

**CONTRIBUTION OF THE ARTISANAL
FISHERIES TO POVERTY REDUCTION,
FOOD SECURITY AND NUTRITION:
OPPORTUNITIES, CONSTRAINTS AND PERSPECTIVES**

By
Dr. Amadou fall
Senior Fisheries consultant

DEFINITION OF FOOD SECURITY AND NUTRITION

- **What is FS?** all people, at all times, have physical & economic **access to sufficient, safe & nutritious** food to **meet their dietary needs &** food preferences for an active and healthy life.
- FS based on **four pillars**: utilization and nutrition value, **Availability, Access and Stability**
- **World Food Summit to reduce hunger by half in 2015, but hunger is the a norm:**
 - **842 million** hunger; **2 billion** micronutrient deficiencies & **200 million** children < 5 years malnutrition.
 - Hunger is highest in SSA. **49% lives** on less than **\$1 –a day**. The count was **218 million** in 2008.
 - World Leaders committed to **enhancing FS & access to adequate, safe and nutritious food for present and future generations**
 - **No life without food and no human development without food security .**

ROLE of FISH TO GLOBAL FOOD SECURITY

- **Access:** (*purchase power*)
 - Disparities in Fish consumption Oceania, North America (24.6kg); Europe (24.1kg); Latin America (22.0kg); the Caribbean (9.9 kg) and **Africa 9.1 kg** per capita). **More than 200 million Africans eat fish regularly**
 - Fish most traded food commodities therefore **lower costs of trade (good quality infrastructure transportation and cold chain) will reduce post harvest losses and lower fish prices.**
- **Stability.**
 - Although the global supply of fish from fisheries and aquaculture has been relatively stable, price fluctuations can occur in line with other food sources.(e.g. 2007-2008 crisis fish products prices rose)
 - Responsible fisheries management, **marketing and utilization** as well as sound aquaculture development and women empowerment are essential to stabilized fish prices

NUTRITION COMPOSITION OF FISH

NUTRIENTS	QUANTITIES	UNIT
Protein	18.2	g
Iron	0.82	mg
Calcium	9.0	mg
Iodine	0.1	mg
Potassium	321	mg
Vitamin A	0.02	mg
Vitamin B2	0.1	mg
Vitamin B6	0.2	mg
Poly-unsaturated fatty acids		
Other minerals,		

ROLE OF FISH TO FOOD SECURITY AND NUTRITION

- Fish plays an important, though **under-recognized**, role in global food security as a key source of food and nutrition.
- World Leaders Stressed crucial role healthy marine ecosystems, sustainable fisheries & aquaculture for FSN in providing for the livelihoods of millions of people

Fisheries and Aquaculture sector	Protein	Protein and nutrients	employment		
	17% World total AI protein intake, 40% SIDS, 94% Solomon Islands, 22 to 50% SSA	3 billion people Fish is an important food for over 400 million Africans, contributing essential proteins, minerals and micronutrients to their diets	56 people employed Women 15%	200 million along VC Women fish traders 60% in Asia and Arica	livelihoods for 600- 820 million 9-12% world's population

- The proportion of dietary protein that comes from fish is extremely high: **47% in Senegal, 62%, in Gambia and 63% in Sierra Leone and Ghana;**

ROLE OF FISH TO GLOBAL FOOD SECURITY

FISH, AS A SOURCE OF “**RICH FOOD FOR POOR PEOPLE**”, CAN PLAY AN IMPORTANT ROLE IN IMPROVING AFRICA’S FSN STATUS

- **Utilization and nutritional value** (*protein, w-3 fatty acids, essentials Amino acids*)
 - Fish plays a role in human nutrition key source for protein and micronutrients; 17% animal protein intake; 3 billion people for protein and micronutrients; 40% for SIDS, 94% Solomon Islands
- **Availability** (*domestic supply*)
 - Total World production 2013: **160 million tons/ Africa 9 million tons**. Global Trade: **US\$134 billion** and **Africa 4.8 billion** . Fish supply at growth rate of 3.2% (1961-2009), **outpacing the increase of 1.7 %** in the world’s population. Increasing demand for fish and fishery products met by a **robust increase in aquaculture**

