



## Aquaculture: Key to the World Hunger

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Received: November 26, 2018; Published: December 13, 2018

Over 815 million people throughout the world go to bed with empty stomach. Constraint on food access, income, land, conflict, disaster is preventing the basic food need. The problem of hunger has global dimension and is likely to increase as the population is anticipated to increase dramatically. Feeding the growing population with many under fed seems to be impossible task to carry out. So, the global community should now realize the urgency of taking action; without which situation can get worsen.

Aquaculture is the farming of aquatic organism such as fish, mollusks, crustacean and aquatic plants in both coastal and inland areas. In simple term it is farming in water. The aquaculture is flourishing subsector of agriculture which is growing rapidly producing a great amount of food. It provides nutritious food to people and is a great source of protein, omega fatty acids along with micro nutrients. Furthermore, apart from food it helps in employment and income generation to millions of communities. With these, aquaculture could play a role in feeding humanity in future.

### Why aquaculture?

Meeting the increasing demand needs more efficient and secured food production. Aquaculture is a young in food industry but yet the fastest growing sector with 5.8% annual growth from 2001-2016 [1]. It is such a sector whose expansion, extension, sustainable, intensification and development can be achieved in short period of time with lesser environment degradation and maintaining the ecological sustainability. Mariculture has potential of producing 16.5 billion tons of fish per year.

There are many positive aspects to aquaculture over agriculture (crops and livestock). Aquaculture practice are much easier and more efficient than livestock, crops. It requires less land, water and resources; and has less degree of impact in environment.

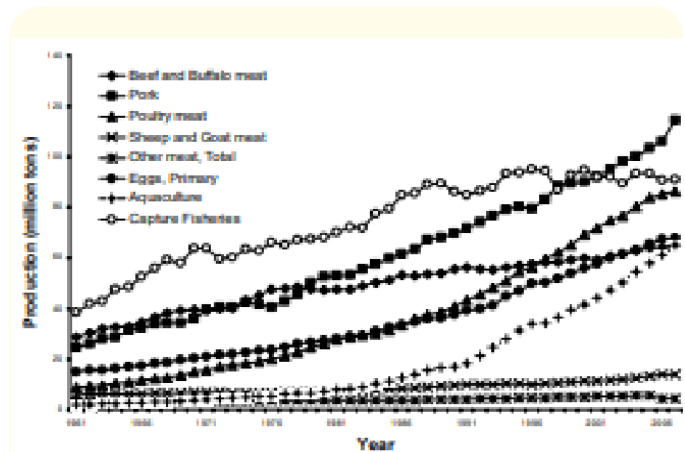


Figure 1: Global production of major grains from 1961 to 2007.

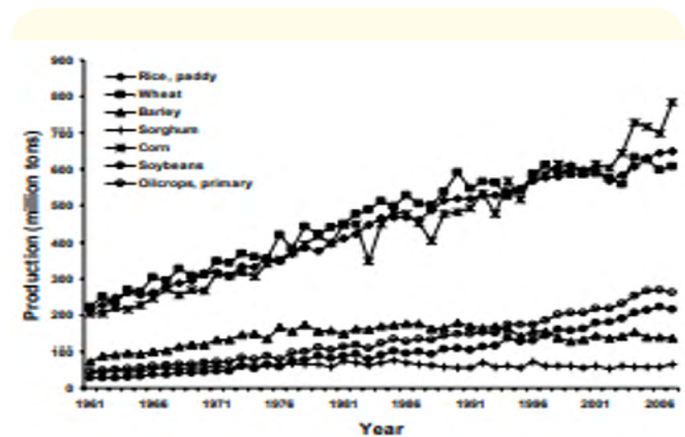


Figure 2: Global production of major animal proteins from 1961 to 2007.

Source: Chiu Liao and Nai-Hsien Chao, Aquaculture and food crisis: opportunities and constraints.

From above, we know about the global production of major crops and animal protein. Among the different crops, some are growing while many seems to reach its limit and further increment of those crops seems to be difficult task and some of the livestock also have been reached to its plateau. With the limit on the land availability, the further expansion and intensification of crops and livestock is not possible.

And, we have also reached to the maximum yield from the wild we can't just keep fishing as our ocean have already been depleted and current capture fishing is not sustainable. While some crops and livestock seem to be increasing soon they be max out. Only the aquaculture seems to be the most promising one and capable of feeding the world during the lean period. Currently, it produced 80.8 million tons in 2016 A. D [1] increased by 4 million tones over previous year. By 2030, there will be increasing 30 million tones than in 2016. Aquaculture is projected to reach 109 million tons, a growth rate of 37% over 2016 [2,3].

With all these possibilities, the aquaculture technology is one major problem as new improved technology has not been developed yet. While plant and livestock have seen a veritable agricultural tech revolution, most aquaculture tech remain very low. So, the development of modern technology is must as it helps to reduce the losses, increases the yield and helps in solving the impending food shortage in any innovative way. This may be called as blue revolution.

### Bibliography

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**Volume 3 Issue 1 January 2019**

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