

8 CONCLUSIONS

The ICLARM/WorldFish research programs and structure have undergone several strategic transformations since 1999 in response to challenges and opportunities in the fisheries sector, as identified by several international conferences and changes within the CGIAR, and have led to changes in program focus and structure. One of the most significant changes occurred in 2004 when the Center adopted the matrix management approach of three global disciplines interacting with 6-8 regional portfolios. This was followed by the adoption of a Strategy Update in 2005. The Center has moved quickly to implement the matrix management system over the last year. WorldFish has also modified its staff profile by a redefinition of tasks and a realignment of staff competencies with its Strategy Update and program. While the retrospective aspect of this review has been based on the old program structure, the Panel has extensively commented on the matrix management approach and new strategy and also alluded to the perceived advantages and constraints.

The Strategy Update commits WorldFish to a more impact-oriented and decentralized program based on multidisciplinary research, with a strong emphasis on partnerships and achieving the MDGs from a fisheries and aquaculture perspective, with a focus on poor communities. However, WorldFish is still a Center in transition and management need to develop detailed operational plans to match the goals of the Strategy Update and ensure the matrix approach functions effectively. Financial resources do not seem to have been a critical factor for the Center during the period in review, although they could become a major factor as the Center works to implement its yet-to-be-developed essential programs emanating from the Strategy Update.

Despite the changes that have taken place at the Center over the past seven years, from the relocation of its headquarters, to changes in strategy and programs, the research output has, in general, remained steady, although there appears to be an unfortunate tendency to publish in local, regional and lower profile journals. This is inadequate in relation to other research providers, and may compromise the vision statement "to be the science partner of choice for delivering fisheries and aquaculture solutions for developing countries." Having said this, it is noteworthy that many of the in-house publications of WorldFish seem to be exactly what are required by NARS, NGOs and other partners.

After a rigorous review of the WorldFish research portfolio, the Panel concludes that WorldFish has made some significant contributions to science, and with its partners has generated output and services of high relevance to developing countries, with documented impacts in at least two cases. However, the panel notes that much of the production was from scientists who have left or will be leaving the Center in the next year, and that more recent accomplishments would have been even more significant had WorldFish the appropriate critical mass of scientists.

Although some partners expressed satisfaction about the extent and quality of their partnerships with WorldFish, the Panel's opinion is that WorldFish should more explicitly define its role and that of its partners on the Research-to-Development Continuum to optimize its contribution to the development agenda. The Center has actively participated in the Water and Food Challenge Program and the System-wide

Initiative on Water Management, and other work with a number of CGIAR Centers. In addition, the Center has played an important advocacy function through its “Fish for All Campaigns” and has created awareness of the vital importance of the fisheries and aquaculture sector in the context of poverty alleviation, and has stimulated political will in both Asia and SSA.

In terms of governance, the Center is positioned well in that many of their institutions and practices are already sound; what is required now is a giant leap as it were, so that the Center excels by international best practices; much of the Panel’s recommendations in this regard are indeed geared towards this end. There are external governance dimensions such as performance, disclosure and accountability that would eventually lead to enhancement of corporate reputation. On internal governance dimensions, greater attention to Board processes and participation, independent science advice, and supervision and surveillance over executive management and its performance within a value-based framework are some of the key parameters that would enhance corporate credibility and trust, major ingredients in stakeholder recognition.

Internal management in WorldFish is also set for a step change, looking to the various plans that the Center has embarked upon. An improved financial reporting system is about to take off in 2006; several HR initiatives are in the pipeline, including the One Staff policy that hopefully will minimize perceived disparities in compensation packages of IRS and other staff; risk management in a formal sense is beginning to be applied to the activities of the Center; organizational structures have been refurbished to optimize use of available resources, but the biggest challenge lies in recruiting and retaining an adequate and appropriate pool of scientists and containing employee attrition. Closer interactions with host country governments, the investor community and other partners are seen as keys to growth and success in the years ahead. WorldFish has taken concrete steps to align its vision and mission to those of the CG, and its operations are much in line with the integrated strategic approach adopted by the CGIAR system. In addition, it is planning to play a significant role in the implementation of at least six or seven system priorities. Its interactions with other centers are impressive.

