

STRATEGIC PARTNERSHIP OF STAKEHOLDERS: A VERITABLE TOOL FOR SUSTAINABLE FISHERY RESOURCES IN NIGERIA

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ABSTRACT:

A very important resource from the aquatic environment to the Nigerian economy is fishery resources. Stakeholder's involvement in its management has been around for some time, but few analytical papers have been published on the subject in Africa. This paper proposes two frameworks against which sustainable fishery should be based, vis-à-vis stakeholders participation, for decision making, in terms of knowing the goals of sustainable fishery and how best to achieve them and also creating unity of purpose among various stakeholders to enable the fishery sector cope with environmental dynamics. These frameworks will tremendously improve the quality of Nigeria's fishery resources, since the duty of ensuring sustainable fishery resources involves the participation of all and sundry.

Keywords: Fishery, strategic partnership, stakeholders, sustainable development, Nigeria

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INTRODUCTION:

The global experience of "energy crisis" as a result of ever increasing human population, has shifted survival pressure from land to water. In Nigeria, the abundant fishery resources within the inland and territorial waters has greatly aided the establishment of fishing industries and fishing as a pre-occupation of riverine locals.

Adversely, our waters are over-exploited, thus reducing the volume of fish catch and enhancing the catch of undersized fish; the waters are polluted by oil and run-off of chemicals and fertilizers, the nutrient enrichment leads to algal blooms and mats of water hyacinth impedes navigation, thereby minimizing social and economic activities in the riverine areas. In addition, the supposed fishery stakeholders, namely, the government, the fishermen - fishers (artisanal & trawling) and fishfarmers, fish traders (Processors and Marketers) and consumers have either directly or remotely jeopardized the objective of sustainable fishery resources by their actions and counter- actions in time past. To be more objective and assertive, the relevance of strategic partnership of stakeholders in the sustainability of fishery resources in Nigeria cannot be over-emphasized. One can readily appreciate the importance when the long-term costs of not taking actions to reverse and avoid the depletion of fishery resources are appraised.

Against this backdrop, there is therefore the need to foster good partnership among fishery stakeholders in Nigeria, with a view of promoting friendship, understanding and symbolically protecting our fishery resources, sustainably. The benefits of strategic partnership of stakeholders are numerous, some of which are to ensure synthesization and cross fertilization of

information on sustainable fishery, capacity building, cooperation, integration and promoting effective and efficient use of fishery resources. Also, the workability and effectiveness of the objectives of sustainable fishery resources is ensured, environmental changes are better managed and consistency among the short, medium and long-term objectives/goals, plans and control.

This present paper therefore, aims at providing a framework against which sustainable fishery resources is based, for decision making in terms of knowing the goals of sustainable fishery and how best to achieve them. It is equally aimed at creating unity of purpose among various stakeholders thereby assisting the fishery sector to cope with current environmental dynamics.

NIGERIAN FISHERY RESOURCES

Fisheries (a plural of fishery) is a term used to refer to industries of culturing , capturing , processing and marketing of fish. (Udeh Nwagwu, 2000) Various estimates have been made of Nigerian fishery resource potentials. Although these estimates differ but they all point to one fact, which is that production from fishery resources, is less than 1.5 million tons per annum. Some of these estimates are considered high and yet they are not enough to meet fish demand in Nigeria. Moreover the actual production still remains less than the potential estimates. Fish production in Nigerian inshore waters is relative to the width of the continental shelf, which ranges from 8 to 25 nautical miles; and this is one of the reasons why her fish production is not as high as that of some other neighboring countries. Secondly pelagic fish production is closely related to the level of upwelling, which is not substantial in Nigeria inshore waters. Such pelagic species include *Ethmalosa fimbriata*, *Ilisha africana*, *Sardinella maderensis*, *Scomberomerus tritor* to mention a few. Nutrient deposits from inland into the coastal waters are another factor that influences the level of fish production in such coastal waters. Another reason for low fish productivity in Nigeria is non - adherence to fishing laws/regulations. It is also very difficult to give an accurate estimation of Nigeria's fishery production and resource potentials. This is because over 80% of fish production is from the artisanal fishery sector. These numerous small-scale fishermen are scattered in remote villages along the coastline and the extensive brackish-water system. In addition to this, Nigeria has an extensive freshwater system and fishermen settle in remote villages around rivers, streams, lakes and flood plains. It is therefore clear that improvement in fish supply in Nigeria is very dependent on the cultivation of fish in both fresh and brackish-waters, and much more on strategic partnership of various stakeholders.

