The CPWF Impact Pathways Approach

CPWF Impact Group*

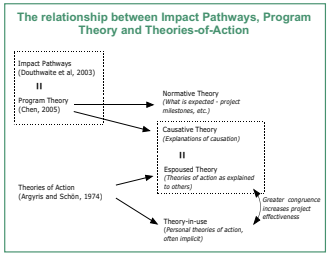
Introduction

This work is carried out in the context of a large and complex research-for-development program - the Challenge Program on Water and Food (CPWF). The CPWF funds 51 projects that are implemented by 198 different institutions in nine river basins including the Nile, Mekong and Andean System of Basins. The first five-year phase began in 2004 with a budget of US$66m.

The CPWF is impact-oriented meaning that the performance of the program and its projects is being evaluated on how research outputs are used, by whom and with what impact. To help the CPWF achieve its objectives an informal Impact Group identified the need for an Impact Pathways (IP) approach that would:

1. Present the intervention logic that explains how project activities and outputs will contribute to a sequence of outcomes and impacts.
2. Facilitate constructive discussion among project team members.
3. Provide the basis of a plausible *ex-ante* impact assessment methodology for the CPWF that will also provide a solid foundation for later *ex-post* impact assessment
4. Provide the basis for monitoring and evaluation that fosters learning and change in the CPWF.
5. Clarify and communicate the research-for-development processes out of which impact emerges.

Theoretical Basis of the Impact Pathways Approach



The IP approach is based on concepts from Program Theory (Chen, 2005) and Organizational Learning (Argyris and Schön, 1974). The basic premise is that projects and programs will be better able to achieve and communicate impact if they describe their impact pathways and then monitor and evaluate progress along them.

A project's *ex - ante* impact pathways are the likely causal chains linking project outputs to intermediate outcomes to final impact, together with descriptions of which stakeholders do what. Impact pathways are known as *causative theory* in the field of Evaluation and *theories-in-action* in Organizational Learning.

Monitoring and Evaluation (M&E) of good causative theory is a research exercise that can yield new knowledge and insights into the processes by which research outputs do or do not achieve developmental impacts. Such understanding is essential in management-for-impact. It is also required to give plausible *ex-ante* and *ex-post* assessments of impact that blend process description with quantitative analysis.

Developing good project causal theory is the cornerstone of the IP approach. The IP approach builds on Argyris and Schön's (1974) finding that there are two types of theory-of-action: *espoused theory* and *theory-in-use*. A project's espoused theory is the description of its impact pathways while its theories-in-use are the often implicit personal theories that guide how project staff actually implement their project. Often the two are different but achieving greater congruence between them improves the espoused theory (Argyris,1980) and leads to greater effectiveness. Hence, the IP Approach works to make theory-in-use explicit and incorporate it into espoused theory.

The Impact Pathways Approach in Practice

The Workshop

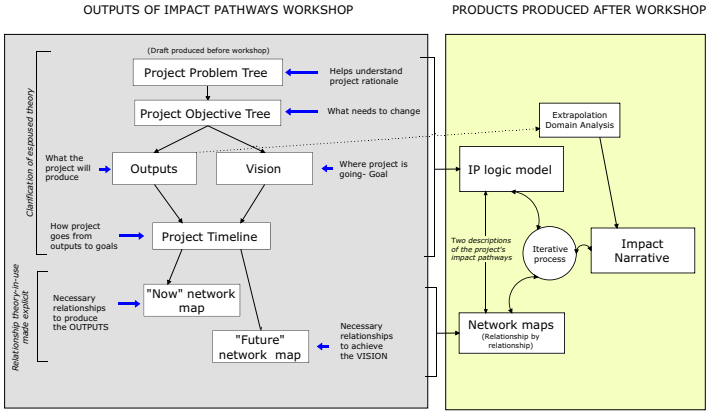
The CPWF IP approach begins with a workshop held for the projects working in a basin. In the first part of the workshop the participants clarify their project's espoused theory by constructing a problem tree, objectives tree, a vision of project success two years after the end of the project, and a timeline.

Using a problem tree to clarify project impact pathways

Participants are then asked to map the relationships between project partners, stakeholders and ultimate beneficiaries that currently exist. We then ask them to map the network that will be adopting (scaling-out) and promulgating (scaling-up) their project outputs 2 years after the end of their project, stressing that unless this network exists the project will not achieve impact.

Using network mapping to clarify project impact pathways

Flow-chart of the Impact Pathways Approach



After the Workshop

We work with the individual projects to produce two descriptions of their Impact Pathways - the IP logic model and network maps drawn in the Social Network Analysis software called NetDraw.

We send these back to the respective projects asking for comments, changes and answers to clarifying questions. We then help project staff write an Impact Narrative which integrates the IP logic model and network maps and in the process raises further questions.

