Inspection Report on Ornamental Fish culture activity in Sengundram area of Tiruvallur District

Sub : Fisheries - Thiruvallur district - Ornamental fish culture undertaken in sengundram area- Allegation in News paper regarding damage to ground water and fertility of Agriculture lands- Report sought by Hon'ble National Green Tribunal, Southern Zone in O.A. No.120 of 2021- Field Inspection and Action Taken report- submitted-reg

Ref:

1. Order of The Hon'ble National Green Tribunal, Southern Zone, Chennai in O.A. No.120 of 2021, Dated:04.06.2021
2. The District Collector, Tiruvallur Letter No.13155/2021/P3 Dated : 22.06.2021
3. The Commissioner of Fisheries and Fishermen welfare, Chennai letter No.14912/R3/2021 Dated : 30.06.2021
4. District Environment Engineer, TNPCB, Gummidipoondi, Letter No.DEE/TNPCB/GMP/NGT/2021 Dated: 10.08.2021
5. Report From Executive Engineer, WRD, Ground water Division, Tharamani Dated : 11.08.2021

With regard to the above subject, on the basis of news Published in Dinamalar E-Edition Dated: 26.04.2021, under the caption "Crisp coloured fish farms are accused of affecting ground water" The Hon'ble National Green Tribunal, Southern Zone, Chennai had directed the concerned authorities to ascertain and submit report on the following issues.

1. Number of ornamental Fish farms functioning in the specified area
2. Details of Permission obtained by the Ornamental Fish Farmers for establishment of Fish Farms
3. Permission for drawl of ground water from competent authority

4. Classification of the Ornamental Fish culture area based on exploitation of ground water
5. Details of damages caused to the soil and water by the Ornamental fish culture activity.
6. Mechanism followed by the ornamental fish farmers to control pollution
7. Action taken report against Unauthorized farms which causes Environment damages and Ground water depletion.

As per the direction of The Hon'ble National Green Tribunal, Southern Zone, Chennai a Joint Committee has been constituted by the District Collector, Thiruvallur vide reference No.13155/2021/P3 Dated: 22.06.2021. The Committee members who have expertise on the issues have been chosen from Pollution Control board, Ground water department, Revenue department and Fisheries department. The committee members have visited the area jointly on 14.07.2021 and inspected the concerned ornamental fish farms in order to ascertain the impact of Ornamental fish culture on ground water, soil and water pollution. The Experts/Official of the Committee have verified the veracity of the allegations published in the Newspaper based on their domain expertise. Also soil and water samples have been collected randomly in order to check the physico-chemical parameters of the collected samples so as to decide whether the ornamental fish farming would have any impact on the soil and water and its related pollution. The soil and water samples have been analyzed in the recognized laboratories which are being controlled by the Department of Agriculture and Tamil Nadu Pollution Control Board.

Based on the Field visit and Soil and water analytical reports the following inferences have been submitted:

I. Basic Information in the technical aspects of ornamental fish farming in Sengundram area

It is submitted that 35 ornamental fish farms are being operated in 8 Villages adjacent to Sengundram area and the details are Enclosed in Annexure I. The farmers involved in the ornamental fish culture activity have gained the expertise through training and by involving themselves in other farms as skilled Labour. As this faming technology is relevant to agriculture practices, the Agriculture farmers themselves would gain knowledge on ornamental fish culture and develop ornamental Fish farming in their agriculture lands to get additional Income. In practice, Aquaculture is considered to be allied activity of agriculture and government policy decision would pave way for promoting integrated farming system covering Agriculture, Animal Husbandry and Fisheries. Promotion of Integrated farming among small scale land owners would ensure doubling income in an unit area. In this direction all the agriculture and allied departments are promoting integrated farming especially among small scale agriculture farmers.

As the Technology of fish farming involves utilization of soil and water, the quality of soil and water used for fish culture is similar to that of other agriculture practices. The Physico chemical parameters of soil and water required for culture of fishes should be on par with the requirement of agriculture. The used soil and water let-out from fish culture farms does not have adverse impact on agriculture practice. In fresh water fish farming the let-out water after fish culture may have high organic load and it is used as manure source for promotion of agriculture. Also the bottom soil and sediment after fish culture practice could be utilized as soil manure. The humus obtained after fish culture could be a best source of organic manure and it can be utilized for agriculture.

During the fish culture operation the farmers could use only feed for the growth of ornamental fishes. There is no chance to add any adverse chemicals into the culture system that deteriorates the water quality as the

fishes themselves would survive only in aesthetic waters. Any addition of chemicals would leads to mortality of fishes. Also for better growth and good colouration of fishes live feeds such as micro planktons and worms like Earth worm, Blood worm are being given as supplementary feed. Addition of live feed into the culture system does not alter the water quality parameters if at all any change in the quality of water (Such as raise of Ammonia, Nitrate and sulphate level) that will be altered through proper water exchange and reduction of feeding level. It is further submitted that all the inputs that are added into the culture system are organic based compounds and hence, there is no adverse pollution effect that would directly impact agriculture that are being done adjacent to the ornamental fish farms.

