

# *THE SHRIMP SEAL OF QUALITY PROGRAM<sup>1</sup>*

Dhaka, Bangladesh

## Introduction

Jim Dawson was proud of his team's accomplishments to-date to improve the quality of shrimp exports from Bangladesh. As director of an agribusiness support arm of the Bangladesh government, he had conceived and was now implementing the country's first shrimp quality certification program. The program was designed to insure that Bangladesh shrimp exports met high standards for food safety, environmental protection and human rights. The new Shrimp Seal of Quality (SSOQ) Program aimed to overturn concerns stemming from the country's legacy of exporting diseased shrimp and help brand Bangladesh shrimp as a quality product that commands a better price in international markets.

The shrimp industry was a key sector in the Bangladesh economy because of its significant contributions to export earnings and employment. Given its vast natural water resources and the historic presence of this sector in its economy, Bangladesh had tremendous potential to excel in the area of aquaculture. But in reality, the country's shrimp exports had declined since 2001. Problems began a few years earlier with the outbreak of white spot disease among shrimp intended for export, and their resulting rejection by overseas markets. In response, Dawson spearheaded the SSOQ program by bringing together all industry players to move forward with a unified agenda: to achieve a self-policing system that assured international markets that international standards were met for food safety, environmental protection and human and labor rights.

Even with strong support, there was still much work to be done, both in the field and with international stakeholders. SSOQ had to institutionalize its approach to certifying shrimp. Once that was achieved, Dawson

needed to convince buyers and consumers that Bangladesh shrimp was truly a world class product.

## Background to SSOQ

### The Shrimp Industry in Bangladesh

Bangladesh produced almost 3% of the world's shrimp, and the shrimp sector was the second largest export industry in Bangladesh behind only Ready Made Garments (RMG). There were over 740,000 people employed in the shrimp sector and over ten million people directly or indirectly dependent on shrimp production. [See Appendix for further background on the Bangladesh economy.]

Shrimp generated an average of US\$301 million annually from both Bagda (marine) and Golda (freshwater) farms. Though the industry managed to achieve relative stability by 2000 with sales reaching US\$350 million, that position was threatened by the events of September 11 and, more significantly, by the declining reputation and quality of Bangladesh shrimp exports which were recently criticized by international buyers and consumers, including the EU.

Shrimp farms operated using both leased government lands and landowner-operated shrimp farms. A credit system functioned throughout the sector, operated and controlled primarily by intermediaries. Intermediaries acted as suppliers and providers of credit at each stage in the supply chain.

Concentrated in the southern coastal belt areas of Cox's Bazaar, Bagerhat, Khulna, and Satkhira, the shrimp culture in Bangladesh increased threefold since the early 1990s. Historically, most shrimp culture in Bangladesh

used a traditional extensive farming method characterized by low productivity, low yields per hectare, and low capital inputs. This method was used largely because of its low cost requirements. Unlike semi-intensive or intensive farming practices which required large investments, the extensive method allowed farmers to cultivate shrimp with minimal initial investment. However, farming methods began to change in the 1990s. Because of the relatively high profits earned at various levels of the supply chain, industry players began experimenting with new organizational and ecological techniques, leading in some cases to semi-intensive farming. The transition did not affect all farms, but where it was pursued it was ineffectively managed, leading to incomplete transfer to the newer techniques. As a result, some of the semi-intensive farms became infected with white spot viral disease (WSV) which affects many Asian shrimp species.<sup>2</sup> Within three to ten days of onset, WSV could lead to mortality rates of up to 100% in grow-out ponds. Control of the disease required that all infected stock be destroyed and disposed of appropriately. Unfortunately, the shrimp sector in Bangladesh was not equipped with the technology, management orientation, or organizational infrastructure to respond quickly to the outbreak of the disease, and consequently the losses to the industry were significant.

In September 1997, the European Union (EU) imposed a ban on Bangladesh's frozen food exports after an EU inspection team report condemned shrimp processing plants in Khulna and Chittagong for their failure to comply with EU quality control regulations. In response, in March 1998 the government declared the Hazard Analysis Critical Control Point System (HACCP)<sup>3</sup> as a new mandatory procedure for export-oriented shrimp processing plants. HACCP was a systematic approach to food safety that ensured the quality of the food production process. This response by the government and processors resulted in the EU lifting its ban in July 1998.

### Recent Trends in the Shrimp Industry

Between 2001 and 2003, Bangladesh exported approximately 40% of its shrimp to the U.S., 40% to the European Union, and 20% to Japan. In 2000, shrimp exports reached nearly US\$350 million. Thereafter, there was a decline in international sales and consumption, as is evident from the chart below. In part, broader global economic factors were responsible for declining shrimp exports. The global economic recession of 2000 and 2001 was closely correlated with shrimp prices which substantially declined during the period.

## Exhibit 1

### Bangladeshi Shrimp Exports, Export Promotion Bureau of Bangladesh

Year	Quantity (millions lbs)	Value (millions US\$)
1998-1999	44.28	242.23
1999-2000	62.73	322.43
2000-2001	65.37	349.75
2001-2002	66.61	252.18
2002-2003	56.48	297.04

As mentioned earlier, Bangladesh accounted for almost 3% of global shrimp production in 2003. In addition to being one of the largest generators of foreign currency for the country, the shrimp sector employed and estimated 740,000 people. The employed an estimated 740,000 people. The breakdown by industry player is as follows:

