

The Reality of the Fishing Industry in Fukushima Prefecture

— Fishery Reconstruction Efforts —

Fukushima Prefectural Federation of
Fisheries Cooperative Associations

Timeline

Time	Status
March – April 2011	○Contaminated water is flowing out to the ocean from the Fukushima Daiichi nuclear power plant
March 15, 2011	○Self-restraint of coastal fishing was agreed upon at union presidents' meeting (Offshore fishing continues operation)
April 2011-	○The prefecture started monitoring inspections for seafood
April 2011	○Restrictions placed on taking and shipping sand eels offshore of Fukushima
April 2011-	○Stored monitoring inspection results of seafood as data *Began comprehending the trends of radioactivity by area and fish species ○Some fishermen and distributors made requests to resume operations
February 2012	○Established Fukushima regional fisheries reconstruction conference
March 2012	○Established Soma-Futaba fishery test operation and distribution committee
March 2012-	○Planned test operation schedule *Discussed contents at committees and conferences
June 2012	○Test operation plan was approved at union presidents' meeting
June 22, 2012	○Started test operation limited to 2 kinds of octopus and 1 kind of whelk at Soma-Futaba fisheries cooperative
July 2012	○Established Iwaki fishery test operation committee
October 18, 2013	○Started test operation at Iwaki city fisheries cooperative and Onahama fisheries cooperative

Test Operation Efforts

Self-restraint in coastal fishing in Fukushima Prefecture (including offshore bottom fishing)

- Confirmed the effects of radiation through about **38,000** (as of August 2016) prefectural monitoring survey results
 - Some fish are **not affected** by radiation
 - The effects of radiation **clearly decline** with time

◆ **Small scale operations and sales have been tested for limited kinds of fish since June 2012**

Objective:

- ✚ Study reputation in shipping destinations
- ✚ Promote the safety of Fukushima fish by distribution



Test Operation Decision Making Process

Confirmed the safety of candidate target species with prefectural monitoring

Plans for test operation are carefully discussed and determined in a lengthy process.

① **Fishermen and distributors' conference**

Target species, operation, and distribution system

② **Regional test operation committee**

Agreements with each region

③ **Regional fisheries reconstruction committee**

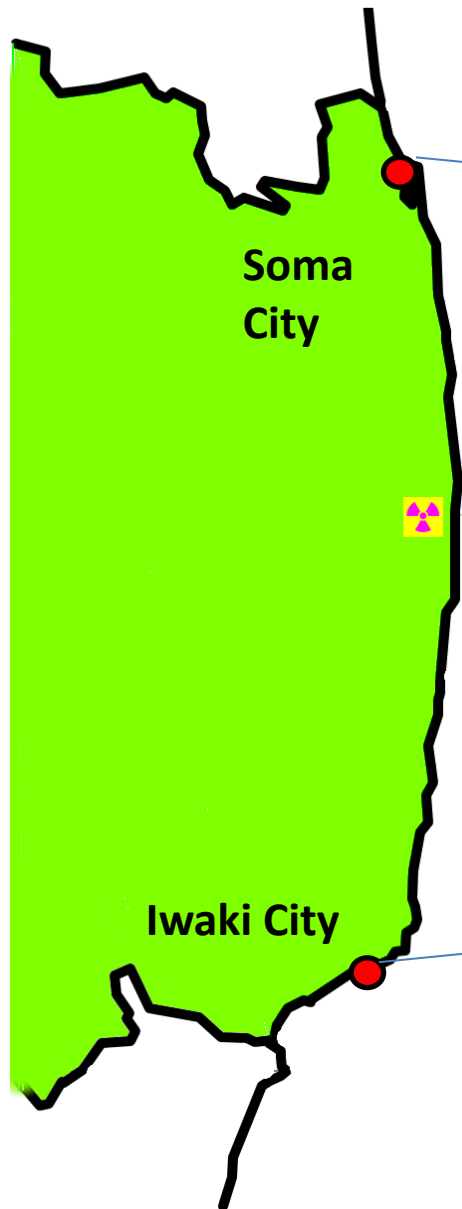
Discussions with fishermen's representatives, consumers and distributors, experts, and administrative agency

④ **Union presidents' meeting**

Finalizing plans



Voluntary Inspection System (Placement of Testing Equipment)



