

STUDIES AND REVIEW | 1875

Public-Private Partnerships for Fisheries and Aquaculture: Getting Started



PUBLIC-PRIVATE PARTNERSHIPS FOR FISHERIES AND AQUACULTURE: GETTING STARTED

F. WEIROWSKI

S. J. HALL

© The WorldFish Center 2008



This publication should be cited as:

Weiiowski, F. and S.J. Hall. 2008. Public-private partnerships for fisheries and aquaculture: Getting started. WorldFish Center Manual number 1875. The WorldFish Center, Penang, Malaysia.

Authors' affiliations:

F. Weiiowski: The WorldFish Center, Penang, Malaysia
S.J. Hall: The WorldFish Center, Penang, Malaysia

Cover photographs

Front and back: Fred Weiiowski

Printed by Delimax (M) Sdn Bhd

WorldFish Center Contribution No. 1875

© 2008 The WorldFish Center

The WorldFish Center, P.O. Box 500 GPO, Penang, Malaysia

All rights reserved. This publication may be reproduced in whole or in part and in any form for educational or nonprofit purposes without the permission of the copyright holders provided that due acknowledgement of the source is given. This publication may not be copied or distributed electronically for resale or other commercial purposes without prior permission, in writing, from the WorldFish Center. To obtain permission, contact the Business Development and Communications Division, worldfishcenter@cgiar.org.

This document has not been peer reviewed. The views presented in this publication are those of the author(s) and do not necessarily represent those of the WorldFish Center, its partners or the organizations that provided funding for the publication.

PUBLIC-PRIVATE PARTNERSHIPS FOR FISHERIES AND AQUACULTURE: GETTING STARTED

INTRODUCTION

Public-private partnership (PPP) is becoming increasingly important for furthering development goals. But deciding when a PPP is suitable and what PPP arrangement is best is difficult. Many options exist for such partnership arrangements, and the differences among them can be subtle but significant. It is therefore important that researchers for development, managers, advisors and policymakers understand the language and concepts of PPPs. This document aims to improve understanding of PPP for those who would use PPP arrangements to improve fisheries and aquaculture in developing countries.

The document is written as answers to key questions to make the information easy to find. Readers should bear in mind, however, that the information contained here is generic and that details will differ with circumstances. It is important to seek expert advice as early as possible when considering possible PPP arrangements.

WHAT ARE PUBLIC-PRIVATE PARTNERSHIPS?

No single definition of public-private partnership meets everyone's demands. At its most generic, PPP is a catch-all term to cover the many forms of collaboration among the private, public and civil sectors. This can cause confusion because many types of arrangements that people call PPPs are more fittingly described as being on the continuum from simple contract-based service provision to full privatization. The first hurdle in any conversation on the topic is therefore to agree on a common meaning for the term.

This paper adopts the definition used by the **Canadian Council for Public-Private Partnerships**, defining a PPP as "a cooperative venture between the public and private sectors, built on the expertise of each partner that best meets clearly defined public needs for services or infrastructure through the transfer between partners of resources, risks and rewards."

Two essential elements to this definition are that the arrangement is to provide public services and that partners share risk. The aim of PPPs is to structure the relationship between the public and private sectors to serve these two purposes: to allocate the risks to those best able to manage them and to add value to public services by using private sector skills and competencies. Importantly, PPPs are not incentives or subsidies given by the public sector to attract private investments.

Classical PPPs are for-profit partnerships to provide public services or public infrastructure with shared responsibility and risks. They are long-term contractual commitments by the private sector directed at the better management of traditional core business services in the public sector. These include, for example, electricity and water mains; medical services and hospitals; prison management; the design and construction of roads, bridges, ports and other infrastructure; tourism development; and the management of national parks or schools.

The definition of public-private partnership above allows for broadening from classical for-profit PPP arrangements. Arrangements often deviate from the strictly commercial relationship between partners found in classical PPPs, as memoranda of agreement or understanding are often used rather than commercial contracts. A second reason is that the purpose of such arrangements can extend beyond providing infrastructure or public services as conventionally defined. PPPs are important as, for example, vehicles for developing technologies where normal private sector market incentives fail. Perhaps the best example of this in developing countries is in the health sector, as pharmaceutical companies are often unwilling to bear the cost of developing drugs for diseases that affect the poor unless they receive public sector support. This is because they cannot recoup their costs from the price the customer pays. Other possible PPP roles include advocacy, developing norms and standards, sharing and coordinating resources and expertise, improving access to supply chains and export markets, developing businesses and workforces, addressing health and environmental issues, and expanding access to education and technology. These arrangements may involve civil society stakeholders as well as government and the private

BOX 1. IRRIGATING THE GUERDANE BASIN — AN EXAMPLE OF A TYPICAL FOR-PROFIT PPP

Near the city of Agadir, Morocco, around 10,000 hectares in the Guerdane Basin are soon to be irrigated by a new PPP initiative in the classical for-profit mode. Over 100,000 people in the region earn a living directly or indirectly from citrus farming. Dependent largely on groundwater that is fast diminishing, the industry urgently needs surface water to irrigate the crop. Private wells are currently the only sources of irrigation water, and several farms are abandoned each year as wells dry up or the cost of pumping water become unaffordable.

This new PPP project will build irrigation infrastructure and a 60 kilometer channel to a reservoir. The total cost is an estimated US\$85 million, of which the private partner is responsible for 43%. The Moroccan government will provide \$48.5 million, half as a loan and half as a grant.

In the procurement process — conducted with technical assistance from the International Finance Corporation (the private sector arm of the World Bank) and France's Fonds d'Etudes et d'Aide au Secteur Privé — the winning bid came from a Moroccan consortium that proposed charging a service fee to farmers of \$0.15 per cubic meter of water. Construction began when 80% of the farmers paid an initial fee to participate in the scheme.

The advantages of the arrangement are as follows:

- for the private sector operator, increased revenue from the sale of water;
- for the public sector, completed infrastructure transferred to the state, increased company tax revenues and value-added tax on water for irrigation, and reduced costs to rehabilitate the region; and
- for farmers, more secure water supplies at lower cost.

