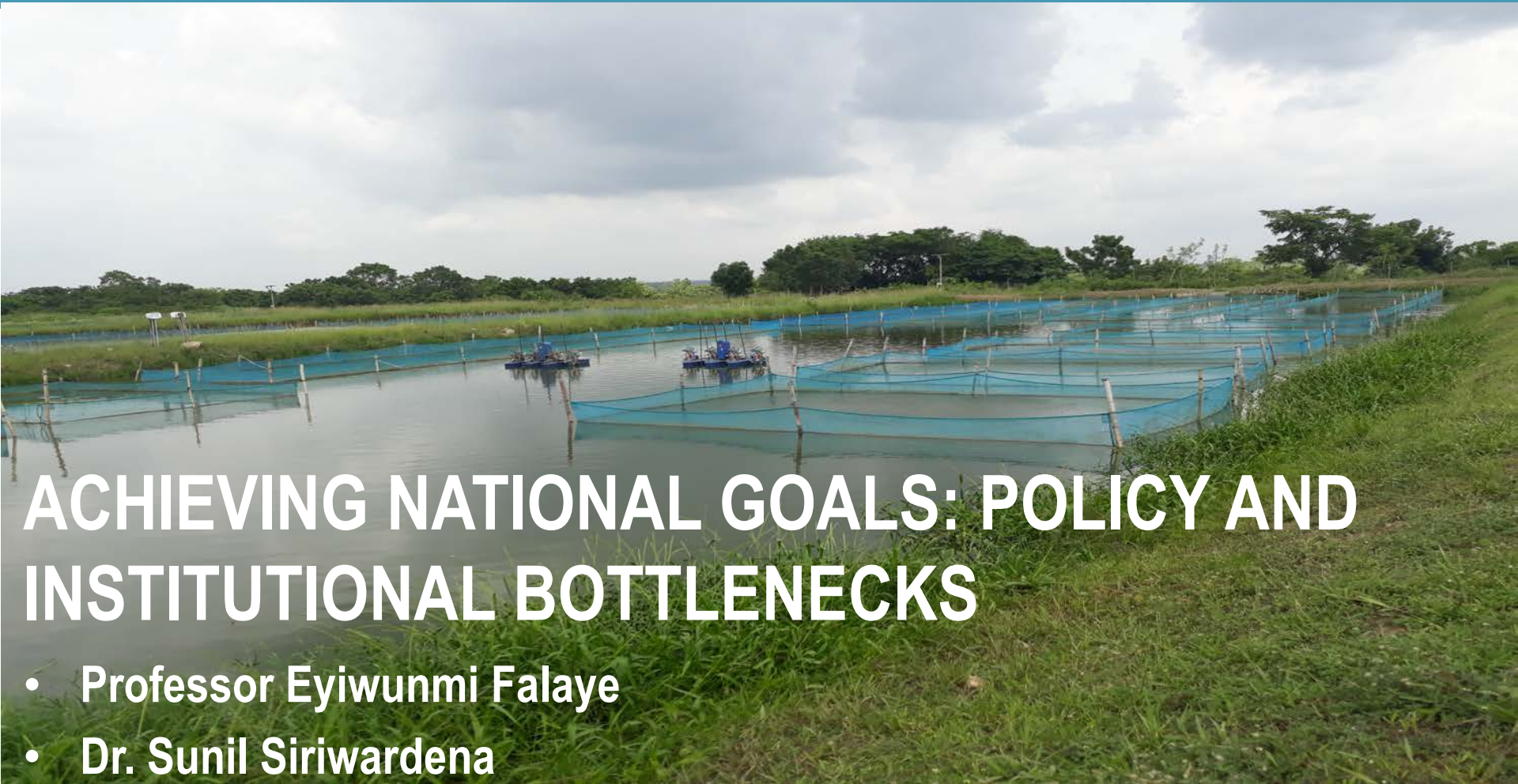




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## ACHIEVING NATIONAL GOALS: POLICY AND INSTITUTIONAL BOTTLENECKS

- Professor Eyiwunmi Falaye
- Dr. Sunil Siriwardena



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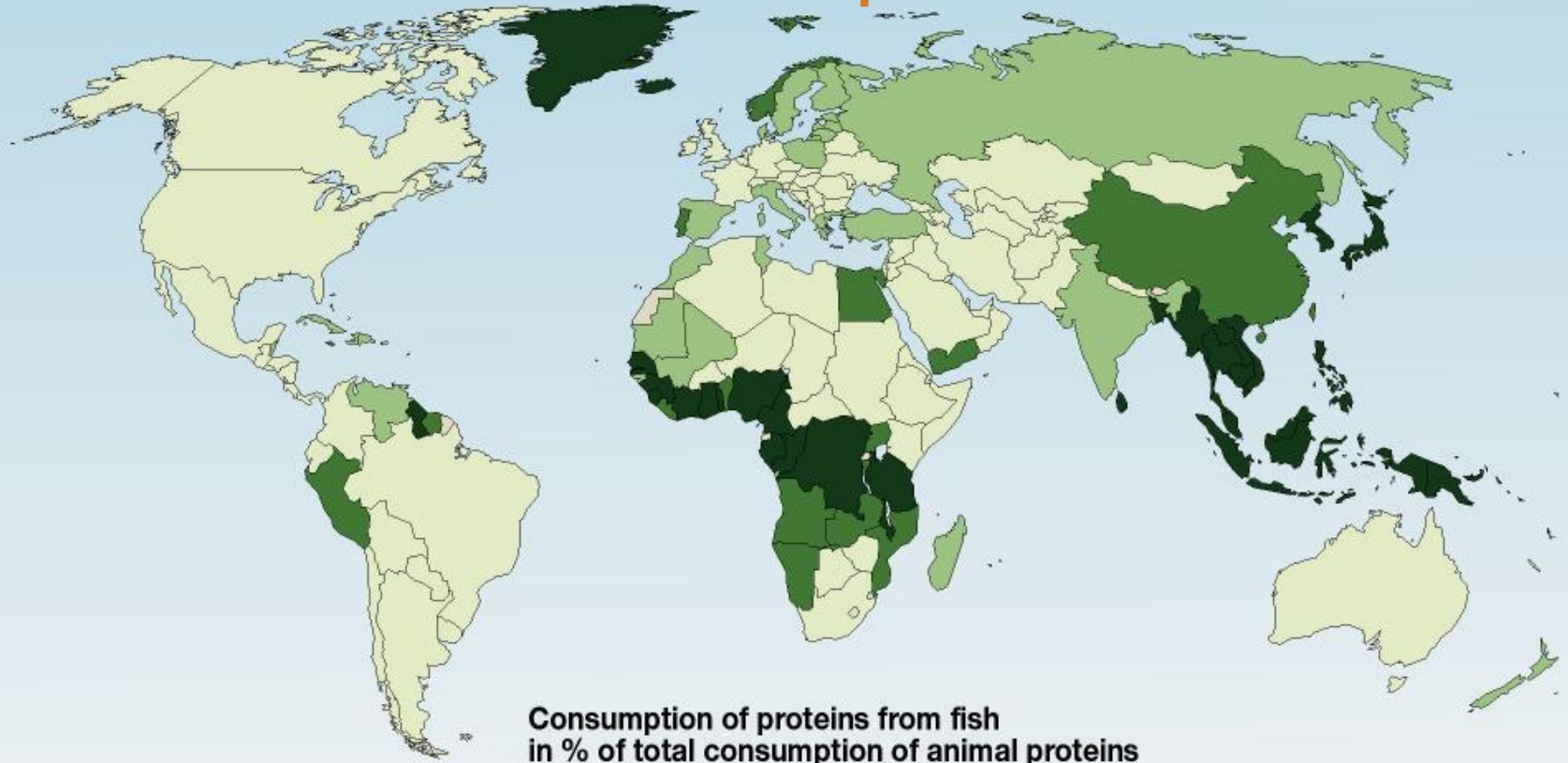


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## FISH IN NIGERIA

Contribution of fish to animal protein intake – 40 - 45%



PHILIPPE REKACEWICZ  
MARCH 2008



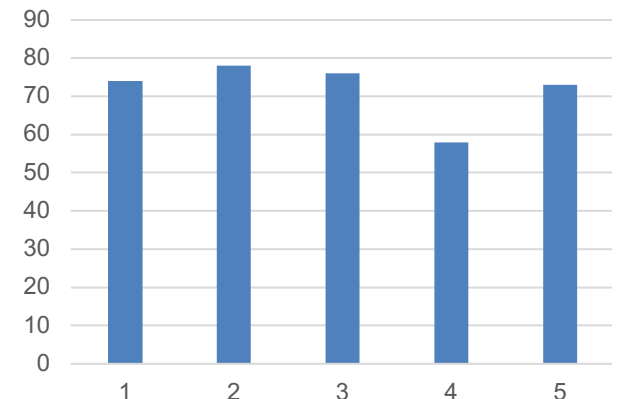
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- ❖ Nigerians have an affinity for fish, with high % of ASF derived from fish.
- ❖ There are geographical differences
- ❖ Women and children among all wealth quantiles consume fish.
- ❖ However, they all do not consume enough fish!
- ❖ Per capita consumption remains around 50% of the globe.