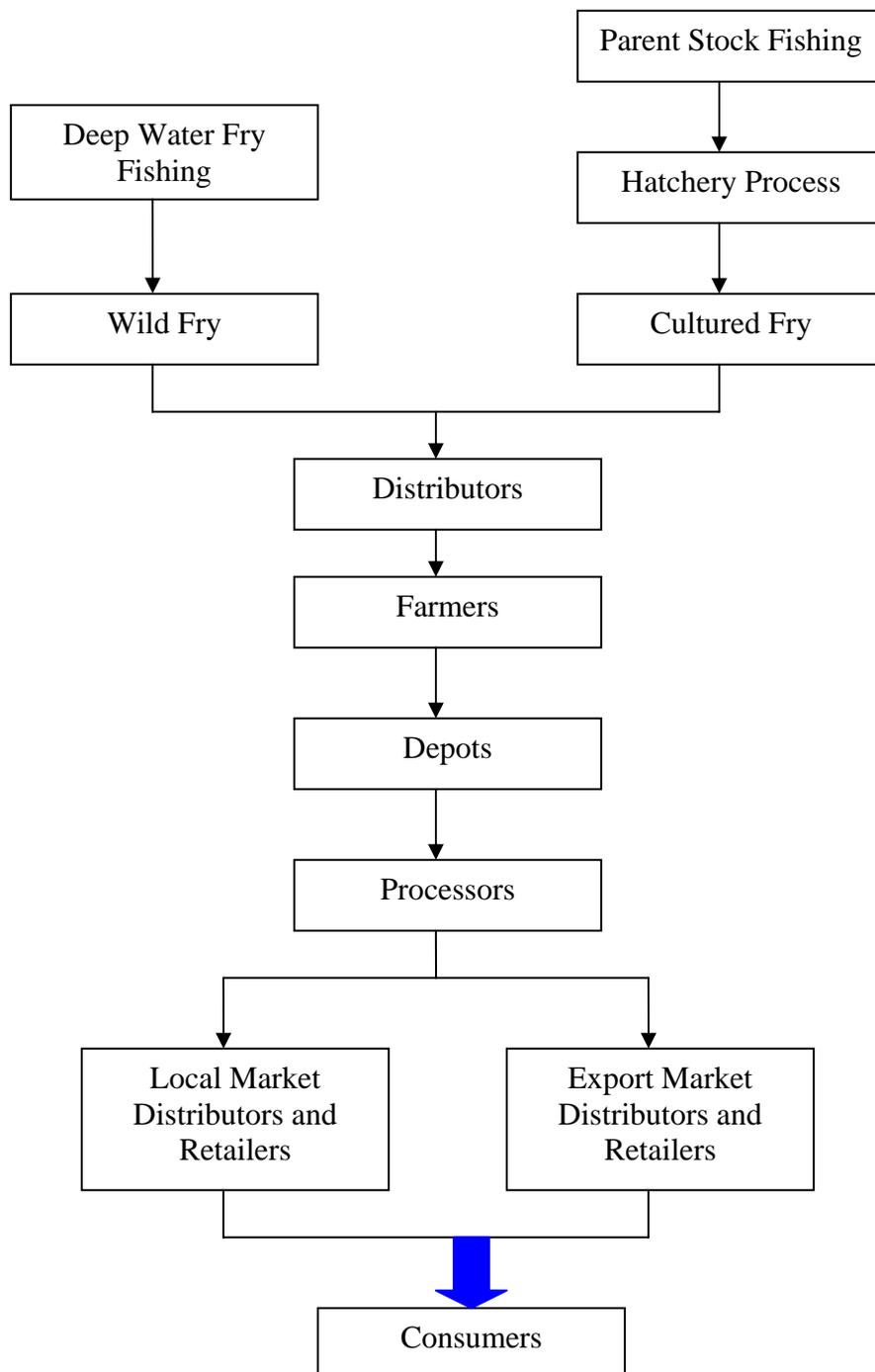
## Exhibit 2

### Shrimp Sector Employment Statistics in Bangladesh<sup>4</sup>

Stakeholder	Number of Units	People Employed
Fry Collection		450,967
Hatcheries	79	1,845
Shrimp Farms	142,400	266,485
Depots		9,642
Processing Plants	124	9,780
Distributors		500
		<b>739,219</b>

**Exhibit 3** shows the shrimp value chain which was long and fragmented with many important players. A credit system functioned throughout the sector, operated and controlled primarily by intermediaries at the distributor and depot levels. In addition to the stakeholders defined in this diagram, the industry involved others including NGOs, donors, buyers, transporters, and wholesalers in Bangladesh as well as Europe, North America, and Japan.

### **Exhibit 3** **The Value Chain for Bangladesh's Shrimp**



## Key Issues of Concern to International Buyers

On the international level, buyers and consumers were increasingly demanding that shrimp be produced in compliance with recognized codes of conduct regarding food safety, human rights, fair labor practices and environmental protection. The concerns manifested themselves in a number of ways. Export-oriented shrimp industries witnessed demands for traceability as a means of improving food safety. For example, upscale supermarkets in Western Europe wished to purchase shrimp that could be traced from their frozen food sections all the way back to the hatchery through the entire value chain. Insuring such traceability required complex paper trails which were difficult to fashion in the long, weakly integrated shrimp value chain present in Bangladesh.

Concerns were also raised regarding human rights in shrimp farming areas. The concerns related mainly to land grabbing, use of child and forced labor, community access rights to land, water, and other resources, and the respect accorded to the livelihoods, cultures, and religions of the various communities in the area. These concerns were raised in both national and international arenas. In May 2002 the Environmental Justice Foundation (EJF) visited Bangladesh to conduct research on the shrimp industry. Their primary interest was to investigate the claims of environmental and human rights abuses associated with the shrimp industry.

The EJF was an activist organization based in the UK that researched and exposed environmental issues. EJF worked with local stakeholders, primarily NGOs, to offer training and link them with international media to gain support for their causes. Representatives from EJF were working on an anti-shrimp campaign with a local NGO in the Khulna Region, Nijera Kori (NK). NK was advocating a suspension of all shrimp-supporting activities sponsored by the government and various donors. In particular, NK had been lobbying to freeze any programs in an area reputed for violence related to the shrimp industry. Among the abuses were cases of violent intimidation, murder, kidnapping, bomb attacks, rape, and land-grabbing<sup>5</sup> due to the high-value of shrimp in comparison to other traditional agricultural products such as rice and vegetables.