Table 1: Projected Population of Nigeria and Fish demand 1989 – 2000 AD

Year	Projected Population(millions)	human	Projected Fish Demand (Millions Tons)
1989	106,345		1,169
1990	109,067		1,199
1991	111,858		1,230
1992	114,720		1,262
1993	117,657		1,294
1994	120,669		1,327
1995	123,759		1,381
1996	126,929		1,396
1997	130,180		1,432
1998	133,516		1,469
1999	136,933		1,506
2000	140,446		1,545

Adapted from Okpanefe (1982)

Table 2: Estimated Domestic Fisheries production in Nigeria Between 1990 and 1996 (,000 tons)

Year	Coastal Brackish water	& Inland rivers & lakes	Fish Farms	Industrial Production	Total
1990	170,000	113,000	7,000	25,000	315,000
1991	168,000	123,000	16,000	36,000	343,000
1992	184,000	100,000	20,000	39,000	343,000
1993	184,000	99,500	19,770	34,965	338,642
1994	106,276	94,876	18,704	31,420	251,275
1995	124,117	110,476	18,104	20,753	273,276
1996	142,279	26,642	20,753	10,497	200,171
Mean	154,154	95,356	17,190	28,190	294,909

Adapted from Otitolaiye (1999)

Table 3: Comparison between Domestic Fisheries Production and Importation in Nigeria.

Year	Import	Domestic Production	Estimated total requirement	Domestic Production as % of total requirement.
S1990	298,552	315,000	613,552	51.64
1991	317,244	343,000	660,244	51.95
1992	381,625	343,000	724,625	47.33
1993	378,414	338,642	717,056	47.23
1994	363,688	251,275	614,963	40.86
1995	241,133	273,276	514,409	53.12
1996	265,882	200,171	466,053	42.95
Mean	320,934	294,909	615,843	47.83

Adapted from Otitolaiye (1999)

It is quite evident that fish supply in Nigeria has been grossly inadequate and lower than the projected fish demand as indicated in tables 1,2 &3 above. Thus, the imperative for the sustainability of the Nigerian fishery resources in order to meet the need (protein requirement) of the present generation without compromising the ability of future generations to meet their own needs.(protein requirement).

SUSTAINABLE FISHERY RESOURCES

FAO (1989) defined "Sustainable development" as the management and conservation of the natural resource-base, and the orientation of technological and institutional changes, in such a manner as to ensure their the attainment and continued satisfaction of human needs for present and future generations. Such sustainable development (in agriculture, forestry and fishery sectors) conserves land, water, plant and animal genetic resources, is environmentally non-degrading, technically appropriate, economically viable and socially acceptable.

"Industrialization, urbanization, deforestation, mining, and agricultural land and water use often cause degradation of aquatic environments, which is the greatest threat to inland fish production,"according to FAO."Fishery resources are being affected by destruction and

fragmentation of aquatic habitat by aquatic pollution due to the release of urban and industrial effluents and run-off of agro-chemicals, impoundment, channelization of water bodies, excessive water abstraction or diversion, soil erosion and manipulation of hydrological characteristics of rivers, lakes and flood plains."

