The European Commission (EC) is the executive arm of the European Union (EU), and is responsible for proposing legislation, implementing decisions, upholding EU treaties, and managing the EU’s day-to-day business. As such, it defines import conditions and certification requirements for the EU. There are two main EC regulatory frameworks that affect fish and fishery products coming into the EU: 1) the sanitary standards that seek, among other objectives, to protect EU consumers’ health; and 2) the regulation that seeks to close the EU market to fishery products originating from illegal, unreported and unregulated (IUU) fishing activities. Under these two regulations, all fishing products must be captured, handled, transported and delivered following standards that are established by European legislators.

In order to enter the EU, fish consignments must: 1) come from an authorized country that meets sanitary standards, 2) have been processed in a registered establishment under EU sanitary rules, 3) have the proper catch and health certificates, and 4) pass the EU’s border inspection.

The European Council Regulation (1005/2008) — which established a community system to prevent, deter and eliminate IUU fishing — entered into force in 2010, and is known as the “EU IUU Regulation”. Only those fisheries products that have been certified as having been legally caught by the flag State concerned are allowed access to the EU market.

The implementing tool of this regulation for non-EU countries is the Catch Certification Scheme (CCS), which is commonly known as the “EU IUU CCS”, and its output is the “EU Catch Certificate”, which the regulation uses to determine the legitimacy of a catch.

The EC instituted a “game changer” with its IUU regulation by denying market access to any fishery product that does not arrive at its borders with an “official guarantee” from the flag State, attesting to the legality of the catch.

When the EC feels that a country is not living up to its obligations under its regulation, it starts a “dialogue” process with that country, and sends a delegation of officers in order to assess the human capacity, regulatory framework and compliance evaluation system that the country has in place to control its fisheries. If the EC is not convinced that the country is doing what it should, then it issues a warning (also known as a “yellow card”), insisting that the country improve its legal and operational frameworks with regard to fisheries compliance and management. If these issues are resolved, the country is then issued a “green card”; if issues are not resolved, a “red card” is issued. A red card leads to a trade ban where the EU refuses to accept any fish coming from vessels flagged to the red card State.

Pacific Island countries (PICs) have experienced the effects of the EC’s role as the world IUU fisheries evaluator. More yellow cards have been issued in the Pacific than in any other region in the world, in relation to population and development status.

Fiji and Vanuatu were the first PICs to be issued a yellow card, followed by Papua New Guinea (PNG), Solomon Islands and Tuvalu; while Kiribati, the Federated States of Micronesia (FSM) and the Republic of the Marshall Islands (RMI) are in a dialogue process with the EC. While the EC regulation legally concerns itself only with fish being imported into the EU, it is interesting to note that Vanuatu, Tuvalu, Kiribati, FSM and RMI do not trade with the EU because they do not meet the necessary sanitary authorization requirements; nevertheless, these countries have been visited by EC officials who have requested changes in these countries’ practices and legislation. In the case of Kiribati, RMI and FSM, however, this was done without issuing a yellow card.

Other small countries outside the Pacific Islands region have also received a yellow card, and some countries have even received a red card (e.g. Belize, Togo, Sri Lanka). It is worth noting that some larger countries

1 Based on an article published on the author’s blog (http://www.franciscoblaha.info/blog/2015/9/25/the-impact-of-the-eu-yellow-cards-in-the-pacific), and a presentation made by the author at the Pacific Tuna Forum 2015 (22–23 September 2015, Fiji)
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with weak compliance records (e.g. the Philippines and Korea) have received a yellow card as well, but these warnings were soon removed, even if the level of information contained in their catch certificates did not seem to have improved.

The latest countries under this process are Taiwan and Thailand, but interestingly, even if Thailand receives a red card, the impact on the tuna world will be minimal because the ban of Thai fishery-related exports to the EU will only affect tuna caught by Thai-flagged vessels, and paradoxically there are none. The largest exporter of canned tuna in the world does not operate a tuna fleet.

While I recognise and support the principle behind the EU IUU Regulation, my main issue with it is the practicalities of the CCS. Fishery consignments sent to Europe are certified retroactively, just before the export of the processed products to the EU market. In some cases this can be several months after the harvest has been unloaded; hence, authorities in the flag State must work backwards to find the information of the landing and its volumes, which in many cases could have occurred in a different country (e.g. PNG-flagged vessels transhipping in the Solomon or the Marshall Islands, and the fish sent to PNG for processing). And here is where the system is both open to abuse and very resource and time consuming for small countries. In addition, the scheme is paper-based instead of being electronic, so the system is based on photocopies, which are easy to tamper with.