Source: El Gueddari 2006; The WorldBank Group, 2004.

sector. PPPs that include civil society interests — sometimes known as public-private-civil partnerships — often strengthen the public-good nature of the arrangement.

Some authors expand their definition of PPP to include any formal or informal arrangement between the public and private sector. This wider definition allows the inclusion of knowledge-sharing networks, technology financing or subcontracted research. These arrangements are excluded from consideration here.

WHAT ARE THE POTENTIAL BENEFITS OF A PUBLIC-PRIVATE PARTNERSHIP?

PPPs provide opportunities to do the following:

Improve the quality of service by allowing both sectors to do what they do best. Government acts as the regulator and focuses on planning services and monitoring performance. The private sector focuses on managing the day-to-day delivery of the service. The performance incentives and penalties typically included in a PPP contract stimulate innovation.

Improve cost-effectiveness by taking advantage of private sector innovation, experience and flexibility. PPPs can often deliver more cost-effective services than traditional approaches. The savings that accrue can finance other services.

Increase investment without raising public debt. PPPs can reduce governments' capital costs and help to bridge the gap between infrastructure and service needs and governments' financial capacity. The private sector can often earn extra revenues from third parties, thereby reducing the cost to the public sector.

Better allocation of risk, as a core principle of PPP is to allocate risk to the party best able to manage it at lowest cost. For example, a company that specializes in running laboratories may be better able than the government to manage laboratory health and safety risks.

Faster implementation, as design and construction risks and payments linked to service delivery are large incentives for private companies to act quickly. Incentives for quick action are more difficult for government agencies to create.

Accelerated infrastructure provision, as PPP can allow the public sector to proceed with projects at times when public capital is limited, thus bringing forward much needed investment.

Increased investment in technical innovation, as PPP can create incentives to develop new technologies when normal market incentives are absent. PPP offers greater certainty over lifecycle costs of infrastructure by avoiding the vagaries of government budgeting cycles. Because the private sector is variously responsible for building, maintaining, and operating infrastructure and services, it can minimize costs by discounting them over the whole life of a project rather than in the short period often required by government accounting procedures.

WHAT ROLE DOES PPP HAVE IN INTERNATIONAL DEVELOPMENT?

Most developing country governments look for ways to mobilize finance, skills and experience to secure private investment to support development. Success in this effort can be measured by comparing trends in official development assistance (ODA) to foreign direct investment (FDI). Private sector financing becomes increasingly feasible for developing countries as businesses become more global. In 1990, ODA was almost twice as large as FDI in developing countries. Now, despite the growth in total ODA from US\$58 billion to \$117 billion between 1990 and 2006, the aid invested by governments is less than one quarter of the total invested by the private sector (Figure 1). More than half of all FDI worldwide in 2004 was funneled into developing countries.

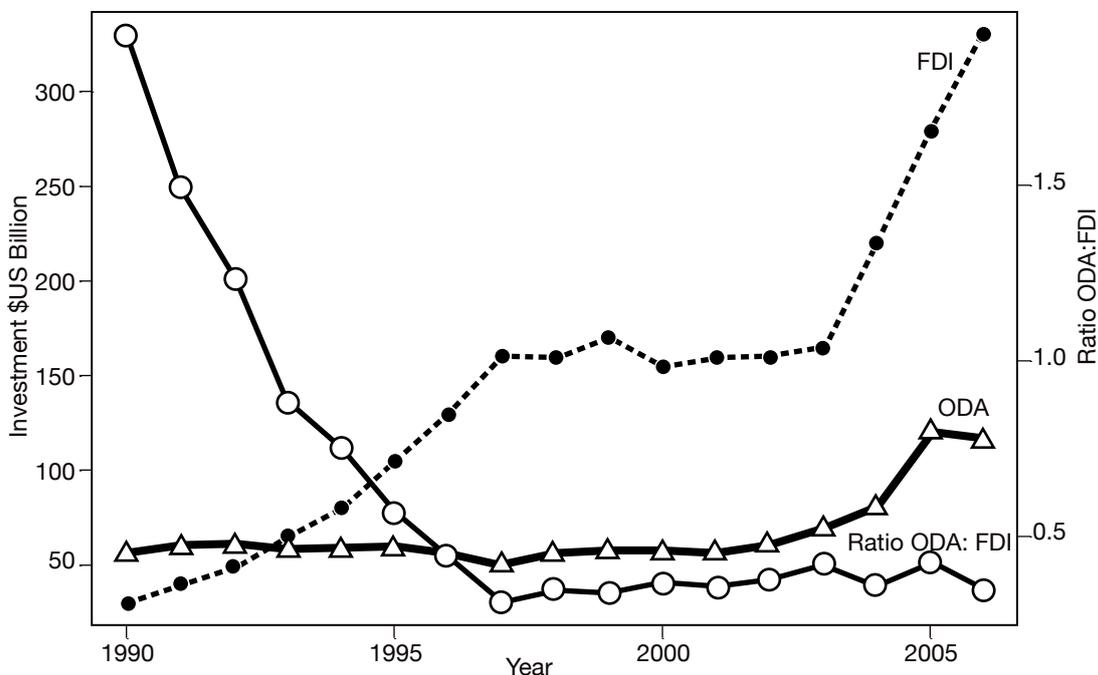


Figure 1: Overseas development assistance versus foreign direct investment, 1990-2006

Source: OECD 2005. Agriculture growth for the poor; USAID. 2007. US total resource flow to the developing world (Figure redrawn from original sources).

