management
- resource allocation and fund distribution between institutions and program components,
- alignment of different funding with program objectives
- adherence to legal arrangements (including the appropriateness of IP management and System-level obligations)
- monitoring and evaluation system in place
- organizational learning

3. Evaluation Criteria and Questions

The WLE 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

1.3. Relevance

Relevance, on the demand-side, refers to the extent to which the objectives (relevance of objectives) and design (relevance of design) of WLE are consistent with current global and national priorities and policies, as well as those of intended beneficiaries, partners and donors. Supply-side relevance, in the context of the CGIAR, refers to the extent to which WLE is consistent with the System Level Outcomes (SLOs) as articulated in the Strategy and Results Framework (SRF) and is aligned with the reform agenda of the CGIAR. Relevance also includes the assessment of the comparative advantage of WLE, relative to global, regional and national programs and organizations.

Some key questions to be asked are in the following areas.

Coherence

- Is the WLE CRP strategically coherent and consistent with the main goals and System Level Outcomes presented in the CGIAR's Strategy and Results Framework?

- Are the CRP Flagship Projects strategically rational and coherent as a set?
- Is the core funding (Windows 1 and 2) used strategically in key areas of the program, and for leveraging bilateral funding, to align bilateral projects within program strategy?
- Are Flagship priorities (and/or those of the former SRPs) integrated across all focal regions?
- Are all research activities coherent within WLE strategy, or are some isolated thematically and/or geographically?
- Is the CPWF legacy seamlessly integrated and catalyzing WLE activities?

Comparative advantage

- What is the comparative advantage of WLE in terms of the CGIAR's mandate of delivering international public goods—relative to other international initiatives/research efforts, including the private sector; to partner country research institutions; and to development agencies?
- Does WLE engage with appropriate partners, given their roles in implementation and achieving the objectives of the program?
- Has the research-for-development (R4D) paradigm of the CPWF been sustained or adjusted in WLE research strategy?

Program design

- Does the program target an appropriate set of Intermediate Development Outcomes (IDOs) and are the activities relevant, of highest priority for targeting the IDOs?
- Do the impact pathways logically link the principal clusters of activities to the IDOs and are the IDOs linked to the SLOs through plausible theories that take into account trade-offs between multiple objectives?
- 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?
- Have the CRP research activities been adequately prioritized, in line with resource availability?
- Have gender issues and capacity-building activities been adequately incorporated in program design and targeting?

1.4. Quality of science

The evaluation will assess the processes for assuring quality and rigor of scientific research, the quality of the research inputs, the quality of the research outputs, as well as perceptions of quality.

- Do the 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?
- Do localized context-specific interventions in WLE focal regions help or hurt the prospect of delivering scientific international public goods? More simply, does WLE research have external validity?

1.5. Likely effectiveness

Effectiveness refers to the extent to which the outputs and outcomes of WLE have been achieved, or are expected to be achieved, taking into account the exploratory nature and risks inherent to research.

In order to be able to assess the likely effectiveness of WLE, the evaluation will consider the Theory of Change developed by the program, to understand the logic of the program and the key assumptions about the change process.

- Has the CRP stayed on track in terms of progress and milestones toward outputs, and along the impact pathway toward outcomes?
- What are the internal and external factors affecting Program's achievements?
- Is the monitoring system used effectively for adjusting the program from lessons learned?
- Have adequate constraint analyses and lessons from *ex post* studies informed program design for enhancing the likelihood of impact?
- Why has the program so restructured itself? Is this restructuring visible at field level?
- To what extent are partnerships from CPWF maintained?
- What is the nature of partnerships between WLE and other CRPs?
- To what extent are intra- and extra-CGIAR partnerships in WLE useful toward achievement of the program objectives and IDOs?
- Is the CRP adequately addressing enabling factors for outscaling outcomes?
- Has gender been adequately considered in CRP 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?

1.6. Impact and sustainability

Impacts in the context of WLE refer to the development outcomes (IDOs) which have been achieved as a result of continuing research as well as to the potential for scaling up of current program results. This evaluation will not be undertaking detailed impact assessments of individual activities or clusters of activities, as this term is generally understood in the CGIAR (ex-post studies that use specialized quantitative methods to estimate the changes attributable to those defined research activities or programs). Such studies require dedicated budgets and timeframes that this evaluation does not have, and they ask different questions from those presented here. However, to the extent that such impact assessments are available, this evaluation will use those studies to make an overall judgment on achieved impacts from past and continuing research. The evaluation will also examine the extent to which WLE addresses the challenges of linking research outputs to development outcomes—and of scaling out promising results for greater impact.

- What has been the record of the centers engaged in WLE research, measured as both 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?

- Have interventions been implemented with an appropriate exit strategy?
- What is the potential to scale up research outputs generated in the selected focal regions?
- To what extent does WLE's Theory of Change adequately address the challenge of scaling up research outputs generated by the program?

Sustainability

The evaluation will examine the extent to which WLE addresses the challenges of linking research outputs to development outcomes—and of scaling out promising results for greater impact. Since WLE only started two and a half years ago, the evaluation criteria “sustainability” of impact will examine the likelihood that actual and anticipated results will be sustained beyond the lifetime and presence of program intervention.