The tuna industry’s complex dynamics and operations were in existence long before the 2010 implementation of the IUU regulation. The legislation would have benefited greatly from an in-depth study and understanding of the realities in the region before enacting it under a substandard CCS.

Nevertheless, my work aims to improve the CCS from an operational perspective for PICs. In fact, for the last six years I have been helping countries to comply with the CCS, by working around many of the operationally frustrating challenges of the scheme while at the same time strengthening each country’s capacity so that the EC legislation’s key objective — to minimize IUU fishing — is not lost.

I have suggested to countries to not dwell on the perceived politics of the situation, but rather to focus constructively on the changes that these yellow cards require, in terms of monitoring, control and surveillance (MCS) and related control systems, particularly in regard to strengthening the EU CCS.

Transhipping tuna in the Solomon Islands (image: ©Francisco Blaha).
Incorporating elements of the Food and Agriculture Organization’s Port State Measures Agreement could lead to a Pacific-wide catch certification scheme as a tool to offset PICs’ administrative and economic burden from complying with the EU regulation and CCS.

The first step was to raise awareness of the EU IUU Regulation, its sections, the CCS product flow scenarios foreseen by the regulation, and the responsibilities it places on the fisheries authorities of the Pacific Island flag and port states. In reality, most fishers, processors and government officials in PICs (or in the rest of the world for that matter) do not fully understand what the legislation requires them to do.

As a former fisherman, I like to think in simple images. Therefore, the analogy of an iceberg seems apt. What we see is only the tip: the certificate, which unfortunately is just a piece of paper. But what really matters is what is below the waterline, two concepts that I call “fish legality” and “fish accountancy”. These two areas need to be strengthened and systematized to make the visible tip meaningful. I was contracted by the EU-funded Development of Sustainable Tuna Fisheries in Pacific ACP Countries – Phase II (DevFish2) project to develop and standardize a training programme aimed at the Pacific Island fisheries sector that first explained the regulation’s conceptual issues, and later described the certification scenarios that the regulation generates, and assisted countries that have received a yellow card to implement the changes required by the EC.

The catch certificate itself is a complex document with a multi-layered structure of responsibilities that do not always correlate chronologically with reality. Therefore, a detailed explanation of the certificate, and standardizing the way the information in it would be written, was required. These explanations also had to be expanded indirectly to include foreign flag States that operate in the region so as to maintain a system that is homogeneous through the operational chain.

The technical content of foreign catch certificates was a constant source of frustration for many of the fisheries officers I worked with. “How come the fisheries authorities of distant water fishing nations send us these incomplete and untruthful certificates, yet they are not yellow carded?” was a frequent question for which I had no answer.

The next element was to explain the content of the regulation and possible certification scenarios under the CCS, and to explain which ones applied to each case in each island country. This was not easy because of the differences between the industries in each PIC as well as the interactions between the catch certificate, the health certificate (normally provided by health authorities) and the certificate of origin (normally provided by customs officers).
Furthermore, I also took into consideration transhipment countries, because while these countries are part of the system, they are not initially taken into account (i.e. they are not "notified"). Transhipment countries have an important role but receive no direct benefits, other than receiving fees for use of their ports because they are not allowed to trade fish with the EU because they lack sanitary authorizations. Presenting the EU IUU Regulation and the CCS in a way that could be easily understood was a challenge.

Initially, it was necessary to re-structure the traditional concept of MCS into a more holistic view. An illegal fish does not become illegal during processing; it is illegal from the moment it is caught. Therefore, if the illegally caught fish is not allowed to be legally unloaded, then a big part of the problem is solved, although it is still necessary to stop the potential “laundering” of illegally caught fish (originating from illegal landings), through the mixing with legally caught fish.

In order to be able to “track and account” the volumes legally landed, I created the concepts of an “unloading authorization code” (UAC) and “fish accountancy” to link legal unloadings and mass balance with traditional fisheries MCS activities.

