

# Aquaculture Stewardship Council (ASC) Certification - Moving Indian Aquaculture Towards Sustainability



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## BACKGROUND

Aquaculture is one of the fastest-growing food sectors worldwide. It not only provides an important alternative to wild-capture fisheries, which is depleting the oceans through overfishing, but it also serves as an important source of protein, economic development, and employment. However, the growth of aquaculture has resulted in various social and environmental problems. The majority of aquaculture production is conducted in land-based aquaculture systems, which convert terrestrial or wetland ecosystems to aquatic environments, resulting in some of the starkest transformations to ecosystem function. The most dramatic conversions take place in coastal zones because these intersections of aquatic and terrestrial habitats hold immense biodiversity.

The expansion of shrimp aquaculture has been coupled to the conversion of coastal ecosystems, most importantly, mangroves.

Demand for shrimp, which currently attributes 15 per cent of the value of the global seafood trade, is expected to continue to grow, with production slated to double in the next 10 to 15 years. Under a business-as-usual scenario, this will further pressure the use of natural resources for production. With strong demand in the global shrimp market for sustainably produced seafood, in places like India which is a major producer of shrimp, there is currently a window of opportunity to ensure that future increases in production do not come at the expense of integrity of coastal habitats.

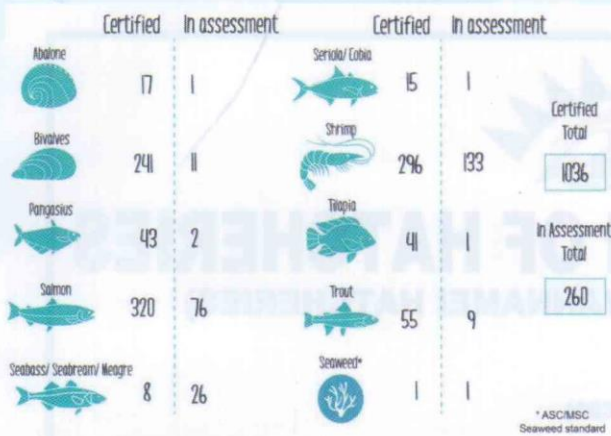


Fig.1. ASC certified farms according to species in 2018 (source: ASC)

as an independent, not-for-profit organisation founded by World Wildlife Fund (WWF) and The Sustainable Trade Initiative (IDH) in 2010 to manage the certification of responsible fish farming across the globe.

The ASC standards require farm performance to be measured against both environmental and social requirements. The on-pack ASC logo guarantees to consumers that the fish they purchase has been farmed with minimal impacts on the environment and on the society. Currently, 11 ASC standards have been developed, and they are for Abalone, Bivalves, Flatfish, freshwater trout, Pangasius, salmon, seabass, seabream, Meagre, Seriola, Cobia, shrimp, Tilapia, tropical marine fish and a joint ASC-MSC standard for seaweed.

### THE AQUACULTURE STEWARDSHIP COUNCIL (ASC)

Certification schemes aim to reduce the key negative social and environmental impacts of aquaculture through compliance with standards and verification by a third, independent, and accredited party. Compliance usually results in products that can be labelled and marketed as sustainable or responsible to consumers. Increased demand for such products would foster continuous improvements in the sector, eventually leading to sector-wide transformations. One of the most significant certification initiatives in aquaculture is the Aquaculture Stewardship Council Certification. The Aquaculture Stewardship Council (ASC) is

Globally, 1036 farms have been certified by following ASC standards, and another 260 are in assessment (Fig.1). Maximum ASC certification has been with salmon farms (31 per cent) followed by shrimp (29 per cent) and bivalves (23 per cent). There are more number of shrimp farms which are in-assessment.

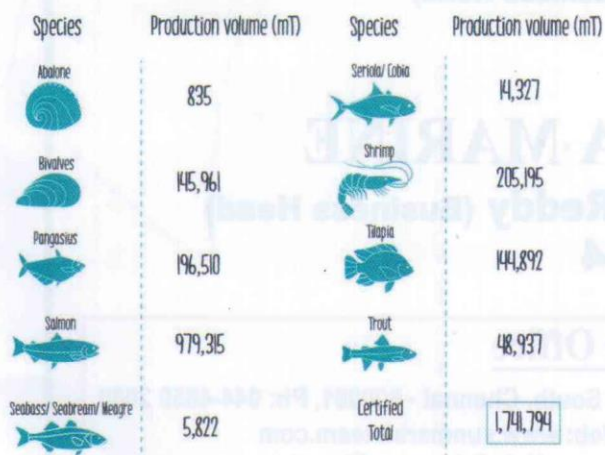


Fig.2. ASC certified species and their production volumes (source: ASC)

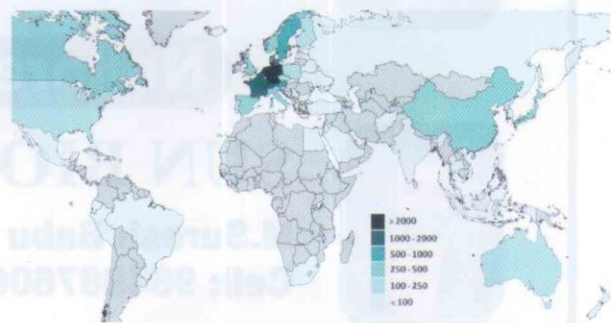


Fig.3. ASC product map (source: ASC, 2019)

In terms of volume of production, 1.74 million tonnes of farmed seafood are now ASC certified (Fig.2). More than 56 per cent of the certified production volume is contributed by salmon, followed by shrimp (12 per cent) and Pangasius (11 per cent). Other species such as Tilapia and bivalves are also growing in volume.

