

Growth and Instability of Inland Fish Production in Gujarat - - - - - Spatio -Temporal Analysis

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Gujarat is well known to be heterogeneous with respect to inland water resources. This study examines the growth and instability of inland fish production in Gujarat. The data on districtwise and specieswise inland fish production in Gujarat state were collected and compiled for the period from 1974-75 to 1997-98 and 1984-85 to 1997-98 respectively. Periodwise compound growth rates were computed. Similarly instability indices were measured by fitting an exponential time trend.

The results revealed that the inland fish production increased significantly in almost all the districts of the state during 1990-98. There existed relatively higher instability in inland fish production in different districts of Saurashtra. Bharuch and Surat districts of South Gujarat account for more than 50 per cent of the total inland fish production in the state. The share of all the six districts of Saurashtra together increased substantially over a period of time. Relatively higher growth rates of production were observed for the species viz., Mrigal, Prawns, Rohu, Minor Carp, Eel, etc. Extension efforts need to be strengthened through different media on the nutritious and health promoting qualities of fish so that the inland water resources in the study area are utilized to the fullest extent for fish production.

Introduction

India has the identity of being the second largest inland fish producer after China. The country is endowed with a vast expanse of water resources amenable for fisheries and aquaculture. While marine resources are spread in the three oceans encompassing the 8129 km. coastline, the inland waters in the form of rivers, estuaries, canals, lagoons, natural and man made lakes, brackish water impoundments and mangrove wet lands constitute the bed rock of inland fisheries in the country. In addition, there are number of small reservoirs, each less than 1000 ha. in area constructed primarily for irrigation or drinking water purposes. Though limnologically they vary from each other, essentially these are river based resources. Therefore, there is a need to harness river waters to the fullest possible extent.

Gujarat is well known to be heterogeneous with respect to inland water resources comprising 3865 km. of rivers and canals, 2.43 lakh hectares of reservoirs, 0.70 lakh hectares of tanks and ponds, 0.21 lakh hectares of estuarine zone, 1.00 lakh hectares of waterlogged areas and 3.76 lakh hectares of brackish water resources (Mehta *et al.* 1998). No in-depth study of inland fish production in Gujarat is available, this study is a maiden attempt in this direction.

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