

The effect of leakage of contaminated water at the TEPCO's Fukushima Daiichi Nuclear Power Station to fishery products and the safety measures taken

- In order to tackle the contaminated water issue at the TEPCO's Fukushima Daiichi NPS, the Government of Japan has decided, mobilizing expertise of all the government authority, to play a further proactive role in taking countermeasures against the issue. In this context, on 3rd September, the Nuclear Emergency Response Headquarters decided "Basic Policy for the Contaminated Water Issues at the TEPCO's Fukushima Daiichi Nuclear Power Station." Based on this "Basic Policy", in order to prevent reputational damage or misinformation, the Government of Japan will promptly provide the accurate information on the results of observation of radioactive levels in the sea in addition to reinforcement of open sea monitoring activities.
- In relation to the leakage of contaminated water, periodical monitoring has been conducted in and around the Fukushima Daiichi Nuclear Power Station (FDNPS). While radioactive materials have been detected from water samples in the port of FDNPS, almost all water samples are below the detection limit outside of the port. The impact of the leakage to marine environment is very limited.
- As for fishery products, monitoring has been conducted since 24th March, 2011, and 37,470 samples were analyzed (as of the end of August, 2013). The monitoring results show that the ratio of samples exceeding the standard to total samples (violation rate) has been decreasing. Especially in Fukushima, although the percentage of samples that exceeded 100 Bq (Becquerels)/kg was 53 % in the period of March – June, 2011, it was reduced by half in one year after the accident. In addition, the rate has continued to decrease since April 2012, even though the monitoring has been focusing on fish species which exceeded 50 Bq/kg. It was decreased to 2.7 % in the period of July – August, 2013.
- The monitoring results are publicized on the Fisheries Agency's website along with Q & A about effect of radioactive materials to fish.
- In Japan, for fishery products whose radioactive cesium are close to or exceed the standard, restriction measures (i.e. suspension of fishery and/or distribution restriction) have been imposed in order to prevent such fishery products from being distributed to markets. In Fukushima prefecture, even though the violation rate has been decreasing to 2.7 %, the suspension of fishery has been imposed on all the coastal and bottom fisheries (except trial fisheries targeting 16 species*).

- The Government of Japan, with close cooperation with prefectural governments and fishery cooperatives, will continue to research on radioactive materials and provide information promptly in order to develop confidence in fishery products.

* 16 species of which radioactive cesium concentration has been remarkably decreased were caught on a trial basis at the limited offshore area of Fukushima (20 km away from the FDNPS) and sold after inspection of each landing for each species. 16 species are the following: giant Pacific octopus, chestnut octopus, Japanese flying squid, spear squid, horsehair crab, snow crab, whelks (*Buccinum isaotakii*, *Neptunea constricta*, *Neptunea intersculpta*, and *Beringius polynematicus*), Thornhead, greeneyes, rikuzen flounder, Hilgendorf's auctor, Willowy flounder and Japanese sand lance (juvenile).

However, the trial fishery has been postponed temporarily since September, 2013.

The safety of Japanese food and initiatives on the radioactive materials inspection

- Japan's limit for radioactive materials in food uses as an indicator the annual dose of 1 milli-sievert that served as the guideline for the Codex Committee, which establishes international standards for foods, and therefore conforms with international thinking. In addition, this limit was established based upon factors like the amount of food ingested by different people by sex and age, with safety also taken into consideration.
- The limit for radioactive cesium was established by factoring in the impact from other nuclides to ensure that the one millisievert per year is not exceeded, with this including the exposure from not only radioactive cesium but also other nuclides (strontium, plutonium, etc.)
- Based on this limit, the Government of Japan has imposed a rigorous inspection regime that is designed to ensure safety within Japan. While it is rare that product exceeds the limit, when it does happen efforts are made to ensure that such products do not circulate on the market, such as by disposing of the foods in question or instituting shipping restrictions. Accordingly, the safety of Japanese foods circulating in markets has been adequately ensured.
- Between April 1, 2012 and August 31, 2013, 412,959 inspections were carried out, of which 2,866 cases, which corresponds to 0.69% of the total, exceeded the limit. As was mentioned above, the measure of disposing of the products was taken.
- Japan intends to continue providing prompt and accurate information regarding food safety, and has been promptly publishing the aforementioned inspection results on the website of the Ministry of Health, Labour and Welfare in English.