Despite this success, investment in key areas such as agriculture remains low. In its 2005 report *Agricultural Growth for the Poor*, the World Bank identified declining public spending on agriculture in Africa as a major concern. It pointed out that investment in agriculture fell from the already low level of 7.5% of agricultural gross national product in 1980 to 6% in 1998 (based on Fan and Rao, IFPRI 2003). In response to such concerns, the New Partnership for Africa's Development (NEPAD) drew up plans to double current level of annual spending (US\$ 1.1 billion) on agricultural research and extension over 10 years Africa-wide. The source of funding is envisaged as follows: 57% by governments and 43% from ODA. (NEPAD 2005)

Although data are sketchy, researchers agree that PPP has become an increasingly important contributor to success in attracting investment into developing countries. To achieve the United Nations Millennium Development Goals, some countries now have special programs to support PPP development. And many international aid agencies recognize an important role for PPPs and have put in place programs and mechanisms to support their development (Table 1). Indeed, PPP-based development aid is now a mainstream assistance arrangement for the United Nations and many other agencies. Such PPP development tools are especially helpful for developing country governments that have difficulty making public sector investments to improve local infrastructure and product chains that meet international rules.

BOX 2. PUBLIC-PRIVATE PARTNERSHIPS FOR DEVELOPMENT: ORGANIC CATFISH PRODUCTION IN VIETNAM

In Vietnam, the An Giang Fisheries Association started to produce organic catfish (*Pangasius*) with the help of a PPP between the German Technical Cooperation Agency (GTZ), the nongovernmental organization (NGO) Naturland and the private German fish-importing company Binca Fisch GmbH. The private sector partners and GTZ shared both risks and costs, with the private partner responsible for implementing and managing the project. This resulted in higher fish quality, with production and processing that met European standards. These standards specify not only product quality and hygiene practices but also working conditions for employees.

This partnership has increased export opportunities, reduced rejection rates at international borders and expanded the market. Meeting the requirements of the European Union's biggest retailers has helped retain market share. The project helped build capacity by transferring knowledge on organic production methods to other local producers and processors, and by raising awareness of pollution and food safety issues.

Source: Van 2006. www.gtz.de

WHAT ROLE DOES PUBLIC-PRIVATE PARTNERSHIP HAVE IN RESEARCH FOR DEVELOPMENT?

In developing countries the proportion of agricultural research spending funded by the private sector remains low (Box 3). As with agricultural investments more generally, national and international research centers look for alliances with the private sector to pool knowhow and share funding and research facilities. Such partnerships can give publicly funded research agencies access to cutting-edge research tools, materials and proprietary knowledge. They can also enhance their skills in developing, distributing and marketing products and dealing with regulatory processes. Most private sector investment in research and development (R&D) comes from firms in developed countries, for which key benefits include access to emerging markets, scientific expertise and genetic material in developing countries. These firms can also provide the means to strengthen corporate social responsibility programs, corporate image, brand recognition and investor confidence. In 2006 the **Syngenta Foundation for Sustainable Agriculture** made a research grant to the International Food Policy Research Institute (IFPRI). The project provides an analysis of 75 PPPs in international agricultural research, using data gathered from international research centers supported by the Consultative Group on International Agricultural Research (CGIAR). PPP's represent just 4 percent of the CGIAR's aggregate financing averaged over the period 2001–05. These research PPPs were mainly directed to pro-poor product development in technologies relating to crop production and value addition, and accessing knowledge from the private sector to further center research (Spielman et al. 2007).

Table 1: Examples of development assistance facilities to promote PPP arrangements

Country	USA	UK	Denmark	Canada	Germany
Responsible authorities	US Agency for International Development (USAID), Global Development Alliance (GDA)	Department for International Development (development assistance programs and Challenge Fund)	Ministry of Foreign Affairs of Denmark, Danish International Development Agency	Canadian International Development Agency (CIDA)	Ministry of Development Cooperation (BMZ), German Agency for Technical Cooperation (GTZ), Deutsche Investitions- und Entwicklungsgesellschaft (DEG), German Development Service (DED), Internationale Weiterbildung und Entwicklung gGmbH (InWEnt), SEQUA gGmbH, Centrum für internationale Migration und Entwicklung (CIM)
Program names	Public Private Alliances (PPA); GDA incentive fund to finance start-up alliances	Business Linkages Challenge Fund, Africa Enterprise Challenge Fund, Global Partnership of Output-Based Aid	Business to Business (B2B); Partnership Facility Program PFP (environmental)	Industrial Cooperation Program (CIDA-INC)	Public Private Partnership Strategic Alliances(GTZ), PPP facility (GTZ), integrated PPP (GTZ), PPP Facility for Sub-Saharan Africa (GTZ), PPP and PPP Study Facility (DEG), Financial Cooperation, Private Sector Participation
Public financial participation by donor country per project	Public:private relation minimum 1:1, average 1:3	Case by case, no set conditions; public participation start with \$100,000 up to \$2 million	In preparation, maximum 60% of project costs up to \$65,000. In implementation, maximum 60% of project-related investment up to \$920,000	public participation starts with \$90,000, with maximum contribution of 75% or \$540,000 per project.	Maximum 50% or €200,000, but special BMZ approval is available for projects with higher financial demands
Participation by a private partner in the donor country	Essential	Possible	Essential	Possible, but nonprofit organizations and public, governmental and research institutions are excluded	European Union company essential
Financial contribution by private partner	Partner contribution must include private cash or in-kind contributions ≥ 25% of the value of the expected USAID contribution	Program specific, essential contribution 50%	Essential minimum of 40%, but in some B2B programs 10%	Essential minimum 25%	Essential minimum 50%
Objectives	Stimulating economic growth, trade and agricultural development to reduce poverty and hunger; reducing global health threats; promoting democracy; preventing conflicts; humanitarian assistance	Policy development and reform, infrastructure, international trade, land reform, public enterprise reform	Reducing poverty; promoting economic growth, social development, environmental protection	Cash contribution to Canadian companies to start a business or provide training in developing countries or countries in transition to a market economy	Environmental standards, capacity building, quality improvement, product development, healthcare at workplace
Target countries	All developing countries where USAID is active	Program specific	B2B: Danida program countries and South Africa; PFP: China, Malaysia, Thailand	List of eligible countries	A preference list of more than 100 developing countries at http://www.gtz.de/de/dokumente/de-ppp-ansprechpartner-laender.doc
Websites	www.usaid.gov/our_work/global_partnerships/gda	www.dfid.gov.uk www.challengefunds.org	www.b2bprogram.com www.um.dk/en	www.acdi-cida.gc.ca/psd	www.gtz.de http://www.gtz.de/en/leistungsangebote/2362.htm

BOX 3: SPENDING ON AGRICULTURAL RESEARCH AND DEVELOPMENT

In 2004 global spending on agricultural research was \$36 billion. Calculated on the basis of purchasing power parity, 55% of this spending was by developing countries. As a proportion of agricultural gross domestic product (GDP), however, spending in developing countries remains low. For every \$100 of agricultural GDP, only 56 cents goes on agricultural R&D, compared with a developed country figure of \$5.17 in 2000 (Figure 2).

