

Background and Context

The CGIAR Research Program (CRP) on Water, Land, and Ecosystems (WLE) is led by the International Water Management Institute (IWMI) and is implemented in collaboration with 11 CGIAR Centers and FAO.

WLE's objective 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. The program had a solid foundation in the earlier Challenge Program on Water and Food (CPWF) and other initiatives that were 'mapped' into WLE.

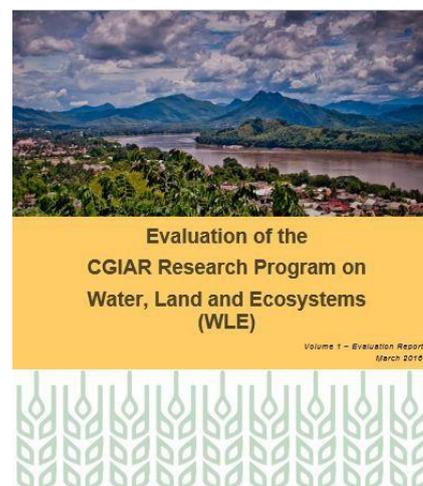
WLE was based on a five-year workplan and began to operate in 2012 with an approved budget for three years. In the first three years of operation, 2012-2014, the program's funding was USD 170 million, (42% W1-2 ("unrestricted"); with bilateral sources and W3 ("Center-specific") funds making up the remaining 58% of the total budget). WLE inherited some of the work that started under the previous 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.

Evaluation methodology

The Evaluation Team developed evaluation questions at two levels: six overarching questions in connection with the key evaluation criteria of relevance, quality of science, efficiency, effectiveness, impact and sustainability; and six overarching questions of the strategically most important issues identified during the evaluation inception phase.

The approach used by the Evaluation was designed to address the challenges posed by WLE's complexity, scale, widespread geographical distribution and broad range of activities, all of which are distributed across five flagships and three core research themes. The team used methods aimed at generating evidence and findings "representative" of WLE. The overall methodology included a combination of primary and secondary data collection. Some of these, such as portfolio analysis and social surveys, looked across the WLE's research portfolio to identify overall characteristics and trends. Others, such as case studies and field missions considered specific issues or sets of activities and explored them in depth. The two approaches (across portfolio and in-depth) were inter-related and mutually supportive.

The Evaluation consulted over 300 people, including researchers involved directly in the program, stakeholders such as 'uptake partners' from government agencies and other organizations, and numerous international experts knowledgeable in the key fields of WLE. Members of the Evaluation



Team travelled to eight countries in the four focal regions to visit projects and meet a diverse range of stakeholders. Additional sources of information for the Evaluation included: document and sample project review, portfolio analysis, WLE researcher survey, in-depth analysis of 51 journal articles and impact narratives, as well as bibliometric and H-index analysis.

Main findings and conclusions

The Evaluation concluded that, overall, WLE has made good progress despite operating in a challenging context of budget reductions and program restructuring. Various components of the program are on track to produce interesting and innovative results that have the potential to move towards achieving the program's Intermediate Development Objectives (IDOs). Some of WLE's activities and outputs can be considered to be of the highest international standard, and the quality of many of the managers and researchers involved in the program is excellent.

The Evaluation Team sees strong merits in examining agriculture within an ecosystem context and ensuring that ecosystem services are considered as a core issue in agricultural development. The CRP was found to be unique in many aspects, not only in the research issues (combining water, land and ecosystems in a R4D program) but also in the strength of partnerships and geographical and agro-climatic range of field sites. However, the Evaluation Team found that a more active adoption of action research approaches, different types of stakeholder-led learning approaches, and analysis of the relationship between research and development are needed if this advantage is to be fully realized.

Although the program has been successful in producing a significant number of relevant outputs, some effectiveness was constrained by a lack of methodologies to measure progress and by the limited extent to which project-level outputs and outcomes are being aggregated and synthesized to produce overall analyses and conclusions at the regional, global CRP and inter-CRP levels. The Evaluation Team also detected a tendency to follow a 'knowledge deficit model' based on the assumption that change to agricultural systems can be accomplished simply by changes in policies, which respond in a rational and linear manner to the provision of evidence on the efficacy of alternative options. Such an approach may limit the effectiveness of delivery of important results from WLE research.

In conclusion, the Evaluation team strongly recommended that the CGIAR retain a program with WLE's focus on the interactions between ecosystems and agricultural production. The configuration of such a program and its relationship to other CRPs needs to be established, but the contribution of an integrative CRP such as WLE to the full delivery on the collective agenda of all CRPs, including delivery on the agri-system CRPs at scale, should not be underestimated.

Relevance, Quality of Science, and Effectiveness

WLE's focus on water, land and ecosystems has high strategic relevance and the Evaluation concluded that the original rationale for establishing WLE as a CRP continues to be valid. WLE differentiates itself from crop- and systems-based CRPs by addressing challenges related to restoring and maintaining ecosystem services at a range of scales, starting from the field and going up to the basin and beyond.

