**CGIAR Challenge Program on WATER & FOOD**

Andes • Ganges • Limpopo • Mekong • Nile • Volta



# Strengthening CPWF project evaluations

Assessing research-for-development impact

John Mayne

**About the CPWF Impact Assessment Series (IAS)**

The Impact Assessment Series (IAS) provides an outlet for the publication of articles on all aspects of monitoring, evaluation and impact assessment in the CPWF. The audiences for the Impact Assessment Series include CPWF donors who wish to see peer-reviewed impact assessments; CPWF staff who wish to learn from previous experience; and people working for other research for development programs who wish to learn from the CPWF's approaches, both from what is working and what is not.

Articles can be on the following topics:

- Designing and setting up M&E systems in CPWF basins

- Ex-ante impact assessment of CPWF projects and BDC programs-of-work

- Early evaluation of outcomes

- Lesson-learning and guidance to CPWF evaluation strategy

- Ex-post impact assessment of Phase I projects

# Strengthening CPWF project evaluations
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# Acronyms

| | |
|---|---|
| AfDB | African Development Bank |
| CBA | Cost-benefit analysis |
| CGIAR | Consultative Group on International Agriculture Research |
| CPWF | Challenge Program on Water and Food |
| M&E | Monitoring and evaluation |
| MSC | Most Significant Change |
| ToC | Theory of change |
| TOR | Terms of reference |

# Introduction

The Challenge Program on Water and Food (CPWF) funds research-for-development projects for 3-5 year periods with the aim of "increasing the productivity of water for food and livelihoods, in a manner that is environmentally sustainable and socially acceptable." It is on this basis that the CPWF success will be assessed (Douthwaite *et al.* 2007). Since the realization of such longer-range impacts can be 10-20 years after the completion of the research-for-development projects, evaluation of these projects is more important than evaluating the delivery of the project's outputs, important though it is. Projects are funded on the expectation that they will lead to increased productivity and improved livelihoods and resilience, and evaluation of the projects is expected to provide information on how well these expectations have been met. They need to address the question of the expected impacts of the project and the extent to which they have been or are likely to be realized.

Impact evaluations of CPWF's projects serve several ends. They provide the following:

- CPWF managers and staff with information to understand the extent to which a project was successful and to learn from the successes and any weaknesses in implementation and delivery of the project, so that design of future projects can be improved and funding priorities informed.
- Lessons to inform scaling up and out of CPWF interventions.
- CPWF donors and stakeholders with credible information to see the benefits arising from their funding and to assess the performance of CPWF.

- Agricultural researchers with valuable evidence on a range of interventions.

With the aim of improving its project evaluations, CPWF selected four project evaluations (listed in Table 1) based on their Most Significant Change (MSC) stories for external review, i.e., the four were identified as examples of good projects. CPWF had an external independent evaluator undertake a desk review of the four completed project evaluations with a view to identifying strengths of the evaluations and what might have been done to enhance the evaluations. The four evaluations had common terms of reference but were done by four different evaluators using different approaches.

Based on literature on good quality evaluation and the context of the CPWF evaluations, criteria were developed to assess the evaluations. In summary, the criteria used were the following:

- Clarity about the evaluated project and its expectations, and CPWF's role in the project.
- Well-defined scope of evaluation.
- Clear evaluation issues.
- Accurate data and credible secondary sources.
- Sound methodology and analysis.
  - Attribution addressed.
  - Use of comparisons where possible.
  - Cost-benefit analysis considered.
  - Being a critical friend.
- Substantiated and impartial findings, conclusions and recommendations.
- Conclusions against the evaluation objectives.

Reviews of each evaluation were prepared, and provided to the authors, identifying their strengths and what else could have been done. The four evaluations are being published separately by CPWF.

As part of CPWF's adaptive management approach, this Working Paper is intended to provide ideas and suggestions directed at both CPWF and its evaluators for improving the quality of future CPWF research-for-development project evaluations.

The basic approach of CPWF to evaluation and its Participatory Impact Analysis framework is described elsewhere (Douthwaite et al. 2007, 2008). This Working Paper is informed by the desk reviews of the four evaluations. It discusses a range of practices that CPWF can consider to strengthen its project evaluations. It is not a 'how to' guide for evaluating CPWF project evaluations. Rather, it focuses on suggestions for strengthening existing evaluation practices.

*Table 1*. The four reviewed CPWF project evaluations

| Authors | Year | Evaluation |
|---|---|---|
| Douglas J. Merrey and Lindiwe M. Sibanda. | 2008 | Multiple use water services (MUS) project: Assessment of impacts and their pathways as a basis for learning lessons for future projects. Final Report. FANRPAN. |
| Bron MacDonald | 2008 | Managing water and land resources for sustainable livelihoods at the interface between fresh and saline water environments in Vietnam and Bangladesh: Impact evaluation of the Vietnam component. |
| Deborah Templeton | 2009 | An assessment of the 'Developing a System of Temperate and Tropical Aerobic Rice (STAR) in Asia' project |
| Diana Marcela Córdoba and Cristina de León | 2008 | The conversatorio of citizen action as a tool for generating collective action for integrated water management. Evaluation of the impact of the project scales/PN20 - The sustaining collective action linking economic and ecological scales in upper watersheds. |



Managing Water and Land Resources for Sustainable Livelihoods at the
Interface between Fresh and Saline Water Environments in Vietnam and Bangladesh

# Overall diagnostic

The evaluations were reviewed using the previously mentioned criteria. As was expected, each of the four evaluations differed in how the evaluations were conducted and how they were reported.

Each had its strengths and weaknesses. Strengths of the evaluations included setting out the methodologies used and describing the data collection techniques, and making use of comparisons where possible either within the project or between related projects to strengthen findings. In addition, several of the evaluations:

a) described the CPWF project well, setting out clearly the project expectations;

b) were carefully done when discussing attribution with respect to the project (the extent to which the project had made a difference);

c) provided the substantiation for the findings and conclusions reached; and,

d) reported findings against the project expectations and/or the evaluation issues.

But each of the evaluations also had weaker elements. To some extent, these limitations are perhaps inherent in the types of evaluations undertaken, namely, evaluations done at the end of the project where there were limited options for the evaluation design. These evaluations, perforce, involve the evaluator reviewing documents including prior evaluations, visiting one or more sites, interviewing some stakeholders and writing a report. "Before" and "after" comparisons may be weak in cases where there are no, or limited, prior baseline data and weak monitoring data during the lifetime of the project. As a result, these types of evaluations may have difficulty in measuring the size of changes, and certainly difficulty in concluding on the extent to which the project had made a difference, beyond reporting the opinions of those involved.

Over and above these methodological challenges, other aspects were identified which could have been improved upon. While in some cases an evaluation did address well an issue given below, at least one of the evaluations reviewed did not address well one or more of the following issues:

- Defining the scope of the evaluation and the evaluation issues to be addressed.
- Discussing the role of CPWF's involvement in the projects, beyond its role as a funder.
- Addressing the quality of the secondary sources used comprising a key data source for the evaluations.
- Making use of the impact pathway models[1] developed for each project.
- Taking a critical perspective in assessing the projects.
- Adequately articulating the substantiation for the findings reported.
- Clearly reporting findings and conclusions against the project expectations and/or against the evaluation issues to be addressed.