- To what extent have benefits from past research been—or to what extent are they likely to be—sustained?
- To what extent did WLE anticipate the challenges of sustainability and try to mitigate them by clearly introducing the concept of continuity in program design and implementation? Did it take institutional and human resource capacity of beneficiary countries into account?

3.2. Organizational Performance

1.7. Governance and management and program efficiency

Governance and management are both a means and an end, as they not only can increase the efficiency and effectiveness of a program, but also can be assessed with regards to criteria like legitimacy, accountability, transparency and fairness.⁵ Efficiency is the extent to which the program has converted or is expected to convert its resources/inputs (such as funds, expertise, time, etc.) economically into results. In the research context, the assessment of efficiency refers to the activities and outputs that are under the control of the research program, and takes into account the exploratory nature and risks inherent to research. Cost-effectiveness is the extent to which the program has achieved or is expected to achieve its results at a lower cost compared with alternatives. Shortcomings in cost-effectiveness occur when the program is not the least-cost alternative or approach to achieving the same or similar outputs, outcomes and impacts.

- Do the governance and management arrangements and functions conform to the program partnership requirements of independence, accountability, transparency, legitimacy and fairness?
- Are the WLE institutional arrangements, management and governance mechanisms efficient? Cost-effective?
- Does WLE research management provide effective leadership, culture and ethos for advancing the program's objectives?

⁵ Cf. *Sourcebook for Evaluating Global and Regional Partnership Programs (GRPPs)*. IEG/DAC 2007.

- 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? Particular attention will be given to WLE's relationships with other CRPs CCAFS and FTA.
- Is WLE 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

WLE builds on a long history and strong foundation of past CGIAR research related to water and natural resource management and agroecosystems. At the same time, as a result of CGIAR reform this CRP is in an early phase of implementation, with little chance for long-term impact that can be identified as directly attributable to the new programmatic arrangements. The evaluation 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 WLE'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 the 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 participatory to capture a dynamic range of viewpoints. The evaluation team will develop findings, draw conclusions, and make recommendations during and after broad consultation with all variety of stakeholders. The evaluation team will thereby and also ensure that the findings are informed by rigorous 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

1.8. Preparatory phase

During the Preparatory Phase the IEA, in consultation with relevant stakeholder, will review key documents, carry out a preliminary mapping of the CRP 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 WLE and existing evaluation material and other key documents pertaining to WLE
- 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 contract all team members

1.9. 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 WLE that form basis evaluation plan as presented in the inception report, including: (i) information derived from the CRP's monitoring and evaluation system; (ii) impact assessments; and (iii) management related materials
- Development of an analytical framework for the assessment of WLE 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.
- 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 Head, adjustments can be made during evaluation implementation, in the light of experience, but would be done so in a transparent fashion.

1.10. 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:

- Desk review of documents needed for specific evaluation questions
- Structured interviews with a variety of stakeholders both within and outside the CGIAR for qualitative hypotheses on, for instance, relevance and quality of research; likely effectiveness; and aspects of partnership management.
- Surveys among WLE researchers, partners and other stakeholders for measurement of relationships and of satisfaction with CRP relevance, progress and achievements.
- Field visits to WLE research sites to observe and verify information on program activities and partner relations—as well as to assess quality of cooperation and leadership, collect information and deepen understanding of issues covered through desk review. Given the number of centers involved in WLE, 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.
- Portfolio analysis of the component themes and Flagships of WLE, assessing coherence and identifying gaps or opportunities.
- Matching analysis of a sample of projects to assess how well activity objectives match with the overall program objectives and those of the Flagship or activity cluster to which it is mapped.

1.11. Dissemination phase

See 5.5

4.3. Main limitations and constraints of the evaluation

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 WLE 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 agroecological crop production and farming systems in developing country contexts. They will also have demonstrated knowledge of the main global institutions involved in water and natural resource management research.

The team members should not have engaged with the CRP, participating centers or key partners in any way that would present an actual or perceived conflict of interest.

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:

- water management
- natural resource management
- crop management and agroecosystems
- economics of ecosystem services
- climate change and sustainability of agricultural production systems
- factors influencing agricultural research strategies and impact thereof
- policy environments relevant to irrigation, water, natural resource management
- downstream, implementation partner perspectives

In addition the team will have competence to assess:

- program governance, organization and management, including financial management
- sociological 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 WLE 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. 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.

Throughout the evaluation process, advice will be sought from one or two designated external evaluation experts, in particular for feedback on the draft Inception Report and draft Final Report.

An optional expert panel consisting of external, independent experts in subject matter areas of land, water and agricultural resource management 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 WLE and to state what recommendations are resource-neutral and what recommendations imply a greater or smaller budget.

5.4. Timeline

The CRP evaluation is scheduled to take place in about 12 months, starting in late 2014.

Table 2: Proposed timeline for evaluation

Phase	Period	Main outputs	Responsibility
Preparatory Phase	Sep – Dec 2014	Final ToR Evaluation team recruited	IEA
Inception Phase	Jan – Feb 2015	Inception Report	Evaluation team
Inquiry phase	March – Sep 2015	Various reports and analysis products as defined in inception report	Evaluation team
Presentation of preliminary findings	Sep 2015	Presentation of preliminary findings Feedback from main stakeholders	Evaluation team IEA
Reporting phase			
Drafting of Report	Sep – Oct 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

5.5. 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 WLE 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 WLE management during preparation of the Management Response.

WLE 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 WLE 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.

