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Fisheries: A Prime Resource for Combating Global Unemployment.

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Abstract

The seeming uncontrollable incidence of graduate unemployment in Nigeria has translated to all sorts of social vices such as armed robbery, kidnapping, prostitution and their likes. This ugly situation calls for aggressive innovation in Nigeria school curriculum in order to produce graduates who will be self employed by establishing their own private businesses. Fisheries involve process skills used in discovering and acquiring scientific knowledge which will help students to be self productive. It is against this background that this paper discusses how fisheries can enhance employment. This paper highlighted the importance of fisheries as it concerns the nation, human nutrition and employment. Finally, conclusion and suggestions were made for better development of skill acquisition for employment through fisheries sciences.

Keywords: Fisheries, Entrepreneurship and Marine biotechnology.

Nigeria is faced with lots of global challenges like unemployment, violence, scarcity of food, economic meltdown, security, conflicts, crime, corruption, and diseases (Oviawe, 2010). These challenges have posed a great set back to the existence of individuals and inhibit the development of the entire nation especially the youths.

Among these global challenges, unemployment has been like a canker worm which has eaten deep into the fabrics of the nation. Predominantly, the search for the unavailable white- collar jobs more often than not, is the cause of unemployment. There is no doubt that there is high unemployment of youths and adults in this country. The government today on its own has a limited capacity to provide full employment for the teeming and ever increasing population. The government also has little or limited services to render to her citizens. To provide employment for the youths means that the youth themselves must be channeled for self-employment and productivity.

Owing to the dwindling economic situation and the resultant massive unemployment of both youths and adults in Nigeria, the federal government has emphasized the need for every Nigeria citizen to strive for self-reliance through self-employment. This is why the Federal Government of Nigeria established the National Directorate of Employment, which eventually introduced the entrepreneurship programme.

Entrepreneurship education deals with the acquisition of right habits, attitudes and skills as well as means of surviving in the face of unemployment (Agusiobo, 1997). Entrepreneurship education aims at helping the students acquire saleable skills which can help them become self-employed and self-reliant (Anyakoha, 1993). Skills and knowledge are the driving forces of economic growth and social development for any country. Countries with higher and better levels of skills adjust more effectively to the challenges and opportunities of world of work (National Skill Development Policy (NSDP, 2009). Therefore, entrepreneurship is the engine fuelling innovation, employment generation, economic growth and social welfare, while education has the power in developing the skills that generate entrepreneurial mindset.

One of the goals of education in Nigeria is the acquisition of appropriate skills, the development of mental, physical, social abilities and competencies as equipment for individual to live in and contribute to the development of the society (National Policy on Education (NPE, 2004). Fisheries science is one of such fields of study through which one can acquire the appropriate skills for self employment.

In cognizance of this fact, there is a need for innovation in the field, in such a way that at the end of schooling, the students might have acquired the necessary skills that will help them to establish their own business or for self employment.

Concept of Fisheries Biology

Fisheries biology is that aspect of biology that focuses on the study of fisheries and other products of sea, streams, lakes and reservoirs. Fisheries is an occupation or industry of catching fish or culturing other products of sea, streams and lakes. The science of Fisheries, which essentially imparts knowledge on how to capture or culture fish, is a very complex subject. In other to reap the potentials of fisheries resources, a multidisciplinary science like Fisheries has to be imparted with varying degrees of curricular to its clientele at primary, secondary and tertiary levels.

Fisheries education at secondary level is meant for the students at secondary school stage to create awareness among them on the potentials of Fisheries in terms of employment and income generation, resource utilization, protein production etc. Good enough, recently fisheries is one of the entrepreneurial subjects introduced into secondary school curriculum. Fisheries at this level of education, will impart training to secondary school leavers and unemployed youths

Fisheries education, at higher level aims at producing graduates with the objective to raise competent personnel at the level of operative and farm/field managers. At post

graduate level, it is aimed at producing postgraduates with a view to raising manpower with disciplined based specialization for research work.

