**Backgrounder on the Blackchin tilapia outbreak in Thailand**
by Biothai December 2024

**About**

An invasive species of tilapia is wreaking havoc in Thailand's waterways: destroying native fish populations and small-scale, traditional aquaculture. There is overwhelming evidence that this species, Blackchin tilapia, was introduced by the Thai agribusiness conglomerate Charoen Pokphand through its industrial aquaculture operations. BIOTHAI has been working with affected farmers and fishers to try and hold the company to account for this environmental and economic disaster. But the company is using heavy-handed tactics to avoid responsibility. In November 2024, its subsidiary, Charoen Pokphand Foods (CPF), filed a libel suit against [BIOTHAI](https://www.facebook.com/biothai.net?__cft__%5B0%5D=AZVX_CS6kBAXt1ygzgwL5L5aLhStsz7msQIRtcpi_7C-jlGl0o-iGzEx-cgbakVEO001nesiFxyLaL0HHYFlTNe8omL41NPz1cW1aLbPHsp5qDb95FCjT0wEymOqv6eOLxUnPLQkp_W4p1FKBCXz1yBV-30XscO-fY9t3Q62YNdoUQ0Ufm8okNd9ZIuZPvHC_ho&__tn__=-%5DK-R) that could seriously affect the organisation's ability to continue with its work.

The Blackchin tilapia is a fish native to West Africa, known for its proliferating capacity and ability to adapt to high salinity habitats. In 2010, CPF reportedly imported 2,000 Blackchin tilapia fish from Ghana for breeding trials, and, soon after, an outbreak of this exotic fish was identified in 19 provinces ranging from middle to south Thailand. The outbreak has resulted in severe repercussions for local fisheries and coastal communities, with tremendous economic losses and environmental damages.

Since the outbreak, CPF has denied responsibility and even suggested that ornamental fish breeders might be to blame. CPF claimed that their imported fish died within 16 days, and samples were handled in accordance with the Department of Fisheries’s guidelines. However, evidence presented by the government, scientists, CPF workers and civil society point clearly to CPF being responsible.

**Strong evidence against CPF**

CPF is the only company confirmed to have imported Blackchin tilapia into Thailand. No records of prior imports or cultivation of this species exist in the country. In 2010, CPF sought approval to import 2,000 Blackchin tilapia from Ghana for breeding trials at its Yeesarn fish farm in Ampawa district of Samut Songkhram. The objectives were to improve the existing Nile tilapia strains (e.g. disease resistance) and test the potential of Blackchin tilapia for the company’s expanding brackish-water industrial aquaculture. The batch of fish then arrived in Dec 2010.

The Department of Fisheries granted permission under two conditions:

1. Submit fin tissue samples to the Department of Fisheries upon receiving the fish.
2. Report study results upon conclusion; if the trial was unsuccessful, CPF was required to destroy the entire stock under the Department’s protocol and supervision.

CPF claimed to have sent samples of the dead fish to the Department of Fisheries after burying the rest of the fish in 2017. However, the Department confirmed it had never been notified about fish deaths nor received any samples. The Department also stated that Blackchin tilapia were not kept as ornamental fish in Thailand.

Farmers impacted by the outbreak then brought their grievances to the National Human Rights Commission on September 13, 2017, seeking redress and government intervention. The Commission reported that CPF did not comply with the biosecurity conditions set by the Department of Fisheries. They noted that "the company failed to report test results and deaths of the Blackchin tilapia in writing, which violates the criteria and conditions for permitting non-native aquatic species."

In addition, the Department of Fisheries conducted a genetic analysis that included DNA samples from Blackchin tilapia caught at CP's Yeesarn farm in 2017 as well as from various afflicted provinces. The study concluded that the Blackchin tilapia populations spreading across Thailand share a common source and did not result from "multiple import events".

In early 2024, the Department of Fisheries further analysed the genetic sequences of Blackchin tilapia collected from six Thai provinces between 2017 and 2022. They compared this data to DNA from African countries in the NCBI database and constructed a phylogenetic tree (NU tree). The findings showed a match with a subgroup of samples from Ghana, the original country of import, but not with DNA from Liberia, Sierra Leone, Senegal, and Mauritania.

Thai PBS, Thailand's public television station, aired an interview with a fisheries scientist who worked at CPF’s Yeesarn farm from 2010 to 2014, the period during which CPF conducted experiments with Blackchin tilapia. The interview revealed that the Blackchin tilapia did not die as claimed by CPF’s management but was instead continuously farmed and used by the company to clean up organic waste in their large shrimp hatcheries. The academic noted that it was easy for the Blackchin tilapia to escape from these clay-based ponds into natural canals or waterways outside CPF’s farms.