Environmental concerns were evident in the conflict between hatchery operators and sellers of wild fry in Bangladesh. In the aftermath of the white spot virus, farmers became increasingly dependent on wild fry<sup>6</sup> which were preferred because they were resistant to disease. Wild fry were typically farmed when they were older and larger and had greater resilience to the elements. Farmers were even willing to pay a premium for wild fry. The collection of wild fry, however, was an

environmental concern because it resulted in significant losses to biodiversity. In the late 1990s it was estimated that over 90 billion seeds of other species were caught and discarded annually during the collection of shrimp fry. This negative environmental impact caught the attention of several international organizations and interest groups. Meanwhile the hatcheries, which were suffering financially, lobbied the government to ban the collection of wild fry under the pretext of environmental concern. Although such a ban was enacted in 2000, lack of enforcement and the preferences of farmers resulted in continued collection of wild fry. Wild fry did decline, however, as a percentage of total fry sold to farmers, but nonetheless 2003 figures indicated that approximately 40% of the fry used by farmers was from wild sources.

The shrimp industry was also blamed for the destruction of mangrove forests. Mangrove forests consist of tropical and sub-tropical trees and plants that grow at the boundaries of land and salt water. They are particularly critical to the estuarine environment because of the many commercially important marine shrimp and fish that depend on mangrove estuaries for shelter and nutrients during the early stages of their life cycles. Globally, shrimp farming appeared to be getting more than its fair share of blame for the destruction of mangrove forests. *The Economist* reported that "Whereas 55 to 60% of mangroves have been lost globally, conversions to shrimp farms probably account for less than 10% of this loss. The rest is due to factors such as rice production, grazing, urban development, fuel, construction materials, and tourism — all of which inspire less outrage."<sup>7</sup> Shrimp operations had, however, destroyed some of the mangrove forests in Bangladesh. In the late 1970s, for example, the Chakoria forest in Cox's Bazar was partially cut down to make way for shrimp farms.

### The Need for a Shrimp Seal of Quality Program

Despite the efforts made by certain industry participants, the industry as a whole still faced significant challenges, and it seemed that sweeping measures would be needed to ensure the industry's survival and growth. It was in this context that the Agro-based Industries and Technology Development Project (ATDP), under the leadership of James Dawson, developed the concept of a Shrimp Seal of Quality (SSOQ) program. ATDP is a Government of Bangladesh agribusiness assistance project funded by the U.S. Agency for International Development (USAID).

The SSOQ program was designed with a multi-pronged approach whereby ATDP worked with national and international stakeholders to build support for a quality certification program while simultaneously establishing and implementing a domestic certification system. The development of a SSOQ program for the shrimp sector was in keeping with ATDP's objective of promoting the growth of private sector agribusinesses that could compete in an open and competitive market environment.

Dawson, the main strategist behind SSOQ, joined ATDP in February 2001 as the Chief of Party.<sup>8</sup> Although ATDP was his first work assignment in Bangladesh, Dawson was a seasoned international executive with over 30 years of private and public sector experience. His first exposure to South Asia and the developing world was in the 1960s when he served the U.S. Peace Corps in India as both a volunteer and as the Associate Director. Dawson subsequently worked in over 70 countries in fields as diverse as agriculture, education, public health, business development, rural construction, port management, and community development. Although Dawson was not an agriculturist, the breadth and depth of his experience allowed him to understand the constraints that affected agribusiness in Bangladesh.

ATDP was a \$10 million USAID project to promote agribusiness in Bangladesh. Specifically, the goals of the project were to increase both domestic sales and exports and increase employment in this sector. The project was organized along the lines of a private consulting firm. Agricultural entrepreneurs received business services from ATDP consultants who were experts in 5 key agricultural areas: horticulture, finfish, grains, poultry and shrimp. All services were offered on a cost-sharing basis whereby the entrepreneur requesting services paid 50-100% of the cost of services provided. Common services included pre-investment studies, business plan writing and analysis, training and brokering.

Three months after Dawson arrived, a consignment of highly pathogenic shrimp from Bangladesh was received in France. Dawson knew that immediate action was required to avoid a repeat of the 1997 EU embargo. He called a meeting of the ATDP senior management and USAID technical staff to determine how ATDP could help prevent another ban. After much discussion, the team realized that the threat of a ban on exports might provide an opportunity to mobilize the industry. They decided to approach the industry directly with the suggestion that ATDP help identify and implement a system to proactively address issues in the shrimp industry rather than merely reacting to bad news when it came from abroad. What if Bangladesh were to become the first country to certify its shrimp as “100% Clean” or “Guaranteed Clean”? Until this time, no country had branded shrimp. By doing so, Bangladesh would not only ensure its market share but transform its global image. Dawson and the team thought the reasoning made sense since there were already examples of nationally and regionally branded products, such as Columbian coffee and Darjeeling tea, and branding itself created additional value for these commodity products.

Although the idea of branding and a quality control program seemed ambitious, Dawson believed in the concept and had confidence in his team. Dawson had previous experience in the cattle genetics industry, which relied on cooperation and self-policing as a means of maintaining product quality, just as the SSOQ program

would. In 1976, the U.S. National Association of Animal Breeders, an organization of cattle semen producers, created a wholly-owned subsidiary called Certified Semen Services to ensure that semen was “identified properly and free from diseases of importance.”<sup>9</sup> Research had shown that self-regulation could provide great benefits to an industry, including increased product safety, improved efficiency due to harmonized standards, and greater consumer confidence.<sup>10</sup> Dawson believed that, given the corruption in the public and private sectors in Bangladesh and the difficulty of implementing and enforcing policy changes, self-regulation was the only way the shrimp industry could compete in the dynamic global marketplace.

The supply chain of the Bangladesh shrimp industry was characterized by a long chain of intermediaries. In passing from one intermediary to the next, tracing the shrimp became more complex and expensive. Those that were closest to the international buyers had the most leverage and often the highest margins. After careful consideration, the ATDP team decided it would be best to approach the segment of the supply chain that had the most power and the greatest financial resources – the processors.

The processors were among the few organized industry groups in Bangladesh. Dr. Mahmudul Karim, a shrimp expert and ATDP's shrimp sector consultant, had a relationship with the processors' association, the Bangladesh Frozen Food Exporters Association (BFFEA), through his thirty plus years of work in the industry. BFFEA was the most organized and powerful shrimp industry association in Bangladesh. They had both international and political connections. There was a re-organization in the industry years back in which the government provided access to low cost loans. That led to a stream of investment into the sector and excess competition.