[Reference] Codex Committee

The Codex Committee is an international intergovernmental organization that was set up in 1963 with the goals of protecting consumer health and ensuring fair trade in food. Among its other activities it has formulated international food standards (Codex Standards; Japan joined in 1966).

Member countries: 186 countries and one member organization (EU) (as of August 2013)

Secretariat: FAO Headquarters (Rome)

English reference materials related to this matter:

Uploaded to the following links:

http://www.mhlw.go.jp/english/topics/2011eq/dl/food-130319_2.pdf

<http://www.mhlw.go.jp/english/topics/2011eq/>

Trends of Concentration of Radioactive Materials in Seawater in the Port of Fukushima Daiichi Nuclear Power Station

(The Fisheries Agency created based on the data of the Tokyo Electric Power Company, Incorporated.)

Sampling Date	Concentration of Radioactive Material (Bq/L)			
	H-3	All β	Sr-90	Cs-137
2013/6/20	5.0	15	3.5	ND
2013/6/26	29	31	-	ND
2013/7/4	ND	ND	-	ND
2013/7/9	4.2	ND	-	ND
2013/7/17	4.8	ND	-	ND
2013/7/22	ND	ND	in preparation	ND
2013/7/31	ND	ND	-	ND
2013/8/5	3.8	ND	-	ND
2013/8/12	ND	ND	-	ND
2013/8/19	68	69	in preparation	1.6
2013/8/28	4.0	ND	-	ND
2013/9/3	in preparation	ND	-	ND

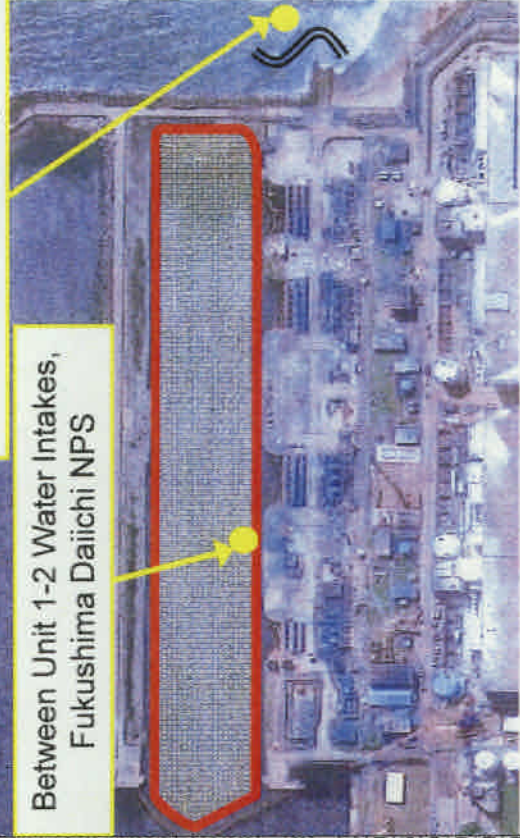
Port Entrance



Sampling date	Concentration of Radioactive Material (Bq/L)				
	H-3	All β	Sr-90	Cs-134	Cs-137
2013/6/21	-	ND	-	ND	2.0
2013/6/26	ND	ND	0.36	ND	ND
2013/7/3	ND	ND	-	ND	ND
2013/7/8	ND	ND	-	ND	ND
2013/7/15	ND	ND	-	ND	3.0
2013/7/22	ND	in preparation	-	ND	ND
2013/7/29	ND	ND	-	ND	ND
2013/8/5	ND	ND	-	ND	ND
2013/8/12	ND	ND	-	ND	ND
2013/8/19	ND	in preparation	-	ND	ND
2013/8/26	ND	ND	-	ND	ND
2013/9/2	in preparation	ND	-	ND	ND

