

Effect of COVID-19 Pandemic in Fisheries and Fisherman of Rural Area

Sayan Mandal* and Basudev Mandal

Department of Fishery Sciences, Vidyasagar University, Midnapore, West Bengal, India

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Description

Since, December 31 2019, pandemic COVID-19 has made the world immobilized by its health, education and economic shock. By observing different multidimensional effect of corona virus, on January 30 2020 World Health Organization (WHO) declared COVID-19 as a worldwide emergency. In order to reduce the spread of corona virus, the Indian government on March 24, 2020 imposed, three week continues nationwide lockdown. Instead of country wise lockdown, the spread of the virus was out of control, in that point of view government extend the period of lockdown. A study by Oxford shows that more than 1 millions of people losses their jobs. The International Monetary Fund has estimated that, economic progress of India at 1.9% in 2020-2021 (Livemint, 2020). Rate of unemployment in India's might point to 23% (India Today, 2020) [1-3].

India is an agriculture-based country, where more than 60 percent of people directly or indirectly depends on the agriculture. Side by side Fisheries sector escalating up very rapidly. In all over the world India rank second in fish producing country, with 6.56% of total global production. In India about 14.5 million people of the country are involved in fisheries and its allied sectors activities (NFDB). As COVID-19 pandemic hits more than 170 countries has cancelled the order in the export market and trades has dropped below 20%-40%. So, in this pandemic situation a survey has been carried out in four village of Nadia district namely Fulkalmi, Madhupur, Pipragachi And Shikra colony (West Bengal).

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In these four villages, peoples are mainly depending on the

agriculture and side by side they earn revenue from traditional fish farming in their own small ponds. Only 45 peoples of the population of the total population of the four village are totally depends on the aquaculture. Those people practice aquaculture in their own pond and also in rental pond. Pond sizes varies from 0.5 bigha to 3.5 bigha. Of the 45 fisherman only 4 fisherman practice scientific methods of fish farming, remaining fisherman practiced traditional aquaculture. The major cultured species are *Catla catla*, *Labeo rohita*, *Cirrhinus mrigala*, *Ctenopharyngodon idella*, *Cyprinus carpio*, *Oreochromis niloticus*.

The reasons behind this high percentage of traditional culture are:

1. Lack of training programs to the fisherman in the rural area.
2. Lack of equipment and feed supply.
3. Lack of quality seed supply.
4. Lack of scientific pond construction design.
5. Lack of funding agency.
6. Lack of fisheries extension education in the grass root level.

There of many schemes which are launched by central and state government for the rural area fisherman, but unfortunately, they are far away from that facility, due to the lack of fisheries extension education. This fisherman travel 4 hours long distance to Naihati and kalna fish seed market to collect the fish seed. During transportation many seed die and many of them get injured, which succulently reducing the fish productivity. They also do not get the reasonable price of the fish due to lack of proper market facility. In this COVID-19 pandemic situation, their life style and

*Correspondence to: Basudev Mandal Department of Fishery Sciences, Vidyasagar University, Midnapore, West Bengal, India, E-mail: bmandal@mail.vidyasagar.ac.in, bmandalamtvu@gmail.com

aquaculture practiced also changed drastically. One of the main cause of their low production in this pandemic situation is lack of seeds. As no vehicles are permitted to move on road, so they could not get the seed for aquaculture practice as they have to travel 4 hours long journey to get the seeds. Due to shortage of fund 17 fisherman losses their rental pond. This fisherman has chosen an alternative way of income like, selling vegetable in village, wages, agriculture and some of them started capture fisheries from a cannel which was situated just side by side of village Fulkalmi. This fisherman caught fish using some of the traditional gears like triangular schoop net, Ghuni, Gill net and traps. Mostly from the cannel they collect species like *Puntius ticto* (28%), *Mystus vittatus* (5%), *Colisa fasciata*(36%), *Channa sp*(19%), *Mola sp.*(5%) and others (7%). They use to sell the fishes, daily in the morning at the rate of 1 kg/Rs.100 (INR) *Colisa fasciata* and *Puntius ticto*. As every year many young people migrate to other state for some income source, but due to lockdown those people came back to their own village because some of them losses job and reducing the opportunity for income. So, ultimately the want of protein supply also increases proportionally and production of the pond decrees inversely. There is a crises of fish supply and for that the prices of the fishes in the market increases gradually. This situation may show less effect in fish production if there was following facility:

1. An established fish seed hatchery.
2. Quality fisheries extension education.
3. If funding/loan facility available.
4. There should be a strong procurement and dispersal facility at Minimum Support Price for fish and fishery products.
5. At present-day out of 140 million legatee farmers, from them 84.6 million only are under PM-KISAN scheme (The Economic Times, 2020c). There, should be more inclusion of beneficiary [4-7].

Conclusion

From this case study, it could be suggested that grass root

level fisheries extension education and scientific facility is the either most important things to improve the livelihood and aquaculture production of the country. At post COVID-19 period the policymakers and government need to be ready to diminish the effect of the shock and V-shaped repossession of the economy. Government different NGO are engaged in providing different fisheries training programs and opportunity like PMMSY, WBADMIP, KVK, ATMA but this facility are not known to the fish farmers. So, more extension education and awareness is needed to get success in 'BLUE REVOLUTION'.

References

1. GoI. (2019). Handbook of Fisheries Statistics 2018. Fisheries Statistics Division, Department of Fisheries, Ministry of Fisheries
2. Lu H, Stratton C, Tang YW. (2020) Outbreak of pneumonia of unknown etiology in Wuhan, China: the mystery and the miracle. Journal of medical virology, 92: 401-402.
3. India Today (2020). India's unemployment rate spike to 23% due to COVID-19 lockdown. [online] Available at: [nemployment-rate-spike-to-23-dueto-COVID-19](#).
4. Livemint. (2020). COVID-19 impact: SandP slashes India growth forecast to 1.8% for FY21.
5. Shyam SS. (2016). Fish consumption pattern in India: Paradigm shifts and Paradox of export trade (Fish consumption pattern in India, exportsOverview). Food and Beverage News. 25-28.
6. Sohrabi C, Alsafi Z, O Neill N, Khan M, Kerwan A, et al. (2020) World Health Organization declares global emergency: A review of the 2019 novel coronavirus (COVID-19). Int J Surg 6: 76-71.
7. The Economic Times. (2020c). PM-Kisan scheme: Fisheries Ministry seeks inclusion of fishermen for benefits. [online] Available at: [Accessed 2 May 2020]..