ATDP's strategy in aligning with BFFEA was to appeal to the group that would both benefit the most from certification and could best afford the additional cost of a certification system. The reasoning was that BFFEA would facilitate the transmission of information and technology up the supply chain.

An emergency meeting between BFFEA and ATDP was called to discuss ways to address sanitation, hygiene, and handling issues within the shrimp industry and to explore the possibility of branding Bangladeshi shrimp. ATDP's annual work plan already included HACCP (Hazards Analysis) training for 240 shrimp suppliers and farmers. As a result of the meeting, the training was moved up earlier, re-scheduled for July 2001.

Although HACCP training addressed part of the problem, Dawson noted that the problems in the industry extended well beyond food safety issues and there was a clear lack of initiative in the industry to find innovative ways to

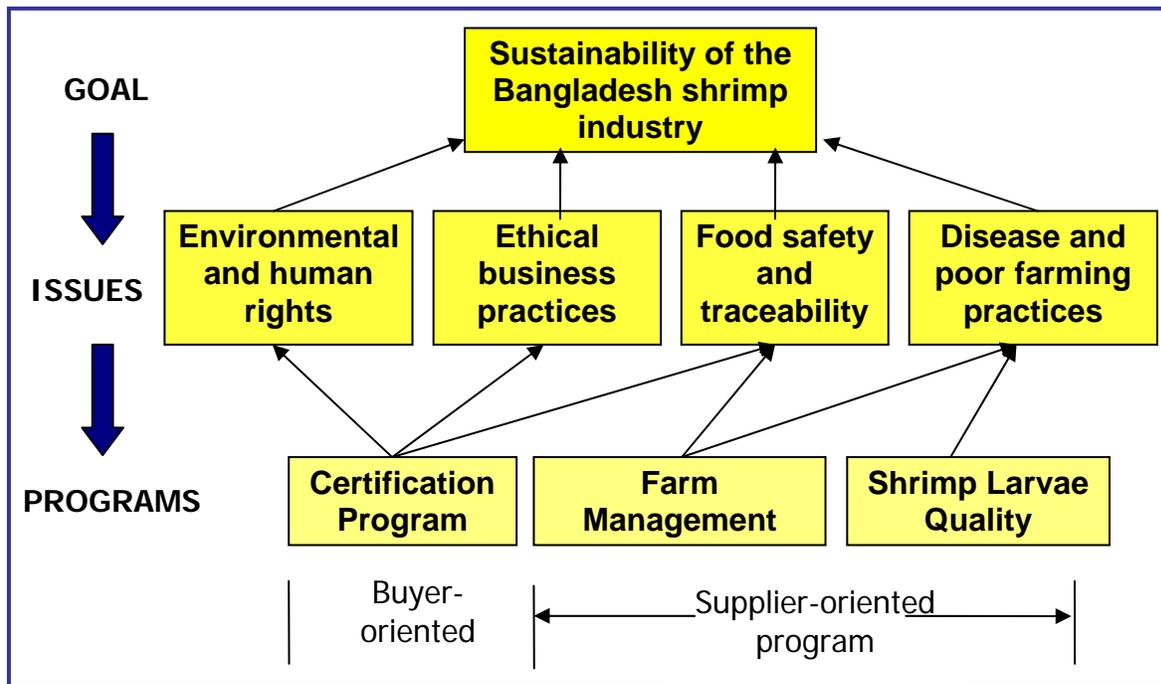
address the problems. During this first and many subsequent meetings, blame for the industry's shortcomings was placed on the government, the lack of infrastructure, and the limited supply of inputs. However, Dawson felt the only way forward was for the industry to take measures to ensure the safety and quality of its own products. While BFFEA focused on HACCP, ATDP recognized that branding shrimp required the involvement of a much larger group of stakeholders. Consequently, SSOQ moved forward with a multi-pronged approach: working with national and international stakeholders for buy-in, while simultaneously working on developing and implementing a domestic system to certify the entire shrimp production process in Bangladesh.

### The SSOQ Program

The objective of the SSOQ program was to achieve a

sustainable improvement in the volume and value of Bangladeshi shrimp exports. The SSOQ approach in the short and medium term was to intervene in the shrimp farming sector by introducing better farm management practices and improving the quality of the primary input, shrimp larvae. On another front, SSOQ introduced a program to certify shrimp producers (including processors, farmers, transporters, and potentially hatcheries as well) with the aim of creating a stable supply of quality shrimp from reliable suppliers for the export market. In the long term, SSOQ would continue to operate as a private certification agency for Bangladeshi shrimp producers. Its interventions in the post larvae supply and shrimp farming sectors would eventually either cease or be minimized, with the goal of shifting responsibility for the continued supply of technical assistance and quality larvae to the private sector or other participant

**Exhibit 4**  
**SSOQ Mission and Program, SSOQ Program, ATDP**



### Stakeholder Consolidation in the National Arena

Because industry buy-in was crucial for the success of the entire program, an important first step was to launch an

initiative to educate the industry about its problems and promote the concept of the SSOQ. The critical need was

to convince key industry players of both the risks associated with not taking action and make them aware of the significantly increased value their shrimp might command in international markets if certified for compliance with food safety, environmental standards and human rights.

Marketing to the industry began with two SSOQ workshops in Khulna and Cox's Bazaar in February 2002. Over 120 representatives of various segments of the industry were present, including farmers, suppliers, processors, feed millers and hatchery owners. The workshops began with a presentation of the concept of a seal of quality by two visiting ATDP consultants from the United States. Both worked for Land O' Lakes (LOL), the largest agricultural cooperative in the United States. Land O' Lakes was a sub-contractor on the ATDP project and they sent experts to Bangladesh for short-term assignments when necessary. One of the consultants had experience in Macedonia with a seal of quality initiative for meat and dairy products and was thus able to offer qualitative information about the concept and applicability of a seal of quality to the workshop participants.