A great disparity exists between developed and developing countries in private sector participation. In rich countries, 54% of agricultural research is privately funded. In developing countries, the figure is only 6%. For every \$100 of agricultural GDP, the private sector in developing countries contributes 3 cents to R&D while developed country counterparts contribute \$2.78.

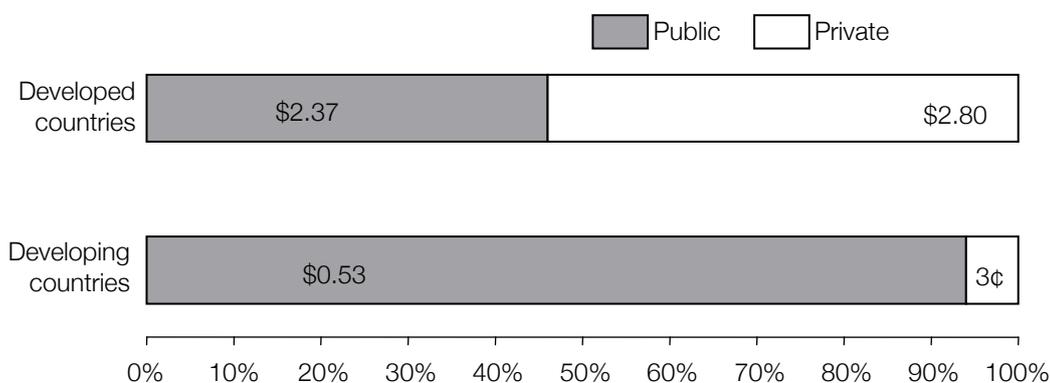


Figure 2: Global public versus private agriculture R&D intensities in 2000

Source: Pardey et al. 2006. The authors based their calculation on Agricultural Science and Technology Indicators initiative data and on data presented in OECD 2005. The intensity ratio measures total public and private agricultural R&D spending as a percentage of agricultural GDP.

WHAT ROLE CAN PPP PLAY IN FISHERIES AND AQUACULTURE?

A literature search identified 25 PPP projects established in the past decade in developing countries to serve fishery or aquaculture interests. Because existing PPP arrangements show areas of opportunity for other investors, the objectives of these projects are summarized below.

Because most projects had multiple goals, a ranking of importance of the objectives was made to group the projects. Figure 3 shows how the stated objectives for these projects broke down by broad category.

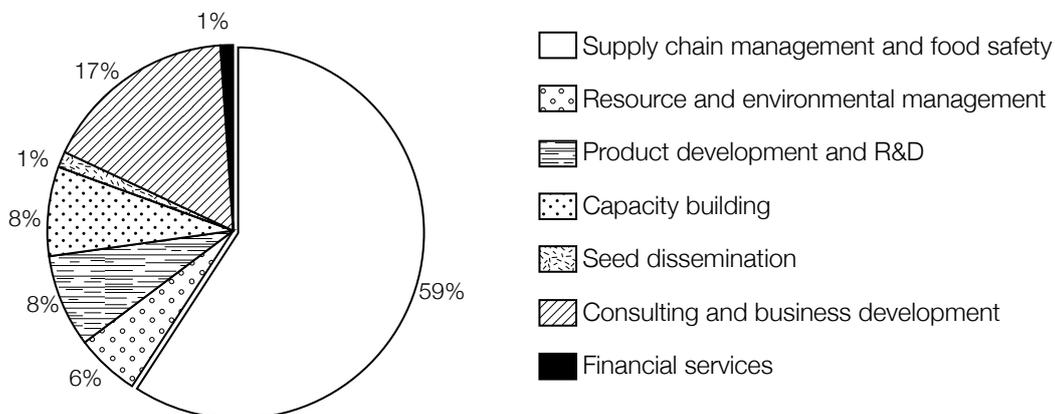


Figure 3: Distribution of objectives named in 25 PPP projects for developing fisheries and aquaculture in developing countries

The most common goal for PPPs is to improve supply chain management and food safety to increase access to national and international markets. This goal was reflected in 59% of the total of 46 objectives which were named in the 25 PPPs examined, and 15 projects noted this as a main objective. Organic certification, product handling, food safety and marketing all fall into this category. Emphasis on this area probably reflects organizational and institutional weaknesses in the public sector for which private company expertise can compensate. Motivated to secure product and meet consumer standards, private importers from developed countries initiated most of the projects with this objective.

The second-most-common class of objectives is business development and consultancy services. Focusing on improving production management procedures, preparing the business case for foreign direct investment and supporting farmer associations all fall under this category. Such objectives made up 17% of all the objectives and were named in 10 projects.

The objectives of capacity building, training and development made up 8% of all listed objectives, and were found in 7 projects. Developing new products and other forms of research and development also made up 8%, and were found in 7 projects. Examples here include developing new products from the antifungal chitinase found in shrimp shells and new approaches for breeding ornamental fish.

Improving resource and environmental management was a focus of 6% of the objectives, and mentioned in five of the projects. Objectives under this category include reducing waste in production processes, developing new feedstuffs from sewage and improving fishery management.

Only one project focused on disseminating improved seed for the aquaculture industry, a surprising result as improving seed quality is identified as a priority in many national aquaculture strategies.

