



Tilapia Aquaculture Dialogue

Tilapia is a hardy, fast-growing fish that has long been a staple source of protein in many developing countries, and more recently in developed nations. Approximately 2.3 million metric tons of tilapia are produced annually; of that 73 percent is farmed.

Most of the farmed tilapia is produced in China, followed by Egypt, Indonesia, Thailand and the Philippines. It is then imported to the United States, European Union and Japan. Costa Rica, Honduras and Ecuador are also important suppliers of fresh farmed tilapia fillets to the United States.



The increasing demand for this type of fish has shifted many tilapia producers from subsistence growers to larger, export-driven producers. This shift has created impacts – both real and perceived – on the environment and society.



For example, now that tilapia is produced outside of Africa – where the fish originated – there are instances where it overpopulates and outcompetes the native species. Waste products from tilapia may change the nutrient levels of local waterways, leading to eutrophication. And sometimes predators, such as birds, are killed to prevent them from preying on farmed fish.

To address these impacts and others, the Tilapia Aquaculture Dialogue was initiated by World Wildlife Fund (WWF). Created in 2005, this group now includes more than 50 representatives from nongovernmental organizations and government agencies, producers, retailers and academics. Tilapia production facilities will be evaluated based on performance standards and will not be prejudged as environmentally or socially acceptable.

Through meetings, discussions and review, the Dialogue is creating measurable, performance-based standards that reduce the key negative impacts of tilapia aquaculture and are acceptable to stakeholders. The standards will, among other things, address the unique issues related to tilapia farming in Asia, where almost 80 percent of the world's farmed tilapia is produced. Draft standards were posted for public comment in September 2008 and are expected to be finalized by mid-2009. When finalized, the standards will be given to a new organization, to be cofounded by WWF, which will be responsible for working with independent, third-party entities to certify farms that are in compliance with the standards.

Tilapia Aquaculture Dialogue Steering Committee

The Tilapia Aquaculture Dialogue is driven by a Steering Committee that includes representatives from these groups:



Voice from the Field

“We take environmental issues very seriously. This is reflected in our farms and processing facilities. That is why we are happy to play a leadership role in developing the tilapia standards and are committed to making them a reality.”

Jim Nunneley
Rain Forest Aquaculture

Photos. Front page, top to bottom: Tilapia farm showing cages, Asia – © WWF / Aaron McNevin; Worker at tilapia farm with net to catch discarded fish – © WWF / Aaron McNevin; Back page, left to right: Tilapia farm, Brazil – © WWF / Aaron McNevin; Tilapia farm in Ecuador – © WWF / Aaron McNevin. © 2009 WWF. All rights reserved by World Wildlife Fund, Inc. 02-09/100



Principles for Tilapia Aquaculture

Tilapia Dialogue participants have identified eight principles that provide the framework for developing the criteria, indicators and standards for responsible tilapia farming. The criteria will aim to provide direction on how to reduce each impact and the indicators will address how to measure the extent of each impact. Standards will be quantitative performance levels that evaluate whether a principle is achieved.

1. Obey the law and comply with all international, national and local regulations
2. Site and/or expand farms to conserve natural habitat and local biodiversity
3. Conserve water resources
4. Conserve fish species diversity and wild populations
5. Use resources efficiently
6. Manage disease and pests in an environmentally responsible manner
7. Ensure food safety and environmental health
8. Be socially responsible



Main Impacts of Tilapia Aquaculture

- **Effluents in the water:** Excess nutrients from food can be released into the environment, which can limit the amount of oxygen available to aquatic plants and animals.
- **Compromise of ecological integrity of aquaculture facilities:** Overstocking, stress and other factors can make farmed tilapia susceptible to viruses and diseases; establishing areas for aquaculture can require altering natural habitat and diverting water courses for other uses; and tactics, such as killing birds, can be used to minimize the number of species preying on farmed tilapia.
- **Pollution from inputs used at aquaculture facilities:** Feed and/or fertilizer used in excess at tilapia aquaculture facilities can pollute the water.
- **Invasive species:** Nonnative tilapia that escape from aquaculture facilities where the species is not already established can compete with native fish species and change the genetic makeup and diversity of species.
- **Socioeconomic impacts:** Aquaculture can conflict with other uses of an area or resource such as use of water bodies for recreation and reliance on landscapes for scenic vistas. Tilapia farming often employs a large number of workers on farms and in processing plants, potentially raising issues around labor practices and workers' rights.

To learn more about the Tilapia Aquaculture Dialogue and other Dialogues initiated by WWF: worldwildlife.org/aquadialogues



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