



Report on Progress 2



RESEARCH
PROGRAM ON
Aquatic
Agricultural
Systems

The CGIAR Research Program on Aquatic Agricultural Systems (AAS) began operations in July 2011, and a [summary report on progress](#) in the first eight months was produced in February 2012. Since that time the program has moved ahead with roll-out in focal countries, pursuing areas of science where particular innovation is needed, developing key partnerships, and establishing governance and management arrangements for the program. The present report on progress summarizes the main highlights from this work.

Program Roll-Out

During the course of 2012 the Program has focused particular attention upon roll-out activities at hubs in our first three focal countries: Bangladesh (Kulna), Solomon Islands (Malaita) and Zambia (Barotse floodplain, Western Province), and this will be followed in 2013 with roll-out in Cambodia and the Philippines. Reflecting the program's geographical focus and participatory approach we have pursued the roll-out by working with partners to analyze the main development challenges facing each hub, and identify the key areas of research upon which the program should focus:

- in the Malaita hub of the Solomon Islands, where rural people face challenges arising from rising population and diminishing marine resources, the program will work to diversify livelihoods and empower communities so that they can make more effective use of their marine resources and adapt better to change;
- in the Western Province hub of Zambia, where seasonal inundation of the Barotse floodplain constrains livelihoods and limits options for agriculture, the program will pursue technologies and management practices that make more effective use of the agricultural potential and natural resources of the system; and
- in the Khulna hub of Bangladesh, where changes in sea level and water flow drive a very dynamic farming environment, the program will foster adoption of more productive, diversified and resilient practices and technologies that improve use of resources and improve adaptive capacity.

We have now used this analysis of development challenges in each hub to identify communities where program teams are now



working with participating households to recognize opportunities and strengths on which the program can build, and identify constraints that need to be addressed. These community level analyzes will in turn guide design workshops that will be held in Western Province of Zambia in October, in Malaita in the Solomon Islands in November, and in Khulna in Bangladesh in December. A detailed research agenda for each hub will be developed through these workshops, together with an intervention matrix that matches existing resources with research priorities, and highlights future needs for program funding, and partner and bilateral investment. We will proceed to implement these research priorities from January 2013, including building synergies with other CGIAR Research Programs (CRPs). The AAS Program's [Roll-Out Handbook](#) Ver.1 has a detailed description of the program's hub methodology.

In Cambodia and Philippines, program teams have been working with partners to review key trends and learning from past development investments in each program hub. These analyzes will be used to identify where we will focus efforts in these countries in 2013.

Innovation

Business as usual will not achieve the outcomes and impacts that the program seeks. Reflecting this premise the program emphasizes innovation across our work. Three areas where we have made important progress in the first year of the program are gender transformative research, impact assessment, and integrating nutrition concerns into the program.

- **Gender Transformative Research.** As the agricultural research community has increased its investment in gender, so has realization that gender roles and norms need to change and that women truly be empowered, before the substantial improvements in household well-being that we seek can be achieved and sustained. Recognizing this challenge the program goes beyond gender mainstreaming in our work on technologies, markets and governance, to

place **transformation in gender roles and norms at the core of our research.** Reflecting this focus our research in each hub will include analysis of ways to build better awareness of gender roles and norms, change distribution of resources of gender roles and norms, and address power relationships between men and women, and address power relationships between women and service providers. To achieve this however we will need to develop not only innovative research approaches, but also new partnerships that will help us access the different skills required to help make the needed changes happen.

To support the development of our gender transformative research agenda the program is, at the time of writing, convening a workshop "[Building Coalitions, Creating Change: An Agenda for Gender Transformative Research in Agricultural Development](#)" from 3-5 October. By bringing together a wide range of gender practitioners and researchers from different development sectors we will review the current state of knowledge on gender transformative approaches, and distill learning that can be applied in the design and implementation of the work of AAS, other CRPs, and in the work of our development partners. Building on this approach, participants at the workshop will identify a set of follow up actions that can sustain the momentum generated through the workshop, and provide an on-going mechanism for support to, and learning between, new efforts in gender transformative research and development.