Developing financial services for small-scale fishery and aquaculture enterprises was also named in only one project. A more detailed study of the role of microfinance institutions in the development of aquaculture would reveal a greater role for PPPs in this area.

It would appear from this brief review that private sector demand and the structure of development assistance programs for developing countries are the main drivers for setting up PPP arrangements to support fisheries and aquaculture. Most of the PPPs analyzed were established as the private sector sought to overcome constraints and market failures and was able to use development assistance to support this objective. In contrast, there is little evidence that national development strategies drive PPP arrangements. This is despite the many development programs that identify PPP as an important tool for achieving strategic objectives. This finding implies that many opportunities remain to use PPP arrangements to support fisheries and aquaculture. The apparent failure to use PPP arrangements in strategically important areas may reflect institutional and organizational weaknesses in the governments of developing countries or a lack of experience and understanding of PPP opportunities.

Several suggestions for opportunities to use PPPs in support of fisheries and aquaculture are listed below:

Improving access to national and international markets. Small and medium-sized fisheries and aquaculture enterprises often struggle to market their products as demand for product quantity and quality increase. Serving national or international markets often requires improved supply chain arrangements and effective marketing campaigns. Small and medium-sized enterprises often have limited contacts with the larger international food supply and marketing system. They need support to enter these global supply chains. This support may include help with competitor analysis, export regulations, customs arrangements and logistics infrastructure. PPP can often be an effective way to meet such needs. For example, a partnership between Chinese and German private exhibition companies, and their governments, helped provide organic farmers from Asian countries with access to national and international traders and retail chains, 'BioFach China'.

Improving food safety and quality. Small-scale farmers who want to export find it increasingly difficult to clear food safety and quality hurdles. Food safety and quality standards can act as barriers to trade, but they can also catalyze improvements that will position products competitively in high-value markets. Service contracts, awarded by governments to private companies under PPP arrangements, can help with this. Helping small-scale fishers and fish farmers to meet production standards and operating certification, as well as auditing or traceability requirements, may all be done more efficiently by the private sector with oversight and regulation by government partners.

Vietnam provides an example of success with this approach. Here, certifying small-scale catfish producers and their products to Euro-Retailer Produce Working Group Good Agricultural Practices (now **GLOBALGAP**) standards and **International Food Standards** has helped improve access to international markets.

Developing niche markets. Experience from marketing organic products suggests that diversification into niche markets can create higher revenues and competitive advantages for farmers. Entrepreneurs that produce new aquaculture species are exposed to higher risks because of uncertainties in production management and markets. PPPs that, for example, support the clustering of companies in aquaculture parks or help with marketing efforts for niche products can help to distribute risk and thereby reduce the risk to a single entity to a manageable level.

Improving sector-specific infrastructure services. In fisheries and aquaculture, the main infrastructural needs are improvements in seed-dissemination systems, feed production and supply networks, and the postharvest handling and transportation of products from fisheries and fish farms to processors or markets.

Effectively producing quality seed in adequate amounts and disseminating it to producers, who are often in remote areas, demands an efficient organizational structure. Arrangements that link publicly run genetic improvement programs supplying superior broodstock with networks of private hatcheries serving as seed multipliers offers one of the most promising models to achieve this.

Feed cost, quality and supply are central determinants of the economic viability and environmental footprint of aquaculture enterprises. Using local feed sources to replace fishmeal and improving feeding regimes are key technological goals for many aquaculture enterprises. A partnership of the Chilean and Peruvian governments with Nutreco, the world's largest feed producer, and with the International Union for the Conservation of Nature, reduced fishmeal content in fish feeds (**Nutreco Annual Report 2006**). This provides a good example of how PPPs can help in this area.

Postharvest losses of wild-caught fish are high in many developing countries. Researchers estimate that up to a quarter of fish landed in Africa is lost to spoilage. The lack of elementary processing or cold chain facilities causes much of this waste. PPPs that support decentralized fish collection and transport systems could improve matters in many regions. An example of such an approach comes from Bangladesh, where the public and private sectors have collaborated to install icing facilities at shrimp-collection points and marketing centers (**3P Consortium, News 2007**).

Improving financial services. The lack of access to credit remains a problem for many small-scale enterprises. Those operating in the fisheries and aquaculture sector are no exception. Rural banks are perhaps the most likely institutions for microcredit start-up support to entrepreneurs wishing to develop fishery and aquaculture enterprises. Government-backed credit and risk guarantees for rural banks are important public interventions for rural microfinance initiatives. A good example of a PPP arrangement in financial services is the **Global Commercial Microfinance Consortium**, which promotes private sector investments in developing countries. Supported by USAID funding and credit guarantees, and managed by Deutsche Bank, the consortium is a PPP of governments and international banking institutions.

Technology development and research. Partnerships between publicly funded national agriculture research institutes and the private sector are key drivers of technological progress. Institutional collaboration through PPP arrangements can mitigate risks for the private sector that would otherwise prevent them from proceeding and provide financial support to the public sector to help cover costs. Public-private investments in researching and developing genetically improved fish strains have the potential to provide attractive economic returns to the private sector and to meet a public need for improved seed quality.

Improving information and communication. Market information systems, transaction platforms and information service provision are possible fields for PPP, as access to timely and reliable market information is increasingly important for small-scale entrepreneurs and fishers' and farmers' associations. In Bangladesh the e-Krishok* initiative, a partnership between Grameen Phone and WIN is disseminating agricultural information via community information centers to farmers (**e-agriculture 2008**). The dissemination of fish market prices through cell phones to fishing villages in Kerala provided extensive rural benefits at low cost in India. The volatility of fish prices fell dramatically, the wastage of unsold fish was ended and the security and income of fishermen was increased (**Jensen 2007**). A partnership of the **Syngenta Foundation for Sustainable Agriculture**, Uganda National Farmers

Federation, and Information Communication Technology for African Rural Development improved the exchange of customized health and agro-related information between district farmers' associations and farmers, by installing village telephones.

