



# Public Private Partnerships in Small-Scale Aquaculture and Fisheries

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*Aid is a means to an end, not an end in itself.  
It is the private sector that creates the jobs, goods and services  
that the world's poorest people so desperately need  
to lift themselves out of poverty.  
We, the public, will help them achieve this.<sup>1</sup>*

### Introduction

It is commonly recognized that partnerships and alliances between the public, private and civil sector are critical factors for success in development. These relationships have often been championed by development agencies and donors under the umbrella term 'public private partnerships' (PPPs). With new challenges arising to frustrate our attempts to meet the Millennium Development Goals, from accelerating climate change to the fragility of the global financial system, the nature of these partnerships is evolving. The private sector is becoming more fully engaged, shouldering more responsibility for achieving human development goals. Profitable smallholder businesses, often the backbone of the economy and food supply in developing countries, are now increasingly recognized as important drivers for successful development (see Box 1)<sup>2</sup>.

#### Box 1: Smallholder Businesses in Aquaculture

Worldwide, aquaculture products from a wide range of species and a variety of large- and small-scale enterprises command a farm gate value over \$89 billion. Aquaculture and fisheries play an important role in the food security of many countries and provide fulltime employment to over 135 million people worldwide, mostly in the developing world. Globally, over two and a half billion people rely on fish for a substantial part of their animal protein and nutrition.

Aquaculture and fisheries in many developing countries are the business of choice for small-scale farmers and fishers. In Asia, it is estimated that there are around 16–17 million small-scale aquaculture farmers. Small-scale fisheries employ 50 of the world's 51 million fishers; practically all are from developing countries. They produce more than half of the world's annual marine fish catch of 98 million tonnes. Small-scale aquaculture and fisheries supply most of the fish consumed in the developing world.

### Key Messages

Certain types of social, economic and technological innovations can only be achieved when public sector organizations, private firms and civil society cooperate closely. These critical alliances between the public, private and civil sector are referred to as public private partnerships. A review of PPP experiences in the field of fisheries and aquaculture leads to the following conclusions:

- The PPP objectives tend to reflect the desires of the developed country partners. These usually include enhancements to the value chain through improvements to the quality of the product and the production process, prerequisites for access to international markets.
- Developed country partners prefer to join with cooperatives or associations rather than individual smallholders in order to reduce risk by working with a partner of sufficient economic scale.
- The most important difficulties encountered by PPPs were inadequate funding and the scarce supply of human resources with the necessary technical and management skills.
- The most essential prerequisite for a successful PPP is a supportive governmental public private partnership strategy, with a regulatory framework that upholds property rights, accelerates entry to the formal economy, and roots out corruption.
- The value-chain oriented 'enterprise centred approach' responds to the higher vulnerability of many low income producers by offering a complementary package that includes training in entrepreneurship, legal advocacy advice, microfinance, and technological support to enable smallholders to develop commercially competitive enterprises.

### Public private partnerships, tools to achieve what?

PPPs are cooperative ventures between the public, civil and private sectors, built on the expertise of each partner that best meets clearly defined public needs for services, infrastructure, or development activities through the transfer of resources, risks and rewards between partners.<sup>3</sup> Others describe PPPs as 'a voluntary alliance between various equal actors from

<sup>1</sup> Mitchell, A. Private sector holds the key to tackling global poverty. DFID, press release, 12.10.2010.

<sup>2</sup> Berkes, F., Mahon, R., McConney, P., Pollnac, R., Pomeroy, R. Managing Small Scale Fisheries. IDCR, 2001.

<sup>3</sup> CCCCCP. (2008). About PPP Definition. Retrieved 5.20.2010, from Canadian PPP council: [www.pppcouncil.ca](http://www.pppcouncil.ca)



**Four Aquaculture Livelihood Centers (ALSCs) now form the backbone of business organization for more than 2,600 shrimp farmers in Aceh, Indonesia**

different sectors whereby they agree to work together to reach a common goal or fulfil a specific need that involves shared risks, responsibilities, means and competencies<sup>4</sup>. The underlying rationale for PPPs in the field of development is that certain types of social, economic and technological innovations can only be achieved when public sector organizations, private firms and civil society cooperate closely. We find a common understanding that development-oriented PPPs are constructs between public sector authorities from developed countries, often represented and managed by development agencies; strong financial and economic private sector partners from developed countries, and civil sector partners as implementing organizations. Such PPPs target development of (private) producers or communities in developing countries.

