

Sustainable aquaculture: progress overview FY2017

WWF's aquaculture work focuses on creating sufficient demand and market conditions to make sustainable farmed fish trade viable. This entails increasing environmentally, socially and economically sustainable production and market supply of shrimp and salmon species, multiplying the impact to other farmed species such as pangasius, tilapia, bass and bream, trout etc.... through:

- Enhanced corporate commitments to certified farmed fish according to the Aquaculture Stewardship Council (ASC) standards throughout the whole aquaculture supply chain
- Initiating aquaculture improvement projects (AIP) and better management practices (BMP) with producers particularly in Belize, Honduras, Chile, Vietnam, Thailand, Madagascar, Australia, Malaysia, Indonesia and India
- **Improved governance:** technical assistance in developing countries to incorporate sustainable aquaculture practices into national development plans for farmed fish production

WWF focuses primarily on key priority regions for biodiversity protection, paying special attention to BRIICS countries:

- Key priority places affected by aquaculture commodity production include Coastal East Africa, the Mekong Complex, the Coral Triangle, Sumatra, Madagascar, the Mediterranean, the Mesoamerican Reef and the Southern Cone
- Key production countries of farmed fish include China, Indonesia, Thailand, Vietnam, India, Chile and Norway
- Key consumer countries are the EU, China, Japan, USA, Brazil and Australia

WWF's overall goals by 2020 are to:

- 1. support an overall increase in ASC certification of aquaculture species, particularly shrimp and salmon
- ${\bf 2.} \quad {\bf support} \ {\bf the} \ {\bf Global} \ {\bf Salmon} \ {\bf Initiative} \ ({\bf GSI}) \ {\bf goal} \ {\bf of} \ {\bf ASC} \ {\bf certification} \ {\bf of} \ {\bf all} \ {\bf its} \ {\bf member's} \ {\bf salmon} \ {\bf production}$
- 3. support the ASC, ensuring that all standards are minimising the environmental impacts of aquaculture production

Headline Summary

WWF has been driving sustainable aquaculture production through aquaculture improvement projects (AIPs), direct on-the-ground assistance, advocacy actions and collaboration with companies and governance bodies

INCREASED ASC CERTIFICATION ACROSS DIFFERENT REGIONS AND COUNTRIES

The total volume of ASC-certified species continues to increase with almost 30 percent compared to June 2016

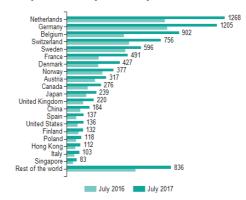
The total volume for all farmed species covered by ASC standards increased from 930,656 MT in June 2016 to 1,196,005 MI today.

ASC-farmed shrimp and salmon:

The number of shrimp farms granted ASC certification continues to grow: 94 farms are now certified, representing 138,825 tonnes of total volume or 4 percent of the global shrimp production, up from 2 percent at the end of last year. Also, salmon certification has further increased: over 200 farms are now certified by the ASC- the equivalent of 587,315 tonnes – roughly 30 percent of the global farmed salmon industry. The Global Salmon Initiative (GSI) which represents 50 percent of the global farmed salmon industry - takes up around 15 percent of all the certified farms.

About 23 percent of all ASC-certified salmon farms and 79 percent of certified shrimp farms come from developing countries. The number of certified shrimp farms in developing countries in WWF priority places or BRIICS is now 98 percent, up from 79 percent at the end of FY17.

Consumers can buy more ASCcertified products, mostly in the Netherlands and Germany The number of ASC Chain-of-Custody Certificate holders increased from 927 to 1251 compared to June 2016, with 8,881 products from 64 countries currently approved to carry the ASC ecolabel. Currently most ASC-labeled products are found in the Netherlands, closely followed by Germany.



Responsible shrimp production in India: a first!

WWF-India initiated an ASC certification project in Andhra Pradesh, a region that counts with the largest number of shrimp farms in the country.

