Fit for FIP (F4F) Traceability for Vietnam Yellowfin Tuna:

Summary of Supply Chains, Current Practices and Proposed F4F Traceability System

Tuong Phi Lai, National FIP Consultant
with inputs from Tran Van Hao[1] and Keith Symington[2]

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[1] Vietnam Tuna Association (Vinatuna)
[2] WWF Coral Triangle Program

1. Introduction

The Vietnam yellowfin tuna Fishery Improvement Project (FIP) process began in 2013 with the completion of a Marine Stewardship Council (MSC) pre-assessment. An FIP Action Plan was completed in early 2014, which describes the necessary FIP activities, with associated responsible parties and timeframes, required to meet the MSC standard.

The FIP was formally launched in April 2014, having entered the implementation stage, with activities commenced and slated to be tracked and audited annually through to 2018. WWF and the Vietnam Tuna Association (VinaTuna) comprise the FIP Coordination Unit. Several international suppliers and exporters, spanning most major markets, have entered into FIP Partner Agreements to help ensure the effective implementation of the FIP Action Plan, including identification of on-the-ground activities taken up by industry. The Partner Agreements further aim to ensure that recognized industry partners are achieving appropriate standards for traceability, communication and marketing in their FIP-related activities. Additionally, a FIP Industry Advisory Group (IAG) was established in 2014 comprised of FIP Partners as well as all major yellowfin tuna processing companies and other key stakeholders.

Although the FIP Action Plan addresses the key management issues and prescribed actions (e.g. harvest control, bycatch reduction, improved governance etc.) in order to improve and ultimately to meet MSC requirements, there is an important need to develop traceability in parallel with the FIP Action Plan. The FIP is therefore developing "Fit as FIP" traceability to ensure that Vietnam yellowfin tuna is appropriately differentiated in the marketplace. This requirement is particularly important in Vietnam where export volume exceeds domestic catch and over half of total exports (i.e. frozen yellowfin steak and loins) use foreign raw material which is re-exported.

FIP Partners are required to have a traceability system in place within 1 year of signing their Agreement, and for this system to be audited by an independent 3rd party within 18 months. These measures will help ensure unqualified products do not dilute the marketplace with inappropriate "FIP" fish.

Although F4F is essentially proposed as a "market traceability", it is recognized that the FIP traceability activities may provide opportunities for more comprehensive traceability (i.e. full chain traceability) among various FIP Partners and their source processors. Indeed, given the rising demands for traceability worldwide, and with the new anti-IUU requirements now being implemented for imports into the United States, there is a growing interest among the supply chain generally to move forward on traceability

improvements. In this sense, F4F is also viewed as a launching pad for evolving fuller traceability i.e. along the requirements of MSC Chain of Custody, and will assist in a smoother to MSC CoC at such a time that MSC Full Assessment is pursued.

In order to help design a prototype FIP Traceability system and protocol for application along supply chain, a series of consultations were carried out in September 2015. These consultations were supported by the FIP Coordination Unit and implemented by the national consultant and Vinatuna. The aim of the consultations was to elicit feedback and comments from key stakeholders (mainly processors but also middlemen and some government staff) on the development of a F4F system. After this consultation period, a 1-day workshop was organized in Nha Trang on October 14, 2015, with strong participation across major processors, FIP Partners and other supply chain actors.

In this report, a brief overview of the current catch documentation systems and practices is provided, followed by discussion on the key elements, parameters, and context relevant for designing and developing a generic FIP traceability system (specifically a standardized trace code and Rider form protocol). Finally, a series of consensus recommendations for implementation, as elicited and agreed on at the IAG meeting and its follow up consultations, are provided.

2. Overview of yellowfin tuna supply chain

2.1 General description of the Vietnam yellowfin tuna fishery

The total fleet for Vietnamese yellowfin tuna is approximately 2,000 vessels, landing 14,000 metric tonnes per year of yellowfin tuna concentrated in the three main contiguous tuna fishing provinces of Khanh Hoa, Phu Yen and Binh Dinh (Map 1). The fleet consists of approximately 1500 handline and 500 longline vessels (longline is focused mainly in Phu Yen province). In 2012 there was a dramatic shift by longline vessels to convert to handline, and some squid-jigging vessels have also converted to tuna handline. This move originated with a small number of the squid vessels, who used their lights to fish for bait for tuna handline, and were motivated to convert to handline due to the shorter trips (generally 20 days compared to 30+ days for longlining), and associated savings in fuel costs.