Amongst such public private development partnerships we find a broad spectrum of PPP models, programs and styles that range from the philanthropic approach at one end to the pure business, profit-oriented approach at the other. From experience, it is unlikely that a single PPP model for the aquaculture and fisheries sector will emerge, as the specific goals and objectives for each partnership differ. It may be more prudent to consider the core development goals for public-civil-private partnerships. We believe the principal goal is to design and manage a win-win situation where all partners are able to achieve constructive, sustainable outcomes including, essentially, development benefits for the poor and hungry. Such outcomes should be livelihood improvements and a lift out of poverty for the poor; development of business infrastructure and opportunities for profitable businesses for the smallholder private sector; and social progress, gender equity and community development within the developing country.

This policy brief explores the question “which aspects of past PPPs in aquaculture and fisheries have been useful, effective and replicable?” We ask what basic principles should lie behind new PPPs that are set up to promote sustainable human development through aquaculture and fisheries, and we address the key governance role of the public sector in developing countries in facilitating their effective application.

## PPPs in aquaculture and fisheries development: Experiences from the last ten years

In 2009, WorldFish carried out a review of aquaculture and fisheries PPPs implemented over the previous ten years. The review included an online survey, an extended analysis of publicly available resources and personal interviews with development agencies, civil and private partners previously engaged in PPPs. Of the 53 PPP cases assessed, 70% took place in Asia, 17% in Africa, 8% in South America, and 6% had a global outreach; development agencies had initiated 87%; national public partners in developing countries were involved in 83%; and NGOs were identified as the civil sector partner in 62%.

With respect to the private sector, it was found that medium-sized companies and multinationals from the North partnered with farmer cooperatives 49% of the time, with smallholders 38% (mostly involved within a wider group of private partners), aquaculture and fisheries associations 26%, and with community groups 19%. (The total exceeds 100% because there is often a mixture of private partners involved). This indicates that although there was strong representation from smallholders in the development partnerships, overall there was a preference for social groups such as cooperatives, associations and communities (94%). This reflects the desire for partnerships of economic scale. There is an understandable need to minimize the risk of failure of development projects. The public authorities want to achieve sustainability and multiplication of the benefits beyond the project’s duration and the private profit-oriented enterprises from developed countries will only invest when adequate returns on investment may be expected; hence they tend to work with larger producers or aggregated producers (cooperatives and associations). A requirement for the integrated partner to be of a certain economic scale was



**Members of an Aquaculture Livelihood Service Centre in Aceh engaged in discussion about their business plan**

<sup>4</sup> The World Economic Forum: Building on the Monterrey Consensus, The Growing Role of Public-Private Partnerships in Mobilizing Resources for Development 09/2005; [http://www.weforum.org/pdf/un\\_final\\_report.pdf](http://www.weforum.org/pdf/un_final_report.pdf)

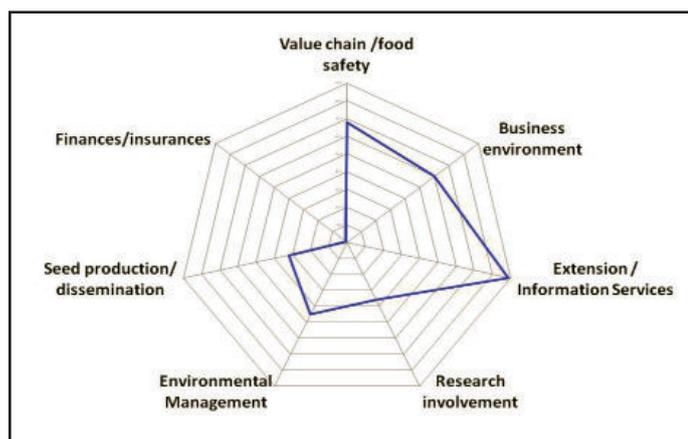
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supported by 80% of those interviewed. However, smallholders still face the problem of being targeted by interventions, but not being large enough to be acknowledged as equal partners. In consequence, resource-poor farmers and small-scale processors in developing countries need to find partners but often find they have nobody suitable to partner with<sup>5</sup>.

