

A Political Ecology of the Tuna Value Chain in Ghana: The Role of Food Loss and Waste

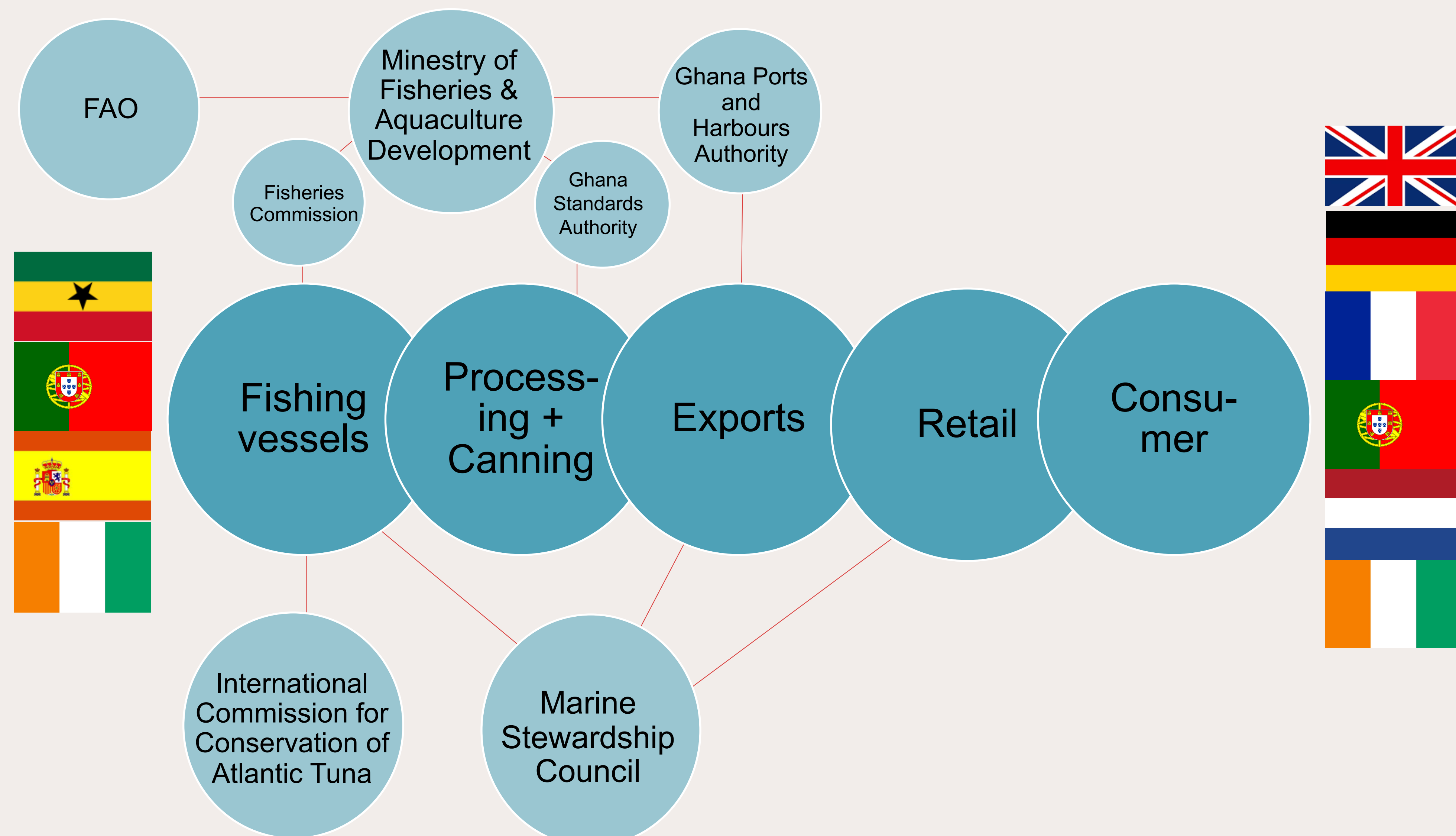
Ghanaian tuna is regulated by international standards, certifications and agreements, to be canned and exported to the Global North. These processes affect the utilisation of the tuna as a food resource.

