REPORT OF FIELD SURVEYS ON UNLOADING FROM A CARGO VESSEL AND SORTING PROCESS AT THE SITE OF CANNERIES AT BANGKOK

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Report of field surveys on unloading from a cargo vessel and sorting process at the site of canneries at Bangkok

Summary
- Field survey was conducted at landing site and two canneries in Bangkok on 16/17 August.
- Sorting and weighing practices by species/size are not implemented in unloading operations at port, but at each cannery before fish goes into cold storage of the company.
- Each cannery compiles those size/species data with associated information such as name of the fishing vessel and carrier vessels, date of transshipped and landed.
- On the other side, both canneries acknowledged the difficulty in selecting juvenile bigeye from yellowfin and the possibility substantial amount of bigeye is overlooked and counted as yellowfin.
- At least two major canneries, those products account for about 60% of total export of Thailand’s canned tuna, seem to be ready to cooperate for data provision if any kind of formal arrangement is established with WCPFC.

Suggestions
- The Commission should consider establishing cooperative mechanisms with Thailand canneries in (a) data provision, (b) capacity building for increase sorting accuracy, and (d) endorsement of those data.
- For this purpose, WCPFC should:
  1. Request canneries for data provision;
  2. Appoint surveyors to verify data;
  3. Establish cost bearing scheme among players to support data provision;
  4. Request SC to implement sampling surveys to obtain mixture rate.
Unloading, sorting and weighing process in Bangkok

**Picture 1**

1. Fish are unloaded directly to a truck from a carrier.

2. At this stage, no sorting or weighing by species is conducted.

**Picture 2**

1. Same practice observed from the carrier.

2. One truck can carry about 18 tons of fish.

**Picture 3**

1. Fish are carried from hold to a truck with a net.

2. Since one net can carry about 2 tons of fish, a truck is filled by 9-net operation. (2 tons/net x 9 nets = 18 tons).

3. It takes 40 to 60 minutes for the 9-net operation.
1. Chart of the carrier.

2. There are 11 fish holds (3-3-3-2) and 4 hatches and 2 cranes.

3. Capacity of each hold is about 300 tons. Total capacity is more than 3,000 tons.

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**Picture 4**

1. Chart of the carrier.

2. There are 11 fish holds (3-3-3-2) and 4 hatches and 2 cranes.

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**Picture 5**

1. Labor in a fish hold.

2. Workers carry fish to the net. How tough the labor depends on the size composition of fish. If fish are bigger, labor is tougher.

3. Temperature in the hold is minus 18 degree.

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**Picture 6**

1. When enough fish are piled, the crane lifts the net.
1. Fish in the hold.

2. Variety of size and species are observed.

Picture 7


Detailed information about the fish species is not provided.

Picture 8

1. Skipjack and (?)

(Note: The young man right side is looking for a partner, not fish.)
1. Every truck with full of fish moves to the truck scaling office.

2. Scaling is carried out by TJ land Co. Ltd authorized by the Thai Government.

3. Scaled figure is compiled for government statistics. (Total weight only, no specification by species)

4. After scaling, the truck goes to a cannery contracted.

**Picture 10**

1. Scaling result above is 28.4 tons.

2. Actual fish weight is derived by subtracting track weight scaled in advance.

3. When the truck arrives at the cannery, fish are sorted by species and size, and scaled.

4. Pictures from 12 to 21 are examples of Company A.

5. Specific procedures differ in companies.
1. Fish are offloaded to the sorting line.

Picture 13

1. Fish are moved to the conveyor for sorting and scaling by species and size.
2. Workers pick up fish by size and species and throw them into suitable metal boxes.

Picture 14

1. End of the conveyor, the total length is about 10m.
2. Since sorting is carried out by truck basis (max volume 18 t), huge facilities are not required.

Picture 15
1. Numbers applied to sorting of Yellowfin and Bigeye.

2. Left column (for example, 0-1.4) indicate weight, and right column indicate designated numbers corresponding to the weight.

Pictures 16

1. Continued numbers from Picture 16.

Pictures 17

1. Bar-code tag sealed backside of can.

2. This tag indicate Yellowfin No.2 (1.4 – 1.8 kg)

3. Individual words right side indicate information of Purse Seiner that caught fish.
Picture 19
1. Fish in the can of the Picture 18.
2. Very difficult to say “no bigeye in the can”

Picture 20
1. Yellowfin in other can.
2. Workers told us “there is not bigeye, today.”
3. After scaling, each can is carried to the frozen storage.

Picture 21
1. Scaled figures are compiled in the Sizing Report, which required weight by species and size, name of supplier, name of merchant vessel, and date of sorting.
2. Each cannery has its own system to record those information.
1. Following 5 pictures are examples of the Company B.

2. When visited, bigeye more than 10kg were sorted and scaled.

3. Basic procedures are as same as those in the Company A.

4. However, sorting classification and shape of cage are different.

**Picture 22**

1. Size classification commonly applied to all fish: 21 categories.

**Picture 23**

1. Scaling

2. Scaled weight is 872.5kg. Weight of the cage is 125kg. Net fish weight is 647kg.

**Picture 24**

1. Scaling
1. Tag for cage.

2. “9up” in red figure indicates fish bigger than 9kg.

3. BEIT981-PG in blue print is broken down to “BE” = bigeye, “IT” = Itochu (merchant), “981” = year 09, month 8, 1st shipment in the month.

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Picture 26

1. After scaling, each cage is stored in frozen storage.