Soma Haragama fish market

CsI detector 6 units
NaI detector 2 units

Fisheries Research Institute, Soma branch

Germanium detector 1 unit

Onahama fish market

CsI detector 6 units
NaI detector 3 units

Fisheries Research Institute

Germanium detector 1 unit

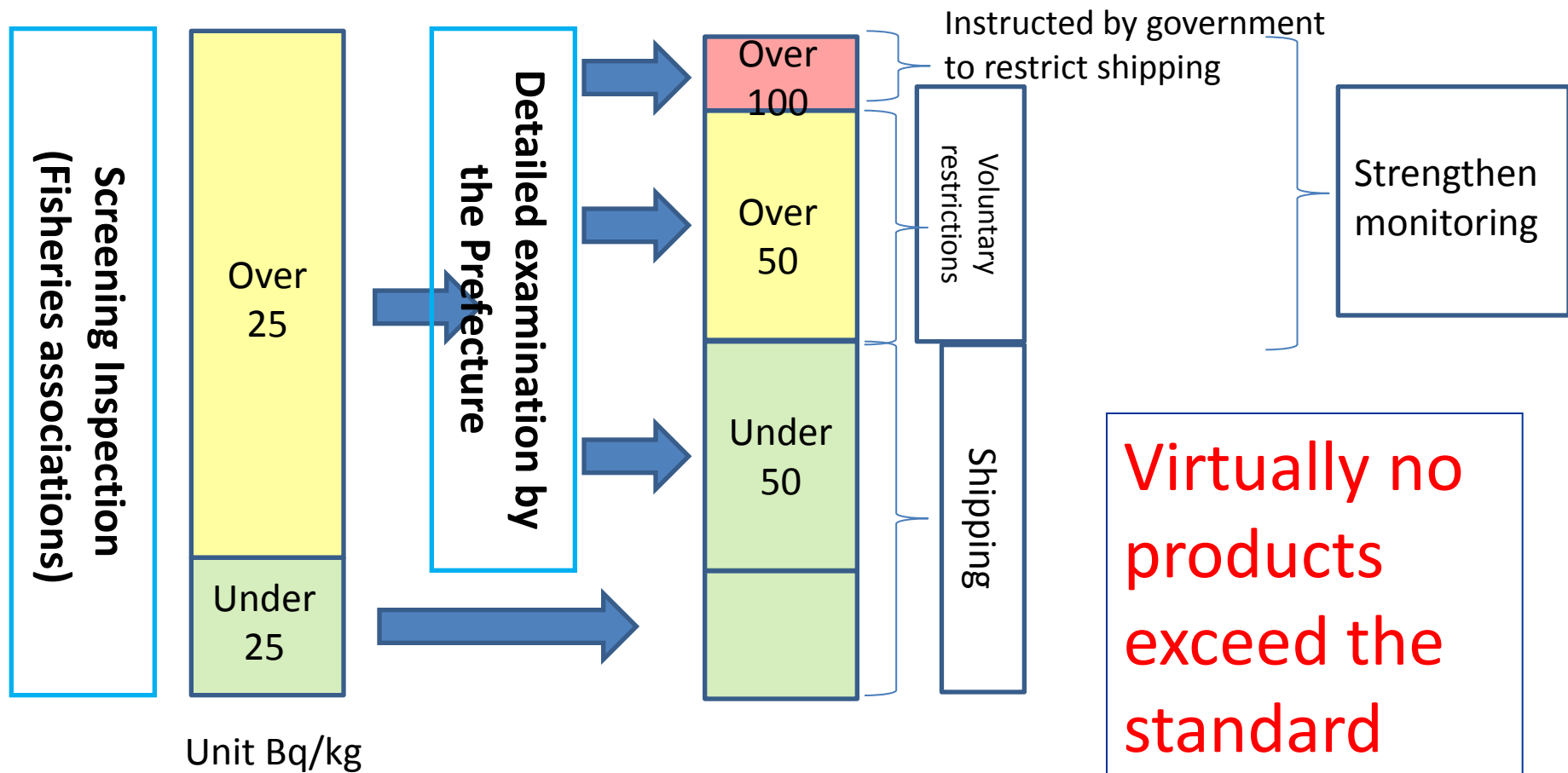


- ◆ Inspection by trained union members
- ◆ 7 to 10 people performing inspections per room

Voluntary Inspection System (Shipping Policy)