A close examination of the PPPs revealed that many promoted the primary interests of private sector enterprises from developed countries. Their motivation is to enhance the value chain through improvements to the quality of both the product and the production chain, often twin prerequisites for access to international markets. A ranking of their objectives revealed the following results. Interventions in supply chains, including certification and marketing improvements, ranked highest at 23%, followed closely by corporate social responsibility activities and capacity building at 21% each. Other objectives, e.g., technology improvements, environmental management and conservation issues scored 12%, with research close behind at 11%<sup>6</sup> (Figure 1).



**Proud shrimp farmer showing results from the successful rehabilitation of aquaculture in Aceh, Indonesia**



**Figure 1: Distribution, by percentage, of the primary objectives cited in the 53 aquaculture and fisheries PPPs reviewed**

On the other hand, the producers and processors in the developing countries were merely supplied with solutions for export structures that met the rules of the dominant, developed country markets. This confirms analysis of development governance from other sectors which concluded that “partnerships are mainly supply-driven” by the requirements of the more powerful partner<sup>7</sup>.

Several motivating factors were found that persuaded participants to join PPPs. Principally, these included the allocation of additional financial, technological, and managerial resources, skills and expertise. Nearly 15% of the respondents referred to allocation of additional financial resources as a

motivation, and a similar percentage mentioned allocation of specific skills and experience. Another 14% were motivated by the opportunity to implement technologies for development. Approximately 12% of the respondents were seeking investment opportunities and 11% wanted to allocate human resources or raw materials from developing countries.

## What was working?

The survey showed that participants were generally satisfied with the outcomes of the partnership approach. On a scale from 1 (low) to 5 (high) the satisfaction level ranked 4. Interventions in the aquaculture and fisheries sector which met the expectations and demands of the partners were those that focused on the following three issues: (1) investments in improving technologies, business competencies and services in key input market chains; (2) strengthening technical and financial services for smallholder producers; and (3) linking smallholder producers to higher value markets through improved product development and organizational capacities. In the past insufficient systematic approaches were made by public sector partners to analyze the specific development impact and sustainability of the PPPs initiated. This has changed with more professional business planning and impact assessments for PPP programs now taking place.

Some recent PPPs focus on the delivery of specific business services to smallholder farmers through partnerships with implementation organizations, the civil sector and local government authorities. These may prove, in the future, to have strategic importance for the sector as a whole. For example, the Aquaculture Livelihood Service Centers (ALSCs) in Aceh, Indonesia (Box 2), the OASIS One-Stop Aqua Shop, India, and the NACSA society for shrimp-farmer communities in Andhra

<sup>5</sup> Hartwich, F. Partner or Perish. The imperative for participation of the poor in agrichains. IFPRI, 2008.

<sup>6</sup> Weirovski, F., Liese, A. Public Private Partnerships in Fisheries and Aquaculture in Developing Countries in Asia and Africa – a Review. WorldFish Center Report, 2009.

<sup>7</sup> Andonova, L., Levy, M. Franchising global governance: making sense of the Johannesburg type-two partnerships. In: Forsyth, T. Panacea or paradox? Cross-sector partnerships, climate change, and development. John Wiley & Sons, Ltd. Volume 1, 09.10.2010; p. 684-696.

Pradesh, India, all offer a “one-window service delivery” or a single point of contact that provides access to information, training and government institutions as well as practical support through the supply of quality seed material, access to markets, and marketing.

### Box 2: Community services improve shrimp production for small-scale farmers in Aceh, Indonesia

On the north-east coast of Aceh thousands of small-scale aquaculture farmers struggled with their production because of shrimp diseases, low quality seed, lack of advice and poor management. Production was already low and inconsistent and the 2004 tsunami brought additional losses. From humanitarian investments to rehabilitate aquaculture infrastructure and livelihoods have emerged partnerships between newly formed farmers’ organizations, donors (Organization for Industrial, Spiritual and Cultural Advancement, Japan Fund for Poverty Reduction, and the Asian Development Bank), local governments and research institutions (e.g., The WorldFish Center).

A number of Aquaculture Livelihood Service Centers (ALSCs) have emerged from 24 clusters of producers in 150 village groups. These are community-based organizations using traditional community leaders. The ALSCs offer services to over 2,600 farmers with more than 2,000 ha of brackish water ponds. The services assist farmers to implement Better Management Practices, with reduced risk of disease and better yields. The ALSC business units operate services such as collective purchase of seed, feed and fertilizer, demonstration ponds, micro-finance, stock management and marketing. ALSCs are looking to the future to expand the number of farmers serviced, and complete the value chain by improving post harvest technologies and gaining access to international markets.