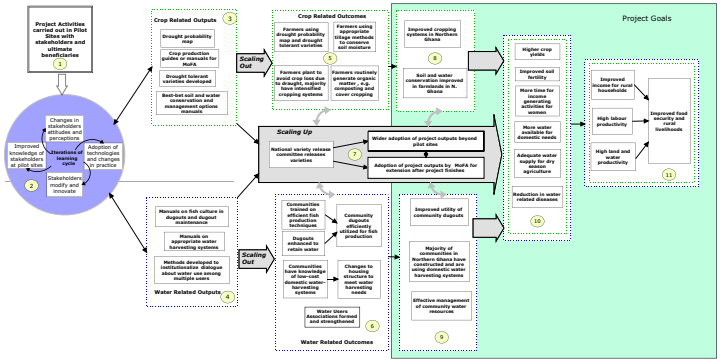
Drawing and redrawing the network maps and relating them to boxes in the IP logic model has proven particularly powerful at making explicit theory-in-use.

The Impact Narrative

The finished output is the Impact Narrative which includes a four-page executive summary and the main text. The executive summary is designed to be the basis for communication materials such as a press-release, web-page or project brochure. The main text contains sufficient description of the project's impact pathways to be the basis of monitoring and evaluation to test and update the project's theories-of-action.

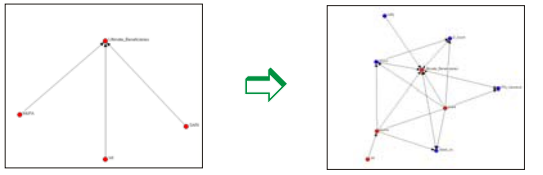
Components of the Impact Narrative for the Strategic Innovations in Dryland Farming Project (SIDF)

IP Logic Model for the SIDF Project



"Now" and "Future" networks of organizations scaling out SIDF project outputs

Drawing the network maps for relations such as research, provisional funding and scaling up and out helped the SIDF project recognise their impact pathways made possible through relationships with other organizations. For example, the project clarified that they expect seven organizations to be involved in extending project outputs to the ultimate beneficiaries after the end of the project. At present only three organizations are doing this. Hence, the network maps introduced the ideas that: i) work is needed to build new relationships; ii) the relationships are likely to develop in unknown ways; and, iii) they should be monitored. Drawing the network maps helped make explicit project members' theory-in-use about relationships and improved the project's espoused theory by introducing ideas of relationships, uncertainty, non - linearity and opportunity.

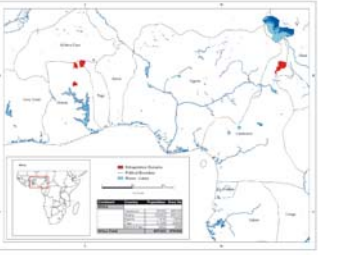


Extrapolation Domain Analysis carried out for the SIDF Project

The Impact Narrative is an *ex - ante* assessment of impact. We encourage project staff to quantify it as much as possible.

For selected projects we also carry out: i) Extrapolation Domain Analysis (EDA) to identify where in the tropics project outputs are likely to be adopted; and ii) Scenario Analysis to quantify potential impact over 25 years using the IMPACT - WATER model.

The EDA and Scenario Analysis are included in the Impact Narrative.



Conclusions

The CPWF IP Approach is a method for carrying out qualitative and quantitative *ex-ante* impact assessment. It produces rich descriptions of project impact pathways that can be used as a basis for monitoring and evaluation that can provide process understanding to complement *ex-post* impact assessment, as well as foster learning and change that can make achieving impact more likely. The IP approach is applicable to other projects and programs that operate under complex funding and institutional conditions.

References

Argyris, C. 1980. Inner contradictions of rigorous research, Academic Press, New York, USA
Argyris, C. and D. Schön. 1974. Theory in practice: Increasing professional effectiveness, Jossey-Bass, San Francisco, USA.
Chen, H. T. 2005. Practical Program Evaluation: Assessing and Improving Planning, Implementation, and Effectiveness. Sage Publications, California, USA.
Douthwaite, B., T. Kuby, E. van de Fliert and S. Schulz. 2003. Impact Pathway Evaluation: An approach for achieving and attributing impact in complex systems. *Agricultural Systems* 78 pp 243-265.

Acknowledgements

We wish to thank the participants of the Volta, Mekong, Karkheh and Indo-Gangetic Basin Impact Pathways workshops who have all helped develop the IP Approach. Particular thanks must go to Drs. Francis Padi, Stephen Asante and Mathias Fosu of the Strategic Innovations in Dryland Farming Project for letting us use their project materials.

* ***The CPWF group:***
Boru Douthwaite, Senior Scientist CIAT; Sophie Alvarez, Consultant, CIAT; Simon Cook, Senior Scientist, CPWF and CIAT; Rick Davies, Independent M&E Specialist; Pamela George, CPWF Program Manager, IWMI; John Howell, M&E Specialist, Living Resources; Ronald Mackay, Professor Emeritus, Concordia University; Jorge Rubiano, National University of Colombia; Claudia Ringlerm Research Fellow IFPRI.

Contact:

Boru Douthwaite
E-mail: b.douthwaite@cgiar.org

Or visit our wiki: http://boru.pbwiki.com/FrontPage