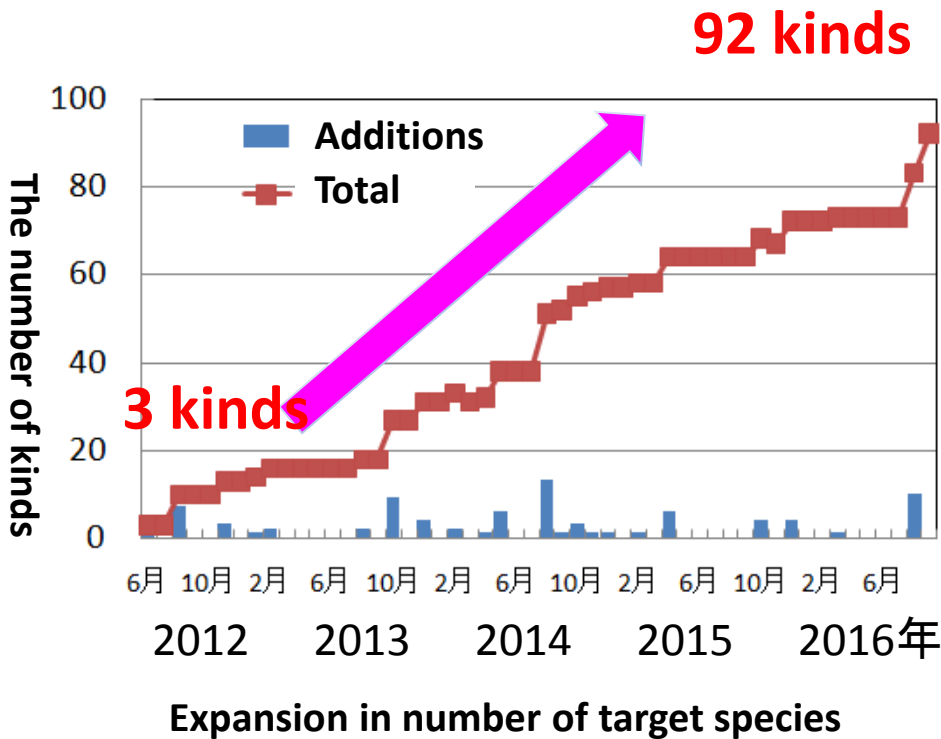
Standard set for voluntary inspections is 50 Bq/kg

This prevents shipping of seafood exceeding the **100 Bq/kg national standard**.



Target Species for Test Operation

Launched with **3 kinds**, expanding to **92 kinds** by October 2016



Fish - 66 kinds

Bigeyed greeneye, angler fish, sand eel, flounder, brown sole, etc.

Crustaceans - 8 kinds

Kegani crab, queen crab, swimming crab, etc.

Squid, octopus - 7 kinds

Common squid, spear squid, octopus, north-pacific giant octopus, etc.

