Pilot Project for a Carbon Footprint Assessment

StarKist Longline Fisheries

Document purpose

This document intends to outline the basic methodological approach of what is needed to undertake a carbon footprint assessment in the StarKist longline tuna FIPs. It does not intend to provide solutions to carbon emissions, how to mitigate them, or other emissions associated with processes further in the supply chain (tuna processing, sale, etc.,).

Why conduct a carbon footprint assessment?

It is estimated the agricultural and fisheries sector is responsible for approximately one quarter of all global greenhouse gas emissions. In order to understand how a reduction in greenhouse gas emissions can be achieved in supply chains, first a baseline must be calculated that can be referred to. Initiatives like Walmart's Project Gigaton will also start to require this data from their suppliers.

Draft Methodology for the StarKist LL FIP

Below are step by step processes for calculating the StarKist FIP carbon emissions as it relates to P1 species of the MSC standard (albacore, bigeye, and yellowfin tuna). All information can be input into the excel file provided supplementary to this document. The more data the FIP can receive the more accurate estimation on the carbon emissions of the FIP can be produced.

Process	Example
1. Collect fuel use data for individual vessels in a specific time frame (i.e., per year, in litres). This includes fuel for generators supplying electricity to freezers, lights, etc.	75,000ltr diesel / year
2. Collect overall catch data in metric tonnes for the same period as fuel use data	40000kg albacore, 10000 kg yellowfin, 10000kg bigeye, 1000kg 'other' / year
3. Collect bait quantity used in metric tonnes for the same period as fuel use data. Along with this, species of bait used and its origin	800kg Mackerel from the Atlantic, 500kg squid from the pacific / year

Once these data have been obtained, Key Traceability will perform calculations to give an estimate of the carbon dioxide equivalent (CO_2-e) per KG or MT of P1 species caught in the FIP. This estimation will be based off the methodology from Wang (1999) where a carbon emissions factor of 3.1 kg CO_2 per litre of diesel is assumed, based on the GREET life cycle analysis model, noting that this figure includes upstream emissions from the production and distribution of the fuel, in addition to the direct footprint generated during combustion.

This calculation does not include processes that have been deemed out of scope for this analysis, such as the carbon foot printing associated with building of the vessel.