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[1]    Impact pathway models are diagrammatic and narrative descriptions of how the activities undertaken by the project are expected to lead to the intended impacts of the project (see Douthwaite et al. 2008). For each of the projects evaluated, impact pathway models were developed with the project team a year after the project was underway.

This paper suggests that these limitations are aspects of CPWF project evaluations and that evaluators should be able to improve them in all cases through adopting a more structured approach to both carrying out project evaluations and reporting on evaluations. The methodological issues are more challenging, but this paper suggests a number of ways of strengthening the evidential basis for findings and conclusions of CPWF project evaluation. The paper suggests actions that CPWF can take to improve its evaluations as well as approaches evaluators conducting the evaluations can take.

# Challenging issues to address

CPWF faces a number of challenges in evaluating its projects, some of which surfaced in the four evaluations reviewed. In addition, there are broader issues that CPWF wants to consider in its reflection on evaluation. The intent of this paper is to raise these issues and offer suggestions for addressing them.

**What sort of evaluation should be commissioned and when?**

CPWF projects typically last 3-5 years, and then are ended. During its life, a project is expected to have in place a monitoring (M&E) regime and use it to report back to CPWF, project management and donors. Some of the expected results[2] from these projects may manifest themselves while the project is operating, but usually the main expected impacts can stretch out over many subsequent years and even decades, and become increasingly hard to connect back the project.

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2    The term 'results' is used here to include both outcomes and impacts.

Evaluative data can be gathered and the performance of the project can be assessed early on in the project's life, as part of the M&E regime, at a mid-term point, at the end point and/or many years after completion of the project. At the different points in time, different evaluation issues are pertinent and the challenges, and hence the robustness, in measuring results differ. With limited resources, what types of evaluation are most useful for CPWF to commission and when?

**How can CPWF research-for-development project evaluations be realistically strengthened?**

A key aim of this paper is to suggest how the types of evaluation of CPWF commissions can be enhanced to provide more robust findings on the performance of its projects. Strengths and weaknesses of the four evaluations reviewed were outlined above. How can the strengths be built on and the weakness reduced? As suggested earlier, many of the limitations of CPWF's project evaluations are inherent in the projects and their contexts. Challenges include the following:

- Determining what the success of the projects means.
- Measuring the changes associated with the project.
- Making an assessment of what difference the project has made in the absence of strong evaluation designs.
- CPWF projects often build on already existing efforts, complicating the assessment of what difference the project itself has made.
- Relying on prior evaluations as a key source of data.
- Dealing with limited resources for the evaluations.
- Increasingly, projects are seen as linking and interdependent across the different water basins and with other CGIAR programs.

The focus of this paper is on how the current approaches that are used–building participatory

impact pathways, document review, interviews/ surveys, site visits–can be strengthened, rather than arguing for much stronger evaluation designs using quasi-experimental or experimental designs built into the design of the projects at the outset. Where such designs can be funded and put in place, they should be so accomplished. However, this paper is addressing the more frequent case where such designs are not feasible for a variety of funding, practical, or ethical reasons Then what can be done?

**What sort of cost-benefit analysis would be most useful to CPWF?**

The external review of CPWF (Biswas *et al.* 2008) and the Consultative Group on International Agriculture Research (CGIAR) strategic guidance on conducting impact evaluations argue for evaluations of projects to include an analysis of the ex-post benefits and costs of the project. The analysis is expected to include data on cost and results to date and estimates of future benefits and costs. The four evaluations reviewed displayed a wide range of approaches to cost-benefit analysis (CBA), ranging from a short narrative to quite detailed economic assessments replete with many assumptions about the future. What is reasonable to expect from these CPWF projects? What kind of information on costs and benefits would be most useful to CPWF and its donors?



*Source:* Wikipedia

A bend in the Ganges River, Garhwal hills, Uttarakhand

# Practices to strengthen CPWF project evaluations

There is a range of things that can be done to improve CPWF project evaluations. Some of them are actions that CPWF can take in commissioning evaluations, some involve adopting new approaches or modifying current approaches, and some involve steps the evaluators conducting the evaluations can undertake. The various suggestions for strengthening CPWF project evaluations are discussed in three general groups:

1. *Standardized structures.* Using more standardized structures in conducting and reporting evaluations.
2. *Adequate challenge.*[3] Ensuring that there is adequate challenge in the evaluation process, i.e., that the evaluations designs, data collection and findings are questioned by others in a timely manner.
3. *Building theories of change.*[4] Using the projects' theories of change, made explicit in outcome and impact pathways models, to strengthen the evaluation methods used.

The combination of these actions could be used to enhance the quality and usefulness of the project evaluations commissioned by CPWF. Table 2 lists the practices discussed in this paper and elaborated on below.

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[3] By 'challenge' is meant ways by which others can question and prod why the evaluation is being done the way it is, debate the evidence used to support evaluation findings, and require the evaluators to respond to the issues raised.

[4] A theory of change sets out the sequence of events (outputs, immediate outcomes, intermediate outcomes, end outcomes) and the assumptions behind the sequence that illustrates and explains how the project is expected to work in bringing about its intended impacts.

# 1. Using standardized structures

Without restricting the innovation expected from evaluators in undertaking CPWF project evaluations, following a more well-defined evaluation process with well-structured evaluation reports, will add more discipline to the evaluation process and help add credibility to the evaluations.

The approach used for the four evaluations reviewed was for CPWF to develop common terms of reference (TOR) for the evaluations and let the evaluators decide on the methods they would use to undertake the evaluation. This is a reasonable approach that aims to ensure similar issues get addressed in each evaluation while allowing for a range of methodological approaches to be explored. Lessons learned in conducting such evaluations can then be generated and shared for future evaluations.

**What the CPWF can do**

This general approach can be strengthened in a number of ways:

*a) Provide clearer Terms of Reference (TOR)*. It was clear from the review of the four evaluations that the TOR provided to the evaluators allowed considerable room for interpretation as to just what the purpose of the evaluation was and what specifically were the issues to be addressed. A common weakness of the evaluations was the lack of clarity on both the scope of the evaluation and the issues to be addressed.

> **Box 1. Confusion over TOR**
>
> CPWF had intended the four project evaluations to focus on the Most Significant Change (MSC) story associated with each project, and to verify the changes described in the MSC story. If the changes did not appear to be happening, the evaluations were to explore what was happening, looking for evidence on early adoption of the technologies being tried in the projects. This focus was hinted at in the TOR but not made explicit. Other parts of the TOR suggested a broader scope for the evaluations.
>
> None of the evaluations focused specifically on the changes mentioned in the MSC story. Rather, perhaps with a passing reference to the MSC story, they assessed the impacts the project was having, focusing on, for example, the extent to which the outcomes outlined in the impact pathway were being realized.

*Suggestion a1*: CPWF should provide evaluators with a clear statement of the scope of the evaluation– the context, purpose(s) and objectives of the evaluation, and the boundaries of the project being evaluated–and a clear articulation of the issues to be addressed.

An additional step that could be taken is for CPWF to develop guidelines on preparing TOR, setting out a process and what good TOR should contain. NZAID (2009) and the World Bank (Independent Evaluation Group 2011) have developed such guidance for their evaluations.