	Two participating farms in the project producing 330 MT of farmed shrimp per year were certified this financial year: a first in India.
Responsible shrimp production in Madagascar and Thailand: another welcoming first!	Last November, Unima, farmed shrimp leader in Madagascar was the first African company to be awarded ASC certification with the help of WWF. More than 60 percent of farmed shrimp in Madagascar is produced by its farm Aqualma and exported to Europe, which is the main consumer of Malagasy shrimps and imports 400,000 tons of tropical shrimp yearly. Whilst most shrimp is exported to France, 10 percent also enters Spanish, Portugese and UK markets.
	In an important step toward responsible aquaculture in Thailand , shrimp producer Best Aquaculture Partners (BAP) became the first ASC-certified shrimp farm in the Kingdom. The company became certified through an Aquaculture Improvement Project (AIP) initiated by WWF which analyzed the gaps and implemented better management practices leading up to certification. The certification is the result of the company's commitment to sustainability and a growing global demand for responsibly produced farmed shrimp. International export is crucial to the Thai aquaculture industry: in 2015, seafood export was valued \$5.9 billion USD, among which 30 percent counts on shrimp production.
Helping smallholders to achieve ASC shrimp certification in Indonesia and India	In collaboration with the World Fish Center of Indonesia and with support from IDH, WWF engaged with a small shrimp farmer cooperative in Aceh to help them achieve group certification. The group programme is also being piloted in South Sulawesi and the project is mainstreaming its research, looking into natural feed options, an important factor for traditional farming of the shrimp species <i>Penaeus monodon</i> in Indonesian waters.
FARMS IN AQUACULTURE IMPROVEMENT PROJECTS (AIPS)	
AIPs continue to increase mostly in BRICCS countries	Supported by funding from IDH, WWF has assisted producers to move from their current status to being compliant with ASC standards, primarily through the implementation of Aquaculture Improvement Projects (AIPs) which have continued to increase this financial year.

Malaysia on the road to certification	Currently WWF-Malaysia is running an AIP in collaboration with 3 tropical marine fin fish farms (Grouper, Snapper, Barramundi, Pompano). The project, now in its implementation phase, has made significant progress over the last year. All 3 farms are eager to enter ASC certification once the new standards will be out later this year. WWF-Malaysia is also involved in a shrimp AIP, (Penaeus Monodon shrimp) to help prepare the farm for ASC certification later in 2017.	
Working with smallholders for responsible aquaculture and fish food in India	WWF is supporting an AIP with a group of smallholders in India (100 shrimp farmers exploiting 145 ha) to obtain ASC certification and is helping an oil sardine fishery to supply fish meal and oil to the aquaculture sector, and obtain MSC certification through a Fisheries Improvement Project (FIP).	
Four Indonesian farmed shrimp and seaweed companies enter new AIPs	WWF-Indonesia is implementing better management practices (BMP) to help four companies (two producing black tiger shrimp, one vannamei shrimp and one seaweed) prepare for ASC certification in several regions of the country. Moreover, WWF-Indonesia is also involved in AIP's for seaweed (cottonii), tilapia and milkfish, as part of WWF's Seafood Savers Programme which assists companies achieve credible seafood certification (ASC and MSC).	
Testing upcoming ASC standards for seabream and seabass in Greece	WWF is running an AIP for seabream and seabass species in Greece, in the light of the upcoming new ASC standard for these species which is expected to be launched further this year. Corporate partners in the AIP include major buying supermarket AB/Ahold-Delhaize Greece and Nireus aquaculture. AB/Ahold-Delhaize will be the first to offer the ASC-certified products in its supermarkets on Greek territory and plans to organize a Responsible Seafood Choice week in a number of its supermarkets to raise awareness about sustainably farmed fish products.	
Increased gender awareness in AIP's	To strengthen the social aspects of shrimp production, WWF-Indonesia is working with Oxfam to enhance gender awareness in the implementation of AIPs. One of the lessons learned is the need to have a participatory social impact assessment method to ensure both gender and social issues are being adressed.	
CORPORATE PARTNERSHIPS & MULTISTAKEHOLDER PLATFORMS		
Increased partner commitment to ASC certified farmed seafood products	WWF now has 62 corporate partners globally that have committed to ASC certify their farmed seafood products.	