Region	Quantity (kg/person/year)	Value (\$/person/year)	Average price (\$/kg)
North Rural	5.5	12.9	2.35
North Urban	7.1	19.0	2.69
South Rural	17.1	64.3	3.76
South Urban	16.1	63.7	3.95



Wealth Quantile



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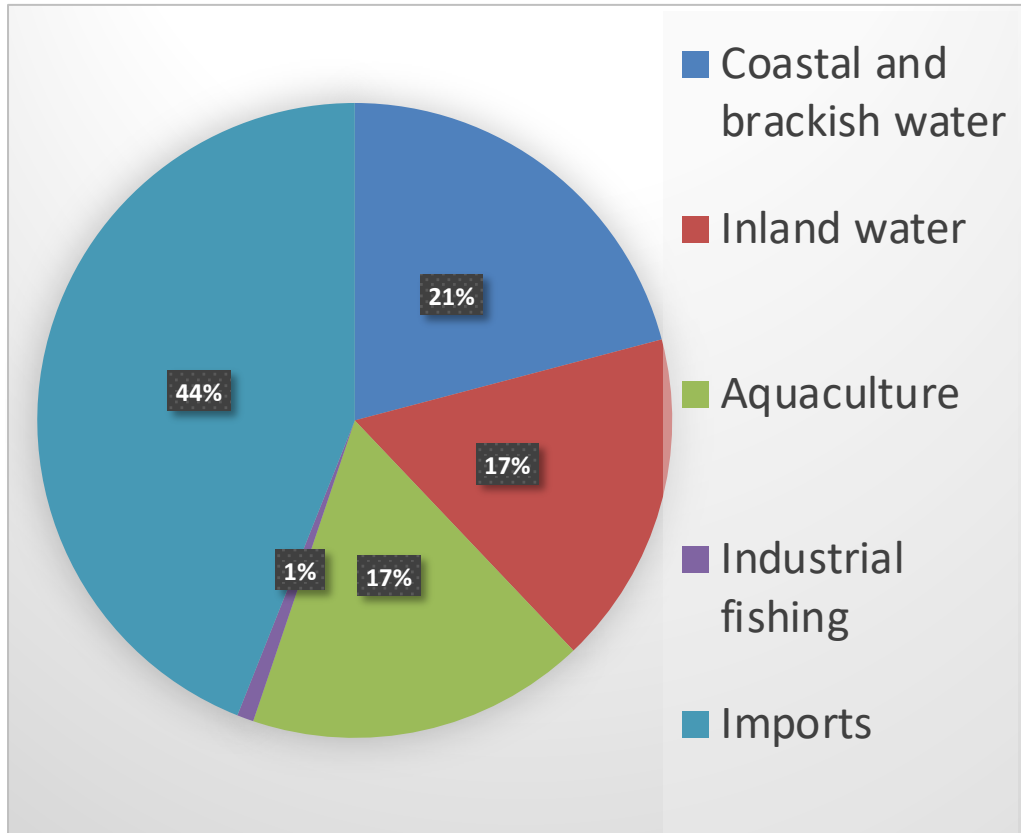
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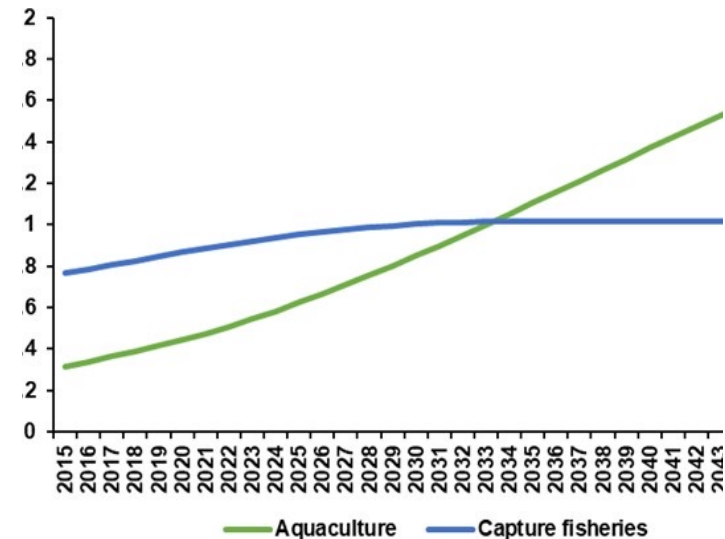
## NIGERIA FISH SUPPLY





## FISH SUPPLY AND DEMAND

- ❖ Under BAU, total fish production will increase from 1.3 to 2.8 million tonnes during the 2020-2050
- ❖ Most of this increase will occur through aquaculture (4.5 times increase up to 1.8 million tonnes in 2050).
- ❖ Aquaculture production will exceed the capture fisheries production by mid 2030