Around South Discharge Channel

Between Unit 1-2 Water Intakes, Fukushima Daiichi NPS

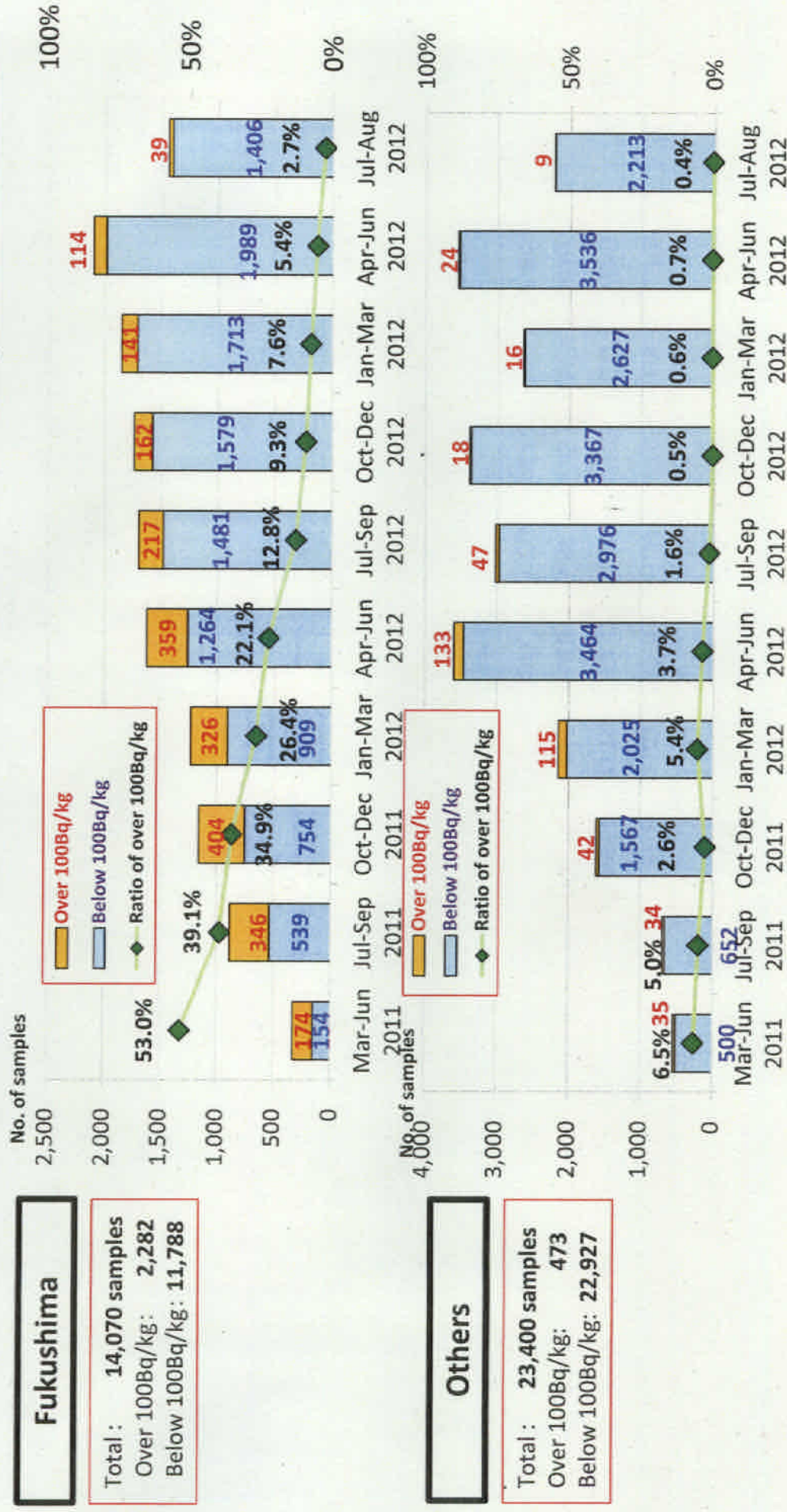


Sampling date	Concentration of Radioactive Material (Bq/L)									
	H-3		All β		Sr-90		Cs-134		Cs-137	
2013/6/10	Upper Layer	Lower Layer	Upper Layer	Lower Layer	Upper Layer	Lower Layer	Upper Layer	Lower Layer	Upper Layer	Lower Layer
2013/6/21	600	330	-	-	in preparation	-	9.4	-	19	-
2013/6/24	910	420	-	-	-	-	-	-	-	-
2013/6/26	200	360	260	210	-	in preparation	6.2	6.2	11	9.3
2013/6/28	230	340	180	180	-	-	8.5	7.5	19	17
2013/7/1	170	ND	200	180	-	-	4.9	5.7	11	14
2013/7/3	230	ND	130	120	-	-	5.3	3.0	9.3	8.9
2013/7/5	330	170	150	180	-	-	5.6	6.8	12	14
2013/7/7	570	210	180	220	-	-	6.8	4.9	15	6.9
2013/7/9	170	ND	65	51	-	-	ND	2.0	3.4	3.6
2013/7/11	ND	500	110	58	-	-	5.6	2.6	13	8.0
2013/7/14	560	460	200	280	-	-	7.9	9.6	20	18
2013/7/16	800	390	310	450	-	-	11	7.5	25	13
2013/7/18	420	420	320	320	-	-	9.5	7.0	23	14
2013/7/21	390	ND	96	19	-	-	3.3	ND	8.5	3.2
2013/7/23	580	370	120	100	in preparation	in preparation	15	9.9	27	19
2013/7/25	880	230	290	170	-	-	14	4.3	27	6.8
2013/7/28	1,800	690	330	93	-	-	15	2.3	38	8.6
2013/7/30	1,700	650	340	97	-	-	17	2.5	35	8.4
2013/8/1	1,300	300	320	180	-	-	13	4.0	28	5.2
2013/8/4	1,100	1,200	230	110	-	-	11	5.8	21	9.8
2013/8/6	1,400	210	360	120	-	-	19	4.2	36	11
2013/8/8	1,500	490	390	200	-	-	18	6.0	37	13
2013/8/11	2,300	510	600	270	-	-	27	5.7	56	11
2013/8/13	890	570	390	250	-	-	15	6.1	31	14
2013/8/15	2,600	1,000	740	300	-	-	25	8.9	54	20