Global Salmon Initiative (GSI) continues to progress towards sustainable salmon	The GSI's 125th farm achieved ASC Certification in June this year, representing ~25% of all GSI member farms ASC certified. The first GSI farm was certified in 2014, and since then good progress has been made with 10 farms certified in 2014, 45 farms in 2015, 55 farms in 2016, and an additional 15 farms so far in 2017. GSI members have now ASC certified farms across 7 farming regions, including 53 farms in Norway, 44 in Chile, 16 in Canada, 4 in Ireland, 4 in the Faroe Islands, 2 in Scotland and 2 in Australia, with a further 37 currently under assessment for certification. WWF welcomed the GSI 's third sustainability report published in April this year, featuring 4 years' worth of sustainability performance data across 14 key indicators from GSI salmon farming member companies, using the ASC Salmon standard as a framework. This year, the report also includes data verified by independent auditors, providing additional credibility and reassurance for stakeholders. Additionally, the GSI recently registered its commitment to support the implementation of the UN Sustainable Development Goal (SDG) 14 to conserve and support sustainable use the oceans, seas, and marine resources.
New members welcomed on board of the GSI	Three new members joined the Global Salmon Initiative in July. Australis Seafoods S.A., Bjørøya and Midt- Norsk Havbruk AS have committed to following the GSI's 3 key principles of improved sustainaibility, transparency and cooperation in aquaculture salmon production. They have also committed to working towards the GSI member's shared goals including contributing to the annual GSI Sustainability Report, and working towards achieving 100% ASC certification.
WWF and GSI: reducing the use of antibiotics in Chile	WWF-Chile is participating in discussions with the GSI members of the Global Salmon Initiative (GSI) in Chile to agree and take measures to reduce the use of antibiotics and non-pharmaceutical alternatives (particularly focused on treating SRS).
WWF-Chile and Blumar join forces to prepare for 100 percent ASC certification	WWF-Chile signed a Memorandum of Understanding (MOU) with Salmones Blumar S.A. with the aim to certify 100 percent of the company's salmon production in Chile according to ASC standards by the end of 2018. Both partners completed the evaluation and work plan for all Blumar's salmon production sites to enter AIP's and prepare for ASC certification. Blumar has been working with WWF-Chile since October 2016. It is expected that the company's farms will become fully ASC certified by the end of 2018.
Extending the MOU with farmed salmon producer Los Fiordos in Chile	Farmed salmon producer Los Fiordos has renewed its MOU with WWF-Chile with the objective of certifying 100 percent of its farms (currently 18 farms from 72

	active sites are ASC certified).	
WWF finalizes seafood procurement partnership with cruise line industry	WWF-US finalised a global ASC commitment with Royal Caribbean which is the first seafood procurement partnership of its kind for the cruise line industry.	
WWF and the Global Sustainable Seafood Initiative (GSSI): benchmarking all aquaculture standards	WWF has taken a leadership role on the Global Sustainable Seafood Initiative (GSSI) to benchmark all aquaculture standards with the aim to foster continuous improvement, strong metrics and good governance.	
New chapter for responsible aquaculture supply chain in Greece	AB Vassilopoulos (Delhaize Greece) and WWF Greece, along with NIREUS SA, are currently implementing an AIP to improve the production practices of three bream fish farms; sea bass of Nireus at Aliveri, Astakos and Nafpaktos, help them prepare for ASC certification and to ensure that increased ASC-certified products are available which will enable consumers to make an informed, responsible seafood choice.	
Largest Finnish aquafeed producer partners with WWF to improve sustainability of the sector	WWF-Finland has a partnership with the largest Finnish Aquafeed producer Raisioaqua in the country to improve the sustainability of the aquaculture sector and help prepare the company's farms for ASC certification. The partnership mainly focuses on local sustainable sourcing of feed ingredients, especially fish meal and oil. The fish incredients mainly come from baltic fish whilst the plant protein is sourced whenever possible from Baltic Sea catchment agriculture.	
ADVOCACY		
Opportunities for responsible artisanal aquaculture in Mozambique	WWF-Mozambique is working with artisanal aquaculture producers and the CARE Alliance in key ecological regions to investigate opportunities for responsible aquaculture. WWF developed a data capture tool to help the government get a clearer picture of artisanal tilapia production, help build capacity and trainings for the use of Geographic Information Systems (GIS).	
Addressing gaps and barriers in Vietnam to improve aquaculture production policies	WWF-Vietnam is undertaking research addressing the gaps and barriers of aquaculture in Vietnamese legislation and propose solutions for responsible aquaculture. The study provides a stakeholder platform to discuss policies and regulations, and some solid evidence for policy-makers to revise current policies and meet the demands of sustainable aquaculture production in the Mekong Delta. WWF-Vietnam also conducted a comparison between the ASC standards and Viet GAP, in collaboration with the Directorate of Fishery (D-Fishery) of the Ministry of Agriculture and Rural Development of Vietnam.	
Engaging the Indonesian government in an Ecosystem Approach to	Over the last two years, WWF-Indonesia has been engaged with the Ministry of Marine Affairs &	