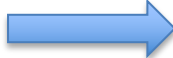


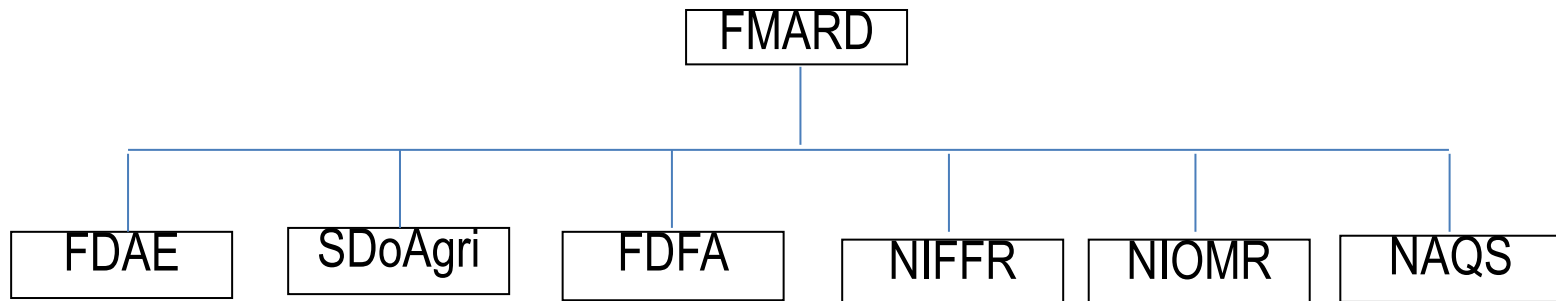


## CHALLENGES

- ❖ With population increases to 263 million in 2030, Nigeria would need 752 thousand tonnes more fish to remain at 11.2 kg of current national per capita fish consumption
- ❖ Need 3.14 million tonnes more fish to reach 20.3 kg current global per capita fish consumption, by 2030 (FAO)
- ❖ Heavy dependence on imports to sustain fish supply and consumption, but this costs USD1 billion/year and questions of sustainability
- ❖ Fish consumption will remain low under BAU, 50% of global average
- ❖ Technology improvement along will not suffice - Conducive policy and institutional environment is required

## INSTITUTIONAL SET UP IN RELATION TO AQUACULTURE SECTOR

- Suitable Federal and State level institutions to promote the growth of the aquaculture industry exist
- However, challenges been faced
- National level administrative, planning and regulatory duties  FMARD
- State level fisheries policies, regulation and administration  State DoF





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## FMARD

### FDAE

Formulate policy, oversee, monitor and provide the leadership needed for an efficient and effective agricultural extension and advisory service delivery

### NAERLS

Disseminate proven agricultural research findings through print and electronic media to the whole country to boost food production

### FDFA

Fisheries regulation and administration and work with state based extension agencies to adopt research findings in fisheries to attain the national goal self-sufficiency in fish production

### NIFFR

Inland water fisheries and aquaculture research, training and development

### NIOMR

Marine and brackish water aquatic resources and oceanographic research, training and development

### NAQS

Regulates and controls import and export of aquatic resources through quality assessment and certification



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## OTHER FEDERAL AND STATE LEVEL INSTITUTIONS HAVE INFLUENCE ON AQUACULTURE DEVELOPMENT

### Federal Level

- Federal Ministry of Land, Housing and Urban Development
- Federal Ministry of Water Resources
- Federal Ministry of Environment
- National Environmental Standards and Regulation Enforcement Agency
- Federal Ministry of labour and Employment
- Federal Ministry of Industries, Trade and Investment
- Federal Ministry of Education