After the introduction of the SSOQ, the workshops focused on facilitating dialogue among industry players. Attendees were provided an open forum to discuss the problems facing the industry. Collectively, the group identified several internal and external constraints. Internally, the primary issues were the lack of infrastructure and reliable supply of fry and the intense competition among processors, who operated at an average capacity of 20%. Externally, constraints included the fact that there was increasing pressure from competitors, particularly Thailand and Vietnam, who were major players in export markets. Shrimp from Bangladesh also commanded lower prices than shrimp from competing countries because of concerns over improper labeling and handling. The greatest risk was the still looming threat of an EU ban.

Over the course of the workshops, these issues were discussed and each stakeholder group nominated a group representative. These representatives joined an on-going working group to identify and address continuing threats to the industry.

In addition to addressing the workshops, the consultants made a rapid assessment of the current state of the shrimp sector. They conducted field visits with various members of the shrimp supply chain. After the field visits, workshops, and assessment, the consultants' key recommendation was that steps be taken to ensure that the working group not be dominated by any one stakeholder. A second important recommendation was that technical assistance be provided to address the production concerns of farmers.

The recommendation to provide technical assistance to farmers was not a new idea. Dawson had been aware that the low yields from farms required attention. However, he felt the first step was to work on building the broader system. Now that the concept of a Seal of Quality had been formulated and gained the support of some industry players, it was time to take the idea public.

## Campaign Platform

It was time to bring to the public the idea of a shrimp seal of quality and create a venue for continually disseminating information about the industry. But action needed to be taken quickly. After considering several media vehicles, Dawson decided that in the interest of both time and impact, a newsletter was the most appropriate vehicle for communication.

The first Seal of Quality Newsletter was produced and published over a non-stop, two-day period in June 2002. Published in both Bangla and English, the newsletter alerted readers to domestic and international problems in the shrimp industry. The use of antibiotics in feed in China and Vietnam was becoming a concern. Global standardization of the industry would soon become a reality with the implementation of codes by groups such as Global Aquaculture Alliance (GAA) and World Wildlife Fund (WWF). Public interest groups like EJV could damage the reputation and image of the industry with their anti-shrimp campaigns. Competitors in Brazil and Thailand were finding innovative solutions to the constraints posed by their local environment. To help achieve this worldwide perspective, ATDP had recently brought on board a short-term consultant, Bill Rudd, to help Karim build the SSOQ. Rudd had over 30 years experience in the shrimp industry in places as diverse as Thailand, Honduras and Dubai.

In July 2002, SSOQ published a second newsletter which included upcoming events, news on SSOQ workshops, trade statistics, sale prices of Bangladesh and competitor shrimp, and an analysis of the reasons why buyers paid an average of 10% less for shrimp from Bangladesh.

Reaction to the newsletter was strong, both positive and negative. Farmers felt they suddenly had access to a wealth of information previously unavailable to them. Some processors, on the other hand, felt that the accusations about the industry were unfair at best or even untrue. Some were also of the belief that making information available to all stakeholders might jeopardize their position of power within the industry as the closest link to the buyers.

Arguably, ATDP was empowering people with knowledge and exposing issues that left unaddressed could threaten the livelihood of hundreds of thousands of people. This did not sit well with some of the more powerful players who risked losing their control over the industry. The release of the newsletters along with ATDP's support of farmers and suppliers at an international meeting in Brussels was leading to a less than cooperative relationship with the BFFEA.

## The Government of Bangladesh

Dawson compiled a paper to inform the government of the progress of the SSOQ and the issues that still needed to be addressed. The document, entitled "Saving the Bangladesh Shrimp Industry – an Alternative Approach," laid out the current problems of the domestic industry and the pressures from the global market, and proposed a private, industry-led organization that could establish, implement, and enforce standards to secure and enhance Bangladesh's position in the market. This document provided a broad framework for how the organization should operate and the expected role of the government going forward. In particular, ATDP needed the government's support to relocate quality assurance and extension services from the public to the private sector. Dawson felt the government was not capable of properly and effectively monitoring the industry.

April 2003 represented an important milestone for the SSOQ program in relation to government relations. During a meeting of the Export Oriented National Committee held that month, Prime Minister Khaleda Zia announced the government's support of the SSOQ program: "A third party will check hygiene in the cultivation, transportation, storage and processing of shrimp to ensure that quality control systems are in place and food safety standards are being met."<sup>11</sup> Although the Commerce Minister had on numerous occasions attended SSOQ events and pledged his support, this was the first time the Prime Minister openly endorsed and promoted the concept of an independent certification body in the shrimp sector. She highlighted the necessity for shrimp producers and exporters to abide by strict, internationally recognized codes of conduct relating to food safety, the environment and human rights.

## The Bangladesh Shrimp Foundation

Much of the SSOQ team's work initially focused on relationship building, but for the SSOQ program to be truly successful, they had to focus on the core activity of certification. Yet many concerns to be discussed and addressed fell outside of the scope of a certification agency, so Dawson knew that an independent organization would need to be established to tackle the social, environmental and technical issues confronting the Bangladesh shrimp industry. A Foundation also would exist beyond the term of the project, allowing ongoing dialogue and research to support the industry.

To facilitate this, ATDP established a separate organization, the Bangladesh Shrimp Foundation (BSF), in May 2003 to undertake the long term support activities necessary for the on-going success of SSOQ. BSF was set up to facilitate dialogue among industry participants. It had additional objectives of industry research, collection and dissemination of information, and, finally, poverty alleviation. The foundation had its own board comprised

of local and international representatives from human rights and environmental NGOs, researchers and industry professionals. Logistically ATDP provided the foundation with seed money equivalent to one year's operating expenses. After that time the BSF would need to raise its own capital, primarily through fundraising activities focused on creating an endowment.

The BSF approached the industry's issues using a four-pronged method: environmental and social advancement projects, applied research and development, education and dialogue. Activities in these areas included creating a central repository for the output of all research and development in the industry, providing grants to NGOs implementing innovative approaches to social and environmental issues, and funding research and working closely with the media and policymakers on topics pertaining to the industry. The creation of the BSF was an important step in ensuring SSOQ's sustainable success. From this point onward, SSOQ program participants focused primarily on identifying and working with shrimp industry stakeholders engaged in the certification process while other functions were managed by BSF.