The UAC concept combines two basic elements: the requirements of the Port State Measures Agreement (PSMA) and a key data element that follows a landing all the way through the value chain. Under the PSMA, vessels must seek advance approval to enter a port in order to allow sufficient time for the port State’s fisheries authorities to examine the information the vessel provides. Hence, the required information needs to be provided in advance so that a decision can be made regarding whether or not to grant entry to the vessel. When an authorization is given, the vessel’s master or representative presents the authorization to the authorities when the vessel arrives in port.

This authorization needs to be coded so that it can be recorded, accounted for, and cross-checked if necessary. I proposed to use this UAC as the tool for the initial key data element, which is required for any catch documentation scheme or traceability analysis along the value chain, from landing to consumer.

Furthermore, most fishing vessel operators (company-owned or independent) maintain a trip or voyage coding system in order to monitor logistics, fuel consumption, crew rosters, general costs and, more importantly, “final payments” to crew (which are in the form of a percentage of catch volumes, species composition and values). These final payments to crew are usually based on landings values and fixed costs. Because the concept already exists in the sector, using the UAC would be a better use of an existing concept.
The UAC process

Arrival notification

Authorization for a vessel to land is granted by the fisheries authority in the port of arrival, according to a series of requirements set forth by the port State’s own legislation and by those of a regional fisheries management organisation (RFMO) or international agreements. The scope of the requirements can be arranged in accordance to a pre-determined risk index based on the characteristics of the vessel that requires port access.

For example, domestic-flagged vessels fishing in a port State’s exclusive economic zone (EEZ) with a local vessel monitoring system (VMS) and observers are considered to be low risk vessels. Foreign vessels with local licenses, foreign charter vessels, domestic vessels fishing in other EZZs or on the high seas, fish carriers, vessels with patchy observer coverage and indirect VMS access are considered to be medium risk vessels. Finally, foreign-flagged vessels with no direct VMS access by the coastal or port State, with no observer coverage, or are vessels that have been identified as a Vessel of Interest by any country or RFMO, are singled out as high-risk vessels.

As noted, the risk profile of the vessel defines the required time for arrival notification (i.e. 12 hours in advance, 24 hours in advance, or 48 hours in advance, depending on the vessel’s risk) and takes into account the amount and depth of the information provided by the vessels. When an assessment has been made, a UAC can be provided and the vessel is allowed to dock with the intention to unload. In instances where the UAC is not provided, the vessel may be allowed to dock for humanitarian or force majeure reasons but it cannot unload.

It is up to the port State or RFMO to determine the structure and nature of the UAC, but it is important that it be inclusive in the information it requires. In principle, it should be an integral part of a relational database such as a Fisheries Information Management System (FIMS).

The UAC design should include elements such as country identification, trip and port traceability, VMS, e-logs, and observer reporting, and be interoperable with vessel operator trip and/or voyaging coding systems, if needed, with maritime authorities.

Inspections

The decision of whether an inspection should take place should be based on the vessel’s risk profile, the number of inspections it has already been subject to, and any issues arising from the documentation presented to port authorities. If an inspection is performed, then the UAC is recorded in the inspection forms for future verification, if required, and for compliance performance monitoring. Ideally, the inspection forms are digitized on a tablet-type device with the data entered into an FIMS in real time under the specific UAC of that operation. If an inspection indicates inconsistencies or non-compliances, the landing may be authorized under bond or denied. Then the UAC associated with that landing is flagged in the FIMS in order to interrupt any further movements or transactions associated with that landing until the issues are resolved.

Unloading

If port authorities decide that an inspection is necessary, and the vessel is found to be compliant, then permission will be granted. This landing could be conditional (under bond) as explained before. If an inspection does not take place, the Landing Authorization Code becomes the de facto authorization for unloading.

In the case of transhipments, the UAC is associated with the measured catch (if hanging scales are used) or with catch estimates (from logsheets), and reflects the captain’s or mate’s receipt of the documents related to volumes being transhipped. The UAC will then accompany the transhipping documentation (printed), and if the receiving country has a memorandum of understanding with the port State, or is part of the same RFMO, then it can potentially log in to a common FIMS to cross-check the legality and estimated volumes of the landing, and to add their own information. If landings or transhipments are partial (and this practice should be discouraged) then the UAC need to be partitioned into lots associated with the original UAC, which is retained as the main reference. Each lot can then be incorporated into the FIMS. Any volumes not landed should be considered as a “lot” in the same manner as the landed ones.