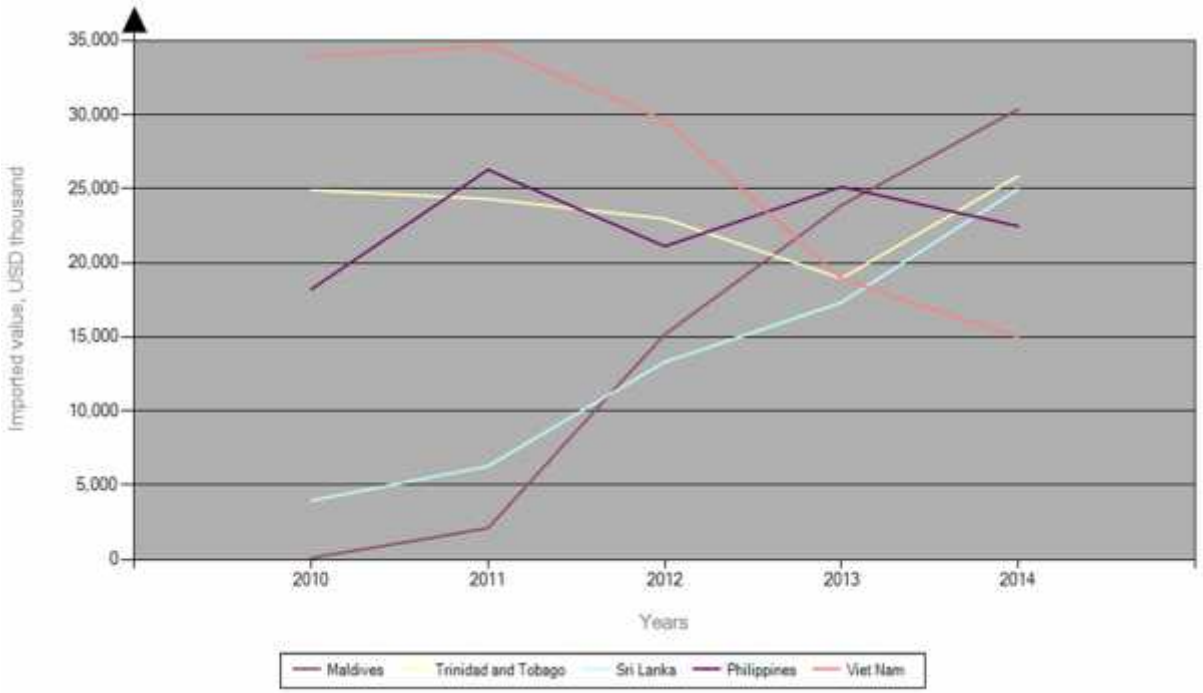
However, with this shift there has been an overall decline in fish quality, with many handline operations having insufficient training, experience and onboard equipment (e.g. insulation in fish holds) to appropriately control product quality (especially the phenomenon of flesh “burning” resulting from poor slaughtering procedures once the fish is on board)[3]. The market consequence of this reduced quality was especially pronounced in fresh yellowfin tuna - with Vietnam’s market share in the USA dropping

[3] The current Fishery Improvement Project (FIP) for yellowfin tuna, as well as other national programs, is trying to address the issue of reduced quality through training on catch handling.

from #1 in 2012 to #5 in 2014 (Figure 1). The impact in the frozen yellowfin tuna market was less pronounced, though was still considered to be a main factor in the drop of total exports to the USA, the main market for Vietnamese frozen yellowfin (Figure 2).

