

Unlocking Blue Wealth: Investing in Uganda's Fish Industry for Youth Economic Empowerment



Presented at the Aquaculture Cottage Industry Business Symposium - *Catalyzing Business Growth*, Monday 3rd November 2025 at the Gudie Leisure Farm, Najjera II -Kira Municipality Wakiso District

Uganda's Fish Sector Overview



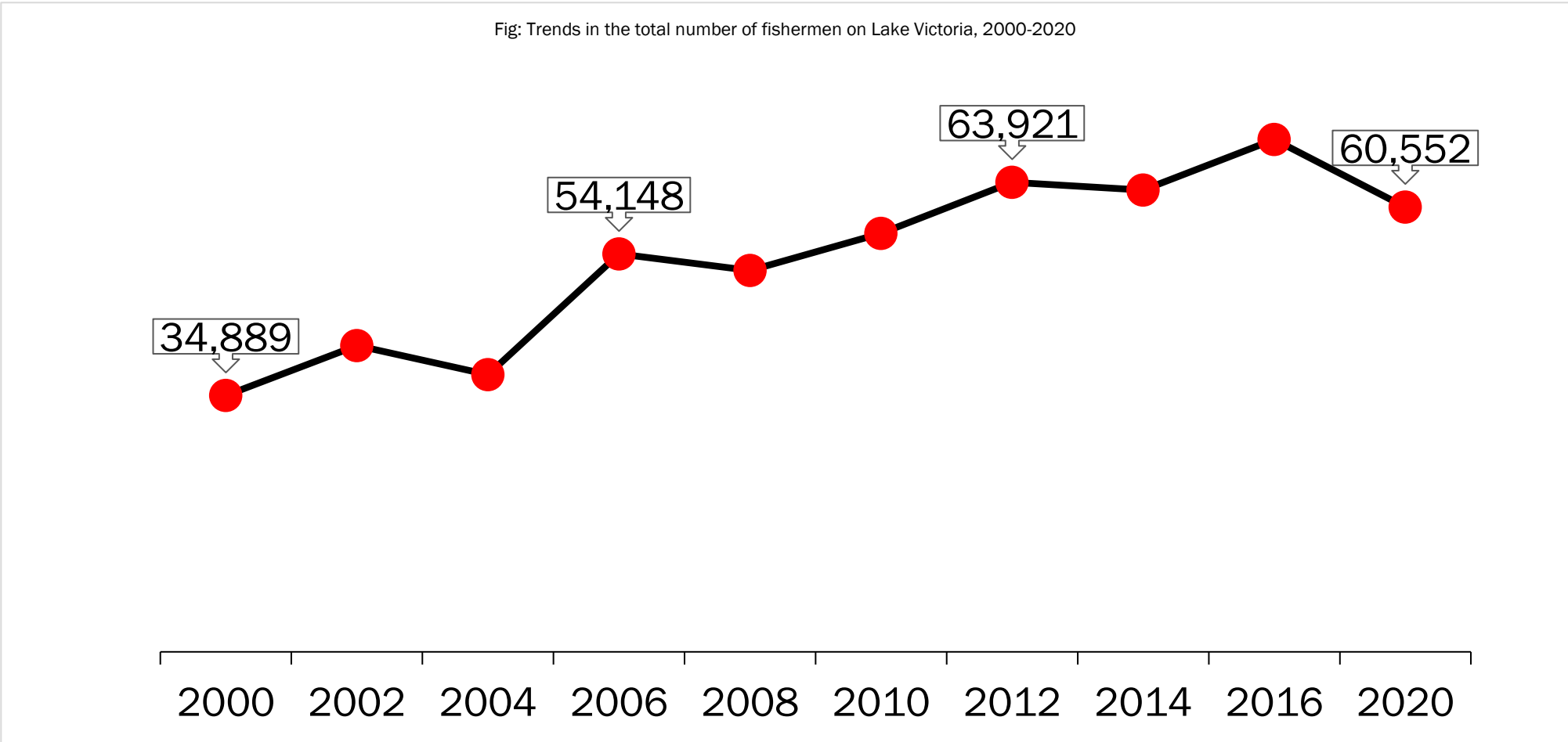
Among the top 5 agricultural foreign exchange earner (~USD 200M/year)

- US\$176.5 million US\$301.6 million (NPA 2021)
- Fish output: 130,000 MT (FAO, 2024)



Employs 1.7M directly, 3.5M indirectly

Rising employment in fishing activities



Source: Authors' compilation based on LVFO Frame Survey Reports (2000-2020)

