Increasing Ghana’s aquaculture production: The way forward

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It is estimated that 800 million people predominantly living in developing worlds are food insecure. There are millions of people who hover near starvation even though there are a lot in the world. There has been a decline of food availability per capita in the Sub-Saharan Africa by approximately 3% (FAO in 2002). This is possibly as a result of the recent interlinked food, fuel and financial crises. According to report by FAO in 2009, world population is growing at a rate of 1.4% per year, which means that by 2050 there will be 9.1 billion people in the world. This translates into greatly increased requirements for animal protein for human consumption.

Food insecurity and malnutrition continue to pose a challenge in Ghana. Food insecurity in Ghana and Africa at large has been a long standing issue which needs a multi-approach to tackle. This is an issue which demands all hands on deck using different approaches to achieve sustainable goals. Also, since it is a complex phenomenon that needs well calculated interventions to ensure that food is available and accessible for appropriate nutrition.

Berchie and his colleagues in 2016 documented that fisheries including aquaculture in Ghana play an important role in nutrition, employment and foreign exchange earnings. Approximately 4.5% and 60% of the country’s GDP and animal protein intake respectively are contributed by the aquaculture subsector (Asiedu et al., 2015). Fish accounts for 22.4% of household food expenditure in all households and 25.7% in poor households and is thus a very significant part of the diet (Kassam, 2014). Fisheries Commission of Ghana, reported that the annual fish protein demand in Ghana is estimated to be about 960,000 metric tons. Despite this huge demand, the nation is able to produce about half of the quantity demanded locally from freshwater, brackish water and marine water hence the need to promote aquaculture in Ghana. Aquaculture accounts for only 9% of the total fish produced in Ghana.

The inability of Ghana’s fish output from capture fisheries to meet national demand has placed aquaculture in a central position to make up for the supply deficit. Aquaculture in Ghana over the few years has continued to show potential of creating food security. In recent years, production from aquaculture appears to be growing at a near exponential rate from 5,594 tonnes in 2008 to over 38,000 tonnes in 2015. Despite this increase in production, Ghana’s aquaculture is saddled with critical issues such as poor quality and inadequate supply of fingerlings, inadequate technical know-how, inadequate extension and training. Recently, high cost of commercially available diets, poor management of farms, unfavorable weather conditions and lack of access to fund have been identified to be inhibiting the growth of the aquaculture industry. These challenges coupled with unstable market and poor infrastructure lead to the increasing incidence of farm abandonment and the entire aquaculture development. This problems need critical thinking, research and innovation to solve them. This article therefore looks at how aquaculture production could possibly increased to ensure food security in Ghana.

In the first place, ensuring food security needs explicit interventions to tackle the constraints that restrict the availability, accessibility and/or proper utilization of fish for nutrition. Until recently, Ghana had to rely on imports to guarantee fish availability all year round. This is because there is a deficit of over 350000 tons annually. Even though this approach was ensuring adequate fish each year, there is the need to put pragmatic steps in place to gradually reduce the amount of fish imported until local farmers can produce adequate.
The aquaculture industry in Ghana is faced with high cost of feed which makes cost of production high. This very problem can be tackled from three perspectives; the first perspective is the establishment of a state owned feed mill which can produce fish feed to the farmers at reduced prices. With this there will be an all year round feed accessible by farmers. It can also be tackled from the angle where the state will collate the nutritional content of ingredients used in fish feed, formulate a ‘workable’ feed and train small to medium scale farmers how to manufacture the feed. It can also be tackled from the angle which I personally feel is unsafe to use. Fish feed can be imported with tax free clearance. This route is risky in that there is a higher possibility of feed rancidity due to the higher level of fish oil used in the production of fish feed.

Aquaculture and for that matter agriculture as a whole would develop if there is adequate research. Most ‘developed’ countries with respect to aquaculture like China, Egypt, Norway etc have heavily relied on research to improve their aquaculture. The gap between educational institutions and farms have been shortened due to research. China for instance have paid serious attention to aquaculture research investing heavily into advanced research. The ministry in charge of aquaculture ought to generate funds for research which will be spear headed by university researchers as well as independent researchers. When the ministry is able to produce research of international standards with high novelty, there is a possibility of international donors helping.

Aquacultural innovations play a key role for intensification and new technologies must be carried to the farmers at their locality. A study by Ayisi et al., 2016 indicated that 48% of fish farmers in the Eastern Region have not or do not have access to extension workers. This could be as a result of poor monitoring by heads in charge of aquaculture or possibly as a result of low standard extension agents who in one way or the other have "nothing" to offer these farmers hence no need visiting them. There is therefore the need to upgrade these extension workers to be aligned with current practices in aquaculture. Also, there is the need for strict monitoring of these extension agents.

One major problem of our fish farmers is inadequate or poor performing fingerlings. This could be tackled similarly as the feed problem. The state ought to establish hatcheries that would provide accessible and affordable fingerlings to the fish farmers. All in all, much needs to be done to ensure aquaculture production is increased and sustained.

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REFERENCES


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