Map 1. Location of yellowfin tuna FIP provinces

Figure 1. Trends in global market share of fresh yellowfin tuna in USA



Source: Trademap.org

Figure 2. Exports of frozen yellowfin tuna into USA

Exporters	2010	2011	2012	2013	2014
World	17409	17722	25851	24896	14216
Indonesia	9424	10293	9691	10733	6170
Viet Nam	2065	2178	6497	7194	4470
Philippines	3769	1314	3027	5478	2349
Thailand	871	1022	4410	970	1114
Sri Lanka	0	0	117	405	87
Canada	0	0	23	0	9
Costa Rica	0	3	781	26	9
India	69	0	173	0	5
Ecuador	0	86	7	0	3
Korea, Republic of	315	760	606	32	0

Source: Vietrade

2.2 Supply chain summary

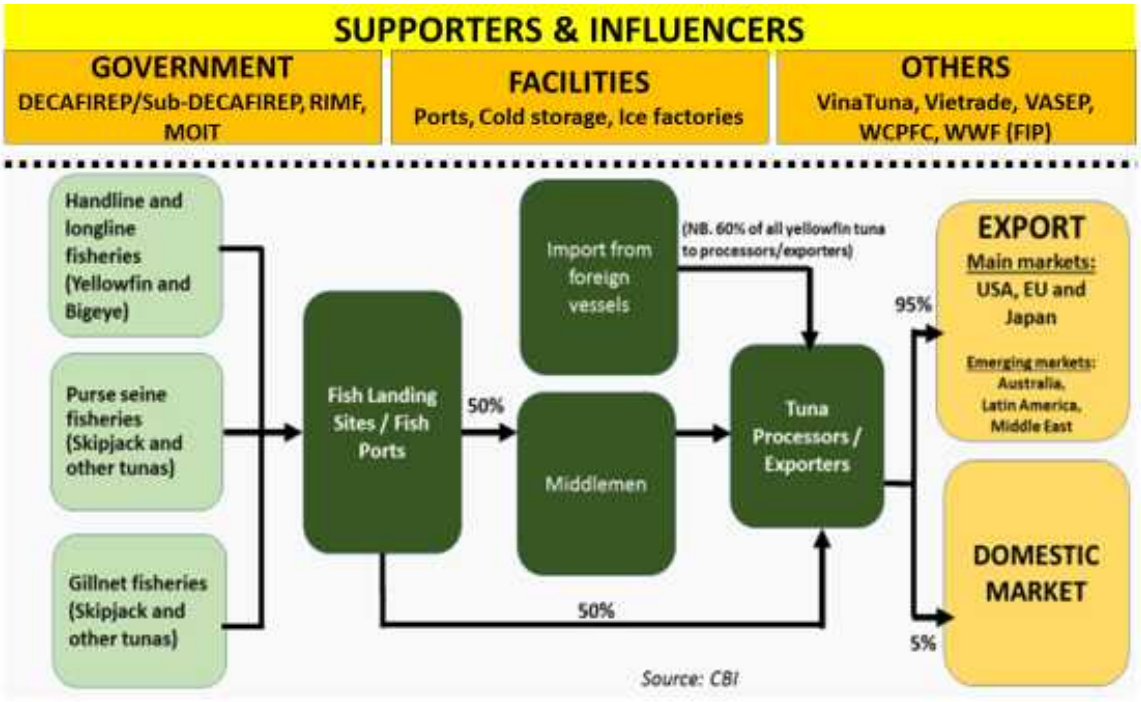
Both longline and handline fish enter the same supply chains and are landed at the same ports. Fish are sold to a group of processors based in the 3 provinces (6 large processors and a number of smaller ones). The processors buy nearly all the landings from this fishery, and also buy yellowfin raw material from other fishing nations (especially Japan, Taiwan and Korea). These "re-exported" products are nonetheless labeled as "Product of Vietnam" after processing. Currently, imported foreign materials provide for around 60% of all Vietnam yellowfin tuna exports.

Although the imported raw materials arrive at the processing plant through a different logistical chain (i.e. they are not landed at local ports, but are usually transported into Ho Chi Minh City and moved by truck into the processing plants), the need to differentiate the VN-caught yellowfin from re-exported yellowfin is a main driver for FIP traceability. While re-exported products require Country of Origin catch certificates and associated documentation (e.g. vessel information etc.) at Customs, none of this product can be recognized in the market as "FIP fish".

