The Gender roles of women in aquaculture and food security in Nigeria

Olufayo, M. O. Department of Fisheries & Aquaculture Technology, Federal University of Technology, Akure, Nigeria. E- mail-. Moolufayo@gmail.com

ABSTRACT: Women are recognized as agents of changes and development .Their involvement in aquaculture is one issue that needs to be addressed when dealing with rural communities and poverty alleviation among the rural women. The major way to ensure that women utilize their full potentials in profitable aquaculture is to provide capacity building support which would eventually lead to poverty alleviation among them .The role of women in adopting new aquaculture technology has been restricted and often ignored because of the socio-cultural taboos against them. This paper enlightens women on the different stages of production in aquaculture that they could be involved in. as fishers for home consumption, they contribute significantly to the nutritional needs of their families. The idea is to empower the women with modern technologies in aquaculture to generate enough revenue to society from menace of fish scarcity. When women are involved in aquaculture production, it will go a long way in achieving the millennium development goals of eradicating extreme poverty, hunger and empowering women in Nigeria.

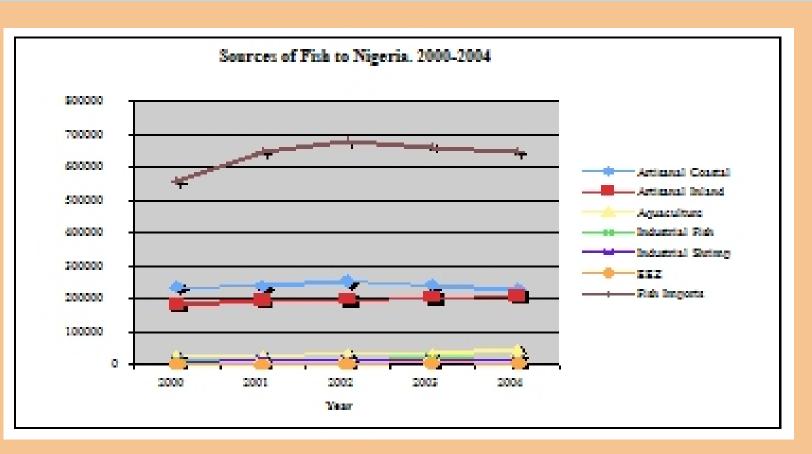
Introduction: Women play a major role in aquaculture production around the world as labourers and managers of the production process, their role is very much restricted and often ignored. The gender roles of women in aquaculture production are recognized in three ways or stages of production: fishing, processing and marketing. One of the major problems is the socio-cultural taboos against women who strive to earn their living in rural areas given rise to gender bias in aquaculture activities Poverty and food security for example.

Nigeria has a population of about 140 million with a growth rate of 2.5 percent (United Nations 2006). Nigeria ranked as the 12th poorest country in the World (World Bank 2000). There is need however to eradication is essential to improve access to food. fashion out a reliable and tested policy aimed at alleviating poverty from the country. One way to ensure that women utilize their full potentials in profitable aquaculture is to provide capacity building support which would eventually lead to poverty alleviation among the rural women in the country.

The role of women in the national development has begun to attract attention in recent years. In order to develop social standards of women and to enhance their participation in all economic activities, there is need to equip them with quality education in the area of latest technology in agriculture and industry.

The women involvement in other fisheries sectors is diverse. It has increased significantly with the emergence of fish processing as a growth area within the manufacturing sector in the past years in Nigeria. The expansion in the industry during this time has largely been attributed to the contribution of women workers.

Women form the core of the industrial fisheries labour force through their involvement in post-harvest or processing activities. This mode of involvement conforms to perceived gender biases in development, where women are largely employed in areas pertaining to traditional labour divisions.





*Helps to provide food of high nutritional value, especially tor vulnerable groups such as pregnant and lactating women, infants and pre-school children. They also provide highly digestible protein and are a rich source of fat and water-soluble vitamins,

minerals and fatty

Facilitates construction of ponds, which allow the use of frequently

environmentally degraded farms.

*Provides a focal point for agricultural diversification and increased sustainability, by providing a source of water.

*Increases farm sustainability through construction of ponds, which also serve as small-scale, on farm reservoirs.

*Women also contribute significantly to the artisanal fisheries sector, especially through small-scale village based commercial activities.





AQUACULTURE

INDUSTRIAL

This increased participation can be attributed to the growing commercialisation of non-finfish species, especially shellfish.

*Women participate not only in the traditional fisheries sectors of fish processing and marketing, but also in the non-traditional sectors of aquaculture, fisheries research, education and extension.

*women dominate in the subsistence fishing sector, with increasing involvement in the local commercial fishery.

*As fishers for home consumption, women contribute significantly to the nutritional needs of the family. In addition, the commercialisation of previously

ARTISANAL

subsistence target species results in women actively participating in the market economy.

*Women have contributed to poverty alleviation in poor societies in the world in the past, where aquaculture has been practiced, including India (Shaleesha el.al 2000) and they continue to do so today.

* In Nigeria, where women participation in aquaculture is allowed, their contribution has improved the welfare of small scale farmer households with relatively new technology in the following ways:

*Increased availability of fish in local and urban markets, which may bring prices down and provides employment on larger farms; in seed supply networks, market chains and manufacture/repair functions.

