



# Far Dwuma Nkodo

Securing Sustainable Fisheries

## ISSUE BRIEF

# THE PROBLEM WITH “SAIKO” AN ECOLOGICAL AND HUMAN CATASTROPHE

## Introduction

**“Saiko” is a term used in Ghana to refer to the transfer or “transshipment” of fish at sea from industrial trawlers to local canoes.**

Initially, saiko arose as a form of informal trading system, whereby the unwanted catch of industrial fishing vessels would be exchanged at sea for food, fruit and livestock brought by canoes.

Today, industrial trawlers –licensed to fish for bottom dwelling species such as groupers, snappers and cephalopods –target fish specifically for the saiko trade. This includes small pelagic species, such as sardinella and chub mackerel, in high demand for local consumption. These catches, which often include large quantities of juvenile fish, are frozen in blocks and transferred at sea to specially adapted “saiko canoes”.

The frozen blocks of saiko fish are then unloaded in port, for onward sale along the coast and on inland markets (Figure 1).

**Saiko is illegal under Ghanaian law<sup>1</sup>**, attracting a fine of between US\$100,000 and US\$2 million<sup>2</sup>. The minimum fine increases to US\$1 million where catches involve juvenile fish or the use of prohibited fishing gears<sup>3</sup>.

**Over time, saiko has evolved into a highly organised, illegal and lucrative industry that is no longer limited to the trade in unwanted catch.**



In 2017, an estimated 50-60 saiko canoes were operating out of Elmina port, an almost two-fold increase on the number documented in 2015. © EJF

1 Regulation 33(2) of the 2010 Fisheries Regulations LI 1968.

2 Section 132(2)(a) of the 2002 Fisheries Act 625.

3 Section 88A of the 2002 Fisheries Act, as inserted by the 2014 Amendment Act 880.

**Figure 1:** Saiko landing taking place at Elmina port



Despite being illegal, a low risk of arrest and sanction has meant that saiko landings have taken place in full view of authorities. © EJF

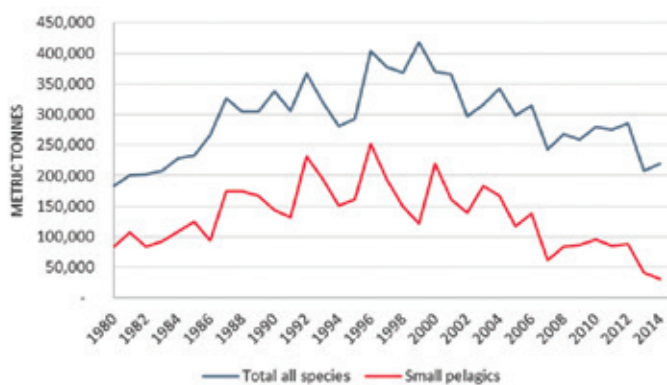
## What is the scale of the problem?

In 2017, an estimated 100,000 tonnes of fish were landed through saiko, 80,000 tonnes of which were landed in the Central Region port of Elmina alone<sup>4</sup>. This equates to around 40% of the total landings of Ghana’s artisanal fishing sector, and more than twice the official landings of small pelagics in the country (Figure 2).

The value of fish traded through saiko in 2017 is estimated at between US\$26-41 million (value of fish sold at sea), with an estimated landed (pre-processing) value of between US\$34-65 million. As saiko catches are not reported, this represents a significant loss of state revenue in terms of taxes on landings and fishing licence fees.

**In 2017, an estimated 100,000 tonnes of fish were landed through saiko, 80,000 tonnes of which were landed in the Central Region port of Elmina alone.**

**Figure 2:** Marine fish landings in Ghana (small pelagics and total all species)



Source: Lazar *et al.* (2016), USAID/Ghana Sustainable Fisheries Management Project (SFMP)

With total catches of 18,500 metric tonnes reported by the industrial trawl fleet in 2014<sup>5</sup>, this suggests a reporting rate of just 16% of total catches.

The scale of saiko has increased in recent years. In 2017, between 50 and 60 saiko canoes were estimated to be operating out of Elmina port<sup>6</sup>, an almost two-fold

<sup>4</sup> Estimated by EJF based on field observations, *in situ* monitoring and interviews. Other assessments have arrived at similar estimates (Hen Mpoano, pers. comm., May 2018).

<sup>5</sup> Republic of Ghana, National Fisheries Management Plan (2015-2019).

<sup>6</sup> Källér, R. (2017). *Reeling in on by-catch: The saiko story. How saiko reproduces access to resources and maintains its position in Ghanaian fisheries.* MSc Thesis. University of Amsterdam.

increase on the number documented in 2015<sup>7</sup>. An additional 18 saiko canoes have been recorded at Apam and Axim<sup>8</sup>, bringing the total to 70-80 vessels. Many saiko canoes operate multiple times per week, particularly the largest vessels which can carry up to 44 tonnes of fish in a single journey<sup>9</sup>.

## What impact is saiko having on Ghana's fisheries?

Ghana's fish stocks are in steep decline, with serious concerns surrounding the status of the small pelagic fishery. Annual landings of small pelagics, such as sardinella, have declined from over 250,000 tonnes in the late 1990s to less than 50,000 tonnes today<sup>10</sup>, despite increased fishing effort. The scientific data indicate that the small pelagic fishery could collapse within three to seven years, in the absence of robust management interventions<sup>11</sup>.