## Hurdles and obstacles

The most important difficulties encountered by PPPs, as identified in the WorldFish review, were inadequate funding and a scarce supply of human resources with the necessary technical and management skills. Nearly 27% of the respondents to the online survey mentioned insufficient financial resources as a constraint, 18% mentioned weak management, 16% a shortage of technical resources, 10% mentioned lack of important information, and 14% the need for suitable partners. False expectations were apparent in 11% of the answers. Only 4% of the respondents noted restrictions on access to relevant rights or territories.

According to all partners interviewed, a shortfall in capacity exists with regard to both the management principles of PPPs and an awareness of opportunities to engage in these partnerships. This is particularly evident in the more technologically-oriented government departments of fisheries. Other hurdles were seen in the bureaucracy and domestic legal systems of developing countries, limiting the investment opportunities from developed countries.

In the past, some of the development agencies interviewed have recognized that many PPPs in the aquaculture and fisheries sector were fragile and not economically sustainable in their design. They finished at the end of the project-supported period or were declared as failures before they had reached full capacity. In interviews, private stakeholders mentioned that the potential of aquaculture has not been fully recognized despite existing development strategies.

In the survey, the public partners in developing countries were sometimes criticized for remaining too passive and not taking a more active role in project execution, and particularly for their failure to direct the process of private investments. Many developing countries lack a national legal framework for developing and implementing PPPs. In only a few cases were there clear obligations set out in the partnership objectives by the national public sector for improving social conditions of farmers or communities. This might indicate that the potential of partnerships is not being fully recognized despite the fact that such collaborations are demanded in many existing national aquaculture development strategies.

## Foundations underlying successful public private partnerships

From the interviews and the online survey we learnt about the opinions and experiences of the PPP partners, and were able to ascertain which basic principles were the most important for the design and execution of successful aquaculture and fisheries public private partnerships.

- Topping the list, and an essential prerequisite, is a supportive governmental public private partnership strategy, with a regulatory framework that upholds property rights, accelerates entry to the formal economy, and roots out corruption.
- The intentions and motivations, interests and obligations of all partners (public, civil and private) must match to allow any partnership to be workable.



Shrimp hatchery in Aceh, supported by the USAID funded PPP project AMARTA

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- Strong leadership by the private sector partner within the management of the PPP is essential.
- Solid financial foundations and economic planning with feasible and sustainable targets are key factors for enterprise and business development.
- Formal, approved, transparent, fair and balanced management structures and information flow within the PPP are essential to maintain trust and commitment from all partners.
- The synergy created by the application of skills, expertise and knowledge from a range of different sources is a key motivating factor for joining a partnership; ongoing capacity building and knowledge transfer is demanded by all partners.

## Recommendations for the public sector

While smallholders are the dominant group in food supply from agriculture, aquaculture and fisheries, productivity and sustainability need to increase to achieve the Millennium Development Goals. To enable smallholders to develop and remain commercially competitive, value-chain oriented models for the smallholders' businesses are required. Success is more likely if the public sector can:

1. **Foster the use of PPPs in fisheries and aquaculture development** as a major pathway for investment in production and sector-related services such as hatcheries, feed production, advisory services and marketing in the form of institutional arrangements.
2. **Develop PPP related skills within national government agencies** in target countries via competence centers specialized for the development of fisheries, aquaculture and agriculture. Use the experience and expertise of the development agencies.
3. **Implement private sector development strategies** with a stronger role for the private sector. Actively use PPP structures where incentives and obligations are designed to deliver defined public needs for services, infrastructure, improvement of livelihoods and social development. Public private partnering must be embedded into an economic vision for the aquaculture and fisheries sectors.
4. **Recognize small-scale farmers and fishers as commercial partners** of the private sector with enormous importance for society and the economy. Small-scale operators need to work together to achieve a commercial order of magnitude through the development of appropriate intermediary management organizations.
5. **Create supporting financial structures for the private sector**, particularly for smallholders, for example through microfinance-based support packages, tax incentives and insurance for risk mitigation.
6. **Harness feasible business developments of sustainable economic scale.** This could be done through improved policies for donors who are looking at long-term sustainable economic social and environmental broad-based impacts as well as generating positive results for large sections of the poor or disadvantaged. Public private partnerships can catalyze these sorts of developments by bringing together the necessary skills