8.1 The Way Ahead

The challenges in world fisheries and aquaculture are enormous, but so are the opportunities to measurably influence trends in global food security and poverty reduction through fish-based research-development solutions. These challenges have influenced thinking within WorldFish and should continue to impact on its work in the coming decade, as already envisaged in the Strategy Update and program structure. The Center has made the strategic decision on what WorldFish will not do. This includes not focusing for the present on either the Caribbean or South America, and, closing its genetic analysis laboratory -- out-sourcing the work as appropriate. Furthermore, WorldFish will not work directly on disease diagnosis, post-harvest technologies, and breeding and culture research, though genetic improvement will be an area of major investment under the Aquaculture and Genetic Improvement Discipline.

The scope of world fisheries and aquaculture research potentially open to the Center is however, still vast. The Center needs to make key choices and limit itself to a few strategic areas and work with carefully chosen partners, and make future investments in science by addressing some of the key themes that have been highlighted in this review,

e.g. poverty in rural communities, environmental degradation, trade, and governance. On a regional basis, the Center should elaborate strategies to take into account the specificities of the different regions, and ensure matching resources to implement the activities. In this regard, special emphasis should be placed on SSA, a region with pressing and unmet needs. However, the Strategy Update does not include direct involvement in Latin America and the Caribbean at least until 2009, at which time the policy will be reviewed. It may however, be short sighted not to at least establish links immediately with relevant research institutes in relation to promoting outputs from WorldFish and developing collaboration – many important North America and European research institutes have solid research bases in Central and South America.

As the unique center that deals with fisheries and aquaculture within the CGIAR system, WorldFish faces a number of difficulties particularly in convincing some that it is producing international public goods. This is due in part to the nature of natural resources management. For example, learning how to develop community-based approaches to management, however, requires actually doing it on the ground in a particular country and accommodating the country specific issues that arise. A particular challenge for WorldFish, and for any Center that has a focus on natural resource management, is that these investments have a degree of geographic specificity and hence the difficulty of producing IPGs is relatively high. WorldFish needs to identify approaches that will enhance efficiency gains and also transform what would otherwise be national public goods into IPGs. To ensure the production of the appropriate IPGs, the Center should at the research planning and prioritization process, specify the expected outputs and validate that they constitute IPGs.

Human capacity building should be seen as an integral component of the long term success of the Center. WorldFish should work to enhance the competencies of its staff and partners through a number of innovative mechanisms, including mentoring and twinning with universities with renowned competencies in key strategic areas of interest to the Center and its clients.

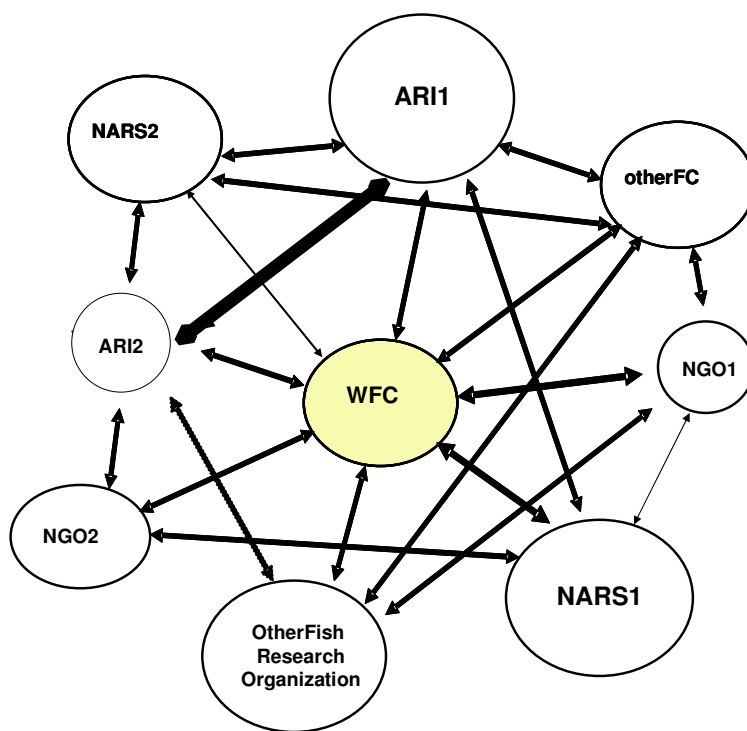
The matrix management approach needs a solid critical mass within WorldFish. To achieve this, WorldFish will need to strengthen efforts in resource mobilization and ensure that research outputs result in discernible impacts. This in part would require a re-thinking of how to position the Center in the international fisheries and aquaculture research landscape. From a conceptual point of view the R-D Value Chain paradigm is linear and polarized (from research to application). Seen from the perspective of this paradigm the conditions to be “the partner of choice” for other organizations are to have fast and efficient access to upstream outputs and to propose adapted inputs to downstream partners. The first refers for the most part to ARIs.