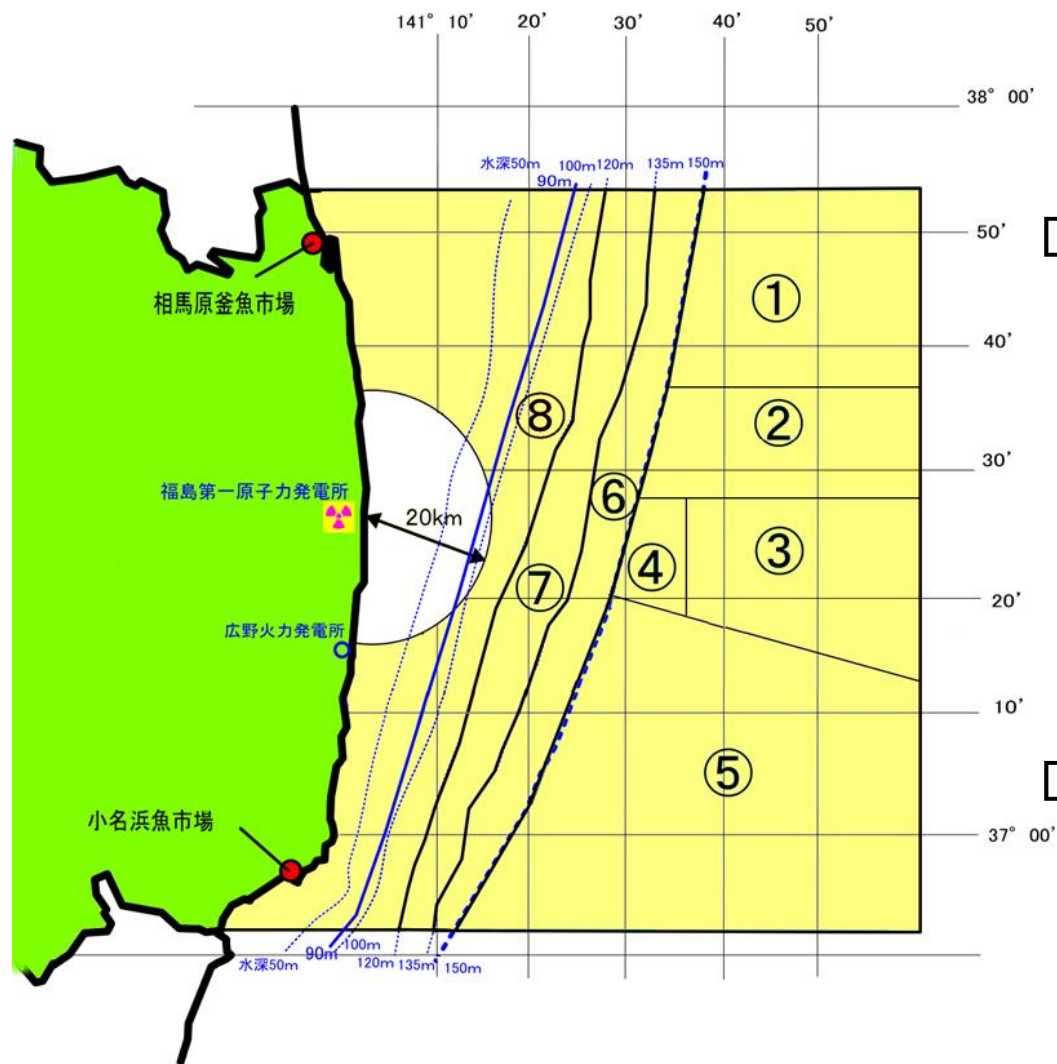
Shellfish - 9 kinds

Clams, abalone, surf clam, etc.

Others - 2 kinds

Okinamako, Strongylocentrotus nudus

Sea Areas for Test Operation as of June 2016



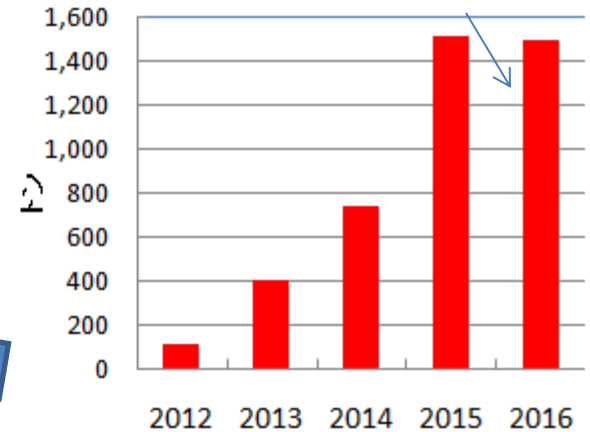
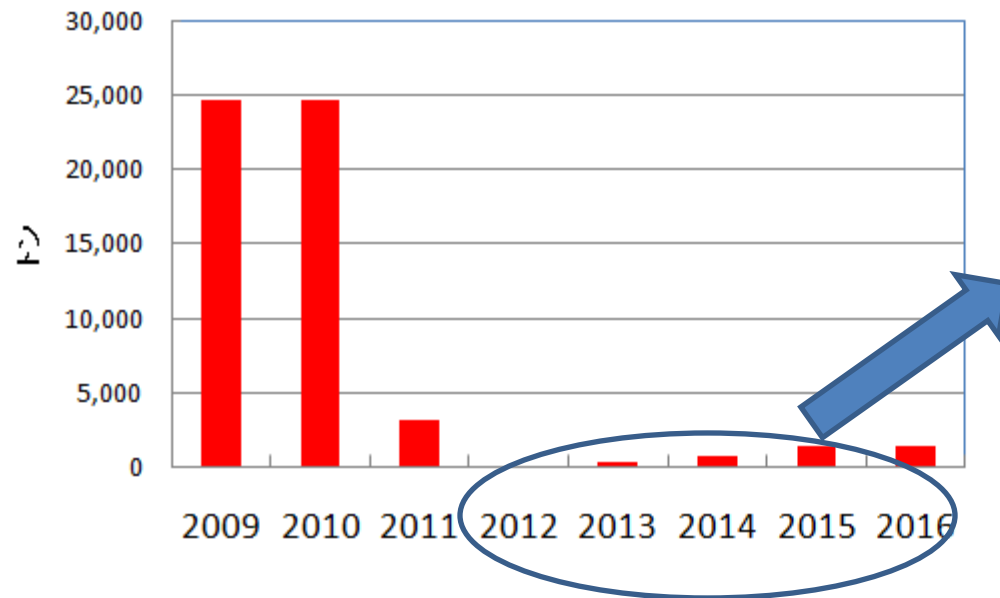
Sea areas for test operation

* The numbers in the above map describe the order of expansion of the trawl-net fishery area.

- Test operation is conducted in all areas offshore of Fukushima except within a 20 km radius from the Fukushima Daiichi power plant.
- A trawl-net fishery is operated 90 m or deeper below sea level to avoid by-catch of non-target species.

Catch of Inshore Fisheries in Test Operation

Preliminary figures at the end of August



Catch in inshore fisheries (affiliated territories)
*Including bottom fishing off the coast



The catch in fisheries in test operation has increased steadily, but the catch in 2015 is still very low: only **5.8%** of the 10-year average before the earthquake.

Status of Sales & Shipments

- ❑ At first, shipments were only made within Fukushima Prefecture
- ❑ Produce is now shipped to consumer markets in the Tohoku, Kanto, Chubu, and Hokuriku regions in Japan



Iwaki central wholesale market



Local shopping center

Fukushima seafood is priced similarly to seafood produced elsewhere in Japan on the consumer market.