2013/8/18	2,000	560	380	80	-	-	21	5.1	43	16
2013/8/20	1,300	690	310	140	-	-	16	8.3	37	19
2013/8/22	1,300	280	540	210	in preparation	in preparation	20	5.2	39	7.9
2013/8/25	940	720	440	330	-	-	17	9.4	45	20
2013/8/27	1,400	230	500	250	-	-	26	3.4	64	7.9
2013/8/29	1,400	1,200	500	340	-	-	26	13	57	25
2013/9/1	1,600	1,600	370	370	-	-	23	11	40	24
2013/9/3	in preparation	in preparation	420	160	-	-	16	3.4	39	11

Results of the inspection on radioactive cesium in fishery products

As of the end of August 2013

- In Fukushima Prefecture, the ratio of samples exceeding the standard limit (Cs-134+Cs-137: 100 becquerel/kg) shows a steadily decreasing trend and is now below 5%. All coastal fishery and trawl fishing offshore Fukushima except trial fishing have been voluntarily suspended since the accident at the TEPCO's Fukushima Daiichi Nuclear Power Station.
- In other areas, the ratio falls gradually, and it is below 1% after the 4th quarter of 2012.



Accurate Information Sharing to Consumers, etc

- Japanese Fisheries Agency (JFA) continues to make utmost efforts for accurate information sharing regarding fishery products. In this regard, JFA frequently updates results of inspections on levels of radioactive cesium in fishery products conducted by related prefectures and fisheries organizations. JFA also puts FAQs about fishery products on its homepage in both Japanese and English. In addition, JFA carries out briefing sessions to consumers, distributors, etc.