WLE could improve its relevance by adopting a more affirmative attitude towards the role and use of infrastructure at all scales and levels of complexity. The program should reach out to organizations and research programs that have a keen interest in improvements in the design, operation and management of technology and infrastructure used in the agriculture and water sectors.

The quality of science is overall of a good standard and was found to be relevant to the target audiences. At the project level the links between their conceptual base, the selection of methods and the analytical techniques used were frequently found to be of a high standard. The number of publications being generated is high, and the research outputs examined were similarly overall of a good to very good standard, with some examples of excellent, world class research published in high impact journals. Among WLE staff there are a number of outstanding researchers who are recognized internationally as leaders in their fields.

However, the Evaluation Team was concerned that cumulative findings that are found in groups of similar projects in a number of thematic areas are not being integrated to give valuable insights on key program themes (the Team noted that some efforts in this direction had already been made by WLE within the context of developing a novel “Solutions Database/Platform”). There is also a concern that processes to relate results to meta-hypotheses and program IDOs are under-resourced and not adequately used. This conclusion is tied to the limitations of the overall conceptual framework and a deficit of strategic management and direction in the program. Furthermore, through examination of evidence for impacts produced by programs that preceded WLE, the Evaluation Team found an urgent need for the CRP to undertake impact assessment studies.

Governance and management

Operational Management of WLE was found to be very good despite the challenging context within which the program has been implemented. The Program Management has ensured that the day-to-day operation of WLE is efficient and the impacts of challenges associated with restructuring and budget cuts have not compromised the overall implementation of the program.

The Evaluation Team, however, was concerned about the strategic management of the program due to insufficient internal discussion and leadership leading to a lack of clear guidance on key strategic issues. Improvements are needed for WLE to add value as a program and contribute more effectively to its objectives. Several of these are addressed in the recommendations below.

Summary of Recommendations

The Evaluation recommended several areas where WLE could strengthen its relevance and effectiveness to better realize its ambition. The recommendations are summarized below:

- 1 Clarify and further develop the conceptual underpinning of the program**, including but not limited to the ESRF. **The ESRF should be seen as a ‘living’ document to be examined and continuously developed by the program.**
- 2 Strengthen WLE’s Theory of Change** by relating it directly to the analysis of change and by setting out a usable and adaptable approach to examine change processes at all levels
- 3 Nurture young scientists** by assigning sufficient resources to ensure collaboration with and mentoring by senior scientists to generate good publications and visibility

- 4** WLE participating Centers **should commit to fully following WLE publication policy** by having all publications peer-reviewed internally and ensuring no publications appear in predatory journals
- 5** **Play a role in maintaining and establishing long-term dedicated research facilities** that are needed to underpin the research of WLE and other CRPs
- 6** **Develop a strategy and allocate resources to aggregate and synthesize results** from project/cluster level so that these can be translated into innovative global public goods on key issues relevant to the CGIAR
- 7** **Make strategic investments in impact assessment** starting with the Comprehensive Assessment of water management in agriculture from specific legacy projects mapped to the CRP
- 8** **Carry out a comprehensive stocktaking of existing partnerships** to consolidate and/or strengthen partnerships most relevant to the different Theory of Change steps or pathways
- 9** **Employ a dual strategy in the program's gender work** by identifying separate gender research priorities and carrying out cutting edge transformative work specifically on gender
- 10** **Reassess the role and the composition of WLE Steering Committee** by including members with training in social sciences and by engaging in a holistic debate on the role of the ESR Framework
- 11** **Strengthen strategic management** by developing a transparent prioritization mechanism to deal with budget cuts and documenting the criteria for mapping bilateral projects into WLE
- 12** The CGIAR should **retain a program with WLE's focus** on the interactions between ecosystems and agricultural production

Management Response

In its response to the evaluation, the WLE Program indicated that it found the report supportive and informative, with valuable feedback and recommendations for the program. CRP management also stated appreciation for the comprehensive and collaborative manner in which the evaluation was conducted.

CRP management was pleased with the Evaluation Team's overall conclusions that the WLE Program is making good progress and that it is achieving outcomes at the regional and global levels that contribute effectively to the sustainable management of land, water and ecosystems. It also appreciated the Evaluation Team's acknowledgement of the challenging context within which the program has been implemented. WLE management fully accepted eleven recommendations, with many proposed actions included in the phase 2 CRP proposal. Recommendation 4 was accepted in principle, with CRP management indicating that all publications are reviewed internally and appearances in predatory journals is limited. CRP management partially accepted Recommendation 5 (regarding research facilities), stating that such investments would need to be carefully explored with these partners to assess if they would generate useful empirical data and added value.

A detailed CRP management response for each recommendation was provided, along with proposed actions, responsibility, and timeframe for completion.

Further Information

Visit the IEA website for evaluation outputs and information (team profiles, TORs, Inception Report, Final Evaluation Report, and Annexes) as well as the CRP Management and Consortium Response:

<http://iea.cgiar.org/evaluating/crp-evaluation-of-water-land-and-ecosystems-wle/>