It appears plausible and can already be observed that research investment with a focus on developing countries will increase greatly in the future in the field of agriculture and food research, including NRM, which is one of the bed-rocks of WorldFish. Furthermore, it is foreseen that there could be reduction in specialist type training and that emphasis will be placed on “cross-cutting” disciplines including biotechnologies, computer sciences, system analysis, and human sciences. In addition, the research capacities in emerging countries will propose high quality outputs with sometimes very competitive costs compared to northern ARIs. The result of this larger effort of research could not only be an increase, but above all a diversification of research outputs, with the

development of more sophisticated products (synthesis, global analysis, impact assessments, policy advices) produced by ARIs together with the more classical products (publications) that could respond directly to the demand of developing countries and extension services.

The second point refers to the approaches and mechanisms developing countries will use to attract appropriate research. Even if the local research capacities of many countries will remain rather limited, their ability to identify appropriate partners and to implement and manage direct links with ARIs will in the opinion of the Panel, greatly increase. As a result of these two trends, the concept of interface in the “R for D chain”, considered as a structural and vital position, could become obsolete. A more holistic paradigm with ARIs, WorldFish and similar organizations, NGOs and NARSs, as nodes of a network with all possible bilateral relationships and flow of information, could be more relevant.

Fig. 8.1 The Knowledge System Paradigm (Source: 3rd EPMR Panel, 2006).



This paradigm of a “knowledge system” calls for an extensive examination of several points: What could/should be the role of WorldFish in the management of this “reverse chain” (i.e. the flow of information resulting from knowledge dissemination back to e.g. relevant ARIs)? And what could/should be the mode of investment of WorldFish in the partnership with ARIs and development organizations. To be a “partner of choice” (and even to remain a partner), WorldFish should have very efficient roots in some selected ARIs in order to be really a co-producer of basic knowledge of interest and to be so at the first place to use them. This can only be obtained by long term and stable investments (creation of joint or associated laboratories, co-financing of PhD theses, exchange of scientist etc.). The same is worthwhile for development organizations in that WorldFish should continue to collaborate and interact with them in some extension activities and in

building confidence relationships with some NARSs. The cultivation of this “double rooting” imply a move towards a more selective partnership policy and the adoption of a “nervous system” paradigm in which WorldFish is similar to a bundle of neurones connecting very precisely and rapidly, key science players and users through efficient synapses. The Panel observed that WorldFish has progressively established a niche for itself within the CGIAR System; it has also embraced the opportunities and challenges emerging within the System and displayed leadership potential in a number of areas. This together with a stronger platform for partnerships, growth and organizational development which is evident within the Center should facilitate its positioning in this “knowledge system”.

The Panel believes that WorldFish has comparative advantages through a combination of attributes to respond appropriately to the challenges at local, basin and coastal zone, national and international levels, taking into account the suggestions made in this review. The primary risk that the Center must guard against is burn out and loss of staff in key positions due to inadequate handling of multiple science and management pressures; while its greatest threat may be an inability to demonstrate impacts on poverty at a scale that attract attention and continued funding.

WorldFish is still under-going a transition. The Panel has raised a number of issues from its evaluation of the Center’s Programs, governance, management and finance, and has made recommendations and suggestions for improvement. However, the overall assessment of WorldFish’s performance over the period in review is very positive. The Panel confirms that donors’ funds have been well invested, and on that basis WorldFish should be a Center of choice for future investments by donors. Looking ahead, the Panel acknowledges that the task will be challenging for the Board, Management and staff of the WorldFish Center, but the Panel is convinced that it is achievable.