Improving physical and technical infrastructure. Building and managing infrastructure such as roads, power supplies, or potable or irrigation water systems are typical fields for public-private collaboration. A good example of PPP-supported infrastructure improvement in the fishery sector comes from the Andaman Nicobar region of India. Here a PPP arrangement allowed the construction of a new harbor that is now managed by a private concern. PPP arrangements may also provide and manage mariculture parks, aquaculture investment zones, or one-stop service centers with marketing and processing facilities for small-scale fishers and fish farmers.

Improving capacity building and extension services. There is great potential for private companies to form partnerships with public institutions to support education and training. Demonstration plants, national or regional training centers, vocational training programs, and e-learning courses for entrepreneurs and government employees may all be cost-effectively provided under such arrangements. Privately run extension services working under PPP arrangements, with government setting the regulatory framework and monitoring standards, may serve farmers and fishers more efficiently and effectively than public services.

Privatizing government-owned facilities and services. Public facilities and services may suffer because of budget problems or ineffective management. Long-term concession and divestiture contracts enable governments to engage private companies to improve efficiency and effectiveness. Areas where governments may consider the merits of such transfers include public hatcheries or fish farms, research infrastructure, and services that assess fish stocks.

PPP arrangements offer many opportunities to improve fisheries and aquaculture in support of human development. They are not, however, a general solution for all challenges. Rather, they are among many possible choices for harnessing the development potential of fisheries and aquaculture to meet the needs of developing countries.

WHAT ARE THE RISKS WITH PPPS?

While international experience shows that PPP projects often bring significant economic benefits, such projects can go wrong and sometimes do. Potential risks to both private and public sector participants are damaged finances and reputations.

External risks arise from events beyond the scope of the project and can arise with changes of government, legislation or the political climate. Such risks may be addressed in PPP contracts but are fundamentally outside the project itself and may be beyond the control of the parties.

A survey undertaken in Asia provides evidence that PPP opportunities diminish and their costs increase with increasing political risk (Sachs and Tiong 2005). This study also found that PPP opportunity is greater for countries that are more economically developed. The principal reason for this is that PPPs require stable legal and regulatory frameworks. This is a key to successful PPPs, along with government agencies with the necessary authority to grant concessions and licenses. Mechanisms to resolve disputes and potential conflicts of interests in a cost-efficient, fair and enforceable manner are also vital.

Internal risks are particular to the project or the way it is constructed and operated and are generally under the control of the contracting parties. For internal risks that cannot be fully controlled, the contracting arrangement should explicitly allocate risk among the parties.

One of the critical internal risks is that demand will be insufficient to allow the project company to repay its financial obligations from project revenues. Demand risk is very difficult to estimate, especially in developing economies. The public sector commonly assumes that the private sector should shoulder demand risk. When it does so it is likely to ask for more support from government in the form of subsidies, grants or guarantees to mitigate this risk.

Table 2: Opportunities for Public Private Partnerships in fisheries and aquaculture

Area to support	Examples of products and services	Public sector partners	Private sector partners
Supply chain management and market access	<ul style="list-style-type: none"> • Production standards • Niche product development • Post harvest logistics and handling • Fish collection points • Processing infrastructure • Market information services 	Government institutions Research institutions NGOs Development assistance	Fishers' and farmers' associations Small and medium-sized enterprises Traders, exporters and importers Logistics certification services and auditors Private laboratories
Food safety and quality	<ul style="list-style-type: none"> • Trade systems and auctions • Certification services • Traceability systems • Marketing alliances 		Fish processors Retail chains
Financial services	<ul style="list-style-type: none"> • Microcredit • Credit guarantees • Specific loans connected with skills development • Lease or franchise models 	Development banks Public finance institutes Development assistance NGOs Donors Public economic research institutions	Banks for agricultural and rural development Microfinance institutions and funds International private banks
Management and business development	<ul style="list-style-type: none"> • Public water management • Multiple water use management for integrated aquaculture-agriculture • Land resource management • Fleet and quota management • Ports and landing infrastructure 	Central and local government authorities Government statistics and research institutions International survey entities International agencies NGOs	Landlords Water owners Market service providers Consultants Fishers' and farmers' associations Small and medium-sized enterprises
Information and communication services	<ul style="list-style-type: none"> • Policies and advocacy services for business development • Fishery compliance and data monitoring • Market information services 		
Infrastructure services	<ul style="list-style-type: none"> • Seed dissemination structures • Feed supply and local resource use • Ready-to-operate farms • One-stop stations offering seed, feed, finance, extension, technical and social services • Transportation and logistics • Potable water access for fish-processing facilities and social and health uses • Wastewater treatment • Aquaculture investment zones 	Government breeder centers Departments of fisheries National and international research institutions	Hatcheries, nurseries and on-growing farmers Feed suppliers Logistic services Diagnostic services Other private service providers
Technological development	<ul style="list-style-type: none"> • Environmental impact assessment • Supplier networks • Implementation of standards and best practices 	Government departments of fisheries National and international research institutions	Primary producers in agriculture and aquaculture Fishers' and farmers' associations Processors Industry associations
Fishery and aquaculture production	<ul style="list-style-type: none"> • Integrated aquaculture-agriculture production systems • Use of waste in production chains 		
Capacity building	<ul style="list-style-type: none"> • Sector-specific education • Access to schools, training and communication infrastructure • Key farmer demonstration plants • Extension services • Fish health services • Entrepreneurship training • Demonstration plants 	Government institutions and universities Aquaculture research institutes Public extension services	Fishers' and fish farmers' associations Key farmers Private schools and training units Specialized services

HOW DOES ONE EXPLORE POSSIBLE PPP OPPORTUNITIES?

Table 2 summarizes some of the opportunities for PPP in the fishery and aquaculture sector, but the steps from identifying an opportunity to creating a viable PPP are many and varied. As the details in any particular case will differ, only general advice is available here. The fundamental questions one must ask of any PPP, however, relate to various partners' motivations, goals, expectations and appetite for risk. Key questions include the following:

- Is the proposed project economically viable?
- Will the project satisfy a significant public service need?
- Is the project scale achievable by the partners?
- Are the financial contributions from each partner balanced?
- Will the project allow an effective allocation of risk to each partner?
- Can the project boundaries be clearly defined?
- Will the project guarantee measurable service improvement for customers?