Reception or weight in

At the cool store or processing facility, or wherever the official sorting and weighing of the fish is done, the UAC marks the volumes in the FIMS and into the receiving operator’s inventory system. If whole fish are loaded into containers for direct export, then the weight is recorded under the UAC in the FIMS, and the volumes containerized must be discounted from the total volumes recorded for that landing. That exported lot would still be associated with the UAC as in the case of partial landings or transhipments.

Private operators receiving the fish could either enter all of the data into an FIMS portal or maintain their own inventory and traceability system that could either be absorbed by the FIMS or audited by fisheries authorities. In any case, final volumes by species would be incorporated into the FIMS for the UAC. Companies typically

Impacts of the European Commission yellow cards in the Pacific
use lot systems based on the species, size and vessel of origin. All of these parameters can be linked to the UAC under the FIMS or their own inventory and traceability management system.

**Processing establishments and cool stores**

Most responsible MCS systems include a mass balance evaluation (fish landed = fish in storage + fish processed or sold) recorded by the fisheries authorities. This evaluation starts with the UAC of all fish received for a period of time and what is presently in the inventory.

Volumes withdrawn from storage for processing are discounted from the original landed volumes in relation to the UAC; hence, each withdrawal leaves a smaller volume of the original landing until it is exhausted. Obviously, the same principle applies to whole fish withdrawals. Processed product volumes are inventoried under the same UAC, taking into consideration the processing ratios (conversion factors) associated with that type of products.

**Final product sales and exports — catch certificates**

Prior to the product leaving the premises, a catch certificate (domestic- or market-specific) is prepared, based on all of the operations relating to the original UAC (or UACs in the case of products originating from mixed unloadings). The referencing and traceability of the specific UAC, plus the fish volumes accountancy through the value chain, become the basis and *sine qua non* for the delivery of a catch certificate, whether it be paper or electronic.

The next big issue relates to fish lots movements, which I referred to earlier as “fish accountancy”. The quantification of volumes landed, transhipped, traded and processed has two main benefits: 1) it is known how much is being caught, which is important for fish stock management; and 2) the volumes can be recorded as the “initial deposit”, and from this it is possible to avoid chances of “fish laundering” from any potential illegal landing (just as any financial systems deals with money laundering).
The volumes unloaded can be used as the initial deposit from which extractions will be made, and the different species unloaded become “different currencies” from the same deposit. A traceability scheme in the system then makes it possible to follow the “extractions” of different currencies through time, either by whole fish sales or processing. Furthermore, processing losses can be dealt with by the system using a “currency converter” (e.g. 1 kg of fish = 400 g of loins).

Finally, each sale or export is “mass balanced” against the original deposit until the volume is exhausted (i.e. when no more fish can be attributed to that unload). If someone wants to export fish that he did not land, it is obvious that something is wrong and inspectors can focus on figuring out the problem.

Discussion

There is considerable developmental and technical complexity behind these systems. PNG took the lead in developing them, and it was one of the key factors that impressed the EU during its September 2015 visit to assess the changes in PNG’s systems. PNG was issued a green card one month later.

Staff of PNG’s National Fisheries Authority worked hard to get the necessary changes to meet the EC regulation, and it is deservedly proud, willing to share its experience with other PICs. Presently, a similar system is being implemented in the Solomon Islands, which faces the prospect of a red card if it does not improve its legal and operational frameworks with regard to fisheries compliance and management.

But the reality is, small island developing states are always playing a “catch up game” when it comes to meeting compliance and market access requirements. The rulebook is being read while playing the game with distant water fishing nations.

Ultimately, the decisions are made by people and justified by paper, and many entrenched positions (e.g. attacker vs attacked, colonial vs independent) were taken when the EC regulation first came into force, but these only served to slow down the process.

The situation is better now and PICs have responded with more than words, they have responded with action. Much of the world’s tuna is caught in the western and central Pacific Ocean, but PIC-flagged vessels only catch a small portion of the global catch. Therefore, it seems logical that the catch certificates of distant water fishing nations vessels be examined with the same scrutiny that PIC-flagged vessels are.

Finally, I must make this point: While the EU has imposed the IUU Regulation, it is also providing funding assistance to help countries comply with the measure. Most of the work I have done to date and refer to in this article was done with funding support from the EU.