Approximately 95% of all yellowfin products are exported, mainly to North America, Europe, Japan and Australia (with some emerging markets in Middle East and Latin America). The same processors also buy bigeye and other bycatch species such as marlin, swordfish, mahi mahi and shark.

Figure 3 illustrates the general tuna supply chain for tuna harvested by Vietnamese vessels, as well as the role of foreign-imported raw material in the supply chain. This illustrates that across the sector (and generally true for yellowfin tuna), the proportion of domestic supply sourced directly from fishers vs. middlemen is about 50/50. Middlemen generally do not source foreign raw material.

Figure 3. General supply chain for Vietnamese tuna fisheries



3. Systems of catch documentation and current practices

3.1 National systems of catch documentation

The national system for catch documentation is based on a system of logbooks and catch enumerators at ports. Based on recent FIP review analysis there is between 25-50% coverage, with results varying between the 3 provinces. The GEF/WCPFC project WPEA worked with Vietnamese provincial fisheries departments on fisheries data collection, with the objective of ensuring that Vietnam could meet data submission requirements under WCPFC CMMs; this has been generally successful. The project addressed the CDS as well as supporting Vietnam to introduce vessel registration and licensing. The system is underpinned by a database, but there remain some concerns about data entry and review. It is likewise reported that the system for vessel registration is not consistent between provinces. All the systems are paper-based.

A key issue for logbook adoption has been the abandonment, in some areas, of WCPFC logbooks in favor of the (simpler) national logbook system. The national logbook program, insofar as it aggregates species data, is insufficient to meet identified requirements for performance against the MSC standard (i.e. Goal 2). To address this

the FIP project specifically targets the logbook program as a key activity. The FIP coordination Unit along with Vinatuna have been working on plans for re-training of the WCPFC logbook system in all provinces, and some FIP Partners (Anova, Sea Delight and Norpac) have been active with piloting logbook improvement activities at key ports – or have committed to undertake related activities – in direct support of the FIP Action Plan.

3.2 Fisher practices

As mentioned, there have been two kinds of logbooks in operation:
1) National Logbook (Thong tu 25/ 25/2013/TT-BNNPTNT dated 10/5/2013) and
2) the Logbook of WCPFC (introduced and expanded under GEF/WCPFC project as well as WWF)

In term of compulsory traceability requirements for tuna export to EU, fishers are required to send the Fishing License and Safety Certificate for vessels to the buyers (agent or tuna processing plants). For the US market, NOAA Captain Statements and Catch Certificates are used. Processors then work with the local fisheries authority (Sub-DECAFIREP) to fulfill the traceability requirements according to the regulation of Vietnam authorities. However, this system is often confusing, inefficient and with several potential "dead ends" in the information chain.