*Suggestion a2*: CPWF should develop guidelines for preparing TOR for the evaluations of it commissions.

### Build a database of qualified evaluators
Organizations sometimes develop and

*Table 2*. Approaches to strengthening CPWF project evaluations

**Using standardized structures**

**CPWF could:**
- Provide evaluators with clearer TOR
- Provide specific guidance to its staff on developing TOR for project evaluations
- Build a database of qualified evaluators
- Build and make available to its evaluators, a database of relevant evaluation methodology sources
- Provide evaluators with its criteria for good evaluation
- Continue to gather and share lessons learned in its evaluations
- Require that a planning report, a preliminary assessment report and a final report covering specific elements are delivered

**Adding more challenges**

**CPWF could:**
- Use advisory committees
- Use a quality reviewer
- Require reports to be cleared with project management
- Use a project 'quality at entry' panel process

**Evaluators could:**
- Confirm their understanding of the TOR with CPWF
- Interview persons outside the project and its stakeholders
- Assess any secondary sources used for evidence
- Act more visibly as a critical friend
- Seek out comparisons where possible
- Consider some form of challenge within the evaluation team

**Building on theories of change**

**CPWF could:**
- As being done in Phase II, develop a project measurement strategy for monitoring and evaluation
- Strengthen the participatory pathway models by articulating assumptions and risks behind the models
- Strengthen the project's theory of change through building the theory of change behind the Most Significant Change stories
- Pay attention to reach—the different groups affected by the project. Provide guidance to evaluators on the kind of ex-post cost and benefit analysis expected

**Evaluators could:**
- Evaluate CPWF's role
- Carefully define the project for evaluation purposes and pay attention to attribution

maintain a database of competent evaluators they can call upon for conducting evaluations. Experience with each evaluator used is regularly entered into the database, as is the extent of use of each evaluator.[5] This helps to take some of the guesswork out of selecting evaluators. Too often, experiences with evaluators that have been used are lost to the organization unless such a database is put in place. In the case of CPWF, perhaps the consultant database could be maintained to cover all CGIAR evaluations, giving it a much broader potential and use.

*Suggestion a3*: CPWF (or CGIAR) should develop and maintain a database of qualified evaluators it can use to seek proposals from. The database should include the ranges of skills available and the experience with the evaluators used.

### Provide CPWF criteria for good evaluations

It would be useful for CPWF to provide evaluators proposing and undertaking evaluations with the expectations CPWF has for good-quality evaluation. Providing such criteria make it clear to the evaluators the standards expected of them, and should help them to develop appropriate evaluation approaches.

*Suggestion a4*: CPWF should develop and make available to evaluators it deals with, its expectations for good-quality CPWF project evaluations.

### Build a database of relevant evaluation methodology approaches

Without being prescriptive, CPWF could develop a database of evaluations methodologies and approaches that address the kinds of challenges CPWF faces. Other development agencies and nongovernmental organizations (NGOs) have developed a wide range of approaches to deal with such issues as research uptake, partnership programs and cost-benefit analysis. Many general evaluation textbooks address issues of relevance to CPWF also. Evaluators undertaking CPWF could be made aware of these possible sources of advice.

*Suggestion a5*: CPWF should develop and make available to evaluators it deals with, the relevant evaluation methodology guides and approaches.

### Continue to gather and share lessons from its evaluations

It is good practice for organizations to assess what it has learned from completed evaluations so as to identify good practices as well as what to avoid. CPWF is doing this in undertaking the review of the four project evaluations and preparing this Working Paper. Less-intensive approaches can also be used such as holding a reflective workshop to discuss a recently completed evaluation, and after the final report has been accepted, having the evaluators write a short note on what they feel was learned and suggestions for future improvements.

*Suggestion a6*: CPWF should continue its efforts at learning from completed evaluations, perhaps having the evaluators it uses write short reports on what they have learned during the evaluation.

### Require more standard structures for evaluation reporting

There are three phases to an evaluation – planning, assessing and reporting—and it is useful to distinguish among them.

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[5]  To safeguard independence, CPWF may want to limit how exclusively an evaluator can work for CPWF over an extended period of time.

*b) The planning phase*

Based on the TOR, CPWF should expect its evaluators to prepare a well thought-out plan for the evaluation, and have the plan reviewed. An *evaluation plan report* should contain the following:

1.  *Project context.*
    A description of the project being evaluated, its external context, and previous significant evaluation findings.
2.  *Initial project theory of change.*
    The description of the outcome and impact pathway models showing how the project is expected to work: its objectives, activities, outputs, outcomes, and impacts and their interrelationships.
3.  *Evaluation objectives.*
    A clear statement of the objectives of the evaluation; the matters the evaluation will conclude on.
4.  *Evaluation issues.*
    The issues the evaluation will address and that are being used to assess performance, and an explanation of the origin of the issues.
5.  *Evaluation scope.*
    The scope of the evaluation; what aspects or elements of the project will be examined, and over what period of time.
6.  *Evaluation methodology.*
    An outline of the methodology to be followed – what will be done in conducting the evaluation – and the cost involved.

The *evaluation plan report* needs to be challenged by those commissioning the evaluation. The result of the planning phase is a decision (by those funding and perhaps advising on the evaluation) to either proceed as outlined or go back to the drawing board to rethink what ought to be done.

*c) The assessment phase*

The assessment phase is the phase of conducting the evaluation where the data and information are gathered and analyzed. Once the data and information have been collected, the findings and conclusions can be drafted, in order to answer the questions:

*   What has been found with respect the each of the evaluation issues?
*   What conclusions follow for each evaluation objective?

During the conduct of the evaluation, new issues may arise that the evaluator believes should be addressed. In this case, CPWF might expect the following:

*   New or emerging evaluation issues are brought to their attention for agreement (such as to the advisory committee–see below).
*   The implications of addressing the new issues in terms of timing and resources for the evaluation are made clear.

A preliminary evaluation report could be usefully prepared at this time of an evaluation. If it withstands scrutiny, it becomes the evaluation report and hence need not add significantly to the cost and timing of the evaluation. If it does not, then further work or analysis is clearly required. Skipping this step in the latter case will almost guarantee an evaluation report that will be seen as unsatisfactory.

*d) The reporting phase*

In the end, a final evaluation report is required. Here a standardized structure report can further help assure that the key elements expected from the evaluation are in the final report. Evaluation reports should include at least the following:

- A clear statement of the evaluation objectives.
- A clear description of the evaluation issues addressed.
- A description the evaluation methodology followed.
- Findings for each of the issues. Conclusions against the objectives.
- Recommendations.
- Statement of agreement or disagreement by the project management, along with, if relevant, a concrete action plan.

Given the structure outline above, the report would provide evidence and arguments on the issues set out at the beginning and would form conclusions against the established evaluation objectives and, if asked for, recommendations.

These expectations on the evaluation process and final products would be best provided to the evaluators at the outset, along with any other quality criteria the organization expects to be followed and that will be used to assess the final product.

*Suggestion*: CPWF should structure its evaluation practices so that a planning report, a preliminary evaluation report and a final evaluation report are produced.

**What the evaluators can do**

The evaluators need to use structured evaluation products in the planning, assessment and reporting phase of the evaluation.