II. The Fisheries department is promoting fish culture and ornamental fish culture in the potential district of Tamil nadu. The Agriculture farmers and unemployed youth who are interested in fish culture are trained and given subsidy assistance under various state and central schemes. Since ornamental fisheries sector has huge potential for self employment and for increase of export revenue and consider to be at nascent stage, the government is keen in promoting the ornamental fish culture. The persons involved in ornamental farming are fisher youth, agriculture farmers and women from self help group. At present government is taking necessary steps to form self help group and co-operative societies by joining the individual ornamental fish farmers into groups. In some districts ornamental Fish Farmers Co-operative Societies and Self Help Group have been formed and the fish farmers have been enrolled as members in the above societies. Also, District Fish Farmer's Development Agency (DFFDA) are being formed to enroll all the fish farms in the agency. However, most of the fish farmers are not having awareness about the existence of

government rules to enroll themselves as members in Co-operative societies and District Fish Farmers Development Agency. At present special drives are being undertaken to enroll all the fish farmers in DFFDA and Co-operative societies. Necessary steps should be taken to enroll the Ornamental fish farmers who are operating in Sengundram area in Thiruivallur District Fish Farmers Development Agency and kolathur ornamental fish producers co-operative society.

III. With respect to the requirement of fresh water, it is submitted that fish culture requires quality fresh water. Wherever sufficient water, quality soil is available fish farming is being promoted. In this direction, the above said villages are near to puzhal reservoir and have potential water source for cultivation of fish. Due to the availability of suitable site and sufficient water source, the farmer's inhabitated in the villages have involved in ornamental fish farming to get additional income. Most of the ornamental farmers have constructed rectangular and square shaped concrete tanks to cultivate ornamental fishes. As per the report of Ground Water Department the above said area is classified as Semi critical category which is eligible category for getting No Objection Certificate for extraction of ground water. However, due to the lack of knowledge on the existing rules, the farmers could not applied to get No Objection Certificate from concerned authorities. During the inspection the ground water department officials have severely warned the farmers and advised them to apply for No objection certificate for extraction of ground water. The farmers have now in the process of applying No objection certificate and Fisheries department will monitor the developments and assist to the farmers to get No objection certificate from the concerned department for drawl of

ground water. It is further submitted that, all the ground water which are drawn for cultivation of fishes once again will be reused for the purpose of agriculture. Except 5-10 % of evaporation loss of total water drawn remaining 90% are being reused or let into the adjacent lands in order to facilitate ground water recharge. Hence, there is no water wastage and scarcity in the area due to the cultivation of ornamental fishes. For successful cultivation of fresh water ornamental fishes, suitable criteria for site selection have to be followed. The site and water required for cultivation shall have equal quality features of Agriculture. In the above said area most of the Ornamental Farmers have promoted Ornamental Fish culture in a limited space ranging from 1250 Sq.ft to 7500 Sq.ft. They are cultivating the Ornamental Fishes in cement systems. Hence, there is no chance for deterioration of soil quality. Also water let out after fish culture did not have any harmful chemicals that would spoil agriculture crops.

In order to found the impact of fresh water Ornamental Fish culture on soil and water quality, Water and soil samples have been collected in 8 fish farms by the fisheries department and Tamil Pollution Control Board. Water samples have been analysed by the Tamil Nadu Pollution Control Board laboratory. After analysis it was concluded that the analysed parameters in the discharged water after cultivation of Ornamental Fishes are within the Permissible limits. Consolidated Statement of report of analysis on water samples are enclosed in the Annexure II. Also samples which were collected by the Fisheries department have been analysed in Kakkalur, Agriculture department laboratory and analysed parameters in the soil samples have confirm that the discharged water after fish cultivation is suitable for agriculture crops. The Soil sample analysis reports are furnished in Annexure III.

Based on the field level observations, technical aspect of Ornamental fish culture and analytical report of soil and water quality, It is submitted that the fresh water ornamental fish culture practiced in sengundram area does not have impact on agriculture and its related soil and water quality. Hence, The Hon'ble National Green Tribunal, Southern Zone, Chennai may kindly be requested to drop the action on the News of Ornamental fish culture punlished in the Dinamalar Newspaper E-edition dated: 26.04.2021 and issue suitable orders to continue the cultivation of Ornamental fishes in Sengundram area with guidance from Fisheries Department and by obtaining suitable No Objection Certificate (NOC) from Ground water department for drawl of ground water.

It is submitted for kind Perusal and necessary consideration of Commissioner of Fisheries and Fishermen welfare.

Encl: As above

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