Saiko's contribution to the collapse of Ghana's small pelagic fishery has not been quantified. However, in a context of severely depleted stocks, any additional pressure exerted on the fishery has potentially devastating implications. The saiko trade certainly concerns small pelagics, which in some cases are the major component of frozen slabs (**Figure 3**). Saiko also involves juvenile fish, eroding the reproductive potential of the resource, and further exacerbating the ecological crisis.

**Figure 3:** Small pelagics in slabs of frozen fish landed by a saiko canoe



An average saiko trip lands 26 tonnes of fish. © Hen Mpoano

## What are the livelihood and food security implications of saiko?

Saiko has been credited for supplying cheap fish to Ghana's poorest, and ensuring by-catch from industrial trawlers is destined for human consumption, rather than discarded at sea.

Increasingly, however, saiko is associated with targeted fishing rather than unwanted by-catch. Industrial trawlers compete directly with artisanal fishers for small pelagic catches<sup>12</sup>, adapting fishing gears to catch these species and fishing within zones reserved for the artisanal fleet.

Having effectively "stolen" fisheries resources from artisanal fishers, saiko floods the market with cheap, poor quality fish. This pushes down prices, along with incomes of artisanal fishers.

**This system is forcing artisanal fishing communities to buy back fish that has effectively been stolen from them.**

Ghana's artisanal fishing sector employs around 80% of fishers in the country, and provides livelihoods for over 2 million people, or 10% of the country's population<sup>13</sup>. The saiko business, in contrast, accrues benefits to a few operators and canoe owners, to the detriment of communities across Ghana's coastline. Put into perspective, an average saiko canoe can carry in one trip as much fish as around 400 artisanal fishing trips<sup>14</sup>.

The implications of the imminent collapse of Ghana's small pelagic fishery cannot be over-stated. More than 200 coastal villages rely on fisheries as their primary source of income<sup>15</sup>, with limited alternative sources of livelihood or employment. The past 10-15 years have seen the average annual income per artisanal canoe drop by as much as 40%<sup>16</sup>. Should the resource disappear, mass migration and social upheaval can be considered a very real prospect.

7 Hen Mpoano. (2015). *Addressing illegal fishing through Education and Sensitization for Sustainable Fisheries Management in Ghana: Rapid Assessment of IUU fishing in three coastal communities in the Central and Western Region of Ghana*. Hen Mpoano and BUSAC. 38pp. [http://henmpoano.org/wp-content/uploads/2016/06/Rapid-Assessment-Report-on-IUU-Saiko-Fishing-in-Axim-Apam-and-Elmina\\_Use..pdf](http://henmpoano.org/wp-content/uploads/2016/06/Rapid-Assessment-Report-on-IUU-Saiko-Fishing-in-Axim-Apam-and-Elmina_Use..pdf)

8 *Ibid*.  
9 Källér (2017); Hen Mpoano (2015).

10 Lazar, N., et al. (2016) *Rebuilding Depleted Small Pelagic Stocks in Ghana. A Closed Fishing Season Proposal to the Ministry of Fisheries and Aquaculture Development*. The Scientific and Technical Working Group. USAID/Ghana Sustainable Fisheries Management Project (SFMP). Narragansett, RI: Coastal Resources Center, Graduate School of Oceanography, University of Rhode Island. GH2014\_SCI002\_CRC 17 pp. [http://www.crc.uri.edu/download/GH2014\\_SCI002\\_CRC\\_FIN508-1.pdf](http://www.crc.uri.edu/download/GH2014_SCI002_CRC_FIN508-1.pdf)

11 USAID/SFMP. *The status of Ghana's small pelagic fishery and the proposed closed season for all fleets*. Presentation to the Fisheries Commission Board. April 2018.

12 Hen Mpoano (2017). *Illegal, Unreported and Unregulated (IUU) Fishing: The "Saiko" Story*. Issue Brief. Hen Mpoano and BUSAC. [http://henmpoano.org/wp-content/uploads/2017/02/Hen-Mpoano\\_IUU-IS-SUE-BRIEF.pdf](http://henmpoano.org/wp-content/uploads/2017/02/Hen-Mpoano_IUU-IS-SUE-BRIEF.pdf)

13 Republic of Ghana (2014). *National plan of action to prevent, deter, and eliminate illegal, unreported, and unregulated fishing*. Available from: [http://www.fao.org/fishery/docs/DOCUMENT/IPOAS/national/Ghana/NPOA\\_IUU.pdf](http://www.fao.org/fishery/docs/DOCUMENT/IPOAS/national/Ghana/NPOA_IUU.pdf)

14 Calculation based on an average saiko trip of 2,400 slabs of fish, each slab weighing 11 kg. Catch per fishing trip (CPUE) for the artisanal fleet is based on the 2013 figures set out in the National Fisheries Management Plan (2015-2019) and assumes 250 fishing days in a year.

15 Nunoo, F., et al. (2014), *Marine fisheries catches in Ghana: historic reconstruction for 1950 to 2010 and current economic impacts*. *Reviews in Fisheries Science & Aquaculture*. 22(4), pp.274-283.

16 Republic of Ghana Fisheries and Aquaculture Sector Development Plan 2011-2016.



Saiko accrues profits to a handful of owners of industrial trawlers and saiko canoes, to the detriment of millions across Ghana's coastline. In 2017, around 80 industrial trawlers were licensed to fish in Ghana's waters. © EJF

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