Suggested content for the evaluation plan report was discussed in the previous section—context, theory of change, and the evaluation objectives, issues, scope and methodology. Much of this material should be in the TOR. Where TORs are not clear, the evaluators need to clarify appropriately. These elements are all important aspects to consider.

The context and an initial project theory of change set out what the project entails and provide a framework for the evaluation objectives and the evaluation issues addressed. An early step in the evaluation is likely to be a refining of this initial theory of change (and the project outcome and impact pathway models) through discussions with stakeholders. As discussed later, it can also be the basis for the methodology used in carrying out the evaluation.

It is important to carefully think through what the evaluation objectives are, i.e., what the evaluation is expected to accomplish – the matters on which the evaluation is expected to conclude. As an evaluation proceeds, it may uncover other useful information to report on, such as lessons learned and useful insights on the project. But there is the danger that the work will go off in unforeseen directions and that the original objectives may be lost sight of. As several of the evaluations reviewed showed, it is not uncommon to see little attention paid to the objectives in the final report, with no clear conclusions against the evaluation objectives. With clear objectives set out to guide the evaluation, conclusions against the objectives will be more forthcoming.

Similarly, the importance of explicit evaluation issues cannot be underestimated. These issues are usually set out in the TOR provided to the evaluator, but often need further discussion and articulation to be most useful. The evaluation issues may reflect the expected results of the CPWF project, in the form of targets, or statements with respect to the results the project is expected to contribute to. The evaluation process should result in evidence being produced against each of the issues identified in the evaluation plan, leading to a finding for each issue. Assuming the available resources and timing, this still leaves room for addressing new issues that may arise during the evaluation.



Andes system of river basins

*Source:* CPWF - Simon Cook

# 2. Adding more challenge

The challenge of the evaluation design, process and findings – having others question and prod why things are being done the way they are, debate evidence to support findings, and requiring the evaluators to respond to these challenges – is key to a robust evaluation that will get utilized. Both CPWF and the evaluators can contribute to this practice. In addition, ensuring that the projects at the outset are adequately designed to allow for future evaluation can greatly strengthen the resulting evaluations.

**What CPWF can do**

*a) Introduce structured challenge into the evaluation*

A key way to enhance evaluations is to provide some mechanism for challenging how the evaluation is being carried out, the evidence being gathered and the analysis undertaken. This is particularly true for small-team evaluations where the integrity of the evaluation is highly dependent on the skills, experience and professionalism of the evaluator, and where there is little challenge within the evaluation team available.

Three complementary approaches are discussed: using an advisory committee, engaging a professional reviewer to assess the quality of the evaluation practices being used, and providing a reality check on findings, conclusions and recommendations by allowing the program being evaluated an opportunity to formally agree and/or comment on the draft evaluation report.

*b) Advisory committees*

A strong challenge is most readily done through an advisory committee. Such a committee can provide advice on the evaluation plan report, the preliminary evaluation report and the final report. The size of the committee and how it operates can vary from a very strong formal advisory committee with face-to-face meetings to a more modest informal committee, communicating via email and teleconferencing. The structure of the committee could vary depending on the complexity, size and sensitivity of the evaluation.

Key to the success of such a committee is its makeup. A strong advisory committee could comprise:

- Senior management in the organization commissioning the evaluation.
- The head of the organizational unit commissioning the evaluation (normally the evaluation unit).
- Personnel from the organization who are experts on the subject matter.
- External experts on the subject matter.
- A quality reviewer external to the evaluation unit.
- If needed, relevant specialists from the organization, such as legal advisers.
- The evaluators conducting the evaluation.
- Management from the project being evaluated.



Ganges delta project

*Source: CPWF - Ruvicyn Bayot*

A modest advisory committee might comprise:

- A representative from the organization's evaluation unit.
- The evaluators conducting the evaluation.
- Management from the project being evaluated
- An external expert on the subject matter. A quality reviewer external to the evaluation unit.
- In an even more modest advisory committee, the representative of the evaluation unit could play the role of quality reviewer, although then the external perspective is lost.

The committee can be a useful forum to help identify pertinent information and to get understanding and commitment by the project management for the methods and approaches to be adopted. As part of the committee, management will also get to hear a good cross-section of views on their project and, in particular, more than just the views of the evaluators.

Perhaps the key here is the inclusion of the external experts. By including known experts in the subject-matter area, who are included for the specific purpose of providing their expert and independent advice on the evaluation, the robustness and completeness of the evaluation could be greatly enhanced.

In particular, such members provide a check on the self-interest of the project management and even the corporate management of CPWF.

An advisory committee need not be costly in terms of either time or money. For a quite minimal investment, considerable expertise and credibility can be brought to the table in a structured but supportive way.

The committee needs normally only meet two or three times during the evaluation. Meetings could be

face-to-face or via teleconference. A key benefit of an advisory committee is the discussion among members, so at least teleconferencing should be used.

The committee might meet when:

1. The planning phase is completed, to advise on the focus and approach being recommended.
2. New evaluation issues have arisen during the conduct of the evaluation and decisions are need on whether to address them.
3. The preliminary evaluation report has been drafted.
4. The draft final report is prepared.

Review of the draft final report could be done by providing written comments by email. At the preliminary report meeting, members would have both a good idea of the positions of the other members on the committee, and a chance to debate issues.

An advisory committee as envisaged here is not a decision-making body; rather, it provides advice to those responsible for the evaluation. If such a committee were acting as a steering committee, making decisions on the evaluation, then neither the project management nor the evaluators would be members. An advisory committee, on the other hand, maintains the independence of the evaluators.

The evaluation team would be expected to respond to the advice received, and it the evaluators are expected to provide documented reasons for not accepting any item of advice provided.

The committee can advise when:

- The evaluation is getting off target from its purpose.
- The findings agree or do not agree with accepted wisdom.
- The evidence for the findings and conclusions is adequate or inadequate.
- The recommendations of the report are consistent or not with the findings and conclusions, and are realistic.

*c) A quality reviewer*

A number of key people on the advisory committee – especially, the external advisors, and the senior and project managers –will not know or be expected to know whether the evaluator is following adequate professional procedures in the conduct and drafting of the evaluation.

A quality reviewer is an expert in evaluation and the specific evaluation procedures in place in the organization. Note that a quality advisor in this context is not an auditor, checking, for example, on the professional conduct of the evaluation. The quality advisor is an evaluation methodology expert. They should be from outside the team conducting the evaluation and their role is to assure the organization that the proper practices are being carried out, including the adequacy of the evidence behind the findings and conclusions. Fully implemented, they would have a sign off role regarding the procedures followed by the evaluation team.

The quality reviewer could look at such things as the following:

- Whether there has been an evaluation plan report or equivalent that contained the required elements.
- Whether the approach and design of the evaluation are reasonable in the circumstances and likely to lead to the levels of evidence expected.

- Whether the evaluators need to check with organizational or outside experts on such methodological issues as questionnaire design, sampling plans, etc.
- Whether the evaluators have followed any procedures required by the organization.
- Whether there is adequate evidence for all the findings and conclusions in the evaluation report.

In short, they check to see if the conduct of the evaluation has met organizational and professional standards. The level of work required by the reviewer would depend to a large degree on the extent to which there are standards in place. It may be possible for some of the tasks of the quality reviewer to be done by the advisory committee.