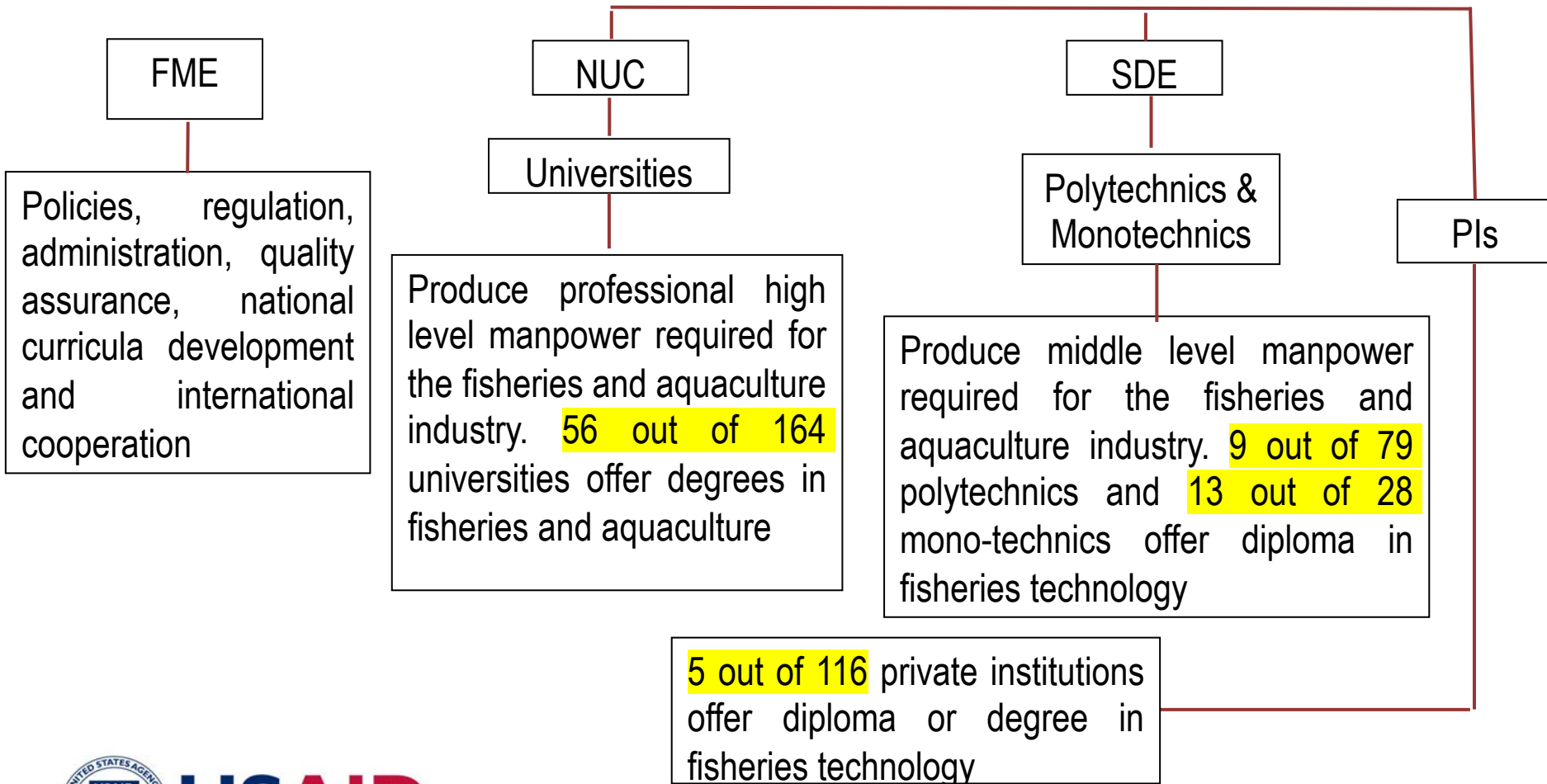
### State level

- Sate Ministries of Lands and Surveys ; Sate Water Agencies ; State Ministries of Environment; State Environment Protection Agency