- **Impact Assessment.** For the program to contribute to achieving impact at scale, we must be able to show how our work has made a difference in the places we work, and distill the learning that can contribute to wider impacts in other AAS and other complex agricultural systems. We have therefore prioritized design of an approach to monitoring, evaluation and impact assessment that explicitly addresses the weaknesses of earlier CGIAR research in this area. This has involved working with partners and the CGIAR Research Programs on Water, Forests, and Climate Change to develop an improved conceptual framework for monitoring, evaluation and impact assessment of research in natural resource management and complex farming systems, and pursue the development of improved methodologies for this approach. A position paper describing the framework is now in preparation.
- **Nutrition.** As program roll-out has proceeded in specific hubs, malnutrition has emerged as a particularly important issue across all locations where we are working. Taking account of this importance we are strengthening integration of nutrition research within the program, starting with detailed assessment of diets and nutrition issues through focus group discussions in target communities. Drawing upon this analysis we will integrate nutritional concerns into the detailed diagnosis and research planning that will take place in each hub in the last quarter of 2012. As we do so we will build on the very positive experience that program partners have acquired through IFAD and USAID supported research designed to improve availability of small fish in Bangladesh. Similarly we are working with the leadership of the CGIAR Research Program on Agriculture for Health and Nutrition with a view to strengthening synergies between the two programs.

Science outputs

A number of significant science products have been published during the first half of 2012. These include:

- Allison, E.H., B.D. Ratner, B. Åsgård, R. Willmann, R. Pomeroy, and J. Kurien. 2012. Rights-based fisheries governance: From fishing rights to human rights. *Fish and Fisheries* 13(1): 14-29.



- Ratner, B.D., B. Barman, P. Cohen, K. Mam, J. Nagoli, and E.H. Allison. Strengthening governance across scales in aquatic agricultural systems. *Ecology and Society*.
- Ratner, B.D. Building resilience in rural livelihood systems as an investment in conflict prevention. In H. Young and L. Goldman (editors), *Livelihoods, Natural Resources, and Post-conflict Peace Building*. London: Earthscan (forthcoming).
- Beveridge, M. Functional aquatic ecosystems, inland fisheries and the Millennium Development Goals. *Fish and Fisheries* (in press).
- Nagabhatla, N., Beveridge, M., Mahfuzul Haque A.B.M., Nguyen-Khoa, S., & Van Brakel, M. Multiple water use as an approach for increased basin productivity and improved adaptation: A case study from Bangladesh. *International Journal of River Basin Management*, 10, 121-136.

Partnerships

The program places strong emphasis on working through partnerships. National partners are closely engaged in program design in each focal country and will play a central role in implementation (see Box). Similarly at international level a wide range of research and development partners are working to support the program. Reflecting this commitment CARE and Catholic Relief Services are helping steer the program through their membership in the Program Leadership Team (PLT).

The program is also developing important partnerships with leading research and capacity building institutions. Two important MoUs have been signed with the International Center for Research on Women and with the International Center for development oriented Research in Agriculture with a view to

engaging their expertise and capacity in developing the program's work on gender and in building wider capacity for participatory approaches to research in development. Further details on the program's approach to partnerships are available in a new policy brief.

Box. Building partnerships in AAS hubs

Through program roll-out we work at hub level to build partnerships, motivation and coherence around tackling a compelling development challenge. As part of this process a stakeholder consultation workshop serves to share our philosophy and approach and gauge stakeholder priorities and motivations. During this stage of work different stakeholder groups map partner networks in each hub. They are asked to map out their collective view of who is working with whom on AAS issues and then to identify where network changes (for example the need for stronger working relationships) would help a collective effort in tackling the hub development challenge. These maps are then compiled to identify the organizations that stakeholders see as the most central to efforts to better cope and take advantage of the hub development challenge. Figure 1 shows the composite map drawn for the Barotse Hub. The largest nodes are the ones that stakeholders see as the most central to tackling hub development challenge. Nodes are also color-coded and shaped according to organization type. As shown in Figure 1 the most central nodes are predominantly government organizations and the most central the Provincial Agriculture Coordinator Office (PACO) followed by the Zambian Wildlife Authority (ZAWA) and the Barotse Royal Establishment (BRE).