ROLE OF FISH TO GLOBAL FOOD SECURITY

FISH, AS A SOURCE OF “RICH FOOD FOR POOR PEOPLE”, CAN PLAY AN IMPORTANT ROLE IN IMPROVING AFRICA’S FSN STATUS

- **Availability** (*domestic supply*)
- **2010-2030. World population growth 20% and demand for fish will not be met!!!**
- fish consumption in sub-Saharan Africa is the world's lowest (**9.1%**). The continent is projected to need an additional 1.6 million tons of fish a year by 2015 just to maintain current consumption. This demand will increase by a further **2.6 million tons** a year by 2030.
- the **small-scale coastal inshore, and inland freshwater, fisheries that provide most (> 90%)** of the fish consumed across the continent

GLOBAL PATTERN OF FISH CONSUMPTION

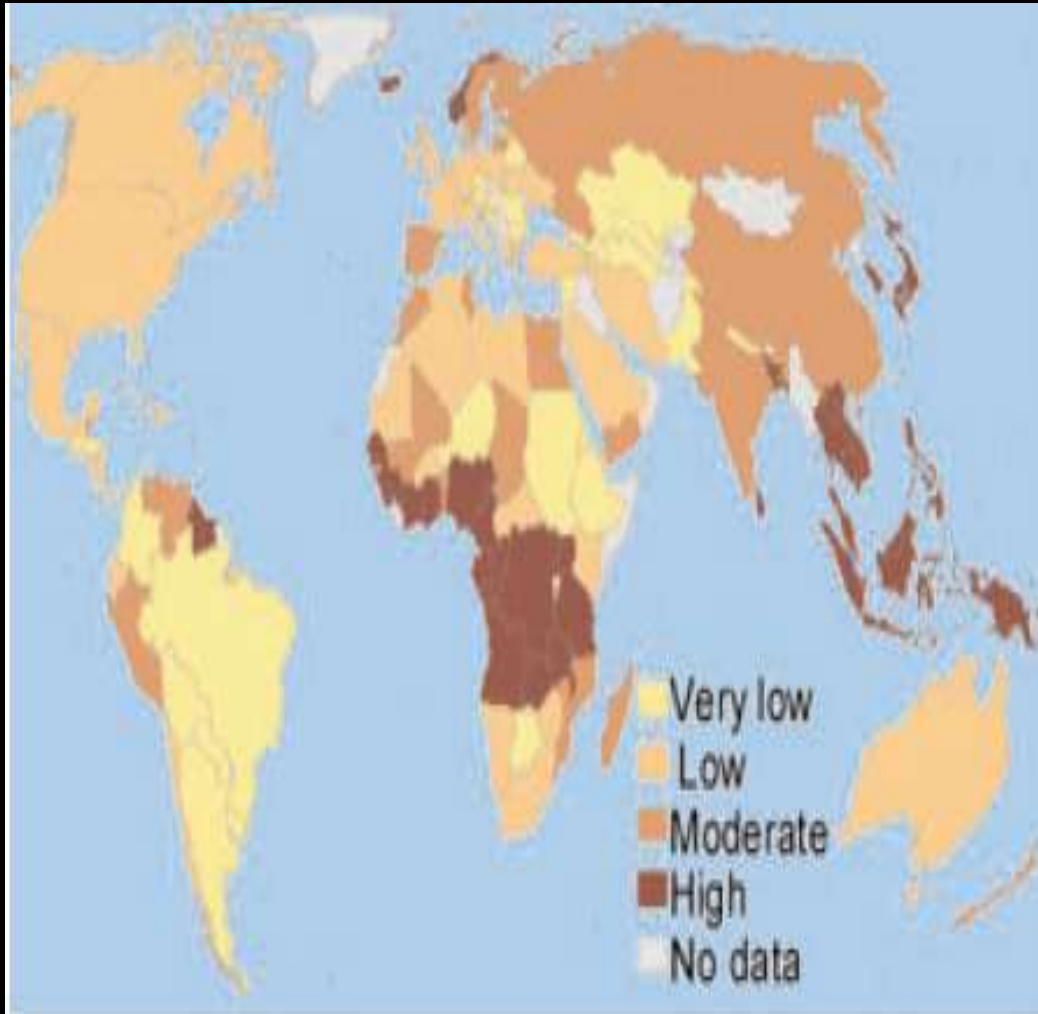


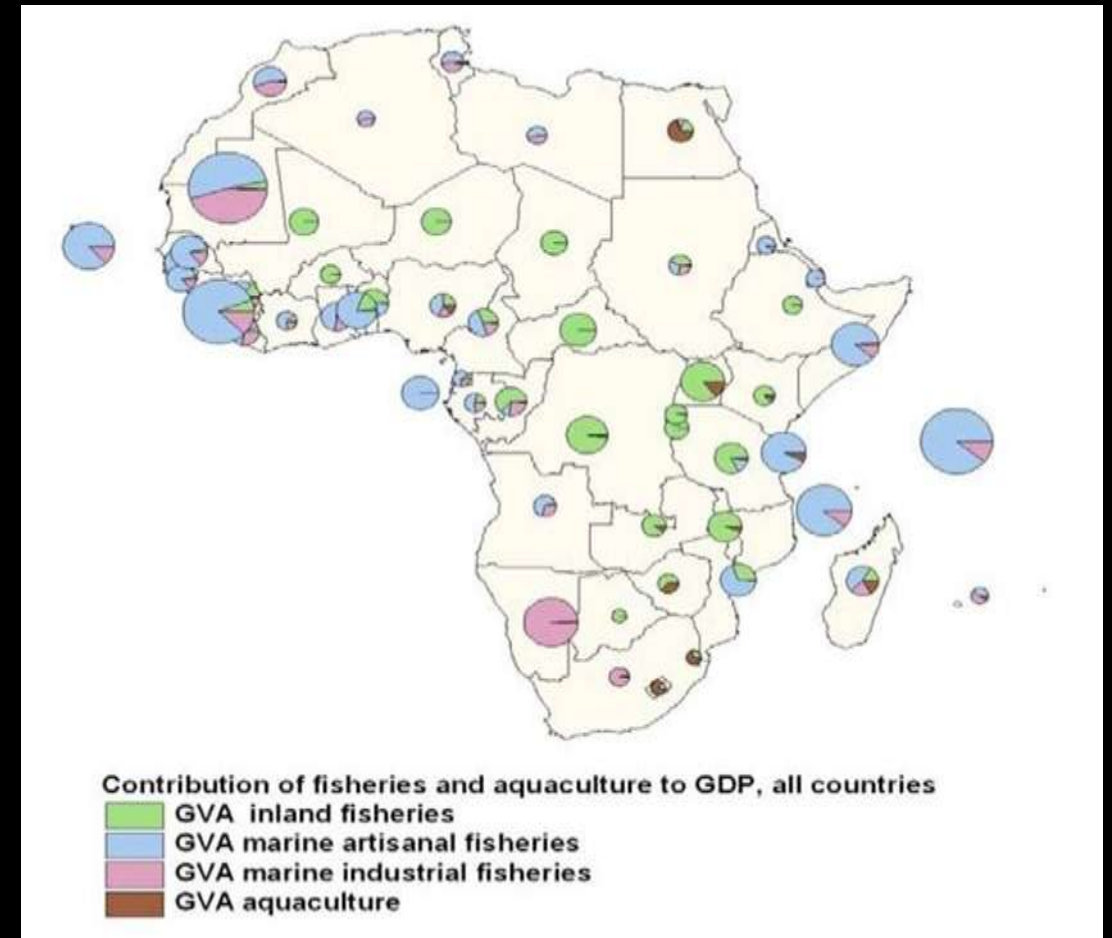
Figure . The global pattern of fish protein consumption as a proportion of total animal protein in national diets. Colors represent quartiles: **Dark Brown** = Upper Quartile (23–84% of total protein), **Mid Brown** = Upper Middle Quartile (12–23%); **Light Brown** = Lower Middle Quartile (5–12%); **Yellow** = Lower Quartile (0.5–5%). **Grey** indicates countries where no data were available. Source Allison et al (2009)

