

GLOBALG.A.P. standard in Thai shrimp farms: Mission (im)possible?

Leepaisomboon, T.¹, Chuchird, N.¹, Limsuwan, C.¹, Steenbruggen, E.R.², and Mungkung, R.^{3*}

1. Aquaculture Business Research Centre, Faculty of Fisheries, Kasetsart University, 50 Paholyothin Road, Chatuchak, Bangkok 10900 Thailand; 2. QA-Sense BV., P. O. Box 141, 1380AC, Weesp, The Netherlands; 3. Department of Environmental Science, Faculty of Science, Kasetsart University, P. O. Box 1072 Kasetsart Post Office, Chatuchak, Bangkok 10903 Thailand. *Corresponding author: fscirwm@ku.ac.th.

Shrimp aquaculture in Thailand

For years, the shrimp aquaculture industry has played an important role in the socio-economic situation in Thailand. The generation of foreign revenue of the industry was US\$ 2.1 billion in 2007¹ and the direct and associated industries engaged at least 1 million people². As a result, the sustainability of the shrimp industry is extremely important to the country. A great effort has been made mainly by Department of Fisheries and associated institutions to maintain high levels of productivity as well as to defend the leading position of Thailand in global markets. Over a long period of development, Thai shrimp farms have continually improved production systems and kept up with fluctuating situations (i.e. unfavourable weather conditions, decreasing prices, increasing and stricter requirements from importing countries).

Certification in shrimp aquaculture

Various certification schemes have been introduced to the shrimp industry, both national (e.g. Thai Good Aquaculture Practice (GAP), Code of Conduct for Responsible Shrimp Aquaculture (CoC), Bangladesh Shrimp Seal of Quality (SSoQ)) and international levels (e.g. Aquaculture Certification Council (ACC), Organic Certification and The Global Partnership for Good Agriculture Practices (GLOBALG.A.P.)). These schemes are based on concerns for sustainability and are driven by market requirements. Each scheme has a different emphasis, including aspects on food safety, food quality control, environmental management, social responsibility and animal welfare. However, consumers expect certification to provide useful decision-making information for their purchases and do not wish to be confused by a multitude of certificates providing certification for different aspects of shrimp products^{3,4,5}.

Producers, on the other side, expect that certification requirements will create neither advantage nor disadvantage in marketing systems and be practical in terms of technical and economic implications⁶. Added to that, the development of certification criteria in many cases involves little or no participation of stakeholders, particularly at the farm level. Furthermore, there is no clear governance system along the supply chain from local producers to overseas buyers and consumers⁷. The financial requirements of certification application and procedures are a great concern for shrimp producers - especially among small-scale farmers whose technical and financial capacities may be not sufficient to apply for the certification^{8,9,10}.

Situation in Thailand

In order to sustain their business and prolong their livelihoods, shrimp stakeholders in Thailand, especially processors and farmers, are now under pressure to adapt their production systems and pond management practices to comply with different certification requirements. One of their major concerns is that there is no clear mechanism to influence price setting policies of certified shrimp, for those who must carry the burden of higher production costs in order to join the certification schemes. Nor is there a system to fairly distribute benefits to different stakeholders throughout the shrimp supply chains. As a consequence, small-scale shrimp farmers may have less access to markets. The farmers therefore require the responsible authority to give them guidance on how to manage their farms and implement farming practices so as to comply with both national and international certification schemes².



Example of a shrimp farm in Thailand (photo taken in the South of Thailand, October 2008).

Among various certification schemes for shrimp products, the recent emergence of GLOBALG.A.P. (previously known as EurepGAP) standards initiated by EU retailers has drawn attention and concern in Thailand as yet another standard to comply with. Although Thailand contributes 30% to the global shrimp production, the market share of Thai shrimp in the EU is only 3%¹¹. However, the EU accounts for 37% of global shrimp consumption. On a more positive note, GLOBALG.A.P. could be viewed as a marketing strategy to increase market access in EU countries.

A study on adaption strategies in Thailand toward GLOBALG.A.P.

In order to research the current compliance levels vis-a-vis the newly launched GLOBALG.A.P. standard, a study was conducted by the Fisheries & Environmental Science of Kasetsart University with technical and financial support of the National Metrology Institute of Germany (PTB) in cooperation with German Technical Cooperation (GTZ). The

gap analysis has led to the evaluation of likely consequences as well as management strategies. Eighteen shrimp farms were sampled from different farm types (7 small single farms; 6 medium single farms; and 5 small/medium, group farms, covering both inland and coastal farms) in the Central, East and South of Thailand. The sample represented more or less typical shrimp farming practices in the country. The studied farms were audited clause-by-clause against the GLOBALG.A.P. criteria and suggestions on corrective actions were also identified.

Current compliance level

The farm auditing indicated that the farms studied presently comply with nearly half of the GLOBALG.A.P. criteria with no significant difference among different farm sizes. In general, the current compliance level of the farms in the Aquaculture Base Module is highest (47-52%), followed by the Shrimp Species Module (44-46%), the Social Module (43-45%) and the All Farms Type Module (22-27%). The comparison of compliance levels of each module among different farm types showed a similar result in the all farms, aquaculture base and shrimp species modules, except that the farm groups perform better in the social module. This is attributed to the national labour laws in Thailand, which cover many of the criteria found in the social module, such as working hours, minimum wages and working conditions. The high compliance level in the shrimp species module also is credited to the implementation of Thai GAP which is the minimum requirement for processors. This national certification scheme covers, among many others aspects, hatchery management (water supply, post-larvae quality inspection, broodstock source), shrimp health monitoring, including the traceability records and sanitary control of facilities throughout the supply chain¹².