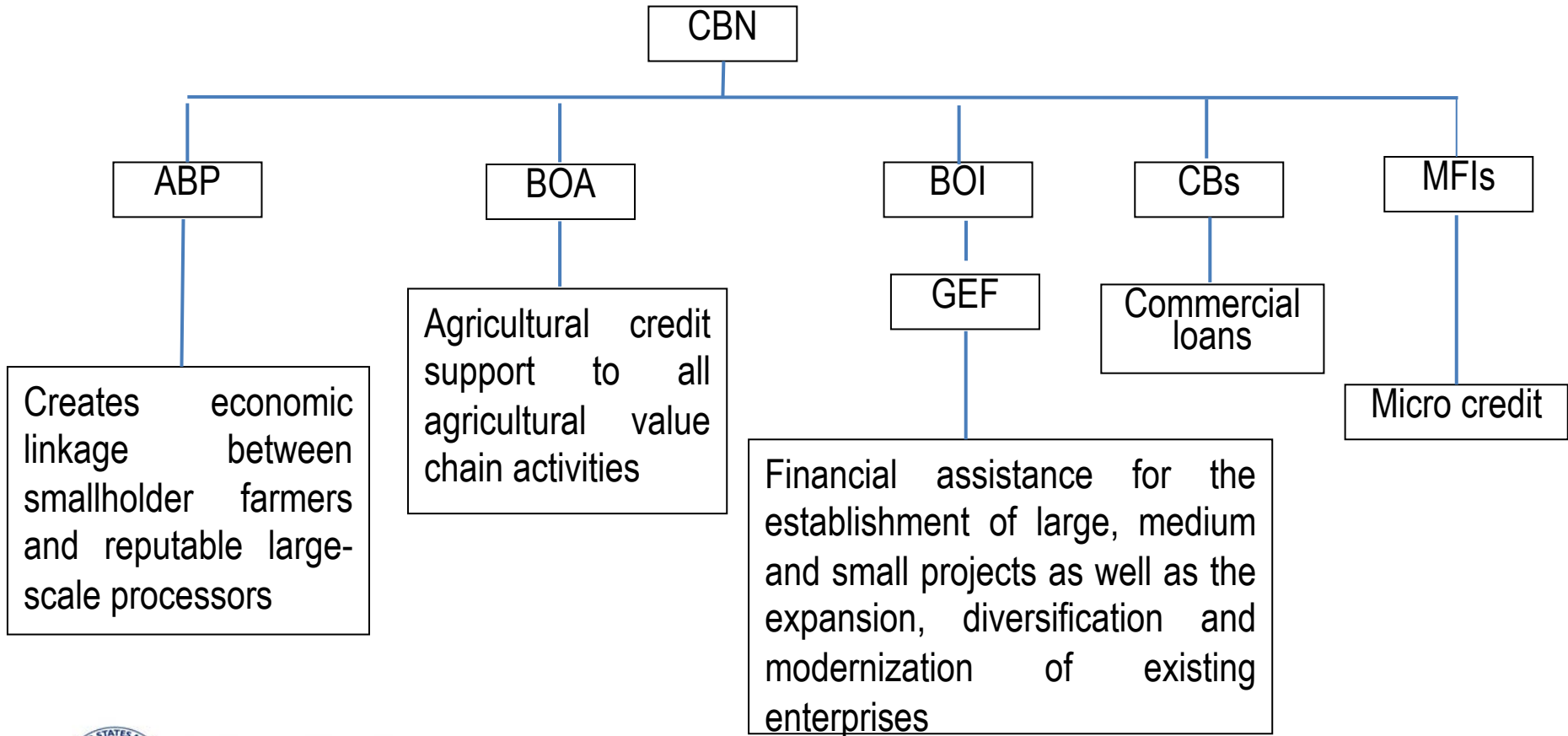


## Notable institutions contributing training on fisheries and aquaculture





## Availability and access to credit





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Acts relevant to aquaculture sector	Governing regulations
Fisheries Act of the Federal Republic of Nigeria -2014	Written permission of the relevant aquaculture authority is needed for any aquaculture activity
Inland Fisheries Act of 2017	Registration and approval programme; Aquaculture Residue Monitoring Program (ARMP); The Aquatic animal health regulations; Waste disposal and pollution control regulations; Fish quality assurance regulations; The Sanitary and Phytosanitary ("SPS") program for aquaculture
Land Use Act of 1978 & 2004	Custodian of land in each state is the Governor. Land is therefore allocated with his authority for commercial, agricultural and other purposes.
Water Resources Act 2004	Provides authority to make pollution prevention plans and regulations for the protection of fisheries, flora and fauna.
Environmental Impact Assessment Act 2004	Requires an assessment of public/private projects likely to have a impact on the environment.



## Non-State Actors (NSAs) in Fisheries and Aquaculture

- Well established with legal backing
- Some have a strong participation of women and youths
- Play important roles in terms of developing and scaling-up best practices in aquaculture:
  - Represent the interests of social groups; capacity building of fishers and producers;
  - Development of voluntary Codes and Manuals of best practices;
  - Adoption of participatory processes in the negotiation of fisheries access agreements
  - Regulation and monitoring of state performance;
  - Promoting co-management in fisheries; and
  - Mobilization and enhancement of community participation and community resources for increased livelihoods, food security and wealth generation.

### Main NSAs:

- FISON: CAFFAN; TADAN; NAFS; NFAN.
- Numerous Associations, Cooperatives and Farmers Based Organizations



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## Some opportunities for Public-NSAs engagements in fisheries/aquaculture

Major areas to support	Products and/or services	Public partners	NSAs
Food safety and quality	Certification services, Traceability systems	Government and Research Institutions	Private laboratories
Supply chain management & market access	Processing infrastructure, Production standards, Niche product development	Research institutions, NGOs	Small and medium-sized enterprises
Capacity building	Fish health services, Entrepreneurship training, Demonstration farms	Aquaculture research institutes, Universities	Private training units, Fishers'/fish farmers' associations
Technological development	Use of waste in production chains, Implementation of standards and best practices	National and Intern, research Intuitions	Industry association, Fishers'/fish farmers' association
Financial services	Microcredit, loans, lease	Donors, NGOs, Banks	Microfinance institutions



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## GAPS IN INSTITUTIONAL ARRANGEMENT

- ❖ Inadequate vocational programmes to generate a second level technically skilled manpower
  - Only three out of 28 Agricultural Colleges are specialized Fisheries Colleges
- ❖ At Federal level, aquaculture extension is diluted within FDAE
- ❖ Lack of coordinated effort by the extension arms of RIs, Universities and multi-State ADPs for extension delivery
- ❖ Public-private partnerships for technology dissemination
- ❖ Poor access to institutional credit programmes by SH aquaculture farmers
- ❖ Inconsistent reliable statistics constraint effective policy-making: reliable and credible information enables to design policies and strategies



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- ❖ No legislation dedicated to aquaculture – relies on laws and regulations designed for other sectors
  - e.g., access to water and land, environmental requirements, zoning, animal health and welfare.
- ❖ Administrative overlap is seen for aquaculture between sectors- e.g. access to water, land. Clearer delineation of administrative and decision-making responsibilities are needed
- ❖ lack of involvement of non-state participants in aquaculture governance may result in poor compliance.
  - Cost-effective participation of non-state actors in the design and review of legal, regulatory and policy instruments for aquaculture is needed



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## POLICY STATUS

1940s – Efforts to increase fisheries and aquaculture production



1976 – River Basin Development Authority: First policy element with fisheries development