Men dominate fishing activities

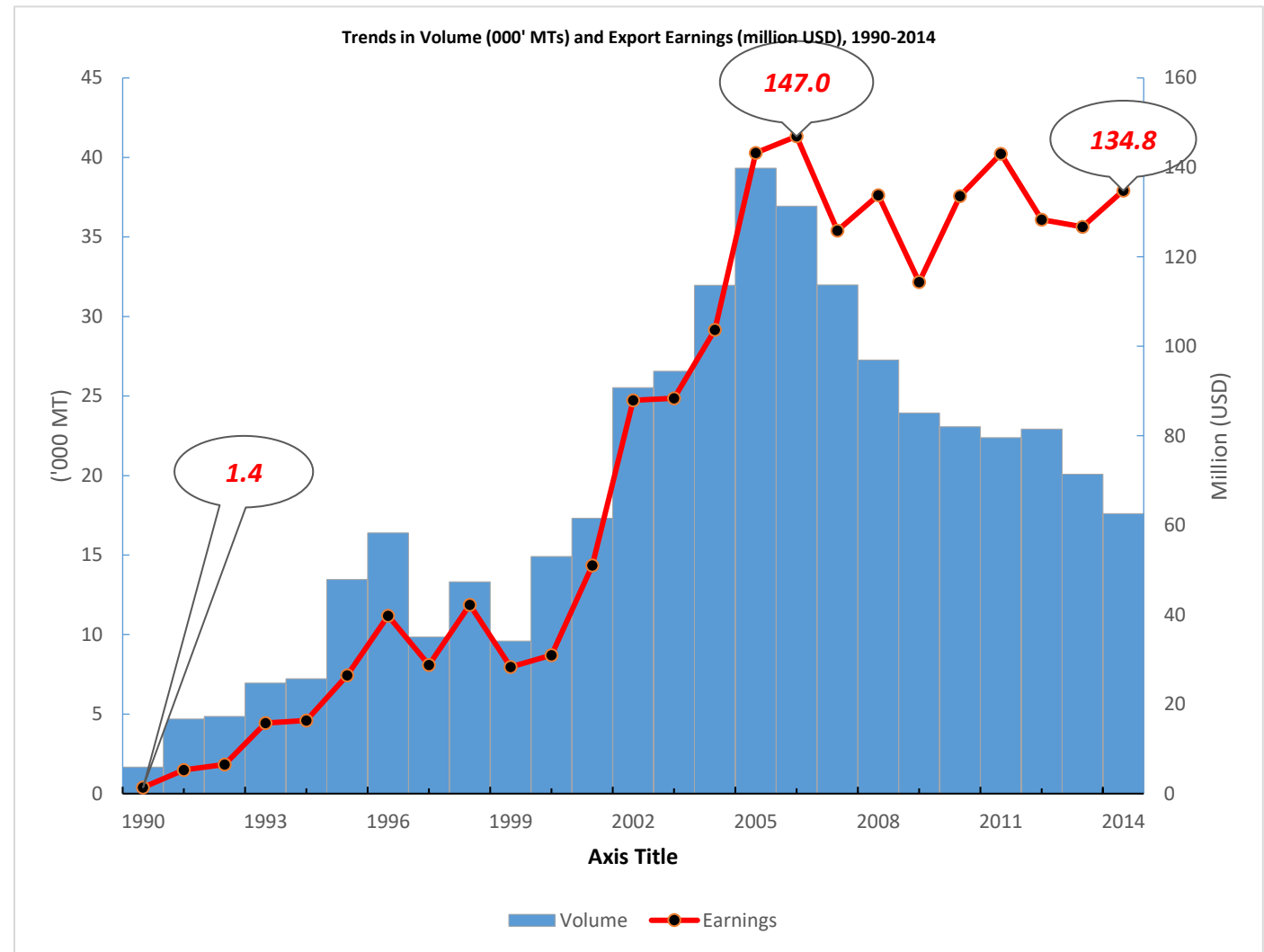
Table 1: Number of fishermen (employment) targeting different species in Lake Victoria by gender									
Fish Type	2014			2016			2020		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nile Perch	33,116	248	33,364	36,064	218	36,282	34,119	85	34,204
Tilapia	13,665	62	13,727	14,155	79	14,234	15,475	175	15,650
Silver Fish	14,506	32	14,538	17,448	45	17,493	10,175	42	10,217
Others	1,224	22	1,246	1,724	7	1,731	473	8	481
Total	62,511	364	62,875	69,391	349	69,740	60,242	310	60,552

Source: Authors' compilation from LVFO various Frame survey Reports (2000-2020)

Why Invest in Uganda's Fish Industry?

Unique sector insight:

- Export earnings grow despite declining volumes, reflecting
 - robust global prices
 - sector resilience



Source: FAO Stat Fisheries database (2011-2011) & MoFPED (Background to the Budget (2015/16))

Capture Fishery: Economic Viability of Major Fish Species (2014)

Summary Table: Costs, Revenue, and Profitability per Boat (Million UGX)

Fish Species	Avg Annual Cost (Shs.)	Avg Annual Revenue (Shs.)	Gross Profit - Annual (Shs.)	Break Even Point		Payback Period (months)
				(tons/basins @ year)	Average Daily Catch in LOW & HIGH seasons	
Nile Perch	25.0	63.5	38.4	4.6 tons	24.7-89.2 kg	1.3
Tilapia	18.7	30.0	11.3	4.6 tons	16.7-55.8 kg	7.0
Mukene	21.1	58.0	36.8	1,091 basins		0.8
B. Nurse / N. Bredoi	14.9	92.3	77.5	1,427 basins		0.2
Hydrocynus	10.7	72.1	61.3	-		-

Source: National Fisheries Resources Research Institute (NaFIRRI) – 2014.