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Theoretical framework:

- Political ecology
- Political economy: Value chain approach
- Materiality and relationality
- Concepts: Governance and power

Methods

Discourse Analysis:

Documents, reports, regulatory frameworks

Semi-structured Video-Interviews:

With informants with a role in the Ghanaian tuna value chain

Field trip (COVID dependent)

Preliminary Findings

All by-products from tuna canning in Tema goes to fish meal, for local and export markets. At one of the canneries the fish heads are removed and sent to facilities where fish oil is extracted. A project for introduction of fish bone meal into children's diets has been initiated in Ghana (FAO², 2018). There is a limited focus on food loss and waste in the value chain.

National level:

The Fisheries Commission governs the pre-harvest sector: focuses on sustainability in the fisheries and Illegal, Unreported and Unregulated (IUU) fishing

Ghana Standards Authority govern the post-harvest sector: focus on food safety and quality in the industry

International level:

ICCAT, MSC etc. govern pre-harvest sector: focus on sustainable fish stocks
FAO and UN: address issues of food loss and waste, but this is not incorporated into governance.

ABSTRACT

The paradox of wasting food is profound, when considering that 821 million people are suffering from hunger globally. Food waste is a food security issue, because 1/3 of the food we produce is wasted. This research project focuses on the use and waste of by-products from the tuna processing and canning industry in Tema, Ghana. This is understood as the materiality of the tuna value chain in Ghana. In addition, the focus will be on the relationality of the value chain, to understand how regulations and standards of the industry affect by-product utilisation and the organisation of the value chain.



Figure 1. Map of Ghana. The canning factories are located in Tema.

Research question

- How does international regulations and standards of the tuna industry materialise in the Ghanaian tuna value chain?
- Where and how is food loss and waste incorporated into global regulations of tuna value chains?
- How and why are by-products used in the industrial tuna value chain in Ghana?
- How can the tuna value chain be governed to enhance food security in Ghana?