Importance of Fisheries

1. Ornament

The beauty and the interesting behavior of many of the species of riverine fishes, particularly those of the tropics, together with their small size have favoured their use for ornament or hobby. Fishes are studied due to their aesthetic, or ornamental and recreational reasons.

2. Entertainment:

People, sometimes use fish for entertainment. Hence, sport-fishing is patronized by millions of people every year. For example, **the Argungu fishing festival, at Kebbi State in Nigeria is an annual event that attracts large population to the scene**. Infact, both sport-fishing and aquarium fishing support multi-million dollar industries throughout the world.

3. Disease vector control:

Fishes play a vital role in disease control. They are predators of mosquito larvae which are vectors (or intermediate host) of the parasite causing malaria (*Plasmodium viridis)* and other mosquito borne diseases. For example, fish such as *Gambusia* or *Lebistes* have been introduced to control mosquito larvae.

4. Study of fish helps to control rampart pollution, overfishing and alteration of the aquatic environment by man.

5. Source of protein:

Fish is an important source of protein to large teaming population of Nigeria. Fish provides 40% of the dietary intake of animal protein of average Nigerian (FDF, 1997). According to Adekoya (2004), fish and fish products constitute more than 60% of the total protein intake in adults especially in rural areas. Amiengheme (2005) enumerated the importance of fish in human nutrition as follows:

- Food fish has a nutrient profile superior to all terrestrial meats (beef, pork and chicken, etc) being an excellent source of high quality animal protein and highly digestible energy.
- Fish is a good source of sulphur and essential amino acids such as lysine, leucine, valine and arginine. It is therefore suitable for supplementing diets of high carbohydrates contents.
- Fish is also a good source of thiamine as well as extremely rich source of Omega-3 polysaturated fatty acids, fat soluble vitamins (A, D, and E) and water soluble vitamins (B-complex) and minerals (Calcium, Phosphorus, Iron and Iodine).
- It has a high content of polyunsaturated (Omega III) fatty acids which are important in lowering blood cholesterol level and high blood pressure.
- It reduces the risk of sudden death from heart attack and reduces rheumatoid arthritis.

The contribution of fisheries to the nation is not left out. Food and Agriculture Organization (FAO, 2004), summarizes the contribution of fisheries to the nation as follows:

- Social benefit: Income from community-managed fisheries provides the community income to improve infrastructural facilities like erecting school, health centre, market, etc.
- Cultural benefit: Fishing is often a social activity that strengthens community cohesion.
- Household food security: Fish provides important nutritional benefits to consumers.
- Cash income: The money received from selling fish (both fresh and dried) provides accent to other goods and services such as health, clothing, education and purchase of other assets.
- Employment benefits: Millions of people worldwide are employed full time in fishing.

The Role of Fisheries Biology in Entrepreneurial Skill Acquisition in Nigeria

Skill acquisition is the process of acquiring or gaining effective knowledge in developing one's aptitude and ability in a particular field of study. Skill acquisition is meant to equip our youths and adults with more practical and less theoretical knowledge on income generating skills (Ihebereme, 2010).

Fisheries biology involves process skills used in discovering and acquiring of scientific knowledge. Entrepreneurial skills however, are occupational skills which are equivalent to process skills in fisheries studies. Through fisheries biology, students are trained to acquire and develop such skills, knowledge and attitude that would enable them to be self-productive.

The knowledge and skills acquired from fisheries studies can lead someone to fish farming. Here, the farmer can manage the farm with improved fish farming system like making use of proper fishing gear, proper feed formulation, and have knowledge of fish diseases. These will lead to improved fish production.

A graduate of fisheries can use the knowledge and skills acquired from the study to site and construct a fish pond, and engage in artisanal or commercial fish farming. This is a good avenue for income generation as the demand for fresh fish is increasing everyday because of its nutritional value. Apart from pond construction, one can engage in large scale commercial fish farming, with establishment of cold room where frozen fish are preserved and marketed to the dealers.