The global map of ASC certified farms is shown in Fig.3. Europe, North America, Australia and China

show high footprints. There is a growing footprint in Asia, including India.

### THE ASC SHRIMP STANDARD

To show an example of principles and criteria used in ASC certification, the ASC shrimp standard is given below.

#### COMPLIANCE WITH ALL APPLICABLE INTERNATIONAL, NATIONAL AND LOCAL LAWS AND REGULATIONS

**Criteria:**

- ◆ Compliance with local and national law
- ◆ Transparency on legal compliance

#### SITE FARMS IN ENVIRONMENTALLY SUITABLE LOCATIONS WHILE CONSERVING BIODIVERSITY AND NATURAL IMPORTANT NATURAL ECOSYSTEMS

**Criteria:**

- ◆ Biodiversity Environmental Impact Assessment (B-EIA)
- ◆ Conservation of PA and critical habitats
- ◆ Consideration of habitats critical to endangered species
- ◆ Ecological buffers, barriers and corridors
- ◆ Prevention of salinization of fresh water and soil resources

#### DEVELOP AND OPERATE FARMS WITH CONSIDERATION FOR SURROUNDING COMMUNITIES

**Criteria:**

- ◆ All impacts on surrounding communities, ecosystem users and land owners are accounted for and are, or will be, negotiated in an open and accountable manner through Participatory Social Impact Assessment
- ◆ Complaints of affected stakeholders are resolved
- ◆ Transparency in providing employment opportunities within local communities
- ◆ Contract farming arrangements (if practiced) are

fair and transparent to the contract farmer

#### OPERATE FARMS WITH RESPONSIBLE PRACTICES

**Criteria:**

- ◆ Child labour and young workers
- ◆ Forced, bonded compulsory labour
- ◆ Discrimination in the work environment
- ◆ Work environment health and safety
- ◆ Minimum and fair wages or "decent wages"
- ◆ Access to freedom of association and the right to collective bargaining
- ◆ Harassment and disciplinary practices in the working environment causing temporary or permanent physical and/or mental harm
- ◆ Overtime compensation and working hours
- ◆ Worker contracts are fair and transparent
- ◆ Fair and transparent worker management systems
- ◆ Living conditions for workers accommodated on the farm

#### MANAGE SHRIMP HEALTH AND WELFARE IN A RESPONSIBLE MANNER

**Criteria:**

- ◆ Disease prevention
- ◆ Predator control
- ◆ Disease management and treatment

#### MANAGE BLOODSTOCK ORIGIN, STOCK SELECTION AND EFFECTS OF STOCK MANAGEMENT

**Criteria:**

- ◆ Presence of exotic or introduced shrimp species
- ◆ Origin of post larvae or brood stock
- c) Transgenic shrimp

#### USE RESOURCES IN AN ENVIRONMENTALLY EFFICIENT AND RESPONSIBLE MANNER

**Criteria:**

- ◆ traceability of raw materials in feed



- ◆ Origin of aquatic and terrestrial feed ingredients
- ◆ Use of genetically modified (GM) ingredients in feed
- ◆ Efficient use of wild fish for fishmeal or oil
- ◆ Effluent contaminant load
- ◆ Energy efficiency
- ◆ Handling and disposal of hazardous materials and wastes

### ASC CERTIFICATION IN INDIA

India is one of the world's largest and fastest growing shrimp producing countries. Currently, it is the leading supplier to the US and EU. In 2017, India accounted for 32 per cent of America's farmed shrimp imports, making it the number one source of farmed shrimp in the U.S.

WWF-India, in collaboration with Sustainable Trade Initiative and WWF-US through a project titled "Farmers in Transition: ASC Improvement Measures for Indian Shrimp", aimed at getting the first of two large scale farms in India and a 200-person, small scale shrimp village cluster in India to achieve ASC standards and allow them to become ASC-certified. These farms were the first ASC-certified in country. WWF sees this as a flagship opportunity to grow a greater market and producer commitments to ASC in order to realize measurable environmental and social improvement in the sector. Located in Nellore, Andhra Pradesh, Geekay Farms and KVP farms strengthened their sustainable practices of shrimp aquaculture for over a year under the Aquaculture Improvement Project enabling them to become certified in November 2016. Many small-scale farms are in the AIP process.

Three key outcomes of this project that proved fruitful in minimizing the environmental and social impacts of shrimp aquaculture where; shifting the farm's mind set of sustainable farmed shrimp,

the creation of a Lab Centric Learning Hub, and minimizing the usage of feed and water resource. The approach of the farmers shifted over the life of this project to focus on producing more sustainable crops rather than only just successful crops. This was accomplished by implementing better management practices at the cluster level, thus reducing the occurrence of disease. Although this is not a specific key performance indicator, it is made evident by the increase in production and higher survival rates at KVP. With the decrease in disease leading to a more optimal utilisation of resources, less capital was required per gram of shrimp. By shifting the narrative of sustainable production to resource efficiency, the farmers were able to shift their approach to more sustainable farming practices. This change in mind set ties into the reduction of feed and water resource use. By managing this shift in practices at the farm level, farming inputs are used more efficiently resulting in more sustainably produced products.

This initiative was followed by more shrimp farms becoming ASC certified and currently 28 shrimp farms in Andhra Pradesh are ASC certified and seventeen are undergoing full assessment.

### WAY FORWARD

It is quite clear that sustainability is going to be a key issue in the future with more and more importers demanding fulfilment of sustainability criteria for farm produce. With appropriate government support and encouragement, India can make further progress in ensuring sustainability in aquaculture farm production and operations. Fish and bivalves should also come under the sustainability basket in future. India also needs to develop capacity in accredited ASC auditors which can greatly help in reducing certification costs.