A quality reviewer could be hired by CPWF for an evaluation or, it is becoming a more common practice for the call for proposal for an evaluation to include the requirement for the consultants themselves to engage an independent reviewer.

### d) Clearing the evaluation report with management

Given that project management is part of the advisory committee, they are there to check the facts and interpret the data as the evaluation goes along, and should be expected to agree with the final findings of the evaluation. And if they disagree with aspects of the evaluation, they should be allowed to say so and have it appear in the final evaluation report. For mid-term evaluations, the management response would indicate how the project management intends to respond to the findings.

*Suggestion:* CPWF should use appropriate challenge practices as part of its normal evaluation process. These should include advisory committees and

quality reviewers, reflecting the size and nature of the evaluation being undertaken. That CPWF ensure project management reviews and comments on the evaluation report.

### e) Project 'quality at entry' review

Projects often do not perform well due to weak project design. And this is especially true for their evaluations. Project management can also be weak and affect outcomes. CPWF has reviewed its Phase 1 projects as to determine what worked well and what not so well (Sullivan and Alvaraez 2009).

A weak up-front results framework – a poorly thought-out project theory of change, weak monitoring plans – will necessarily weaken a future evaluation. CPWF might consider a version of the World Bank's 'quality at entry' approach, whereby a selection of projects is reviewed by an external expert panel just after they have been set up. Grasso (2005) describes the World Bank's approach to enhancing the quality of evaluation information, including its quality assurance efforts.

The panel can be drawn from knowledgeable CPWF staff, academic experts, consultants and representatives of NGOs involved in development work. The review assesses whether the project fits well with CPWF's priorities, whether it is likely to achieve its intended aims and whether there is a results framework for the project. The World Bank's complete quality assurance practices are described at http://web.worldbank.org/WBSITE/EXTERNAL/ PROJECTS/QAG/0,,pagePK:109619~theSite PK:109609,00.html.

*Suggestion*: CPWF should consider some form of project 'quality at entry' process using a panel of outside experts.

**What the evaluators can do**

*i) Clarifying TOR of the evaluation*

Once into designing an evaluation, evaluators may find that the TOR they are given are, in fact, not that clear, or that more explanation is required. It may not be completely clear just what the evaluation issues provided mean in practice and some issues may not be practical to address, or even the boundaries of the project being evaluated may not be clear, such as when there are a number of delivery partners involved. Evaluators should seek clarity from CPWF as to what it really wants and what makes sense to undertake. Without pushing CPWF to clarify such concerns, the evaluators' interpretation of issues may not be what CPWF was interested in at all.

*Suggestion*: Evaluators should get agreement from CPWF on their interpretation of the TOR for evaluations.

*ii) Interviewing outsiders*

CPWF evaluators would normally interview a number of parties external to the project,[6] to get useful insights and possibly different perspectives on how, or if, the project is working well. But such interviews can also be used to bring another source of challenge into the evaluation process. Interviews can be undertaken with the following:

- Other external experts in the field.
- Partner delivery organizations.
- Other similar projects.
- Critics of the project.

These are not unbiased sources, but can provide useful perspectives.

*Suggestion*: Evaluators should endeavor to include among those interviewed, persons and organizations with an outside and perhaps critical perspective.

*iii) Assess secondary sources*

The four evaluations reviewed all used prior evaluation reports as important data sources. Making use of prior research and evaluation is good practice. However, some attention needs to be paid to the quality of these secondary sources. They should not be simply accepted as providing accepted truths. It may not be practical to undertake a thorough review of these data sources but, in most cases, the methodologies used in these reports can be described and a general assessment made, asking such questions as:

- Were these reports done by independent persons or were they self-reporting?
- Did the data sources and methodologies used seem reasonable?
- Was there a challenge process evident in the reports? For example, were there both positive and negative findings reported?

*Suggestion*: Evaluators should provide some assessment of the quality of data and findings in secondary sources.

*iv) Act as a critical friend*

Evaluation is not an audit, and a significant goal of evaluation is to foster learning by project stakeholders. Evaluators need to build confidence with project stakeholders as the evaluation is carried out. Nevertheless, evaluators need to maintain a critical

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[6]   It would be normal practice for the evaluators to include as part of the evaluation process those stakeholders involved in the project – project staff and project beneficiaries – soliciting their views, relevant data and advice. Here, the suggestion is to involve relevant parties external to the project to provide an outsider's perspective.

perspective as they gather and analyze data, not simply accepting claims about the project, but rather continually asking for evidence to support findings. If evaluators do not act as this 'critical friend,' then the very useful outside perspective they bring to the process can be lost.

*Suggestion*: Evaluators should act visibly as a critical friend in carrying out CPWF evaluations, encouraging the participation of stakeholders, but challenging what they hear and see.

*v) Seek out comparisons where possible*

Comparisons are often seen as essential to good evaluation, providing a basis for assessing what is said and heard against some alternative. Sometimes, comparisons are part of the project design when different technologies are tried in similar settings or similar technologies are tried in different settings. These built-in comparisons would play a key part of the evaluation design. In other cases, there may be similar projects elsewhere or earlier that could be used to compare results. Evaluators should seek out comparisons that would help understand the outcomes and impacts of the project being evaluated. Box 2 provides some examples taken from the evaluations reviewed.

At a minimum, in interviewing those associated with the project, evaluators can ask the counterfactual question, namely, what would have happened without

the project? There is the obvious potential here for bias in the responses, but a similarity among responses across a range of stakeholders could provide some evidence on the nature of the net impact of the project. Further, insight can be gained if respondents are asked to explain why they feel the project made a difference or not.

*Suggestion*: Evaluators seek out and make use of comparisons in developing evaluation findings and conclusions, including asking stakeholders what would have happened without the project.

*vi) Consider some form of internal challenge*

Evaluators can strengthen their evaluations if they include some form of challenge to the conduct of their evaluations. If advisory committees and quality reviewers are being used, then there is that outside challenge. If there is a team involved in the evaluation, then some internal challenge can be undertaken, with team members checking on each other. In the case of a single evaluator, internal challenge is probably not possible, but in this case, the evaluator could, for example, ask for someone in CPWF to be available to comment on material that is being drafted. Internal challenge can be quite useful in making sure that findings being considered are supported by adequate evidence.

*Suggestion*: Evaluators should seek out some form of challenge internal to the evaluation team.



*Source*: panoramio

Ganges delta

# 3. Strengthen the evaluations using impact pathway models of the Theory of Change

pathway model for the various outcomes such as the changes in knowledge, attitudes and skills of participants expected from the project. The outcome pathways allow for a closer link to be made with the changes that can be monitored during the life of the project. These impact and outcome pathways provide a solid basis for strengthening the monitoring and evaluation approaches used in CPWF evaluations. An example of such an outcome and impact pathway model can be found at https://sites.google.com/a/cpwf.info/m-e-guide/outcome-pathways-and-outcome-logic-model/example-of-a-filled-in-olm

The CPWF has used participatory impact pathway models in the design, monitoring and evaluation of its projects (Douthwaite et al. 2008). These models set out the underlying theory of change of projects, showing how the activities of the project are seen to lead to the expected outcomes and impacts of the project. In Phase II of the CPWF, these approaches have been expanded to include developing an outcome

**What CPWF can do**

*a) Developing a project measurement strategy*

At the outset of a project, it would be useful to develop an overall measurement strategy, setting out a) what ongoing monitoring should be done by the project team, and b) what evaluation studies are planned for

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**Box 2.  Comparisons from the evaluations**

In the evaluation of the *The Conversatorio of Citizen Action as a Tool for Generating Collective Action for Integrated Water Management. Evaluation of the Impact of the Project SCALES/PN20 - The Sustaining Collective Action Linking Economic and Ecological Scales in Upper Watersheds* in Columbia, useful insights on why things worked were provided when the relatively successful project at one site, Coello, that was being evaluated was contrasted with a similar action effort in a nearby site (Fuquene) which had been much less successful.