1992 - Inland Fisheries Decree: First fisheries policy on increased inland fish production



1971-1972 - Decrees targeted at coastal fishing:

- Sea Fisheries Decree (1971), to control and regulate coastal fisheries;
- Sea Licensing Regulation (1971);
- The Sea Fisheries (Fishing) Regulations (1972);

Previous policies elements influenced fishery development

- The National Accelerated Food Production Programme (NAFPP) 1972;
- Agricultural Development Projects (ADP) 1974;
- Operation Feed the Nation in 1976; Green Revolution Programme 1980; the National Fadama Development Project (NFDP)



## Recent policy and development strategies

### ***Nigerian Vision 2020 (2009-2020):***

- 3-fold increase in domestic agricultural productivity by 2015 and 6-fold increase by 2020;
- Reduce food import by 50% in 2015 and by 90% in 2020
- Today's status: Still depend on 45-50% on fish imports

### ***Agricultural Transformation Agenda 2011***

- Enabling environment to increase over 1.25 billion fish seeds, 0.4 million tonnes of fish feeds, one million metric tonnes of aquaculture fish and five hundred thousand jobs within five years
- Today's status: Just over 0.3 million tonnes of fish from aquaculture

### ***Agriculture Promotion Policy 2016***

- Enhance fish breeding and traceability; b) make inputs available, Standardization of hatchery and fish breeding processes
- Today's status: Access to feed and quality fish seeds and finances remain as constraints





## ***National Aquaculture Development Plan (NADP) 2011-2014:***

- a) 25 % to 75 % increase in aquaculture production per annum; b) 25 % to 50% increase in consumption of aquaculture products per annum, c) 25 % increase in the value of aquaculture harvest; d) 100,000 new jobs created per annum; and e) 25 % to 50% increase in the number of women and youth participating in aquaculture
- Today's status: Per capita consumption (11.3 kg) is 50% of world average

## ➤ ***National Water Policy (2016):***

- a) Provide fish ladders at dams in order to ensure the passage of fish; b) Ensure enough water is released through dams to satisfy the downstream aquaculture production; c) Ensure that new dams guarantee the requirements of self-sufficiency in fish production;
- Today's status: Water scarcity experienced by aquaculture farmers; carrying capacity not known in dams for cage culture

## ***Land Use Policy 2013:***

Meant to solve difficulties investors face in acquiring land

Today's status: Governor is the custodian in land in States, constraints faced in land acquisition



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## ***Nigeria Public Private Partnership Policy, 2016:***

- Transfer of responsibility to the private sector and provide conducive business environment for investors
- Today's status: No incentives for private sector

## ***Revised National Policy on the Environment, 2016:***

Importance of managing and conserving over 250 species inland freshwater and 199 species in the brackish and marine waters



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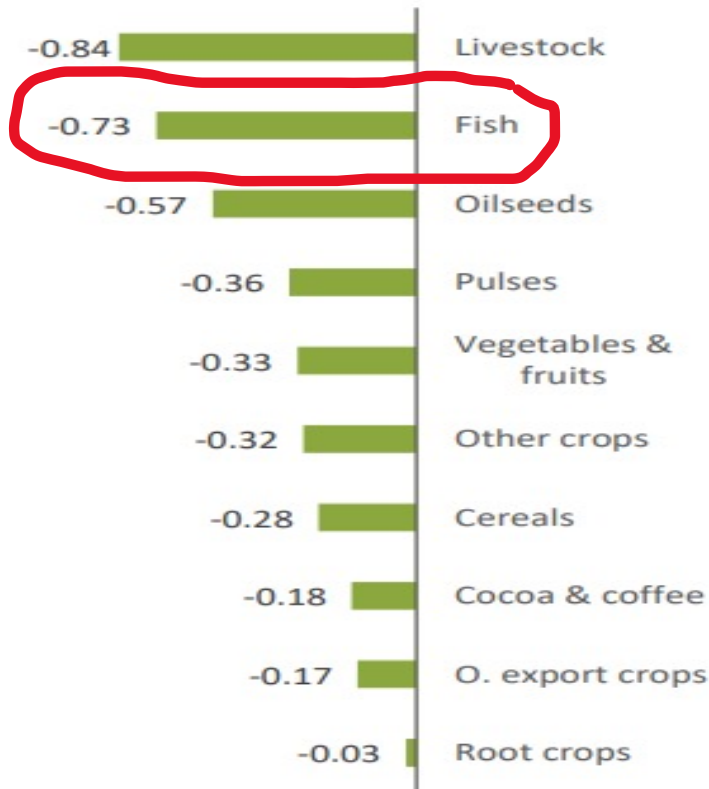