**Key Impacts**

Farmers near CPF’s Yeesarn fish farm first reported an outbreak of Blackchin tilapia in the surrounding waterways from late 2011 to early 2012. The Department of Fisheries documented that the initial outbreak occurred in 7 canals in Samut Songkhram, adjacent to the company's farm, and then spread to neighbouring provinces.

Dr. Chavalit Vithayanon, a member of the Department of Fisheries's International Biological Committee and a fish diversity expert for the House of Representatives subcommittee investigating the Blackchin tilapia issue, discovered that the outbreak regions largely overlapped with CP's large fish and shrimp farms in Samut Songkhram, Rayong, Chanthaburi, Phetchaburi, Prachuap Khiri Khan, Nakhon Si Thammarat, and Songkhla.

Blackchin tilapia consumed the resources in local ponds and natural canals, preying on shrimp, crab, fish larvae, and shellfish, leading to the devastation of aquaculture and natural ecosystems. As a consequence, many farmers faced debts, land loss, and even resorted to suicide due to the economic losses.

According to a study conducted by SROI TU, a research institute at Thammasat University, the economic losses from fishing in Praek Nam Daeng Subdistrict, Samut Songkhram alone totalled USD 3.83 million per year, excluding environmental damage. The Lawyers Council surveyed over 1,400 impacted farmers in Samut Songkhram. The findings revealed that more than 1,000 aquaculture operations suffered USD 57.84 million in damage, while coastal fishers lost around USD 551,000 for a total economic impact of USD 72 million in that single province. The broader economic loss across 19 provinces is expected to surpass tens of billions of baht per year.

An assessment by the Department of Agricultural and Resource Economics at Kasetsart University categorised the extensive impacts into six domains:

1. Biodiversity loss, including endemic plants and animals.
2. Agricultural damage.
3. Widespread harm to the fishing industry.
4. Direct effects on residents in outbreak areas.
5. Impact on consumers.
6. Broader economic consequences for the general public.

**Corporate profits devastate** **community interests and biodiversity**

The outbreak of Blackchin tilapia in Thailand represents one of the most severe environmental crimes in the country. CPF’s importation of Blackchin tilapia is part of the company’s strategy to expand its dominance in intensive livestock production and the feed industry. In Thailand, the company already dominates much of the aquaculture industry, and the invasion of Blackcin tilapia has actually increased its control. The species has destroyed traditional systems of shrimp cultivation along the coastlines that do not require commercial feeds and has forced small-scale fish farmers to use intensive, closed systems that rely on feeds, chemicals, and antibiotics supplied by agribusiness. Previous outbreaks of bird flu and African swine fever, implicating CPF chicken and pig farms, were used by the company to consolidate its control over the livestock industry.

**Community actions**

In November 2024, 1,400 affected farmers near the CPF experimental fish farm in Samut Songkhram filed a lawsuit against CPF seeking compensation. Around 400 of them are fish catchers on the canals. The others are owners of small-scale aquaculture farms, with a few operating intensive shrimp farms. The case filed by villagers against CPF is in the early stages of hearings and trials.

Meanwhile, Biothai and the devastated communities have launched a national campaign to pressure CPF, hold it accountable for this environmental crime and demand it compensate farmers for their losses. Many environmentalists, activists, intellectuals, and journalists have joined the campaign, wearing t-shirts as a symbol. All proceeds from the [t-shirt sales](https://www.facebook.com/photo.php?fbid=986335610206519&set=pb.100064902661454.-2207520000&type=3) go towards the campaign and lawsuits.

**Key timeline**

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| **Time** | **Key event** |
| December 2010 | Arrival of 2,000 Blackchin tilapia in Thailand from Ghana |
| Late 2011 to early 2012 | Farmers near CPF’s Yeesarn fish farm in Samut Songkhram reported a Blackchin tilapia outbreak in the surrounding waterways  |
|  | The outbreak report from the Department of Fisheries explicitly stated that the initial outbreak area was at Khlong 7, a canal surrounding CP's Yeesarn farm, before spreading to other regions. |
| September 2017 | Impacted communities filed a complaint to the National Human Rights Commission |
| 2017 | A genetic study by the Department of Fisheries concluded that the Blackchin tilapia populations spreading across Thailand share a common source.  |
| Early 2024 | The Department of Fisheries’s genetic analysis showed a match of Blackchin tilapia DNA in Thailand with the DNA samples from Ghana.  |
| September 2024 | The Subcommittee set up by the House of Representatives concluded its research into the causes and impacts of Blackchin tilapia's introduction and spread in Thailand.  |
| November 2024 | -The outbreak has been found in 19 provinces of Thailand-CPF filed a libel suit against Biothai over the accusation that the company is responsible for the Blackchin tilapia spread in Thailand's watercourses. -1,400 affected farmers from around the CP experimental fish farm in Samut Songkhram filed a lawsuit demanding CP compensation |