## The Bangladesh Shrimp Development Alliance

Work to align the national shrimp industry behind the SSOQ program culminated in the formation of the Bangladesh Shrimp Development Alliance (BSDA) in September 2003. The role of the BSDA was to unite the industry and bring all stakeholders together under a united platform. The formation of a group that represented all key players of the Bangladesh shrimp sector was vital, and Dawson strongly lobbied the industry for its organization. Dawson felt that for SSOQ to work as envisioned, the industry itself had to play a major role in ensuring its products met stringent codes related to food safety, the environment, and human rights. BSDA would function as a lobbying organization to the government, a marketing organization to shrimp buyers and a trade association to industry members.

## **Stakeholder Consolidation in the International Arena**

It was important for SSOQ to get international stakeholders on board early, and this was achieved through leveraging existing relationships, attendance at international aquaculture events, and building new partnerships.

The Global Aquaculture Alliance (GAA), in particular, became a strong ally of the SSOQ program. A worldwide association of industry stakeholders formed in 1997, the GAA had a vested interest in ensuring the safe production and delivery of shrimp worldwide. Their mission statement reads:

“The Global Aquaculture Alliance exists both to promote the aquaculture industry and to advance environmental and social responsibility throughout the process of raising, processing, and distributing aquaculture products.”<sup>12</sup>

In meetings with GAA, it became clear that producers who could not meet their standards (zero-tolerance for antibiotics, safe and responsible shrimp production) risked losing their market share. The issue of standards was a hot topic all around the world as consumers demanded to know where and how their food was produced. The EU in turn was also enforcing strict standards on imports. When SSOQ learned of GAA's intention to begin a certification program for shrimp under their newly formed body, the Aquaculture Certification Council (ACC), a decision was made to align with GAA and incorporate the ACC standards into the SSOQ codes.

Over a three-day period in July 2002, an ATDP team met with George Chamberlain of the GAA, Jason Clay of the World Wildlife Fund (WWF), and Michael Philips of the Network of Aquaculture Centers in Asia-Pacific (NACA). They met in Sydney at the Australian Seafood Show. Each of these organizations had an interest in the shrimp industry for different reasons and each was considering or in the process of developing codes of conduct for the industry. NACA was an intergovernmental organization, receiving financial support and technical assistance from a variety of multilateral and government agencies, that was focused on sustainable shrimp aquaculture. NACA was also concerned with environmental issues surrounding shrimp production as well as food safety issues. All parties at the meetings were in support of ATDP's efforts to create the SSOQ, although doubts were expressed about the feasibility of such a nationwide initiative given the numerous constraints operating in Bangladesh. However, all three groups pledged their support for ATDP and SSOQ and agreed to remain in communication and offer assistance as necessary.

GAA agreed to conduct training in Bangladesh. In February 2003, ACC President Bill Moore visited Bangladesh to conduct a series of workshops and roundtable discussions. These activities were coordinated by industry stakeholders, including Quality Feeds Ltd, the Bagerhat Shrimp Farmers Co-operative Association, and the Shrimp Hatchery Association of Bangladesh (SHAB). ATDP and the SSOQ program had worked diligently to incorporate industry participants in the process, and the ability of these stakeholders to lead ACC activities was a major achievement for the SSOQ team. The workshops were conducted in Cox's Bazar and Bagerhat and enjoyed broad participation from hatchery owners, farmers, processors, government representatives, NGOs and journalists. The objective of the ACC trip was to continue dialogue among the stakeholders and inform local industry representatives about the need for certification and the associated buyer requirements and ACC activities.

Mike Philips of NACA suggested and arranged for ATDP to bring a team to Thailand to witness firsthand some of the management practices and technology being used there. Thailand was the world's fourth largest producer of shrimp and the number one exporter. In September 2002 a team including Rudd, Karim, and a farmer and supplier traveled to Thailand. The ten-day visit included visits with farmers, transporters and processors. The Thai shrimp industry was characterized by many of the same issues prevalent in Bangladesh including long supply chains and environmental concerns. However, in Thailand an all-industry association existed which allows the industry to work closely with the government and quickly address any concerns that arise.

In addition to these efforts, SSOQ stakeholders attended a number of international aquaculture events, including the European Seafood Exposition in April 2002 and the Boston Seafood Show in March 2003. Trips were also taken to meet with buyers such as Marks and Spencer and Royal Ahold International to discuss the concerns of the Bangladesh shrimp industry, learn about the buyers' requirements regarding food safety, get constructive feedback about the evolving role of the SSOQ, and form relationships that could later be leveraged for marketing purposes.

### **Moving Forward with the Certification Program**

Now that the idea of SSOQ had taken hold on both national and international levels, it was time to build the organization on this foundation and map out a plan of action for its ongoing activities. The SSOQ was established in August 2002 and became a legal entity in August 2003. The first job of the newly-established ATDP SSOQ team was to create a preliminary set of codes to give the industry an idea of the kind of standards that would be required for certification.

These preliminary SSOQ codes, based on GAA standards and SSOQ expertise, were introduced to stakeholders at a meeting in the summer of 2003. By this time SSOQ was receiving strong support from both the shrimp industry and donors working with the industry. ATDP had brought industry players together to make a unified, concerted effort to solve their problems through SSOQ. Donors had for decades provided the industry with finances and research, often independently, but Dawson knew that everyone would need to work together now to lobby the government and build needed momentum for SSOQ.

Over the next several months, the SSOQ team worked to create and refine industry codes at every level of the value chain. A participant agreement was created and SSOQ worked to identify and sign members from each segment of the industry as potential certification applicants.

With the codes developed, Dawson felt that the time was right to actively address core field activities. Because farming was widely viewed as the weakest link in the shrimp value chain, the most important results were to be achieved at this level. Dawson determined that it was important to get a working model on the ground. Although support of organizations would be a bonus for SSOQ, the feeling was that the market would ultimately determine SSOQ's success or failure. When farmers, suppliers, feed millers, and processors witnessed their competition's increased yield and higher margins, then SSOQ would really get off the ground. This position was echoed by Nizam Selim, Managing Director of Bangladesh's first commercially operated hatchery and current head of the trade association SHAB. "I believe the syndrome in Bangladesh is that if something breaks, everyone will be on the bandwagon, everyone wants to become involved...I believe it will catch on like wildfire because for the people in societies like ours, with traditions, seeing is believing." Dawson and the Team were aware that Selim would be an important ally due to both his experience and clout within the industry as well as his dynamic and personable demeanor. Selim understood all of the issues surrounding SSOQ and the values and demands of the international buyers and consumers. As he represented the sector at the beginning of the supply chain, he was a valuable asset to the program.