Table 1 Poverty of Household Head in Nigeria

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|--|------|------|------|------|--|--|
| Occupation of Household Head | 1980 | 1985 | 1992 | 1996 | | |
| Agriculture and Forestry | 31.5 | 53.5 | 47.9 | 71.0 | | |
| Manufacture and Processing | 12.4 | 31.7 | 33.2 | 49.4 | | |
| Production and Transport | 23.2 | 46.6 | 40.8 | 65.8 | | |
| Administration | 45.0 | 25.3 | 22.3 | 33.5 | | |
| Professional/Technical | 17.3 | 35.6 | 35.7 | 51.8 | | |
| Students and Apprentice | 15.6 | 40.5 | 41.8 | 52.4 | | |
| Clerical/Related | 10.0 | 29.1 | 34.4 | 60.1 | | |
| Sales Workers | 15.0 | 36.6 | 33.5 | 56.7 | | |
| All Nigeria | 27.2 | 46.3 | 42.7 | 65.6 | | |
| | | , | | | | |

Source: NCS 80, 85, 92, 96

Poverty is generally considered as being one of the major causes of food insecurity. Poverty

The World Bank defines poverty as a "multidimensional phenomenon, encompassing inability satisfy basic needs, lack of control over resources, lack of education and skills, poor health, malnutrition, lack of shelter, poor access to water and sanitation, vulnerability to shocks, violence and crime, lack of political freedom and voice".

It is estimated that about one-fifth of the world's population is currently living in extreme economic poverty; defined as living on less than US\$1 per day (in 1993 dollars, adjusted to account for differences in purchasing power across countries). Poverty in Nigeria can be explained in terms of occupation of heads of households; the poverty assessment study of 1995 showed that 87% of the poor were in agriculture and they basically live in the rural area (Canagarajah et al, 1997) where they have small land on which to sustain their rapidly growing families and they lack basic inputs.

FOS (1998) claimed that about 70.8% of household heads were engaged in one agriculture and that 77% of farmers were poor while about 48% were in form of extreme poverty

Aquaculture: Tool for National Food Security

Fish plays an important role in the national food supply in Nigeria. The need for animal protein in human diet as source of essential amino acids needs not be overemphasized.

Fish is a source of food nutrients such as vitamins, minerals, protein, lipids which are needed in the body for a healthy growth and a productive life. Akpokodje (1985) estimated the amount of high value proteins (meat, milk and eggs) in a diet of both rural and urban populations of Nigeria to be 150,000,000 tonnes in the year 2000.

It was reported that at present, only about 8.4 g of animal proteins out of 35.0 g of animal protein needed per day is consumed in Nigeria. The ability of the average Nigeria family to sustain animal protein consumption is very low due to the high cost of some animal protein food in the country but fish is much cheaper than any other animal protein products.

Thus, there is the need to involve women in fish production in Nigeria if food poverty especially animal protein in quantity and quality is to be arrested.

| species species species | MT |
|--|--------|
| Tilapias (Oreochromis niloticus, O. niloticusx O. aureus hybrids) | 11,363 |
| (Sarotherodon melanotheron, Tilapia zillii, T. guineensis) | 3,025 |
| Catfishes(Clarias gariepinus, C. anguillaris) | 6,553 |
| (Heterobranchus longifilis, H. bidorsalis) (Clarias x Heterobranchus hybrids) | 2,832 |
| Brackishwater catfish (Chrisichthysnigrodigitatus) | 1,515 |
| Carps(common carp, Indian carps, gold fishes) | 1,280 |
| Heterotis (Heterotis niloticus) | 654 |
| Mullets | 336 |
| Snakehead (Parachanna obscura) | 297 |
| Other fishes | 2,921 |

Aquaculture and Poverty Reduction

The need for animal protein in human diet as source of essential amino acids needs not be overemphasized.

Alli (1989) reported that proteins are required by nursing mothers, infants and children growth and development, deficiency of protein and basic calories in children leads to kwashiorkor thus protein is needed for maintenance of body tissues in adults.

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A country that is poor in fish production is never rich and a country that is rich in fish production is never poor because fish production succinctly captures the potentialities of the agriculture in poverty reduction.

Fishing activities have contributed to the national development and it has also helped to reduce poverty. The more the number of fish farming the more the number of people that will be employed or earn their living.

Table 2:Nigeria Fish Supply by Sectors (1996) 2000) in Metric Tonnes

| Sectors | 1996 | 1997 | 1998 | 1999 | 2000 | |
|----------------------|---------|---------|---------|---------|---------|--|
| Artisanal | 309,200 | 360,220 | 429,068 | 417,066 | 426,786 | |
| Aquaculture | 19,490 | 25,265 | 20,458 | 25,720 | 21,738 | |
| Industrial (Inshore) | 27,244 | 27,703 | 29,955 | 23,308 | 31,139 | |
| Offshor | 2,268 | 1,570 | 1,291 | 1,375 | 1,710 | |
| Total | 358,202 | 414,758 | 480,772 | 481,373 | 467,469 | |

Fisheries contributes about 2% to GDP to Nigeria's Economy

Source: Federal Department of Fisheries, Lagos (2000).

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|--------------------|---------------------------|--------------------|--|
| Component | Capital Investment | Output | |
| _a. Industrial Fis | hing - N 55.0 b | N 12.3 b | |
| b. Artisanal Fish | ning - N 16.5 b | N 86.9 b | |
| c. Ornamental F | Tish - N 0.03 b | N 0.3 b | |
| c. Aquaculture | - N 7.0 b | N 16.5 b | |
| Totals | N 78.53 b | N 116.0 b | |

Conclusion:- To realize and utilize the full potential of women in aquaculture for poverty alleviation and food security in Nigeria, the government, the farmer and research institute have mutual roles to play

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