Non-compliance areas and corrective actions

Non-compliance areas were found mainly in the all farms and aquaculture base modules. In the all farms module, these are related to the identification of environmental, health and safety as well as hygiene risks whereas the most critical areas of the aquaculture base module were the procedures to deal with customer complaints and product recall. As a result of the study,



Discussion with the farmers at one studied farm (small group farm) in Samut Sakorn province.

suggestions on corrective actions have been proposed. The most remarkable measure being to develop a farm management system that can identify, manage and minimise risks with regard to environmental, health & hygiene and food safety aspects. The farming operation and management practices must be documented in order to monitor for better planning and management. Capacity building activities should be conducted to introduce and educate farmers as well as associated stakeholders (i.e. hatcheries, feed mills, harvesting operators, and processors) to generate an understanding of the GLOBALG.A.P. standard. Only then will full compliance be possible. On-site technical services may be necessary especially for the pioneer farms applying for GLOBALG.A.P.

Farmers and local experts' perspectives

Nearly 50% compliance with the GLOBALG.A.P. standard of all farm types is a good starting point. Small scale farmers in particular are concerned about the costs related to implementation and certification processes. Furthermore, there is no incentive for them to adopt the standards as no premium price is guaranteed. Most importantly, they are apprehensive whether markets will demand GLOBALG.A.P.-certified shrimps. Moreover, as some have their own code of practices it is doubtful whether buyers (i.e. wholesalers or retailers) will take GLOBALG.A.P. into account for pre-selecting their suppliers. Added to that, local experts feel that Thai GAP/CoC should be recognised by buyers to some extent.

International consultant's perspective

The shrimp sector in Thailand, like many other agricultural crops elsewhere around the globe which are an integral part of today's global supply chains, is two-sided. Its participation in global supply chains opens new opportunities and exposes it to new challenges at the same time. The challenges mainly deal with costs for upgrading production facilities and book keeping efforts. However, this should be seen as an investment in order to stay in the business instead of as a hindering factor. Local responsible authorities play a crucial role here. Awareness raising is needed to help farmers understand that this is about sustainability of the sector as a whole and where the health and safety conditions of farmers themselves and people working in the sector can be improved immensely; shrimp product quality can be improved as well while negative impacts on the environment and human health will be minimised. Nevertheless, an often observed problem is that intangible benefits can hardly be seen in the short term. A lot of effort is still required by both demand and supply sides. If (small) farms organise to reach the critical mass and manage efficiently, farmers will be quite surprised by the economies of scale that will result.

Transparent channels of market information need to be established, illustrated by the success of many countries in Africa exporting agricultural products to EU markets.

On the demand side, it seems that retailers expressed a great interest in GLOBALG.A.P.-certified shrimps during the recent GLOBALG.A.P. Summit in Cologne. This is like long awaited raindrops during a drought. It also holds true especially when knowing that some big Japanese retailers are considering using GLOBALG.A.P. standards as a purchasing requirement. Last but not least, the Department of Fisheries (DoF) has worked hard over the last years in developing and enforcing Thai GAP/CoC for shrimp farming. Considerations to have Thai CoC and GLOBALG.A.P. benchmarked will certainly contribute significantly to achieving the target of increasing market share of Thai shrimp export in EU markets.

Concluding remarks and way forward

The introduction of a GLOBALG.A.P. standard in shrimp aquaculture, in addition to many others, emphasises the growing trend in market requirements in terms of sustainability. To enhance market opportunities in EU, it seems possible for Thai farms to join the GLOBALG.A.P. standard by improving farm management systems, including record keeping. The ease of understanding the GLOBALG.A.P. standard (i.e. a guidebook of standard interpretation) and guidance on implementation (i.e. user manual) as well as the compromising of orders and prices are most critical to promote the standard adaptation. Buyers (i.e. retailers) are seen as the most powerful players along the whole supply chain, and thus the requirement of GLOBALG.A.P. standard in their purchasing specification will be the driving force of GLOBALG.A.P. standard application. At the same time, it is essential to convey the message through certified products to end consumers who will hopefully take that into account when purchasing shrimp.

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The Victorian trout industry & the bushfires

Mosig, J.

Aquaculture Services Australia
email: mosig@netspace.net.au

With seemingly endless floods in Queensland and "end of the world" firestorms in Victoria destroying homes, infrastructure and jobs estimated at more than a billion dollars, climate change has taken on a startling new meaning. It must be becoming frighteningly obvious to even the least environmentally aware in the community that we are going to have to change the way we go about our daily lives and produce our food.

The Australian aquaculture industry recently experienced a worst case scenario of just how devastating the changes to the climatic patterns can be.

The Sydney rock oyster is world famous for its succulent sweetness. It is the oldest aquaculture sector in Australia and operates in the estuaries along the New South Wales (NSW) coast. It is a major employer and brings \$35 million a year to rural NSW.

In mid February some parts of the coast received half their annual rainfall over seven days with a mid event peak of 150 mm in 24 hours. The rivers rose steadily. When the peak rainfall hit the rivers broke their banks and brought down huge volumes of swirling brown floodwater carrying trees and branches that swept everything before them.

The full extent of the damage won't be able to be fully assessed until late autumn. The cyclone season has been running later than normal over the last few years and their impact has been more extreme. Although NSW is south of the storm zone, the rainfall events that follow the cyclones have been severely flooding the coastal reaches.