The important next step was to get SSOQ operational, particularly with the farmers who were still constrained by low yields and the high risk of disease infiltration. The next month was spent hiring extension agents and technical staff who would be based in the field, working with and educating farmers on better farm management techniques to address these issues. SSOQ hired a second consultant, Glen Bieber, to head the extension team and design the extension program. Bieber, like Rudd, had

extensive experience including working with the former secretary to the GAA, and most recently he had spent 10 years in India working in the shrimp industry.

The program would commence with three model farms. When Bieber arrived in Khulna he realized that there was a lot of work to be done. The first step was sealing the ponds to avoid contamination. Working with a team of 10 newly hired extension agents, Bieber needed to train the new staff in the field. There was additional pressure as the rainy season was approaching and the farms would need rehabilitation before stocking. Bieber and the team worked to fix the ponds. After one month's work to prepare the ponds, the extension team received news of their first success. The fry to be used to stock the pond was sent to India for testing and proved to be disease free. The ponds could be stocked in preparation for the next season's harvest. Over the next several months, Bieber and the extension team would closely monitor each of the ponds until harvesting in October 2003.

In August 2003, the ACC returned to Bangladesh to conduct its first ever training in Asia. A total of 18 people, including seven international participants from China, Vietnam, Dubai, the Philippines, and the U.S., were trained to become official certifiers of ACC codes. ACC codes had been used as the basis of SSOQ codes and were geared primarily toward food safety, environmental and human rights issues. The eleven Bangladeshi trainees who participated in the ACC training also became official ACC certifiers.

In October 2003, three shrimp producing ponds used on a trial basis by the SSOQ program were harvested with tremendous yields. The SSOQ team that provided technical training and expertise to the three farmers who owned the demonstration ponds in the Bagerhat region were delighted with the results

## Exhibit 5

### Harvesting Results for SSOQ Trial Ponds

	International Average	Bangladesh Average	Harvesting Results
<b>Yield (kgs/ hectare)</b>	1500	200	1700
<b>Feed Conversion Ration</b>	1.6	Not Known	1.3

The above table reveals that the SSOQ trial ponds yielded 1700 kg/ha of shrimp, dramatically higher than the average production rate in Bangladesh of 200 kg/ ha. Since all ponds surrounding the SSOQ trial ponds had been decimated by the white spot virus, which continued

to plague production in Bangladesh, these results were even more remarkable. While much of the success of the SSOQ program was this higher productivity, the SSOQ ponds were also in compliance with international codes of conduct for food safety, environmental sustainability, and

human and labor rights. The production gains made by the SSOQ program demonstrated the tremendous potential for shrimp to change the economic landscape of Bangladesh. The nine-times higher than average yields suggested that even at currently depressed prices, Bangladesh's exports could grow to US\$2.7 billion simply by improving operations in the current farming areas.

## The Future

With major international stakeholders in support of the SSOQ program and efforts to organize the nation's shrimp sector well underway, ATDP had achieved a tremendous amount in a relatively short time. Although the certification program was still in its infancy, the groundwork had been laid: by developing codes and training certifiers, ATDP had provided the foundation for the certification program going forward. SSOQ was building the organization and procedures needed to operate a successful monitoring, auditing, certification, and extension system.

For the future, two potentially feasible organizational structures were being considered. The first was for SSOQ to be "owned" by an all-industry alliance such as BSDA. This group would take over SSOQ in a manner similar to that of the Cattle Genetics Association in the U.S. which is responsible for that industry's seal of quality. The prerequisite for this, however, would be the development of a strong, progressive association that would be able to manage the SSOQ system and ensure its transparency. This posed a great challenge in the context of the Bangladesh shrimp sector. For ATDP it was critical that all industry segments be properly represented and empowered, because without this, SSOQ would be in constant jeopardy. The second alternative was for SSOQ to exist as an independent organization working on behalf of buyers and progressive entrepreneurs trying to ensure sustainability of sales by participating in the program. The limitation of this approach was that SSOQ would no longer be as broad and far-reaching as it had the potential to be.

The SSOQ program was on its way to being implemented in Bangladesh. Success to-date was largely achieved through Dawson's and ATDP's ability to build bridges and organize both national and international stakeholders under the common umbrella of the SSOQ program. Long term success and viability of the program were now contingent upon the alignment of interests of major industry players and participants domestically, and the recognition accorded to the new quality certification by importers, distributors and retailers in international markets.

## Questions

1. Who are the most important stakeholders in the shrimp industry in Bangladesh? Do their interests conflict? In what way are their interests aligned?

2. Was it necessary to propose a new 'seal of quality' branding for Bangladesh shrimp and then motivate all industry participants to join the effort? Was this the most effective way of achieving the desired end - boosting Bangladesh shrimp exports?
3. Why did it take an organization outside the industry, namely ATDP, to play the leadership role in creating certified quality branding program for Bangladesh shrimp?
4. Was ATDP effective in involving stakeholders in the SSOQ program? What else could have been done?
5. Are horizontal and vertical integration desirable in this industry? How would the shrimp industry in Bangladesh benefit from greater integration? How is the balance of power within the industry changing?
6. What factors will help the development of the Bangladesh Shrimp Development Alliance (BSDA)? What might hinder their progress?
7. What is the role of alliances and how effective are they in other industries that you have studied? Can they be successful in taking over the SSOQ program?
8. How effective was ATDP in addressing the concerns of international buyers and consumers? Why were shrimp processors and exporters not more in tune with their international customers?
9. What else could the shrimp industry have done to address the growing concerns of buyers in international markets to reverse the decline in exports?
10. Going forward, what are the critical factors and proposed action plan for the SSOQ program? What should Dawson do next?
11. What roles have international codes of conduct played in improving the product and process of shrimp production in Bangladesh? Can codes of conduct play a constructive role in boosting industry success by insisting on responsible conduct from all industry players?
12. Why are environmental and human rights issues important in this business? Why should business care about such broad issues?
13. Listed below are the Western experts who were key players with ATDP in the case. What do you think of their very varied international careers?  
 Dawson (US genetics-based animal breeding, Peace Corps India, 70 countries)  
 Rudd (experience in Thailand, Honduras, Dubai)  
 Bieber (10 years in India)

Land 'O Lakes professional (experience in Macedonia)  
How about their globe-spanning travel to promote the idea of a Bangladesh Seal of Quality (Sydney,

Bangkok, Brussels, Boston)? What motivates them to undertake this work? What cross-cultural challenges did they likely encounter working in Bangladesh?