A graduate of fisheries science can teach or lecture in different institutions, thereby reducing unemployment. Moreso, it offers job opportunity to laboratory technologists who were trained to handle some sophisticated laboratory equipment used for fisheries practical. A fisheries graduate can be employed in Agricultural Research

Institute. These Institutes are actively engaged in conducting various research project and evolving technological improvement for betterment of fisheries technology.

Fisheries biology exposes one to biological diversity of marine biotechnology, which offers enormous scope for the discovery of novel products and processes. Many products can be discovered from marine biotechnology, which are of great value to health care, food and chemical purposes. Such products include drug, novel food and food ingredients, bio-materials, aqua-agriculture, bio-energy etc. Therefore, with the knowledge of biotechnology, one can establish an industry where these marine products can be transformed to other products. Fisheries biology creates job opportunity to an Ichthyologist (one who studied fisheries) to work as curator in museum.

Challenges Facing Fisheries Biology in Combating Unemployment in Nigeria

In a depressed economy like ours, the educational system, just like every other segment is adversely affected. This is evident in teaching and learning of fisheries biology in our schools, due to the special nature and requirements for its effective teaching and learning.

Some of the challenges facing fisheries biology in combating unemployment include;

Lack of Funds and Inadequate Facilities

It is generally known that science and technology education are very expensive to run. Fisheries biology is one of such sciences which requires a lot of financial resources for the purchase of equipment, maintaining them and replacing them when they are bad or obsolete. Nwachokor, (2002) noted that many tertiary institutions do not have necessary equipment for teaching and learning, hence, they graduate students without sound practical knowledge and understanding expected of them to be self-productive.

Unfortunately, in Nigeria, the low level of funding of schools makes it impossible to properly and adequately equip their workshops, laboratories and classrooms, suffice to say that the necessary facilities needed for effective teaching and learning of fisheries biology are not adequately available in most Nigerian schools. This problem is even aggravated by high cost of these equipments. This ugly situation can lead to production of half-baked fisheries graduates who have not acquired the manipulative skills expected of them to be self-productive.

Poor Staffing

Most Institutions in Nigeria are faced not only with shortage of fisheries educators in numbers but also in quality and experience. Achieving qualitative science education depends largely on the effectiveness and competency of the science teachers in schools (Ezeliora, 2005). There are not enough competent teachers to teach the course, and some of the available teachers especially at secondary school level, lack the

necessary competence, skills, knowledge and experience involved in teaching fisheries biology. As a result of this, some themes or aspects that are vital for skill acquisition are skipped.

Poor Attitude of the Students

Many students today are lazy that they no longer desire to undertake learning task which are somehow labourious as fisheries biology. Such students have the notion that study of fisheries is boring. They are more interested in certificate acquisition in order to get white-collar job; hence they remain job seekers instead of job providers. This is the major reasons for widespread of unemployment in the country.

Conclusion

It is a well established fact that the capacity of Nigeria economy cannot absorb all youths in the limited white collar job. Therefore, skill acquisition through fisheries study is advocated, so that the young secondary school leavers can be equipped with the right skills and attitudes for self employment. This will go a long way in solving the present wave of massive youth unemployment in the country.

Recommendations

In view of the obvious necessity of fisheries biology for skill acquisition, the following recommendations are hereby made.

- Funding of education especially science education should be increased by government and there should be provision of basic infrastructural facilities, equipment and materials needed by teachers for quality fisheries instructions.
- Government and commercial banks should provide grant for small scale business, minded by school leavers.
- Fisheries biology should be taught by competent and qualified fisheries teachers.
- Students should be encouraged to put more interest in courses that are lucrative like fisheries biology so that at the end of their study, they will be job providers instead of job seekers.

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