Many handbooks and manuals provide guidance on setting up business-related PPPs, and most countries have PPP knowledge centers, PPP units, privatization committees or PPP officers in the government. Indeed, evidence suggests that a key to PPP success is genuine political will and a competent central government PPP unit. This unit is needed to lead the implementation of PPP programs and support, to train the government authorities responsible for local implementation, and because intra-governmental coordination is often difficult and complex. It should give advice regarding the rules and regulations for PPPs in the country and help explore matters further. Recommended as places to start searching for further information on general principles and approaches are the World Bank's Private-Public Partnership in Infrastructure program; Institute for Public-Private Partnerships, Inc.; and Public-Private Infrastructure Advisory Facility. Their links are given below.

RECOMMENDED LINKS

INTERNATIONAL ORGANIZATIONS

The International Food Policy Research Institute. IFPRI research focuses on policy approaches to alleviating poverty, hunger and malnutrition. Its **International Service for National Agricultural Research** division has undertaken several studies on PPP in agriculture.

The Institute for Public-Private Partnerships, Inc. (IP3) is an international consulting firm that provides training and services on PPP development in the environmental areas of water and sanitation and solid waste and the energy, transportation, technology and social sectors.

United Nations Development Programme's Public Private Partnership for the Urban Environment (PPPUE) facility supports the development of local partnerships. Focusing on assisting small and medium-sized cities, PPPUE works with all potential stakeholders to provide basic urban environmental services.

United Nations Global Compact Initiative seeks to promote responsible corporate citizenship so that business can be part of the solution to the challenges of globalization. In this way, the private sector partnership with other social actors can contribute to a more sustainable and inclusive global economy.

The **Asian Development Bank** has launched a regional technical assistance on **Improving Delivery of Infrastructure Services**. It aims to address infrastructure issues in the Pacific region and explore options and opportunities for improved service delivery and outreach, with attention to efficiency and cost recovery in water, energy, roads, marine transport and telecommunications. Financing needs will be assessed and appropriate financing modalities identified, including public sector participation and a range of PPP options.

The **International Finance Corporation**, the World Bank's private sector arm, offers best practice public policy advice for private sector-led growth and financial market development in developing countries.

The Global **Public-Private Partnership in Infrastructure** portal was developed by the World Bank to provide capacity building to help client governments create the proper environment to develop successful and sustainable PPPs, as well as to provide technical assistance to client countries in issues related to PPP program design, development and implementation.

The Public-Private Infrastructure Advisory Facility is a multi-donor technical assistance facility working closely with the World Bank and providing infrastructure support in all stages of PPP development like the prioritization and selection of projects, **Toolkits for project development**, institutional structuring, legal and contractual framework, project financing, risk management, and competition.

The **FDI.net** helps to access official investment promotion agencies and PPP units at the national and provincial level.

The **National Bank for Agricultural and Rural Development of India (NABARD)** has developed specific bankable business models for fish, mussel and shrimp production in ponds, combined paddy fish production, for Polymerase Chain Reaction (PCR) diagnostic laboratories and fish processing units. NABARD provides refinancing assistance for fish culture to commercial banks, cooperative banks and regional rural banks.

The **village program** of FINCA International and other funds provide financial services to the world's lowest-income entrepreneurs so they can create jobs, build assets and improve their standard of living.

COUNTRIES

Australia

The **Public Private Partnerships (PPP) page** of the **government of Queensland, Australia**, provides information on how the government seeks to explore opportunities for private involvement in the delivery of infrastructure services. **Treasury** is the government's financial and commercial adviser on PPP project implementation.

Canada

The **Canadian Public-Private Partnership Office** and especially the **Canadian Council for Public-Private Partnerships** compiles information on public-private partnership definitions, events and resources for the **water and wastewater, transportation, and hospitals and healthcare** sectors in Canada.

Denmark

The **PPP Programme** of the Danish Ministry of Foreign Affairs supports the establishment of sustainable partnerships between local and Danish companies, organizations or public institutions to promote better working and living conditions in developing countries. The **B2B Programme** supports the establishment of partnerships between Danish companies and companies in Danida's program countries and South Africa. The **Partnership Facility Programme** is an integral part of the package of Danish environmental assistance to China, Malaysia and Thailand.

Germany

The **Federal Ministry for Economic Cooperation and Development (BMZ)** by its German abbreviation) strengthens PPP activities in developing countries through the following organizations:

German Technical Cooperation Agency (Gesellschaft für Technische Zusammenarbeit),

German Investment and Development Society (Deutsche Investitions- und Entwicklungsgesellschaft)

Kreditanstalt für Wiederaufbau (KfW) banking group,

SEQUA Fund for Economic Development and Capacity Building,

InWent International Education and Development Society,

German Development Service (Deutscher Entwicklungsdienst), and

Center for international Migration and Development

The Netherlands

The Public-Private Partnership and Asset Management unit is part of the Ministry of Finance of The Netherlands. The Development Cooperation department in the Dutch Ministry of Foreign Affairs supports the private sector through the Development-Related Export Transactions Programme, which facilitates investment in the economic and social infrastructure of developing countries. For microfinance, see also the **Donor Information Resource Centre of Consultative Group to Assist the Poor**. The **Agri Chain Competence Center** seeks to strengthen international supply chains by acting as a liaison for the business community, knowledge sector and public sector.

Ireland

The Irish Government Public Private Partnership website provides information on public-private partnership projects, events and news, as well as to counterparts in the public sector and the private sector in Ireland and across Europe. The Government established its **Central Public Private Partnerships Unit** in the Department of Finance.