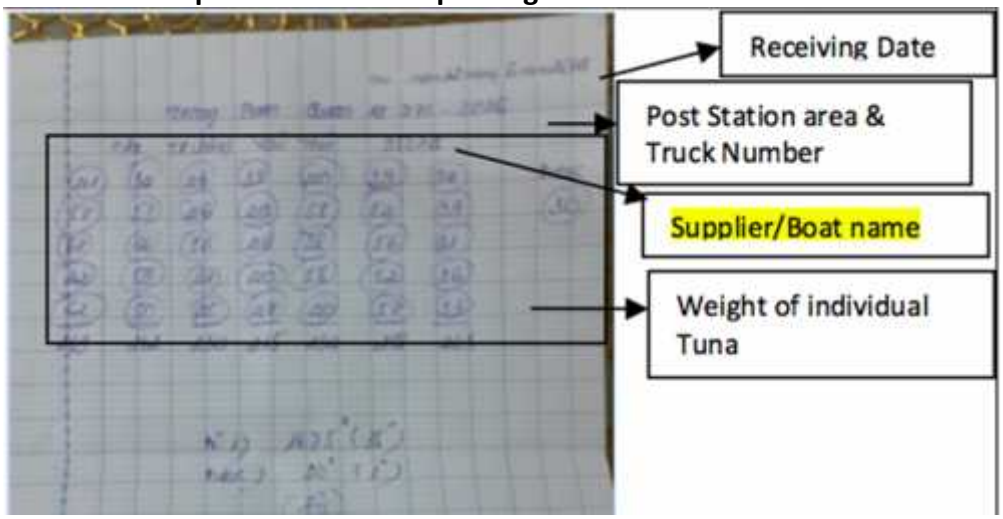
3.3 Agent/Middlemen practices

It reported that there are many middlemen in Binh Dinh (more than 30) and Phu Yen (more than 15), but very few in Khanh Hoa (less than 5) for tuna buying/collection. In Khanh Hoa there have been many tuna processing plants that typically buy directly from fishers. There are also some "service vessels" to supply fuel, ice and food and (reportedly, on some occasion) buy back the tuna caught from fishing vessels, which can be considered as middlemen, although it is unclear to what extent such vessels do but fish.

Middlemen are based in fishing ports to buy tuna, and send them to contracted iced-storage trucks (5-20 ton truck) to transport to the processing plants. In some case, they can also use the truck of the processing plants to transport the fish. Typically, these agents have a list of suppliers (fisher) from whom they preferentially but fish (usually around 70% by volume is purchased from this preferred list, agreed in advance). However, this also depends on the financial capacity (credit capacity) of the middlemen.

Middlemen record data in their own recording system - very often a hand-writing note (detailing name of fishers, fish volume, weight, price for each grade A, B, C etc.) as illustrated in Photo 1. Very often, they do not segregate the fish species (e.g. bigeye and yellowfin) but use a general term such as "ocean tuna" when bought. Middlemen hold copies of Fishing License and Vessel Safety Certificate from fishers, and every time they sell to tuna processing plants, they give them a copy, so purchased staff or HACCP staff of processing plants can work with competent authorities (Sub-DECAFIREP) to get Catch Certificate and Captain Statement for traceability purposes.

Photo 1. Example of middleman packing list hand-written note



Source: Anova

3.4 Tuna processing plants

Processing plants buy fish from middlemen, about 70% (by volume) in Binh Dinh and Phu Yen and 10% by volume in Khanh Hoa. Typically, processing plants have a purchase center/station, where they employ a purchasing staff and/or HACCP staff, who deal with fishers directly and/or liaise with middlemen.

Purchasing and/or HACCP staff ask the suppliers (fishers, agents) to provide documentation including copies of Fishing License and Vessel Safety Certificate. The same middlemen, purchasing or HACCP staff recorded fish species, volume, price, and grade on their own notes. Very often, processing plants have a list of suppliers (fishers, middlemen) where they regularly buy fish, typically about 90% in term of volume. They can also have irregular fishers/suppliers, but only about 10% in term of volume.

3.5 Supply chain considerations for FIP traceability

In addition to the issues and recommendations made above, Table 1 summarizes the results of the consultation period with stakeholders, highlighting key elements and issues to be considered at the various key supply chain stages, in evolving FIP traceability.

Table 1. Considerations for F4F traceability along supply chain

Supply Chain (stage)	Comments/Considerations
Fishing vessel	The main F4F issue is evidence the vessel is a legally-registered HL or LL vessel. Thus at minimum a vessel number must be recorded (and using Sub-D department crosschecks). Best scenario is expanding the logbook program to 100% coverage, with every lot associated with a WCPFC logbook

	form (but F4F can still be done if not, and this will likely take longer than the F4F timeline requirements).
Landing sites / Ports	Key F4F issue is to differentiate YFT and other fish e.g. BET and bycatch for the landing before loading to the truck. Use of FIP Rider form for YFT in supply chain of participating (FIP Partner and their processor) supply chains. Could also use tale tag or gill-tag (?)
Trucking	FIP Rider form denotes truck number (including a sequence number if using multiple trucks) assigned to each lot. One Rider for each lot (not each truck) Aggregated YFT (i.e. from more than one vessel) is inevitable at truck level. Thus the Rider form must crucially ensure that at minimum the list of vessels is documented and check against sub-D documentation (i.e. for legal permit and registration status). F4F piloting should also include more comprehensive (i.e. segregated by fishing vessel) applications, especially where private sector FIP Partners have resources to trial/pilot.
Receiving	Key issue is that the FIP Rider form and trace code remains associated with YFT lots through the receiving process (i.e. as fish in individual trucks get routinely separated by species) Plants must arrange separate processing lines for Vietnam caught yellowfin tuna; not run processing lines for both imported and Vietnam caught tuna at the same time (e.g. 10AM) per day Must develop Internal control system, allocate at least one qualified QC/HACCP staff to differentiate the Vietnam caught tuna from imported tuna at processing, through all key stages but critically at Receiving.
Washing/cutting	As above. Key issue is Rider and trace code data follows through to every loin or box of saku/cube/steak etc.
Chilling	Chilling would be an opportune stage to “cheat” (mix) so protocols (and auditing procedures) must focus on this. Verification protocols could also focus on this stage (compare VN-caught vs. imported data with market data of the FIP Partners)
Packaging and storage	It has been suggested that at labelling and packaging stage the “FIP labeled” boxes are physically separated (i.e. from