The evaluation of the *Managing Water and Land Resources for Sustainable Livelihoods at the Interface between Fresh and Saline Water Environments in Vietnam and Bangladesh: Impact Evaluation of the Vietnam Component* (PN 10) was limited by intention to only look at the Vietnamese part of the larger project. Thoughtful comparisons with the Bangladesh component could have yielded further insights on what works where and when.

The evaluation of *An Assessment of the 'Developing a System of Temperate and Tropical Aerobic Rice (STAR) in Asia* (PN 16) focused on the project in China, which was the subject of the evaluation. The evaluation made some references to similar projects in the Philippines. Had the scope of the evaluation been broader, more analysis of the lack of adoption in the Philippines in contrast with China could have been useful. Another option might have been to compare the CPWF projects in China with other aerobic rice growing areas of China where the project was not operating.

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the project. The measurement strategy would describe what aspects of the performance of the project are to be assessed and when. To this end, developing outcome and impact pathway models for the project provides the framework to decide the best combination of ongoing monitoring and evaluation studies to be used. The collection of these pathway models will be called here the Theory of Change (ToC) of the project.

With research-for-development projects, the best measurement strategy is not immediately obvious. Projects last for 3-5 years and then usually end. The longer-term – and maybe many of the 'shorter' term – impacts of such projects are expected to go on well past the end of the project, perhaps for 10-20 years.

One can imagine the *ideal* project measurement strategy:

1. Set out an initial ToC for the project.
2. Put in place a monitoring system to track key result measures during the life of the project.
3. Undertake a mid-term evaluation to check on progress, confirm or refine the ToC, and allow for any needed mid-term corrections in project delivery.
4. Undertake a final project evaluation, soon after the project has ended.
5. Undertake an evaluation of impacts 5-10 years later.

However, for both practical and cost reasons, this ideal is not realistic. First, in most cases, it is not practical to imagine an evaluation occurring 5-10 years after the project is completed: those involved have moved on, other interventions have occurred, relevant data are unlikely to be still tracked, and it may appear as if little could be learned from such an evaluation, details of the project fade from memory, etc. What is more reasonable to imagine is that the final project

evaluation endeavors to make best estimates of the likely longer-term impacts of the project, based on what has been observed to date. This is what CPWF has aimed for in the past and will aim for in the future.

Second, there is the issue of the cost of this ongoing monitoring and evaluation study, which could be excessive given the size of many projects. What is needed is to well integrate the monitoring and evaluation components of the strategy. The ToC model provides the basis for doing this, so that the ongoing monitoring and evaluation efforts complement each other.

Thus, a more practical project measurement strategy is to:

1. Set out an initial ToC for the project.
2. Put in place a monitoring system for outcome and impact measures that can be tracked during the life of the project, allowing for periodic assessing of the project's progress and delivery adjustment.
3. Based mainly the monitoring data, supplemented with interviews, undertake a mid-term evaluation to check on progress, confirming or refining the outcome and impact pathways – the ToC – and allow for any needed mid-term corrections in project delivery.
4. Undertake a final project evaluation soon after the project has ended, using the monitoring data collected, supplemented by additional data-gathering to assess the progress made to date and to estimate the likely ensuing costs and benefits from the project. The confirmation of what was expected to occur by project end, as set out in the ToC plus the strength of the impact part of the ToC, allows adequately credible conclusions to be made about the likely difference the project has made and will make.

These measurement strategy activities should complement and support one another. A strong monitoring system would reduce the need for a mid-term evaluation. Conversely, weak monitoring would enhance the need for a mid-term check on progress. The monitoring can also suggest whether there is a need for amid-term evaluation, such as when new concerns have arisen.

The overall measurement strategy would identify which outcome and impact measures will be tracked, what evaluation issues will be looked at in a mid-term evaluation and what more in-depth issues will be addressed in the final project evaluation. Just what is addressed in the mid-term and final evaluations would depend in part on what prior measurement activities had been undertaken. The measurement strategy could be well illustrated using a simplified ToC as the framework.

The monitoring regime now being put in place in Phase II projects should go a considerable way to strengthening the overall measurement activities of projects. It should provide valuable information on a key element of the impact pathway, namely the learning cycle. Confirming that the learning envisaged has indeed occurred, strengthens that aspect of the impact pathway model and will allow more robust statements to be made about the subsequent impacts from the project.

*Suggestion*: As part of the project design, CPWF should include the development of a measurement strategy for its projects, outlining the ongoing monitoring and the evaluation planned for the project.

b) *Strengthening outcome and impact pathways*

Outcome and impact pathway models could be strengthened by more explicitly identifying the

assumptions and risks behind the links in the models. That is, articulating just what has to occur, for example, for knowledge or skills to be acquired, or for a specific result to come about –the key risks to the realization of the link. In the example referenced earlier (https://sites.google.com/a/cpwf.info/m-e-guide/outcome-pathways-and-outcome-logic-model/example-of-a-filled-in-olm) another column could be added to identify assumptions and risks that need to be monitored and/or assessed both to strengthen the ToC and to identify aspects of the delivery of the project that might need attention. To that end, it may be useful to set out the outcome pathway models and to label the assumptions as to whether the project has control [C], direct influence [DI], indirect influence [II] or no influence [O] over the assumption. For cases of direct and indirect influence the project should be able to undertake actions to manage the risk involved and to monitor the situation. Where there is no influence, there might be ways to mitigate the risk involved.[7]

As part of its participatory approach to evaluation, CPWF can seek the views of project staff and management, as well as project beneficiaries on why they feel the project will work, and what they judge has to happen for it to work– that is, seek out their views on the project's theory of change.

The outcome pathway models will be tested as monitoring data are  gathered– there is, as part of the CPWF project process, a required annual reflection event to do this– and as part of the final project evaluation. For the most part, however, the impact pathway models will not be directly tested since most impacts will occur after completion of the project. However, additional support for the impact

[7]   This would, of course, add another layer of analysis to the development of the pathways, and may not always be worthwhile doing. However, it would allow a basic form of risk management to be incorporated into the project design integrated with the measurement strategy.

pathways would be any prior research and evaluation that supported specific impact pathway links. That is, it would be useful once the initial impact pathway model is agreed, for CPWF to seek out research and evaluations that provided evidence for one or more of the links in the impact pathway. Such evidence would add credibility to the forecasts of future impacts.

*Suggestion*: CPWF should continue to develop and display outcome and impact pathway models for its projects, and identify the theory of change assumptions and risks that underlie the models. CPWF should seek out research that supports the impact pathway model for a project.