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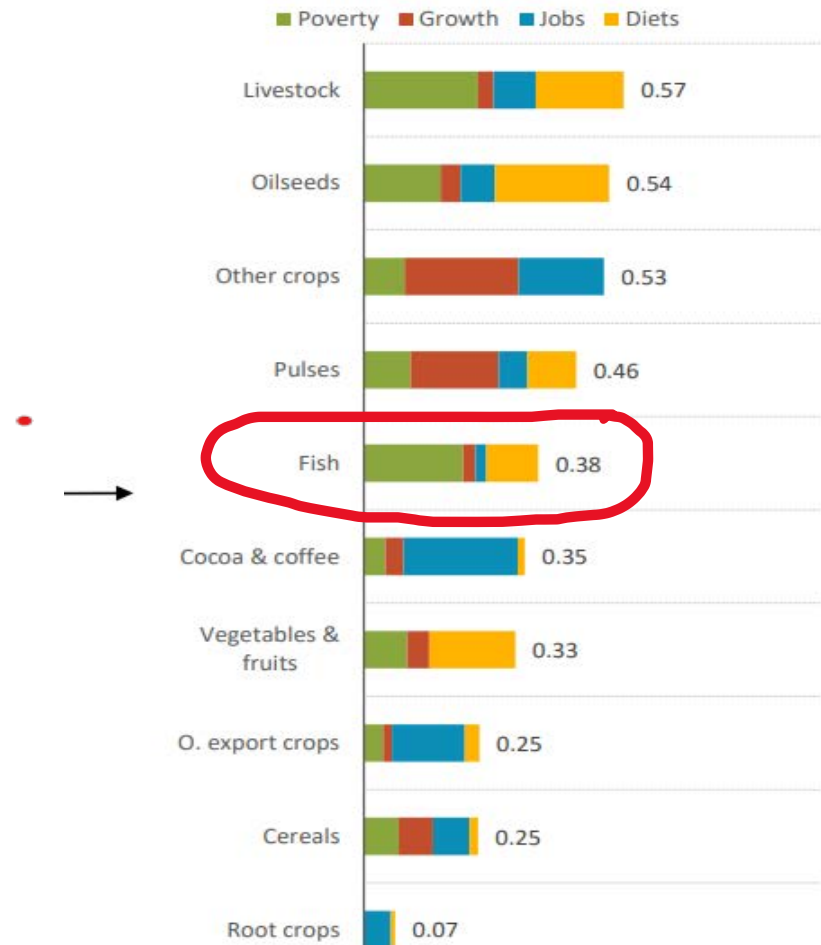


## DEDICATED POLICY FOR FISHERIES & AQUACULTURE

**Poverty-growth effect**  
Change in poverty rate with 1% increase in value-added of targeted value chain (%-point)



**Average across outcomes** (reordered)





## POLICY ANALYSIS - SWOT

### Strengths

- Availability of various policies, plans and programmes
- Business oriented SH farmers
- Increasing population, high purchase base/market
- Abundance of labour

### Weaknesses

- Poor implementation
- Lack depth in aquaculture sector
- Poor M&E strategies
- Poor disseminations
- Lack of access to finances/start up funds

### Opportunities

- Recognised need to increase national fish supply
- Business opportunities for women and youth
- Potential to diversify aquatic food systems

### Threats

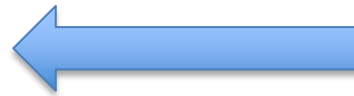
- Middlemen along the various value chains
- Changing climatic conditions
- Competing water use
- Non market led initiatives for SH farmers



## CHALLENGES TO BE ADDRESSED BY POLICY REFORMS

**Strengths**

**Weaknesses**



Convert

Make use of strengths

**Opportunities**

**Threats**



Convert

Make use of opportunities



## POLICY GAPS

- ❖ Recognise aquaculture as an important economic entity with low water consumption and carbon emission in the main policy
- ❖ Generalized policies lack strategies, details and depth to improving aquaculture value chain growth
- ❖ Policies based on incomplete information and knowledge remain incomplete
- ❖ Top-down approach failing to capture perspectives of the SH producers, the major producers and suppliers
- ❖ Insufficiently resourced policies are not implementable



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- ❖ Interventions/programmes on SH farming development should be market-led
- ❖ Support achieving zero import policy/avoid contradictory policy instruments
- ❖ Include policy elements to develop/improve research and technology
- ❖ Promotion of an awareness of nutritional benefits of fish
- ❖ Improvement of cold chain distribution system to reduce losses



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- ❖ Although agriculture is on the concurrent list of the government, States are not bound to accept Federal agricultural project
- ❖ Although Land Use Policy is meant to facilitate in acquiring land for agriculture investment, it is not conducive for aquaculture
  - e.g. short-term lease does not allow for agricultural loans, particularly for smallholder farmers).
- ❖ National Water Resource Policy permits installation of cage culture farms in inland water bodies,
  - but strategy adopted in issuing permits/licenses is not clear.Policy should be supported with carrying capacity studies



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## CONCLUSION

**Given the importance of fish value chain in Nigerian lives and its power on reducing poverty and influence on the overall growth of agri-food systems, fish value chain deserves a dedicated policy for growth.**



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