	products for the same buyer but sourced from imported material) in storage. As above re: verification procedures All boxes leaving plant have usual lot codes as well, for eligible FIP products, the FIP trace code and Rider form reference

3.6 Implications/recommendations for practices in FIP traceability

i) Fishers

Fishers should be trained in using only single logbook developed by WCPFC as this logbook fulfills more important information and fits with the MSC/FIP targets. The data of Vessel No; Date; Catch Location; Catch species; Catch method (gear type); and Weight should be collected by fishers.

Additionally, a single-page sheet ("Rider") is required for Vietnamese tuna caught FIP fish (see Section 4 below). This form provides consolidated and standardized (for FIP market) information on catch of tuna by species (yellow-fin, big-eye, marlin, swordfish), gears (HL, LL), location (FAO area) and a cross-reference to vessel number (which can then be checked with government records for legal status).

ii) Middlemen

Though there are not many middlemen in the tuna system (and not all plants use agents), it will be essential to engage these agents in the F4F system, specifically to ensure that their Packing List info is transferred onto a Rider page (which also includes FIP trace code) and smooth handover to the relevant staff of processing plants. Middlemen should be engaged as part of initial piloting of the F4F system, with one or two "success stories" sought.

The influence of the processing plant management and of the exporting companies may also help ensure their cooperation and support. Meanwhile, the F4F system should include backup strategies or rechecks (e.g. during separation/checks at the plant) for the cases where middlemen are not providing F4F requirements (i.e. where agent Packing List information is ultimately not included on the Rider form that follows the fish lots delivered into the plant).

iii) FIP Partners

FIP Partners should pilot projects linking WCPFC logbooks with F4F at selected ports and in cooperation with DECAFIREP and plants.

4. FIP traceability protocol and proposed design elements

4.1 Context

Fit for FIP traceability is essentially a ***market traceability*** i.e.:

- Control who and what is recognized as FIP fish;
- Prevent opportunities for product flooding, greenwashing or mislabeling;
- Provide preferential benefits for FIP Partners (i.e. companies paying for FIP and engaged in action plan)

The main element is the tracing of "FIP eligible" tuna products (i.e. yellowfin tuna caught by legal Vietnamese HL or LL vessels) distinguished from re-exported products using foreign raw material.

Marketplace recognition

Only FIP Partners (international importers with signed MOUs including traceability commitments) are recognized in marketplace as providing "FIP fish". Thus only FIP Partners are allowed to use any form of consumer-facing label (a standardized, generic label that describes in simple terms the FIP origin and provides a website address, or possibly a scan code, to link to more information).

Regarding **national processors**, these companies support and apply F4F traceability with their YFT chains. Once F4F is verifiably established at a processing plant, the company is recognized as providing "FIP eligible" fish (i.e. available for FIP Partners). Processors themselves do not control the use of the FIP label, these are only provided for use to and by FIP Partners. The FIP traceability systems at recognized "FIP eligible" plants must be verified through annual 3rd party audits, arranged by the FIP Coordination Unit and with cooperation of FIP Partner buyers.

Specifically, "FIP eligible" means:

- Processor can prove a link to the VN vessel number
- The vessel is LL or HL and legally permitted/registered
- Processor separates YFT from other species and ensures ZERO risk of mixing with the re-exported raw material
- Processors provide for verification of overall volume of FIP-eligible products
- Provides verification of actual shipment of FIP products (i.e with FIP label)

The aim of F4F is also to increase the number of FIP Partner MOUs by expanding the pool of eligible processors (i.e. include their international buyers not already in MOUs, which also increases annual funding for FIP Action Plan field activities.