### c) Strengthening the ToC through Most Significant Change (MSC) stories

A project's ToC can also play a useful role when MSC stories are being sought out. These are very specific case studies of an individual participant's view on how the project has made a significant difference, and are set out with a specific structure: context, the story, why the story is significant, what the critical factors that led to the change were, what the constraints were, and what the future implications are. In collecting these stories, CPWF can ask, in addition, for the individuals to articulate why they see the project working – i.e., their ToC – and what evidence they use to support their views, and include the implicit theory of change in the structure of the MSC story. Then the MSC becomes further evidence that the project's ToC is working. The MSC becomes evidence for generalizing to the theory.[8]

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[8]    Maxwell (2007) discusses this idea, talking about the notion of analytical generalization rather than statistical generalization, and argues "Analytic generalization is not generalization to some defined population that has been sampled, but to a theory of the phenomenon being studied, a theory that may have much wider applicability than the particular case studied. In this, it resembles experiments in the physical sciences, which make no claim to statistical representativeness (physicists do not draw random samples of atoms), but instead assume that their results contribute to a general theory

*Suggestion*: CPWF may wish to strengthen its use of MSC stories by including in their description the author's implicit theory of change and the evidence for it.

### d) Attention to reach

CPWF projects usually have a learning element at their core whereby the knowledge, attitudes and skills (KAS) of participants are enriched. The outcome pathways that are developed set out what is expected in this key area. And given a well-run project, it is reasonable to expect enhanced KAS for those involved. However, the project has much broader aims than this: it expects there to be scaling out and scaling up; that is, a horizontal 'user to user' spread of ideas and technology supported by an institutional spread that helps create an enabling environment for the changes taking place. A key question then, and one not that well-addressed in the four evaluation reviewed, is have the right people and institutions been reached by the project? Was the reach adequate to bring about the broader changes expected –were enough of the 'right' people reached, were they influential enough, etc.? Reach should be part of the ToC.

   Being clear on the different target groups reached by the project can also be useful in assessing and describing the accomplishments of the project. In *Managing water and land resources for sustainable livelihoods at the interface between fresh and saline water environments in Vietnam and Bangladesh: Impact evaluation of the Vietnam component*, Bron Macdonald usefully developed different 'impact stories' for the different targets of the project: farmers, their water supply and the policy environment.

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of the phenomenon." Patton (2002) talks similarly about generalizing findings from case studies as a hypothesis to be tested rather than as definitive, i.e., as identifying possible elements of a theory of change.

*Suggestion*: CPWF should ensure that the project design identifies the expected reach of the project as part of the theory of change and that the evaluation determines the extent to which the reach was realized.



Mekong River Basin

*Source*: CPWF - Simon Cook

*e) Providing an ex-post cost and benefit analysis guidance*

As part of its evaluations, CPWF is often looking forward to the final evaluation of its projects to provide information on the likely future benefits arising from the project.

The expectation with CPWF projects is that the technologies and approaches developed or introduced during the life of the projects will be adopted more widely over time, leading to improved sustainable agricultural production and rising incomes.

Cost-benefit analysis (CBA) is a frequently used approach to estimating the net value of future benefits and costs, and there is extensive guidance available on using CBA. Full-fledged CBA will usually require the use of specialists in CBA, which may not be available to many CPWF project evaluations.

Any such CBA estimate is fraught with difficulties such as the following:

- The major impacts of interest will not have been realized by the end of the project until only many years later.
- Determining the extent to which the project (as opposed to other events) had contributed to any future benefits is challenging.
- Aggregating future benefits and future costs so that net effects can be determined requires many significant and challenging assumptions about future conditions.

CPWF may wish to consider an incremental approach to assessing benefits and costs from projects – namely, forms of efficiency analysis that build on the theory of change:

**Level 1**

- Identify and articulate the various benefits and costs expected in the future,[9] aggregating where this is possible.
- Confirm the theory of change in the outcome and impact pathway models, and estimate its strength.
- Ask beneficiaries directly if the effort they expended in the project (such as the farmers involved) were worth the benefits realized, and what those benefits were. This gives a crude measure of cost-benefit.
- Conclude on the likely benefits that could be attributed to the project.

**Level 2**

- Identify and articulate the various benefits and costs expected in the future.
- Where there are trials as part of the project, undertake a CBA of the trial to demonstrate its net worth.
- Estimate more general adoption rates. If the technology is being adopted, it probably has a positive net worth.
- Confirm the theory of change in the impact pathway, and estimate its strength.
- Conduct a unit cost analysis of the outputs (and perhaps early outcomes) produced, preferably in comparison with other such projects, historical experience, etc., explaining any especially 'high' unit costs, such as in providing training.
- Conclude qualitatively on the net benefits arising from the project.

**Level 3**

- Undertake a more complete cost-benefit analysis.
- Conduct a thorough sensitivity analysis of the

various assumptions used in the analysis, to get a good idea of the robustness of the analysis undertaken.

The CPWF project evaluation would (hopefully) confirm the realization of the project's outcomes, i.e., the early part of the project's overall theory of change. Based on this and the ensuing impact pathway theory of change, future impacts are being predicted. Such an estimate could be based on several pieces of evidence:

- The inherent logic of the theory of change.
- Critical analysis of the project's theory of change to see if it still continues to make sense, and if the project took into account the assumptions and risks.
- The fact that the predicted outcomes did occur.
- The current views of those involved in the project where the impact pathway still seems reasonable.
- Similar views of some outside experts.
- Available research that supports the impact pathway.

The stronger these are the more credible is the claim of future benefits from the project.

*Suggestion*: CPWF should set out general guidance on the analysis of costs and benefits – efficiency analysis – and indicate different possible approaches that could be adopted depending on given situations.

**What the evaluators can do**

*i) Evaluating CPWF's role*

In evaluating a CPWF project, there are two perspectives that could be taken. One, perhaps the key perspective, is that the evaluation is of the project,

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[9]  This, of course, could, and probably should, be done during the project planning phase.

assessing the extent to which it has led to adoption of technologies and has had an impact. Although the intent may have been otherwise, this is what the four evaluations reviewed examined. However, since these are CPWF evaluations of CPWF projects, another perspective is that the evaluation should also address the question of the role played by CPWF in the project. Donors would probably want to know if CPWF has managed or administered the project well, if it has played a more active role beyond funding the project and what the delivery partners thought about the role played by CPWF in helping or facilitating the project to achieve its aims. If CPWF was simply the funder, then make this clear. The CPWF role can be part of the project's theory of change, or perhaps captured in a separate prior theory of change.

*Suggestion*: Evaluators should spell out the role played by CPWF and provide some assessment of it in light of what the project was able to accomplish.

*ii) Carefully define the project for evaluation purposes and pay attention to attribution*

CPWF projects are typically implemented in a complex setting with numerous players involved. The impact pathway process stresses the importance of identifying the various partners and networks, and understanding how these other players can support the project. One result though is that it may not be quite clear just what constitutes the 'project.' It is always important to define well the boundaries of the project for the purposes of evaluation–what and who are included and what are the project activities undertaken–and the time frame to be covered in the evaluation.