FISHERIES AND AQUACULTURE CONTRIBUTION TO GDP IN THE WOLE AFRICA BY SUB SECTOR

	Gross Value Added US\$	Contribution to GDP (%)
Total GDPs African countries	1,909,514	
Total Fisheries and Aquaculture	24,030	1.26
<u>Total Inland Fisheries</u>	6,275	0.33
• Inland fishing	4,676	0.24
• Post-harvest	1,590	0.15
• Local licenses	13	0.00
<u>Total Marine Artisanal Fisheries</u>	8,130	0.43
• Marine artisanal	5,246	0.27
• Post-harvest	2,870	0.15
• local licenses	13	0.00
<u>Total Marine Industrial</u>	6,849	0.36
• Marine Industrial fishing	4,670	0.24
• Post-harvest	1,878	0.10
• Local licenses	302	0.02
Total Aquaculture	2,776	0.15

FISHERIES AND AQUACULTURE CONTRIBUTION TO GDPA IN THE WHOLE AFRICA BY SUBSECTOR

	Gross Value Added (US\$ millions)	Contribution to Agriculture GDP (%)
Total GDPA African countries	288,392	
Total Fishing and Aquaculture GVA (excluding post-harvest)	17,369	6.02
Inland fishing	4,676	1.62
Marine artisanal fishing	5,246	1.82
Marine industrial fishing	4,670	1.62
Aquaculture	2,776	0.96



IMPORTANCE OF FISHERIES BY SUB SECTOR

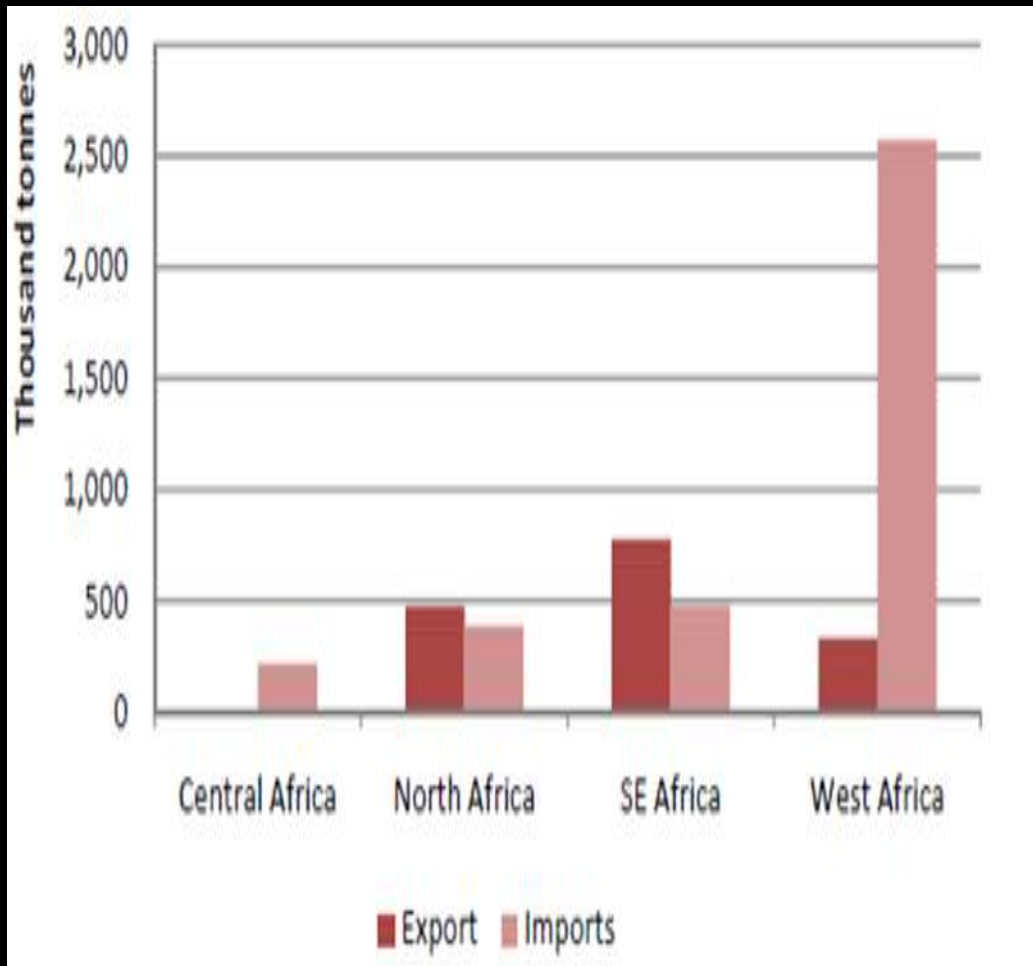
- West Africa fishing activities, mostly *marine artisanal*, and major contributor to GDP with high overall contributions in **Ghana, Mauritania and Sierra Leone**.
- Central Africa, *inland fisheries* major contributor to GDP with high overall contributions by the **Democratic Republic of the Congo and Uganda**.
- Southern Africa, *marine industrial fisheries* is the major contributor to GDP