【Results of inspections】 <http://www.jfa.maff.go.jp/e/inspection/index.html>

Origin		Name of sampling area on food labeling	Item		Radioactive Caesium (Bq/kg) Total
Prefecture	Landing port or area		Japanese	English	
Hokkaido	Offshore Nemuro	-	コマイ	Salmon cod (<i>Salvelinus gairdneri</i>)	Not detectable
Hokkaido	Offshore Nemuro	Offshore Hokkaido	マダラ	Pacific cod (<i>Gadus macrocephalus</i>)	Not detectable
Aomori	Offshore Kitakamigatawa, Tokuura Town	-	マダラ(1kg以上)	Pacific cod (<i>Gadus macrocephalus</i>) (over 1 kg)	Not detectable
Aomori	Offshore Kitakamigatawa, Tokuura Town	-	マダラ(1kg以上・肝臓)	Pacific cod (<i>Gadus macrocephalus</i>) (over 1 kg, liver part)	Not detectable

Briefing session in Iwaki city, Fukushima



【Q&A】

FA

Fisheries Agency

http://www.jfa.maff.go.jp/e/q_a/index.html

[HOME](#) > Questions and answers on fishery products

Questions and Answers about Fishery products (Monitoring for radioactive materials)(Provisional translation)

Q 1. What is the new criterion value of radioactive materials in fishery products after the establishment of the new standard limits on 1st April, 2012?

A. After the establishment of the new standard limits on 1st April, 2012, 100Bq/kg is set as the new standard limit for fishery products, replacing the provisional regulation value for radioactive Cesium (500Bq/kg).

The state of distribution restriction and voluntary suspension of fishing in the freshwaters
(As of 9 September 2013)

Olwate Prefecture

【Distribution restriction】

Species	Name of area	Begging period of the action
Whitespotted char	Iwai River, Satetsu River	8 May 2012
Japanese dace	Downstream area from Shijushita Dam of Kitakami River (Exclude the following area: Upstream from Ishihane Dam, Upstream from Ishibuchi Dam, Upstream from Irihata Dam, Upstream from Goshō Dam, Upstream from Sotoyama Dam, Upstream from Tase Dam, Upstream from Tsunatori Dam, Upstream from Toyosama Dam, Upstream from Hayachine Dam)	11 May 2012
	O River	11 May 2012
	Kesen River	12 June 2012

【Voluntary suspension of fishing upon request of the prefectural government】

Species	Name of area	Begging period of the action
Land-locked cherry salmon	Koromo River, Iwai River	29 March, 2012

OMiyagi Prefecture

【Distribution restriction】

Species	Name of area	Begging period of the action
Land-locked cherry salmon	Abukuma River (Exclude Upstream area from Shichikashuku Dam)	20 April 2012
Whitespotted char	Upstream area from Okura Dam of Okura River, Upstream area from Akiu otaki of Natori River *	14 May 2012
	Upstream area from Kurikoma Dam of Sanhasama River	24 May 2012
	Matsu River (Exclude the following area: Nigori River, upstream area from Sumikawa No.4 Dam)	24 May 2012
	Upstream area from Aratozawa Dam of Nihasama River	28 May 2012
	Upstream area from Narugo Dam of Eai River	28 May 2012
	Upstream area from hanayama Dama of Ichihasama River	22 June 2012
	Upstream from Kamafusa Dam of Goishi River	22 June 2012
	Hieose River (Exclude Upstream area from Okura Dam of Okura River)	6 December 2012
Japanese dace	Abukuma River (Exclude Upstream area from Shichikashuku Dam)	20 April 2012
	O River	18 May 2012
	Kitakami River	28 May 2012
Ayu sweetfish	Abukuma River (Exclude Upstream area from Shichikashuku Dam)	27 June 2013

* Because Okura River is a branch of Hirose River, Distribution restriction of Whitespotted char of Okura River has been instructed as a branch of Hirose River. (As to upstream from Okura Dam, from 14 May 2012, As to downstream area from OkuraDam, from 6 December 2012)

【Voluntary suspension of fishing upon request of the prefectural government】

Species	Name of area	Begging period of the action
Whitespotted char	Natori River, Shishido River, Motoisago River	10 May 2012

Japanese eel	Abukuma liber (include branches in Marumori Town)	25 July 2012
--------------	---	--------------

OFukushima Prefecture

[Intake/Distribution restriction]

Species	Name of area	Begging period of the action
Land-locked cherry salmon	Nitta River	29 March 2012

[Distribution restriction]