A key evaluation question is whether and how the CPWF funding has made a difference, i.e., what results can be linked to the CPWF project

intervention? Defining the project well is a first step, but it remains quite difficult to make such claims about the contribution the project has made. It is easy to talk about observed changes in outcomes and impacts without indicating if these are seen as the result of or partially the result of the activities of the project. Evaluators have a range of methodologies and approaches they can use to address this classic cause-effect issue.[10]

*Suggestion*: Evaluators should carefully define the project being evaluated and be prudent in their reporting when making attribution claims.

*iii) Using the outcome and impact models to strengthen the design of the evaluation and the data collection methods*

The theories of change inherent in the outcome and impact models developed for the project provide a good basis and framework for identifying where the most need for additional data is. The theory of change is also the framework for reporting on what the project has accomplished and learned–the project's performance story. Confirming with as much evidence as is reasonable that the sequence of events depicted in the outcome/impact pathway models has been realized or is likely to be realized, set out what the project has accomplished and in what manner, and begin to address the cause-effect issue (Mayne 2008).

Where this performance story appears weak is where the evaluation needs to focus attention on. Monitoring data may provide some of the evidence needed to populate the pathway models. The evaluation needs to supplement these data to fill in the gaps and provide a complete and more robust performance story.

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[10]    See, for example, Mayne 2008.

Interviews and focus groups/workshops are frequently used in data-gathering techniques used in CPWF evaluations. These techniques can be strengthened by taking more explicitly into account the theories of change set out in the outcome and impact models developed:

- Key informant interviews can be used to both test the theory of change that had been developed and elicit alternative theories of change the key informants might have, as well as to discuss other influencing factors. And interviewees should be asked on what evidence they are basing their views.
- Focus groups and workshops with different groups such as project beneficiaries and project staff, are a good means to explore a theory of change since there will be discussion and debate on how different people see the intervention working. Alternative theories of change may emerge and other influencing factors identified.

They can be used as a means to develop a theory of change and as a way to determine and identify evidence on the extent to which the theory of change was realized in practice.

- Case studies can be used in the same way. If put in the context of a theory of change, case studies are more powerful as a data-gathering tool in helping to confirm or refute a theory of change, or the micro steps in a theory of change, showing that the theory of change is indeed plausible and works in, at least, this case. It is not just based on unsupported beliefs. Again the idea of generalizing according to the theory discussed earlier applies here. Case studies can provide insights into hypotheses and the context that make up a theory of change.

*Suggestion*: Evaluators should use the project outcome and impact models to help determine the data needed for the evaluation, as well as for designing the data collection methods to be used.



Nile River Basin: Crop-livestock systems in Gallessa, Ethiopia

*Source:* CPWF - ILRI/Amede

# 8. Conclusions

This Working Paper has suggested that CPWF Research-for-Development project evaluations can be strengthened through the following:

*Using standardized structures.* Following a structured evaluation process, with well-structured evaluation reports, will provide useful structure and discipline to the evaluation, and help make it more visible for a professional process to be followed.
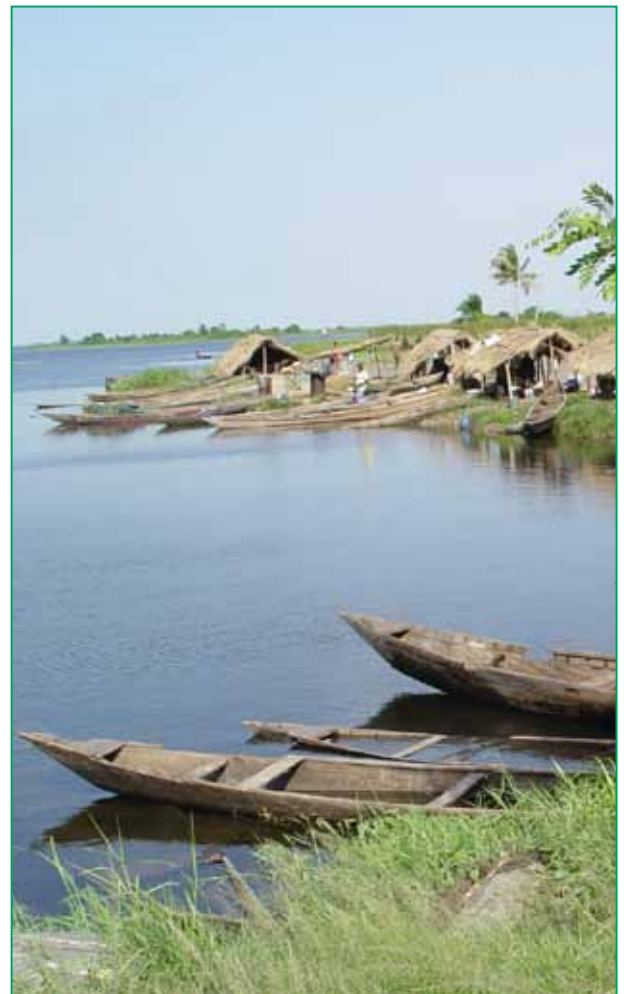
*Ensuring adequate challenge.* Ensuring extensive challenges through an advisory committee (and a quality reviewer) to the design used, and to the findings and conclusions of the evaluation report, will reduce bias from stakeholders and evaluators, and provide a means for generating good discussion and debate as the evaluation proceeds. Providing project management with a formal means to respond to the evaluation in the final report also adds a useful element of challenge. Enhancing the up-front design of projects through external challenge will provide a much stronger basis for future evaluation efforts.

*Attention to Theories of Change.* Use of theory-based evaluation tools and approaches to guide data collection and analysis will allow significantly stronger findings and conclusions to emerge from the evaluation and, in particular, allow the evaluations to address issues on the contribution being made by the project to outcomes and impacts.

The practices suggested need to be seen for what they are, not prescriptions to diligently follow but general approaches and principles to consider. Each project is different and evaluation needs to be tailored to the particular project and the specific issues to be addressed.

A key question is whether these practices would significantly increase the cost and time required to carry out project evaluations. These strengthening practices would certainly increase the cost and perhaps the time required for conducting an evaluation. Quality does cost. But the cost and time required should be incremental and not expensive. Appropriately implemented, the resulting enhanced quality and credibility should be well worth the cost.



*Source: CPWF - Sanjini de Silva*

Volta Basin, Ghana

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**About CPWF**

The Challenge Program on Water and Food was launched in 2002 as a reform initiative of the CGIAR, the Consultative Group on International Agricultural Research. CPWF aims to increase the resilience of social and ecological systems through better water management for food production (crops, fisheries and livestock). CPWF does this through an innovative research and development approach that brings together a broad range of scientists, development specialists, policy makers and communities to address the challenges of food security, poverty and water scarcity. CPWF is currently working in six river basins globally: Andes, Ganges, Limpopo, Mekong, Nile and Volta.

**About this Impact Assessment**

The Challenge Program on Water and Food (CPWF) funds research-for-development projects for 3-5 year periods with the aim of "increasing the productivity of water for food and livelihoods, in a manner that is environmentally sustainable and socially acceptable". Impact evaluations of CPWF's projects serve several purposes including lessons to improve implementation, lessons to inform uptake, and credible information to CPWF donors and other stakeholders. As part of CPWF's adaptive management approach, this paper is intended to provide ideas and suggestions directed at both CPWF and its evaluators for improving the quality of future CPWF research-for-development project evaluations.

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