4.2 General design considerations

While it is recognized that the current traceability systems being employed in theory already provide most of the key elements (e. Catch Certificate, lot codes etc.), in reality the current system is inconsistent, irregular and often insufficient to meet the F4F requirements (and to apply the general principles for traceability that FIP Partners have agreed to). The key identified risk is that VN-caught and re-exported yellowfin tuna, although they follow very different logistics chains into processing plants, can be readily mixed at the plant (at any stage e.g. cutting, storage, packing etc.)

It is also recognized that an overly onerous generic FIP traceability system would be difficult to implement. The strong consensus from consultations and FIP Industry Advisory Group meetings is that the system should utilize and augment the current (generally effective) HACCP procedures, as well as Catch Certificate procedures etc. (while gradually also improving Catch Certificate and logbook documentation).

Therefore, the proposed system would *trace all VN-caught YFT from the port using a standardized code sequence and rider form.*

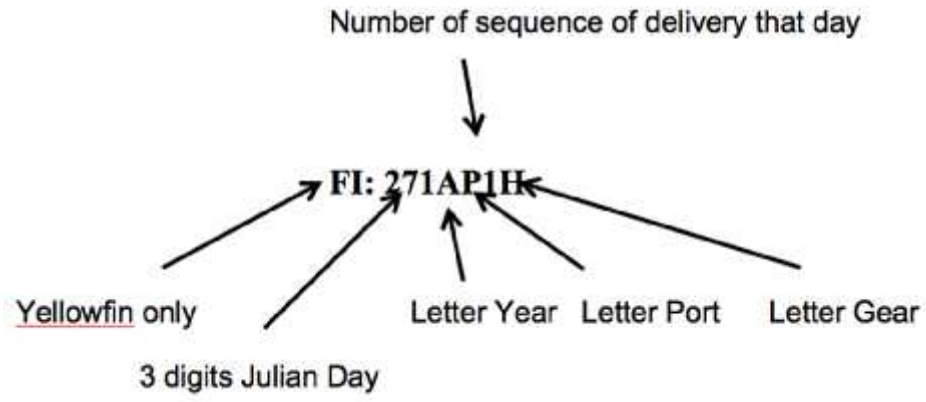
4.3 Proposed FIP design elements

Standardized trace code

Standardized traceability code (STC) for FIP-eligible yellowfin tuna:

- Species (Yellowfin) identifier
- Julian date
- Letter codes: Year, Port, Gear (i.e. LL or HL)
- Sequence number (truck sequence delivery on date)

Hypothetical example of standardized FIP trace code:



Rider Form

Notes the documents on file for the lot (files are marked with the STC) including:

- Vessel Number (s)
- NOAA CoC or EU CC
- Captain's Statement (if used)
- Agent's Packing List

4.4 F4F consensus and implementation steps

In consideration of the above and through the consensus outcomes and recommendations of the FIP Industry Advisory Group meeting held with FIP Partners and key processors, a series of recommended implementation steps and tactics have been identified as follows:

1. All six (6) FIP Partners (covering NA, EU and Australian markets) and approximately 75% of domestic YFT processors (and including all major processors), unanimously agree to begin piloting and implementing a FIP traceability system, starting in late 2015 or early 2016.
2. Individual FIP Partners (beginning with Anova and Sea Delight) and with support of WWF and Vinatuna will provide field staff and resources to help test/trial the system including mapping and documentation of landing areas, identifying weaknesses along the chain related to trace code and/or Rider form integrity (starting Q1-2 2016). These efforts will aim to integrate with activities on WCPFC logbook (training and compliance) at selected ports and in cooperation with DECAFIREP and plants.
3. Other FIP Partners are encouraged to initiate similar trials base on progressive results of field testing.
4. Vinatuna should take a lead role with tuna processor in supporting the implementation of F4F for each processing plant. Processing plants that are not currently sourcing FIP Partners would still benefit by participating and developing F4F traceability, since they will be able to be recognized as "FIP eligible" and therefore access better the FIP markets. The expectation is that processors will assign some relevant staff(s) (i.e. current HACCP and/or landing center staff) for training and implementation.
5. FIP Coordination Unit (WWF and Vinatuna) will provide a sequenced series of training and consultation inputs regarding the protocols for collection of the Rider form (with all key info) from suppliers (fishers, or middle-men), and including working with importers (i.e. FIP Partners) in establishing a smooth and coordinated system for the FIP trace code and Rider forms.