Species	Name of area	Begging period of the action
Ayu sweetfish	Downstream area from Shinobu Dam of Abukuma River	27 June 2011
	Mano River	27 June 2011
	Nitta River	27 June 2011
Land-locked cherry salmon	Akimoto Lake, Hibara Lake, Onogawa lake, Nagase River (Only upstream area from the juncture to Su River)	6 June 2011
	Abukuma River	6 June 2011
	Mano River	17 June 2011
	Ota River	29 March 2012
	Su River (Only its branches)	5 April 2012
	Inawashiro Lake, Upstream area from Kanekawa Power Station of Tokyo Electric Power Company	24 April 2012
Japanese dace	Downstream area from Shinobu Damu of Abukuma River	27 June 2011
	Upstream area from Shinobu Damu of Abukuma River	31 May 2012
	Mano River	17 June 2011
	Akimoto Lake, Hibara Lake, Onogawa lake, Nagase River (Only upstream area from the juncture to Su River)	29 March 2012
	Inawashiro Lake, Upstream area from Kanekawa Power Station of Tokyo Electric Power Company	24 April 2012
	Tadami River (Only area between Taki Dam and Tadami Dam)	24 May 2012
Whitespotted char	Abukuma River	5 April 2012
	Su River (Only its branches)	12 April 2012
	Akimoto Lake, Hibara Lake, Onogawa lake, Nagase River (Only upstream area from the juncture to Su River)	24 April 2012
	Downstream area from Kanekawa Power Station of Tokyo Electric Power Company of Nippashi River (Exclude upstream area from Higashiyama Dam) Downstream area from Honna Dam	
Common carp	Akimoto Lake, Hibara Lake, Onogawa lake, Nagase River (Only upstream area from the juncture to Su River)	27 April 2012
	Downstream area from Okawa Dam of Aga River (Exclude the following area: Upstream from Kanekawa Power Station of Tokyo Electric Power Company, Upstream from Katakado Dam)	
	Downstream area from Shinobu Dam of Abukuma River	10 May 2012
	Akimoto Lake, Hibara Lake, Onogawa lake, Nagase River (Only upstream area from the juncture to Su River)	

Crucian carp	Downstream area from Okawa Dam of Aga River (Exclude the following area: Upstream from Kanekawa Power Station of Tokyo Electric Power Company, Upstream from Katakado Dam)	27 April 2012
	Mano River	27 April 2012
	Downstream area from Shinobu Dam of Abukuma River	10 May 2012
Japanese eel	Abukuma River	2 August 2012

【Voluntary suspension of fishing upon request of the prefectural government】

Species	Name of area	Begging period of the action
Mitten crab	Mano River	23 June 2011
Kokanee	Numasawa Lake	24 March 2012
Honmoroko (<i>Gnathopogon caerulecems</i>) (Farmed only)	inside the Kawauchi Villedge	23 July 2011
Loach (Farmed only)	inside the Koriyama City	24 June 2012

OTochigi Prefecture

[Distribution restriction]

Species	Name of area	Begging period of the action
Whitespotted char	Watarase River (Upstream from the boundry between Gunma Prefecture and Tochigi Prefecture)	20 June 2012

【Voluntary suspension of fishing upon request of the prefectural government】

Species	Name of area	Begging period of the action
Rainbow trout, Brown trout, Kokanee	Chuzenji Lake	8 March 2012

OGunma Prefecture

[Distribution restriction]

Species	Name of area	Begging period of the action
Land-locked cherry salmon	Agatsuma River (Exclude the following area: Upstream from Iwashima Bridge, Downstream from Saku Power Station of Tokyo Electric Power Company)	27 April 2012
Whitespotted char	Agatsuma River (Exclude the following area: Upstream from Iwashima Bridge, Downstream from Saku Power Station of Tokyo Electric Power Company)	8 June 2012

【Voluntary suspension of fishing upon request of the prefectural government】

Species	Name of area	Begging period of the action
Japanese dace	Nakuta River	1 September 2012
Land-locked cherry salmon, Whitespotted char, Japanese Dace, Pond smelt, Carp	Akagioonuma Lake	1 September 2012
Pond smelt	Haruna Lake	1 February 2013