## APPENDIX

### Background on the Bangladesh Economy<sup>13</sup>

Despite sustained domestic and international efforts to improve economic and demographic prospects, Bangladesh remains a poor, overpopulated, and ill-governed nation. Although half of GDP was generated through the service sector, nearly two-thirds of Bangladeshis are employed in the agriculture sector, with rice as the single-most-important product. Major impediments to growth included frequent cyclones and floods, inefficient state-owned enterprises, inadequate port facilities, a rapidly growing labor force that could not be absorbed by agriculture, delays in exploiting energy resources (natural gas), insufficient power supplies, and slow implementation of economic reforms. Economic reform was stalled in many instances by political infighting and corruption at all levels of government. Progress also was blocked by opposition from the bureaucracy, public sector unions, and other vested interest groups. The BNP government, led by Prime Minister Khaleda Zia, had the parliamentary strength to push through needed reforms, but the party's political will to do so was lacking in key areas. One encouraging note: growth was a steady 5% for the past several years.

**GDP:** purchasing power parity - \$275.7 billion

**GDP – real growth**

**rate:** 4.9%

**GDP - per capita:**

purchasing power parity - \$2,000

**GDP - composition** *agriculture:* 21.2%

**by sector:** *industry:* 27.1%

*services:* 51.7%

**Labor force:** 65.49 million

*note:* extensive export of labor to Saudi Arabia, Kuwait, UAE, Oman, Qatar, and Malaysia; workers' remittances of \$1.71 billion in 1998-99

**Labor force - by**

**occupation:** agriculture 63%, industry 11%, services 26% (FY95/96)

**Unemployment rate:**

40% (includes underemployment)

**Population below**

**poverty line:** 45%

**Inflation rate**

**(consumer prices):** 6%

**Investment (gross**

**fixed):** 23.5% of GDP

**Budget:** *revenues:* \$5.921 billion

*expenditures:* \$8.262 billion, including capital expenditures of NA

**Public debt:** 43% of GDP

**Agriculture -** rice, jute, tea, wheat, sugarcane, potatoes, tobacco, pulses, oilseeds, spices, fruit; beef,

**products:** milk, poultry

**Industries:** Cotton textiles, jute, garments, tea processing, paper newsprint, cement, chemical fertilizer, light engineering, sugar

**Industrial production growth rate:** 6.5%

**Current account balance:** \$216.6 million

**Exports:** \$7.478 billion

**Exports - commodities:** garments, jute and jute goods, leather, frozen fish and seafood (2001)

**Exports - partners:** US 22.7%, Germany 14.5%, UK 10.8%, France 6.7%

**Imports:** \$10.03 billion

**Imports - commodities:** Machinery and equipment, chemicals, iron and steel, textiles, foodstuffs, petroleum products, cement (2000)

**Imports - partners:** India 14.6%, China 11.7%, Singapore 7.8%, Japan 5.8%, Hong Kong 4.8%

**Reserves of foreignexchange and gold:** \$3 billion

**Debt - external:** \$19.97 billion

**Economic aid - recipient:** \$1.575 billion (2000 est.)

**Exchange rates:** taka per US dollar - 59.513 (2004), 58.15 (2003), 57.888 (2002), 55.807 (2001), 52.142 (2000)

## ENDNOTES

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<sup>1</sup> This case was written by Tara Kearney Gaillard of George Washington University with the assistance of Syeda Masarrat Quader of ATDP under the supervision of Professor Richard Linowes of the Kogod School of Business at American University in Washington, D.C. It was produced under the auspices of the Emerging Market Development Advisors Program funded by U.S. Agency of International Development (USAID) and administered by the Institute of International Education (IIE).

<sup>2</sup> [http://www.dec.ctu.edu.vn/cdrom/cd2/projects/shrimp\\_disease/white.htm](http://www.dec.ctu.edu.vn/cdrom/cd2/projects/shrimp_disease/white.htm)

<sup>3</sup> Hazard Analysis and Critical Control Point (HACCP, pronounced “has-sip”) is a control system used to prevent dangers in food production. The use of HACCP in the seafood industry has been standard in the United States since December 1997.

<sup>4</sup> A System Analysis of Shrimp Production, Integrated Costal Zone Management Plan Project, Dhaka, June 2003, p. 19.

<sup>5</sup> Land-grabbing refers to the illegal seizure of land from the party of ownership.

<sup>6</sup> Fry refers to a recently hatched fish used to stock shrimp ponds. Fry can be collected from open water bodies (wild fry) or bred in a hatchery.

<sup>7</sup> “A New Way to Feed the World: Fish Farming is a Good and Promising Thing, Despite the Environmental Worries,” The Economist, August 9, 2003, p. 9.

<sup>8</sup> The Chief of Party is a senior executive position, comparable to a CEO of a small company.

<sup>9</sup> [http://www.naab-css.org/about\\_css/naabc85.html](http://www.naab-css.org/about_css/naabc85.html)

<sup>10</sup> Valentine, Debra, “Industry Self-Regulation And Antitrust Enforcement: An Evolving Relationship,” <http://www.ftc.gov/speeches/other/dvisraelspeech.htm>

<sup>11</sup> Star Business Report, Daily Star, 25 April, 2003.

<sup>12</sup> Source: <http://www.gaalliance.org/>

<sup>13</sup> CIA Factbook.