Key Insights for Policy Makers

- ❑ **High profitability:** All species generate positive gross profits
- ❑ **Quick payback:** Investments recover in 0.2-7 months
- ❑ **Break-even efficiency:**
 - ❑ Nile Perch and Tilapia break even at 4.6 tons
 - ❑ Basin species have higher thresholds.
- ❑ ***Investment opportunity: Favors aquaculture expansion for high-profit, quick-payback species.***

Employment and Productivity Comparison

Capture Fisheries vis-à-vis Cage Farming

Fishery Activity	Production (tonnes)	Fishers Employed	Total Employment	Productivity (tonnes/person)
Capture fishery	419,249	116,225	120,757	4
Cage culture	1,349	28	28	48
Aquaculture parks	-	-	-	-
Aquaculture (All)	98,063	-	53,000	-
Fishery (All)	517,312	116,253	173,785	5

Source: FAO (2013, 2014); NaFIRRI & DFR (various years); Author's computations.

Aquaculture a scalable and sustainable investment

By 2015 Capture fisheries

- produce over 400,000 MT
- Employ about 120,757 people.
- *Productivity 4 MT/year*

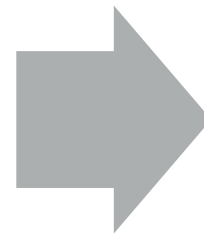
Cage culture

- produces 1,349 MT
- with only 28 farmers.
- *Productivity 48 MT/year*



National Fisheries Resources Research Institute (NaFIRRI) and Department of Fisheries Resources (DFR) in 2013 proposed establishing

- 45 lake-based and
- 5 land/river-based aquaculture parks



To boost national fish production and employment

European Union (EU). (2013). *Feasibility study to design, cost, and operationalise model commercial aquaculture parks in Uganda* (Final Report, Version 2, January 2013). Delegation of the European Union to Uganda. Framework Contract EA/127054/C/SER/multi Lot 1: Rural Development, Request No. 2012/298807.

Lake-Based Aquaculture Parks

Establishment Area	No. of Parks	Expected Fish Production (tons)
Lake Victoria – Eastern Zone	1	250,000
Lake Victoria – Central Zone	2	500,000
Lake Victoria – Northern Zone	1	250,000
Lake Victoria – Western Zone	1	250,000
Lake Albert	10	2,500,000
Lake Bunyonyi	5	1,250,000
Lake Edward	5	1,250,000
Western Region – Crater Lakes	20	5,000,000
Sub-Total (Lake-Based)	45	11,250,000
<i>Expected New Jobs (a)</i>	<i>—</i>	<i>3,240,357</i>

Fish output:
130,000 MT
(FAO, 2024)

Source: NaFIRRI 2015.

Approximately 3,472 kg of fish
are needed to create one job.

Panel B: Land and River-Based Systems

Establishment Area	No. of Parks	Expected Fish Production (tonnes)
River Nile & Sezibwa Systems	2	10,000
Masindi Port–Panyimur, Adjumani–Yumbe	1	5,000
Mpologoma System – Eastern Region	1	5,000
Western Uganda	1	5,000
Sub-Total (Land/River-Based)	5	25,000
Expected New Jobs (b)	—	7,201

Source: NaFIRRI 2015.

Summary of Planned Establishments and Job Creation

Category	Total
Total Parks	50
Total Fish Production (tons)	11,275,000
Total Expected Jobs (a+b)	3,247,558

Source: NaFIRRI 2015

Land & River-Based Systems and Policy Insights

- ❑ **High Employment Potential:** Over 3.2 million jobs projected from aquaculture parks.
- ❑ **Strong Production Capacity:** Expected 11.3 million tonnes of fish annually.
 - ❑ **Lake-Based Systems Dominate:** 99% of total production potential lies in lake-based parks.
- ❑ **Strategic Opportunity:** Scaling up aquaculture can boost **exports, food security, and rural employment.**

Conclusion and way forward

- **Promote cage culture:**
 - 12× more productive; support to ease wild stock pressure.
- **Sustain capture fisheries:**
 - Declining stocks (~4 tons/year) threaten profitability; enforce sustainable fishing and stock replenishment.
- **Support fish farmers:**
 - Provide access to capital, training, and infrastructure to improve profitability, especially for high-value species like Nile Perch.

Conclusion and Way forward

Promote cage culture:

- 12× more productive; support to ease wild stock pressure.

Sustain capture fisheries:

- Declining stocks (~4 tons/year) threaten profitability;
- Enforce sustainable fishing & stock replenishment.

Support youth fish farmers:

- Provide access to capital, training, and infrastructure to improve profitability
- Operationalise the EU 2013 model commercial aquaculture parks plan