OSaitama prefecture

【Voluntary suspension of fishing upon request of the prefectural government】

Species	Name of area	Begging period of the action
Catfish	Naka River (Only area between Tajima bridge and Sinnakagawa suikan Bridge), Ohochifurutone River (Exclude Upstream area from Kotobuki Bridge)	11 May 2012
Japanese eel	Edo river	7 June 2013

OIbaraki Prefecture

[Distribution restriction]

Species	Name of area	Begging period of the action
American Catfish, Crucian Carp (<i>Carassius auratus langsdorffii</i>)	Kasumigaura Lake, Kitaura Lake, Sotonasakaura Lake, Hitachitone River	17 April 2012
Japanese eel	Naka River, Kasumigaura Lake, Kitaura Lake, Sotonasakaura Lake, Hitachitone River	7 May 2012

[Voluntary suspension of fishing upon request of the prefectural government]

Species	Name of area	Begging period of the action
Crucian Carp (<i>Carassius cuvieri</i>)	Kasumigaura Lake, Kitaura Lake, Sotonasakaura Lake, Hitachitone River	1 April 2012
Whitespotted char	Hanazono River (Only the area Upstream Mizunuma Dam)	1 April 2012

OChiba Prefecture

[Distribution restriction]

Species	Name of area	Begging period of the action
Crucian Carp (<i>Carassius auratus langsdorffii</i>)	Teganuma Lake	19 July 2012
Common Carp	Teganuma Lake	3 July 2013

[Voluntary suspension of fishing upon request of the prefectural government]

Species	Name of area	Begging period of the action
Motsugo (<i>Pseudorasbora parva</i>)	Teganuma Lake	12 March 2012
Crucian Carp (<i>Carassius auratus langsdorffii</i>)	Tone River	25 April 2012
Japanese eel	Tone River	1 June 2012
	Edo River	7 June 2013

OTokyo prefecture

[Voluntary suspension of fishing upon request of the prefectural government]

Species	Name of area	Begging period of the action
Japanese eel	Edo River, Kyuedo River(Exclude the area of estuary), Shinnaka River	7 June 2013

Efforts toward the resumption of commercial fishing off Fukushima prefecture

- Under the prolonged self-imposed restriction on commercial fishing in waters off Fukushima, a series of trial fishing operations has been conducted since late June of 2012 in the areas where and for the species of which levels of radioactive materials are relatively low.
- The government of Japan will continuously support trial fishing operation toward the resumption of commercial fishing in waters off Fukushima, by participating in the consideration at relative consultative meetings of fishermen and others concerned, and by conducting research activities to elucidate contamination sources and routes of certain fish species which contain high-level radioactive materials.

Efforts toward the resumption of commercial fishing in waters off Fukushima
Step-by-step expansion of the trial fishing operation and distribution of the fish products in the operation

- The trial fishing operation and distribution of the fish products started in offshore bottom trawling fishery in the Souma-Futaba area with three (3) species as the targets (North Pacific giant octopus, Chestnut octopus, a species of sea whelk (*Buccinum isaotakii*)) in late June of 2012.
- ➡ Since then, the areas and fish species covered by the trial fishing operation have been gradually expanded, while ensuring the food safety.
- fish products from the trial fishing operation are subject to inspections for radioactive cesium by full-time staff at the inspection site of the Souma-Futaba Fishery Cooperative, after being landed at the nearby Matsukawaura Fishing Port.
- At present, a series of trial fishing operations is conducted in offshore bottom trawling fishery, octopus pot fishery and surface trawling fishery in Souma-Futaba area. Fish products in the trial fishing operation are distributed within Fukushima and other markets, including Sendai, Tokyo and Nagoya.

Target Species of experimental fishing operation : 16 species ; as of 1 June 2013)

<by offshore bottom trawlers : 15species >

Giant Pacific octopus, Chestnut octopus, Japanese flying squid, Spear squid, Horsehair crab, Whelks (*Buccinum isaotakii*, *Neptunea constricta*, *Neptunea intersculpta*, and *Beringius polynemicus*), Thornhead, Snow crab, Greeneyes, Rikuzen flounder,

<by coastal peragic trawlers : 1spec>

Kounago (Juvenile of Japanese sandlance)

The area of trial fishing operation

as of 1 June 2013