FOOD SECURITY THROUGH EMPLOYMENT FOR THE POOR

- **Indirect Contribution of Fish to Food and Nutritional Security**

- SSF and related activities (trade, processing) provide **income to rural communities** where alternative employment opportunities are scarce or even non-existent.
- SSF, fish processing and trade provide people with an important, and sometimes crucial, form of **safety-net** that helps protect them against the effects of agricultural product price volatility, macro-economic crises, structural reforms, harvest failures, political turmoil and other factors that threaten rural stability and food security.
- SSF substitute and/or **complement** other economic activities and help households sustain their standard of living and food purchasing power.
- Some **30 – 45 million** people in Africa depend on fish for their livelihoods.

TRADE BALANCE IN DIFFERENT REGIONS IN AFRICA



COUNTRIES	Main suppliers	Value (in US\$)	% of the imports	% from Africa
Nigeria	USA	75,760,062	12	07
	Chile	68,104,407	11	
	Albania	46,758,433	7	
Ghana	Morocco	43,765,928	36	69
	Namibia	32,760,813	27	
	Spain	6,803,130	06	
Côte d'Ivoire	Mauritania	114,609,803	29	60
	Morocco	37,703,715	10	
	Netherlands	35,080,599	9	
Egypt	Thailand	98,615,974	26	05
	Netherlands	51,135,531	14	
	Viet-Nam	48,559,931	13	
Mauritius	Spain	104,484,170	35	13
	France	36,110,069	12	
	Korea	22,240,624	07	
South- Africa	Thailand	95,858,116	44	05
	India	26,107,567	12	
	China	16,061,425	08	

CHALLENGES AND THE WAY FORWARD

- Underlining the importance of fisheries and aquaculture in Africa, **several challenges** were encountered, mainly related to the availability of some data, including:
 - Rebuilding fish stocks,
 - generalize transparent, secure and well-defined rights to the resources; ideally via partnerships with local fishing communities;
 - Implementation of the regional regulations
 - Effective fight against IUU which is very high in West Africa

CHALLENGES AND THE WAY FORWARD

- Underlining the importance of fisheries and aquaculture in Africa, **several challenges** were encountered, mainly related to the availability of some data, including
 - Transparent actions for fishing licenses delivering
 - Getting data on licensing of local and foreign fleets.
 - Collecting information on the economics of fishing and aquaculture, which is essential for the estimation of value added, is very limited in most of the countries;
 - Collecting data on post-harvest and this may have caused a possible underestimation of the value generated by post-harvest.

THE WAY FORWARD

INVESTMENTS IN 5 MAJOR AREAS WILL IMPROVE THE CONTRIBUTION OF FISH TO FOOD SECURITY IN AFRICA.

- 1. Support small-scale, labor intensive coastal and inland fisheries
- 2. Promote small-scale rural and peri-urban **aquaculture** entrepreneurships
- 3. Improve fish market chains through local small-scale investments
- 4. Favor local, national or **regional fish trades** within Africa
- 5. Monitor the changes and feedback the **information** into the decision-making
• process



THANK YOU