Aquaculture (EAA)	Fisheries to develop National Guidelines for EAA and proper assessment tools. The assessment tools were tested several times, and some pilot projects have started to implement the EAA in 2017.
Better fisheries regulation in India	In India, the Kerala Marine Fisheries Regulation Act is being amended and the outcomes of a WWF supported AIP have been incorporated into the new amendment to be published later in 2017. In addition to this, Indian fish meal companies are implementing a FIP for oil sardine along the West Coast in collaboration with WWF, which will lead to sustainable operations of the fishery supplying fish oil for aquaculture in India.
New WWF research indicates that more intensive shrimp farming can yield better environmental and social results	More intensive shrimp farming can yield better environmental and economic results, according to a new study conducted by WWF in Vietnam and Thailand. By producing more shrimp per hectare of land, farmers can increase production to meet growing demand for shrimp without increasing pressure on the region's natural resources. The study showed that, in most cases, intensive operations used land much more efficiently, yielding at least eight additional tons of shrimp on each hectare of land and reducing the costs of land use by more than 90 percent per kilogram of shrimp. The most intensive farms made more efficient use of energy as well, with energy costs that were 74 percent to 89 percent lower than the least intensive operations.
OTHER: IMPROVING STAN	IDARDS AND MEASURING IMPACTS
WWF leads development new ASC Tropical Marine Finfish Standard	WWF (Coral Triangle) lead the development of a new Tropical Marine Finfish which was handed over to ASC in June this year for its finalization. Species included in this standard include Grouper, Snapper, Barramundi and Pompano. The standard is the result of the Tropical Marine Finfish Aquaculture Dialogue that began in 2013 and represents the views of almost 100 stakeholders including producers, seafood buyers, scientists, academics, government representatives and civil society organizations (CSOs). It follows closely in line with the other new draft standards and builds on the expertise and knowledge of the original Aquaculture Dialogues iniated by WWF.
Field-testing draft ASC standards for seabass, bream, meagre and flatfish species	The ASC is taking a practical approach in the development of its draft standards for Sea Bass, Sea Bream, and Meagre and Flatfish. With the help of WWF and industry partners, combinations of existing standards are being field-tested in order to identify any gaps between existing standards and the performance of new species. Site visits for Sea Bass, Sea Bream, and Meagre were conducted early 2017 in Greece, Spain, Croatia,

	conducted last year in South Korea and China. The current draft standards are the result of that gap analysis and thorough input and recommendations from WWF, other NGO's and the industry.
Getting a grip on the costs and benefits of ASC certification	WWF-Vietnam carried out a cost/benefit analysis for ASC certified and non-ASC certified farms of both Pangasius and shrimp in Vietnam. The study aimed to help audiences better understand the costs and benefits associated with ASC certification. Costbenefit is not only economic but also has an environmental and social aspect.
WWF develops a guide to fulfil social criteria of the ASC standard	With the support of Rabobank, WWF-Chile has developed a social toolkit that serves as a guide to effectively and meaningfully fulfil the social criteria of the ASC standard.
WWF continues participation in relevant working groups and governance bodies	WWF continues to sit on eight formal working groups and governance bodies including the ASC Supervisory Board, the ASC Feed Dialogue Steering Group, the Steering Committee for MSC/ASC seaweed and Marine FinFish standards, the ASC Technical Working Group (TWG) for the Review of Sea Lice Requirements for Salmon, as well as the Board of the IFFO RS standard for certification of fish meal and oil technical working group, the Thai Roundtable for Sustainable Fisheries and the IDH Technical Advisory Group.

More information

Piers Hart WWF Global Aquaculture Commodity Lead Email: Phart@wwf.org.uk