



IFPRI'S RESEARCH PROGRAM ON WATER RESOURCE ALLOCATION: *An Ex-Post Assessment of Productivity and Environmental Impacts*

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IFPRI has conducted research on water issues since the 1980s, seeking to better understand how water policies and institutions can be used to ensure that there will be an adequate and equitable supply of water to meet human, economic, and environmental needs. It has done this in the context of growing demands for water arising from population and economic growth. The water research program has been organized around three major themes: global modeling of future water scenarios, river basin modeling, and water institutions.

In 2012, IFPRI commissioned an external review of the impact of this research program over the period of 1994–2010 (see [IADP 35](#)). The approach taken was to review the published outputs from the three themes in terms of their quality and relevance, conduct surveys of key international stakeholders to elicit views about the value and influence of the program, and to undertake in-depth reviews of three specific projects undertaken in Vietnam, Ghana, and India. This brief summarizes the main findings and recommendations from the study.

Main Findings

The IFPRI water team has been involved in leading-edge research in a number of dimensions: it has focused on analysis at varying geographic scales; the work has been truly interdisciplinary by engaging economics with biophysical science and other social sciences; and research outputs have been innovative in advancing institutional analysis and water pricing and in policy measures addressing the complexities of water supply management.

The history of research activities undertaken by the program indicates that the topics chosen for investigation have proven—with the benefit of hindsight—to be generally well-timed and well-placed. The program's projects have tended to be at the forefront of the idea-generation and testing process. The IFPRI water program and the team members have established a good reputation among the international policy and research communities, who look to the program as a source of innovation. Frequent invitations to present at conferences and symposia are demonstrations of this excellent reputation.

Consistent with the high regard in which the products of IFPRI water research is held, the team members through time have demonstrated strong and consistent productivity. Over the 16 years under consideration, the research work has led to a total of 133 refereed journal papers, 31 reports, 10 books, and 54 book chapters. The team has delivered a large number of presentations around the globe in venues ranging from local group meetings to major international conferences. The average indices of publication strength of senior team members are all well in excess of many leading academic staff in top-ranked universities. It is particularly worth noting that the research ethos displayed by the program leaders has very positively influenced not only IFPRI team members, but also their research partners throughout the developing world. Skills transfer has been a positive aspect of project collaboration.

The program has trained and “graduated” numerous early career researchers to other positions and in other organizations. The ripple effect of these graduates is particularly important in developing-country partner agencies. Partnerships with universities and other research organizations have also produced ongoing influence. Especially valuable have been those research collaborators who have gone on to take senior policy positions in developing countries. These former staff and partners can be most useful as IFPRI “champions” in the transfer of research findings into practical policy settings.

Despite the consistent quality and quantity of research output produced over the history of the program, readily identifiable impacts generated by individual projects have been sporadic. Program and project awareness within the group of people surveyed was unexpectedly weak. The survey revealed little by way of action taken (or awareness of action taken) as a result of the research outputs. The specific projects reviewed in Vietnam, Ghana, and India were also shown to have not produced anticipated benefits, despite being targeted at problems of great relevance to those countries. Part of the difficulty in tracing project level impacts arises from the public-good aspects of much of the research. For instance, general information about food and water linkages and resultant pressures on water supplies, prices, and institutional design reform options is more likely

to filter into any number of actual policy decisions but in a diffuse manner that is hard to identify and attribute. Yet the lack of demonstrable impact within countries targeted by specific projects also gives rise to concerns regarding the ways in which projects have been designed and implemented. It is acknowledged that for much of the period over which this review has focused, project design did not concentrate on aspects that would encourage the up-take of research findings for short-term impact.

Recommendations

To improve impact for future projects, the study recommended the following:

The publication strategy needs to be better coordinated

Many of the journal publications arising from the program are in lowly ranked and infrequently cited journals. More impact is likely to come from publications in the better regarded journals and program leaders should develop a coherent publication policy to that end. The suggested focus on selected high impact journals for technical/conceptual outputs should not be at the exclusion of other communication modes. The IFPRI water team members continue to be active contributors at international conferences where the widespread relevance of their public good research outputs is appreciated. Policy work should also be increasingly oriented to web-based publications that have better and quicker penetration into policy circles (as long as there are concurrent efforts to raise awareness of the reports on line).

Projects need to be better targeted

The task facing the water program (and IFPRI more generally) is confounded by its dual nature. Specifically, the key goal is for research to produce global public goods that are at the same time relevant in policy contexts that are issue specific. This tension requires careful formulation of research projects so that they deliver on both counts. Generally, this will involve research that contributes to basic underlying principles or methodologies (concepts) that are widely applicable (public goods) in a case study context that involves the proving of the concepts in a practical setting. The implication is that a better matching of supply-driven research topics (developed by those in the program team who have the discipline background to seek out the conceptual frontiers) with the demands of

policymakers/advisers in developing country contexts is required.

Projects need to be better integrated into policy processes

Recognition of local policy needs is important at the project inception stage. Broad processes whereby the needs of developing country policymakers are canvassed and ranked are required. In addition, once project ideas are formulated, the structuring of the research process needs to incorporate policymakers/advisers on a continuous project-long basis. In this manner, the conceptual public goods are thus tested for practicality, the confidence with which other potential users of the concepts is enhanced, and the likelihood of adoption is improved.

Research partnerships need to be broadened

As the previous recommendation implies, the research team involved in project work needs to involve a diversity of skills input. Technical skills are definitely required, but specialist inputs in communication, policy integration, and extension are useful additions and may best be provided if the IFPRI water team were to form more inclusive partnerships with local policymakers/advisers and local researchers/institutions that have their own networks of policy influence. Their integration with the research effort also provides a legacy effect: the knowledge and experience they hold after the completion of the project can be a source of on-going training for local people and a reference point for policymakers/advisers in continued application efforts.

Conclusions

The IFPRI water team has had a significant impact: a large number of high-quality research products have been produced; many early career researchers have been trained and graduated into developing country partner agencies; the program deserves praise for its innovative and interdisciplinary approaches to analyzing water management issues; and the team has established a sound reputation amongst the international policy and research communities concerned with water policy. The main area where improvements are needed is in strengthening short term policy impacts within the context of specific, often country-based projects.

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