South Africa

The PPP unit of the National Treasury of South Africa has the vision to facilitate and enhance quality public service delivery by being a catalyst for efficient, effective and value-for-money best practice solutions. The website includes a very detailed manual and toolkits for tourism and municipal PPPs.

United Kingdom

The Private Finance Initiative is part of the government's strategy for delivering high-quality public services. The government has created an **Operational Taskforce**, acting on behalf of the Treasury, based in **Partnerships UK**, a PPP whose public sector mission is to support and accelerate the delivery of infrastructure renewal, high-quality public services and the efficient use of public assets through better and stronger partnerships between the public and private sectors.

United States of America

The US National Council for Public-Private Partnerships aims to facilitate the formation of PPPs at the federal, state, and local level in the United States and raise awareness of how PPPs can provide the public with quality goods and services. The United States Agency for International Development program of **Global Development Alliance** works to enhance development impact by mobilizing the ideas, efforts and resources of the public sector with those of the private sector and nongovernmental organizations.

REFERENCE LIST

BioFach China (PPP Project and Seminars).

<http://www.biofach-china.com/main/eefmgjhs/eefmpose/page.html>

e-agriculture 2008. Making e-Agriculture work through public-private partnership in Asia.

<http://www.e-agriculture.org/fileadmin/uploads/documents/eAgPPPAsiaJuly2008.pdf>

El Gueddari ABS. 2006. The Guerdane project. Ministère de l'Agriculture du Développement Rural et des Pêches Maritimes.

Fan, Shenggen; Rao, Neetha. 2003. "Public spending in developing countries: trends, determination, and impact," EPTD discussion papers 99, International Food Policy Research Institute (IFPRI), Washington DC.

<http://www.ifpri.org/divs/eptd/dp/papers/eptdp99.pdf>

Farmers Information Management FICOM, Uganda.

http://www.syngentafoundation.com/projects_programs_ficom_overview.htm

GLOBALGAP standards.

http://www.globalgap.org/cms/front_content.php?idcat=9

Global Commercial Microfinance Consortium.

<http://www.wbcds.org/plugins/DocSearch/details.asp?type=DocDet&ObjectId=MTcyMTc>

International Food Standards.

<http://www.foodcare.info/index.php?SID=ded5473fbcecf47f66d383ed433275aa&page=home&content=basisinfo>

International Finance Corporation.

<http://www.ifc.org/>

Jensen, Robert. 2007. The Digital Provide: Information (technology), market performance and welfare in the South Indian fisheries sector", *Quarterly Journal of Economics*.

http://www.economist.com/finance/displaystory.cfm?story_id=9149142

NEPAD 2005. A Summary of NEPAD Action Plans.

<http://www.nepad.org/2005/files/documents/41.pdf>

Nutreco Annual Report 2006.

http://annual-report.nutreco.com/content.php?page=boardreport_important

OECD 2005. Making poverty reduction work. OECD'S Role in development Partnership. Organisation for Economic Co-operation and Development, OECD publications, (00 2005 1T 1 P) – No. 83249 2005.

<http://www.oecd.org/dataoecd/31/5/34839878.pdf>

Pardey, Philip G.; Beintema, Nienke; Dehmer, Steven; and Wood, Stanley. 2006. Agricultural Research: A Growing Global Divide? International Food Policy Research Institute Food Policy Report No. 17. IFPRI, Washington, DC.

<http://www.ifpri.org/pubs/fpr/pr17.pdf>

Sachs, Tillmann; Tiong, Prof. Dr. Robert L.K. 2005. Political Risks and Investment Decisions in PPPs. A Proposed Framework for Determining PPP Structures that Satisfy an Investor's Decision Criteria with Respect to the Political Risks. Queensland University of Technology Research Week International Conference, 4-8 July 2005.

http://www.rics.org/NR/rdonlyres/B59D5313-31CD-4EB6-A81684E6AAAB3ACD/0/Framework_mapping_political_risks20051129.pdf

Syngenta 2005. IFPRI Grant for research on public private partnerships.

http://www.syngentafoundation.com/about_syngenta_foundation_grants_Grant_to_IFPRI.htm

The World Bank/International Finance Corporation: Morocco Secures World's First Public-Private Partnership Irrigation Project.

<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/MENAEXT/0,,contentMDK:20244053~menuPK:247614~pagePK:2865106~piPK:2865128~theSitePK:256299,00.html>

The World Bank 2005. Agricultural Growth for the Poor.

http://siteresources.worldbank.org/INTARD/Resources/Agricultural_Growth_for_the_Poor.pdf

Spielman, David J.; Hartwich, Frank; von Grebmer, Klaus. 2007. Sharing Science, Building Bridges, and Enhancing Impact; Public-Private Partnerships in the CGIAR. Discussion Paper No. 708 International Food Policy Research Institute (IFPRI), Washington DC.

<http://www.ifpri.org/pubs/dp/IFPRIDP00708.pdf>

USAID 2007. US Total Resource Flows to The Development World in 2005. The Private Revolution in Financing.

http://www.usaid.gov/our_work/global_partnerships/gda/resources/pie_fact.pdf

Van, CT. 2006. Pangasius fact sheet: An Giang GTZ-MPISME Development Program.

www.gtz.de.

3P Consortium, News 2007.

http://www.3p-consortium.org/news_detail.php?nid=86

http://www.3p-consortium.org/news_detail.php?nid=79



Public-private partnership is becoming increasingly important for furthering development goals. But deciding when one is suitable and what arrangement is best, is difficult. Many options exist for such partnership arrangements, and the differences among them can be subtle but significant. It is therefore important that researchers for development, managers, advisors and policymakers understand the language and concepts of public-private partnerships. This document aims to improve understanding for those who wish to use these arrangements to improve fisheries and aquaculture in developing countries.

2008

For further information on publications please contact:

Business Development and Communications Division

The WorldFish Center

PO Box 500 GPO, 10670 Penang, Malaysia

Tel : (+60-4) 626 1606

Fax : (+60-4) 626 5530

Email : worldfishcenter@cgiar.org



This publication is also available from: www.worldfishcenter.org