In order to achieve sustainable fishery development, management strategies need to be enhanced beyond the present level. Survey of resources should be regularly carried out. This will provide ready information on the state and identity of stock, which is used for quick intervention in cases of excessive drop in yield. There is a need for an extensive and quantitative study of the artisanal fishery for further development. This is as a result of overexploitation of stock occasioned by excessive fishing and the use of small mesh size net, which results in mortality of young fishes, which ought to grow and replenish the stock. Sampling of catches of artisanal and industrial fleets should be improved and reliable statistics made available on species caught, size, yield, etc. Moreover, measures should be taken to reduce conflicts in artisanal fishery which is caused by the open access phenomenon of the resources hence competition and consequent conflict among fishermen. Measures to enhance inland fisheries management include aquaculture, adequate legislation, environmental engineering and more importantly partnership of various stakeholders in order to cope with the changing environment.

Table 4: The estimated cost of Un-sustained Development in Nigeria – a World Bank 1990 Report

Water contamination	=N=10 Billion per year
Water Hyacinth	=N=5 Billion per year
Deforestation	=N=7.5 billion per year
Fishery Losses	=N=0.5 Billion per year
Wild Life losses	=N=0.1 Billion per Year
Soil Degradation	=N=3 Billion per year
Gully Erosion	=N=1.6 Billion per year
Coastal Erosion	=N=1.5 Billion per year
Total	=N=29.2 Billion per year

Source: Adapted from Aina (1992)

STRATEGIC PARTNERSHIP OF FISHERY STAKEHOLDERS

'Strategic Partnership' denotes a formal, comprehensive and systematic approach (mutual cooperation), to clarifying objectives, making decision and checking progress toward the objective. The objective in this context is sustainable fishery resources. The relevance/benefits of strategic partnership of stakeholders in the sustainability of Nigerian Fishery resources cannot be over-emphasized. Needless to say:

- ♦ It boosts and fosters unimpeded growth within the Nigeria Fishery Sector.
- ♦ It improves the quality of decision and management control-to-be about sustainable fishery resources
- ♦ Environmental changes are better managed
- ♦ A sense of purpose is imbibed in all the stakeholders as they are constantly engaged in creativity and initiative in ideas
- ♦ Resources depletion are due to inefficient or ineffective use of resources. In managing this risk, strategic partnership of stakeholders do help.
- ♦ Effectiveness and workability of sustainable fishery objective is ensured.
- ♦ It creates unity of purpose among various stakeholders
- ♦ Assist the fishery sector in coping with environmental dynamics

- ◆ There is consistency among long term, medium term and short-term objectives, plans and control.

ACTION PLAN

PROPOSED FRAME WORK (I) FOR SUSTAINABLE FISHERY RESOURCES MANAGEMENT

Framework against which sustainable fishery should be based is put together as :

- A Outward/Outreach Plan
- B. Inward/'In-reach' Plan

1. **Outward/Outreach Plan:** This has to do with:

- (i) The identification of various stakeholders in fishery and the determination of their roles and interplay.
- (ii) Environmental analysis which has to do with the ways through which the fishery sector of the Nigerian economy has changed over time. The need for forecasting and other management science methods, because of the degree of changes in all the environmental factors. Here the *SWOT* analysis is employed (*S=Strength; W=Weaknesses; O=Opportunities & T=Threats*)
- (iii) Resource Analysis: the essence of this is the identification of fishery biodiversity, the relative abundance of species from different location
- (iv) Strategic decision making: To look at the current performance gap, it may be necessary to change the existing strategy through identification, evaluation and selection of alternative approaches e.g breaking of new grounds (Aquaculture), Pruning of current fishing industries to a reasonable/adequate size, review and modification of existing laws etc.

B. **'Inward/In-reach' Plan:** It is much easier to sustain our fishery resources when a strategy enjoys long tenure and this can only be achieved through partnership of the various stakeholders. Gaps, which exist between fishery stakeholders as a result of loss of resources, choice of objective, consumer pressure and environmental dynamics, can be bridged by this plan.