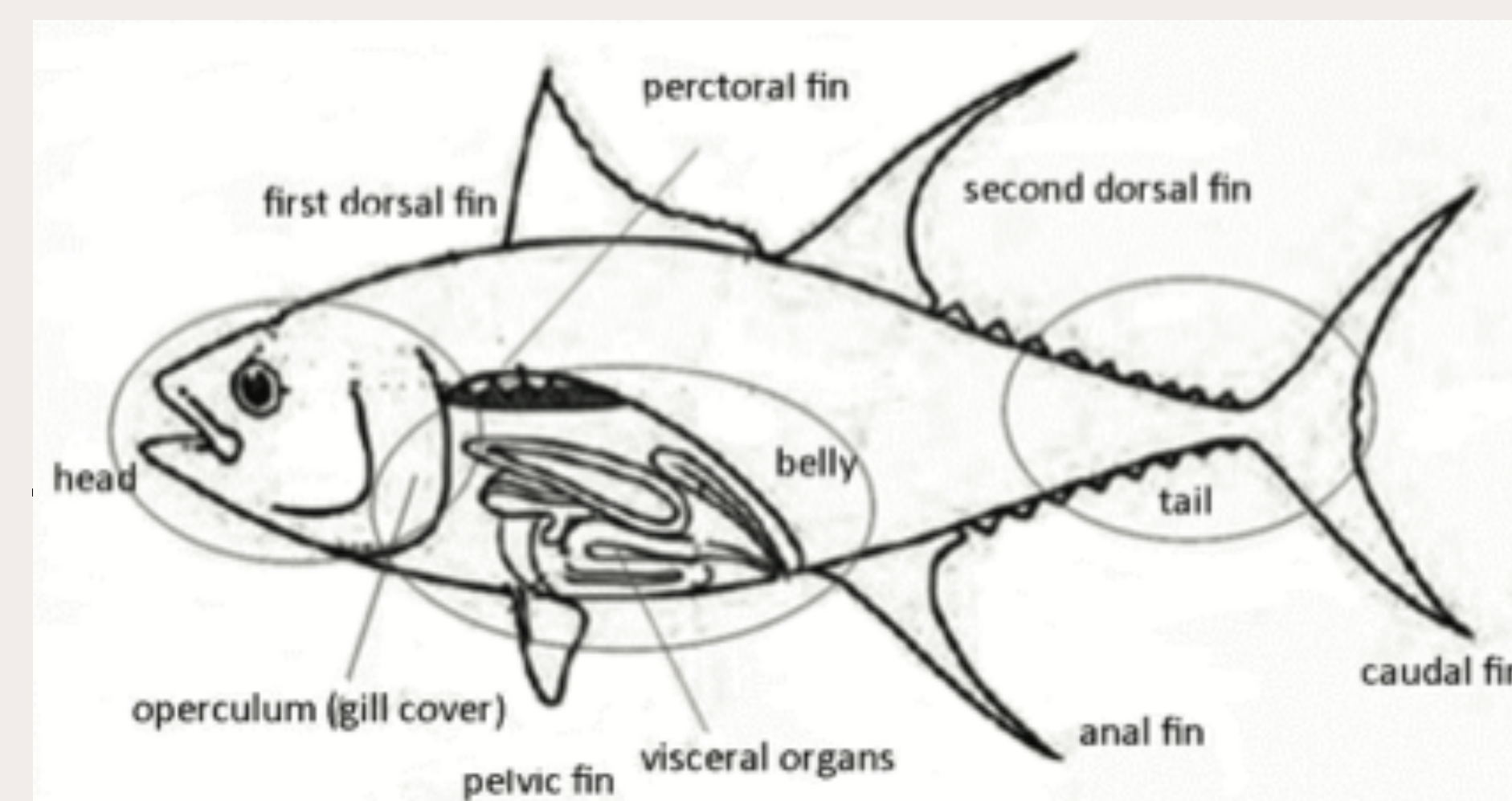


Figure 2. Tuna by-products (Gamarró et al., 2013)

By-products

Usually, by-products from tuna canning go to fish meal production for aquaculture, which is food loss, by definition. In the Philippines there are examples of by-product utilisation for human consumption (Gamarró et al., 2013).

REFERENCES

- Asiedu, B., Failler, P., & Beyens, Y. (2015). The performance of tuna processing fishery sector to sustainable fish trade and food security in Ghana. *Journal of Energy and Natural Resource Management (JENRM)*, 2(1).
- Bolwig, S., Ponte, S., Du Toit, A., Riisgaard, L., & Halberg, N. (2010). Integrating Poverty and Environmental Concerns into Value-Chain Analysis: A Conceptual framework. *Development Policy Review*, 28(2), 173-194.
- FAO (2018). *Food loss and waste and the right to adequate food: making the connection*. Rome, 48 pp. Licence: CC BY-NC-SA 3.0 IGO.
- FAO (2018). *Achieving Blue Growth. Building vibrant fisheries and aquaculture communities*. FAO, Global
- Gamarró, E.G., Orwattanamatekul, W., Sentina, J. and Gopal, S. (2013). *By-products of Tuna Processing*, GLOBEFISH Research Programme, 112. Rome, FAO 48 p.
- Gibbon, P., & Ponte, S. (2005). *Trading Down: Africa, Value Chains, and the Global Economy*. Temple University Press.
- Havice, E. and Campling, L. (2017). Where chain governance and environmental governance meet: interfirm strategies in the canned tuna global value chain. *Economic Geography* 93(3): 292-313.