Fish net cages in Malawi; aquaculture production for local food security

- and expertise: financial and technical capacity from private sector partners, social and environmental activities from civil sector partners, knowledge transfer from research with the political will of the public sector.
7. **Build platforms or alliances** with high development-policy significance by connecting partners of different scale that agree on strategic objectives for the development of the sector and on public needs, and that allocate responsibilities appropriately.
  8. **Improve the impact of public private research partnerships** through investment and incentives for knowledge exchange and through supportive structures which manage and mitigate the additional risks for private producers.
  9. **Provide capacity building and general education for smallholders** and their organizations to improve their technological, managerial and commercial skill levels so that they can comply with the demands of complex value chains..
  10. **Support business leadership on the ground**, enhance commitment between all smallholders, improve reliability and the willingness to take risks and make decisions, support compliance with managerial rules and internal and external regulations, create collaboration with local people and place businesses strategically on the market.

## The way forward: partnerships for sustainable smallholder businesses

From our research we conclude that national stakeholders in developing countries, particularly smallholders, are often perceived as lacking financial resources and essential management skills. They were not treated as equal partners but viewed primarily as recipients of project interventions. To resolve this, the specific demands of the disadvantaged groups and their vulnerability has to be taken into account in PPP design, creating opportunities for their participation.

Within the broader challenge of climate change, interest in engaging smallholder businesses in actions for adaptation and mitigation is increasing. Public private networks and partnerships are increasingly influential in trans-national governance, not least prompted by the merging of market and regulatory instruments in the framework of the Kyoto Protocol<sup>8</sup>. During COP16, the World Business Council for Sustainable Development (WBCSD) presented a strategy for including the private sector in low-carbon technology research, development and demonstration (RD&D)<sup>9</sup>. It showed how governments can generate leverage by introducing policies that redirect private sector investment. The UN Summit on the Millennium Development Goals in September 2010 specifically recommended partnerships with the private smallholder sector highlighting the "inclusive business strategy"<sup>10</sup> (Box 3).

### Box 3: Inclusive Business Strategy

Inclusive business is about companies seizing market opportunities that work for the poor, and for their business. Inclusive business is exciting for the development community because of the potential to reach low-income people at scale, whether as consumers, producers, or workers. It involves doing business with low-income populations anywhere within the value chains, incorporating them in the supply, production and marketing of goods and services. By focusing on commercial viability, these models have increasingly demonstrated the capacity to engage millions of poor people. The emphasis is on core business rather than on philanthropy.

The WorldFish Center is conducting research on investment strategies in the aquaculture and fisheries sector that can achieve prosperity for the poor using a similar framework. We believe that PPPs are part of the available toolbox but we must respond to the limited economic capacity, lack of reserves and higher vulnerability of many low income producers by offering a complementary package. This includes training in entrepreneurship and management skills, legal advocacy advice, microfinance, and technological support; a package we call an 'enterprise centered approach'. Smallholders contribute

through their assets such as ponds or farms and by sharing risk and labor within more equitable partnership arrangements.

The 'inclusive business' as well as the 'enterprise centered approach' for small-scale farmers and fishers, aims to raise single entrepreneurs to a sustainable commercial level through collective action. 'Horizontally working' interventions build 'farmer clusters', or groups, that coordinate the production planning and organizing the former 'single' farmers into 'one production unit' at a feasible economic scale. 'Vertically working' interventions are essential for financing and ensuring the sustainability of the system. These include factors such as managing the supply of finances, knowledge transfer, and technical inputs (mainly seed, feed and fertilizer), plus organizing the business relationships for sales. This involves processing, logistics and transport to local, national and export markets, certification and traceability of the products. Competitiveness with other producers in today's markets, enabled by the new financial, managerial and technical business elements, could produce a sustainable surplus for growth for low income producers and other low income operators in seafood value chains.



Aquaculture farmer in China controlling the growth rate

<sup>8</sup> Andonova, B.L., Betsill, M.M., Bulkeley, H. Transnational Climate Governance. Global Environmental Politics, Volume 9, Number 2, May 2009, p. 62.

<sup>9</sup> "Innovating for green growth: Drivers of private sector RD&D" World Business Council for Sustainable Development (2010) <http://www.sustainablefinance.org>

<sup>10</sup> Ashley, Caroline. "Accelerating Progress Towards Millennium Development Goals Through Inclusive Business; Achieving Impact, Moving Towards Scale". New York, NY: Oct. 2010.



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