SWOT ANALYSIS

SWOT is the acronym for strength, weakness, opportunities and threats. It is a unique inward management plan which takes into cognisance: the **Strength** (Nigeria's vast rich land, wetland and water resources suitable for fishing and aquaculture), our **Weaknesses** (over-fishing, non adherence to fishing laws, lack of partnership among stakeholders, government regulatory negligence and finance), **Opportunities** (Aquaculture and viable fish seeds amongst others), and **Threats** (pollution, fishing by non licensed fishermen, aquatic, loss of wetlands and Automotive Gas Oil (AGO) scarcity).

The strength as mentioned above and the weaknesses of the Nigerian Fishery Sector can be matched with the opportunities and threats in operation within the external environment so that an effective strategy can be formulated.

Strategic Partnership if made strength along with others through the opportunities of breaking new grounds will no doubt neutralize our threats by minimizing the impact of our weaknesses.

The rationale for partnership involves two themes. One suggests that partnership is a necessary input to improve the chances of success of development initiatives. The other suggest that partnership is a goal in itself and it is not simply a means to improving development initiatives.

PROPOSED FRAME WORK (II) FOR SFRM (Sustainable Fishery Resources management) STAKEHOLDERS-BASED APPROACH (SBA): This is a comprehensive strategy that seeks to address the multi-fac'ed issues affecting the fishery resources through active and meaningful partnership of fishery stakeholders.

Underlying, the term "Stakeholders-based" is a principle that the users of fishery resources (directly or indirectly) should be the rightful managers of the resources. Through its various processes, SBA hopes to restore the sense of "ownership" and responsibility to both the primary and secondary users of fishery resources.

SBA integrates the various roles and responsibilities of different stakeholders to achieve our objective of sustainable fishery resources.

The Fishery Stakeholders:

A successful sustainable management of fishery resources must utilize a comprehensive approach – stakeholders' partnership. Fishery stakeholders are :

- The Government
- The Fishermen -Fishers(Artisanal & Trawl Fishing), fish farmers
- Fish Traders (Processors & Marketers)
- Consumers

CONCLUSION/RECOMMENDATION

Our fishery resources are being depleted at an alarming rate as a result of heavy water pollution, poor harvesting methods, and over fishing. Unless adequate steps are taken to protect our fishery resources and increase fish production through aquaculture, government's desire to increase the protein in take of the people will not be realized. The adequate step to be taken so as to increase the potentials of Nigerian aquatic resources is no other than the strategic partnership of fishery stakeholders. There is therefore the need to foster good partnership among fishery stakeholders in Nigeria with a view of promoting friendship, understanding and symbolically protecting our fishery resources sustainably.

To meet the challenge, governments, in collaboration with stakeholders, must have a clear and comprehensive strategy for the development of their aquatic resources. This should take a holistic approach, given the multifaceted nature of resource use and the potential for conflict and competition. This strategic framework is all the more important as fiscal and human resources for many countries are becoming more and more limited and the public sector is asked to do more with less, frequently in close collaboration with the private sector. This strategy must unambiguously identify the roles of all stakeholders, assigning responsibilities and benefits. Government, development agencies and other stakeholders should accept that there could be merit in incorporating traditional knowledge within fisheries and aquaculture development programs. Thus, studies should be undertaken to expand the knowledge base of existing traditional knowledge in fisheries and fishery development, to improve understanding of the complexities of resource utilization. Efforts should be made to build on existing enhancement practices or to merge them with modern know-how and technology. Through these processes there is an inherent dependence on information. Effective and current information channels are necessary for the full spectrum of players involved in fishery resource management to be able to make meaningful decisions and fully appreciate the dynamics of the aquatic systems. More so,

Government should implement Environmental Impact Assessment (EIA) prior to embarking on activities that has negative impacts on aquatic resources and should continue to monitor the ecosystem changes.

Finally, if sustainable fishery resources are truly to become a 'development paradigm' then it will be necessary to effect a basic change in our life-style, in our attitude, and in the value systems. No doubt, this could be achieved largely through the strategic partnership of the various stakeholders, since the duty of ensuring sustainable fishery resources involves the participation of all and sundry.

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