6. The approach should minimize opportunities/incentives to “cheat”, through audits, cross-checks with agency databases (vessel legality), spot checks, agreed access to production and sales records etc. The FIP Coordination Unit will seek a formalized contract with a competent auditing company to meet these requirements (Q2 2016).
7. Verification methods should be applied, beginning with establishing production baselines (volume) in Q1-2 2016; annual data collection (December 2016) should be completed by the FIP Coordination Unit comparing FIP Partner commercial data with processor records.
8. For all stages of implementation, F4F should aim to help and assist efforts from DECAFIREP and industry to increase monitoring and use of Catch Certificates and Captain Statements (i.e. quarterly or semi-annual meetings with the FIP Coordination Unit and GoV).
9. The FIP Coordination Unit will actively seek funding avenues and commitments, in addition to existing resources from industry partners, to support the recommended implementation steps.

ANNEX I – LIST OF COMPANIES CONSULTED FOR FIP TRACEABILITY PROJECT

Consultation period: September 12 – 22 2015
Leads: Tuong Phi Lai (National Consultant) and Tran Van Hao (Vinatuna)

Tuna processing companies met:

KHANH HOA PROVINCE
Hai Vuong
Tin Thinh
Thinh Hung
Ben Vung
Hoang Hai
PHU YEN PROVINCE
Hong Ngoc
Ba Hai
Loi Anh
BINH DINH PROVINCE
BIDIFISCO

ANNEX II- LIST OF PARTICIPANTS AT FIP INDUSTRY ADVISORY GROUP MEETING ON FIP TRACEBILITY

Date/Location: Nha Trang, 14th Oct, 2015

Name	Organization	Email
Keith Symington	WWFCoral Triangle Program	keithsymington@yahoo.ca
Tuong Phi Lai	ICAFIS/FIP Consultant	lai.tuongphi@icafis.vn
Nguyen Thi Dieu Thuy	WWF Vietnam	thuy.nguyendieu@wwfgreatermekong.org
Vu Dinh Dap	Vinatuna	vudinhdap@vinatuna.org.vn
Tran Van Hao	Vinatuna	haovinatuna@gmail.com
Mr. Scott Fraser	NORPAC	scott@norpac.com
Ms. Helen Packer	ANOVA	helenpacker@fishing-living.org
Mr. Steve Fisher	Sea Delight	srfqcfish@hotmail.com
Ha Cong Bay	Hai Vuong company	ha.bay@haivuong.com
Mr Tung	Tin Thinh company	tungtinthinh@vnn.vn
Nguyen Dinh Hau	SSC	hauvt.nt@gmail.com
Ms Hoa My	Mai Tin	hoamy@etf-vn.com
Mr Tri	Thinh Hung company	tri@thinhhung.com
Mr Quoc	Hoang Hai company	info@hoanghaico.vn
Bui Quoc Bao	Ba Hai company	seanbui.seafood@gmail.com
Ms Vi	Hong Ngoc company	vi.kd@phucnguyenseafood.com
Mr Thanh	BIDIFISCO	lan@bidifisco.com.vn
Mr. Ryan Evangelista	Hilo Fish	ryane@hilofish.com
Mr. Barry Cohan	Sustainable Seafood	barrycohan@yahoo.com
Mr. Pham Viet Cuong	Bureau Veritas VN	cuong.ly@vn.bureauveritas.com
Ms. Thuy	Culimar BV	thuybn@culimar.com

Mr. Tran Ngoc Nhien Mr. Nguyen Quang Minh Nhat Vu	Western United / Amasea	alex@westernunitedfish.com Vunguyen@amasea-vn.com