A Study On The Fish Production Trends In CertainReservoirs Of Telangana

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Abstract:

The present examine an try has been made to have a look at the Ichthyo fauna diversity and fish manufacturing in a few reservoirs in Northern Telangana districts . North Telangana Zone includes the 5 districts i.E Adilabad, Karimnagar, Nizamabad, Medak(besides southern borders) and Warangal (except western element and N.W. Part), North-eastern tips of Nalgonda and Khammam (maximum components of Khammam).In North Telangana Zone Karimnagar district has the most variety of reservoirs (10) followed through Nalgonda (nine), Nizamabad (6), Warangal (five) districts. Nalgonda, Karimnagar have massive awareness of small reservoirs. Medium reservoirs are well dispersed many of the districts and 4 big reservoirs are dispensed among Karimnagar and Nizamabad district. Majority of the reservoirs in the North Telangana Zone are small , accompanied through those in the medium (12) and large (04) as advised with the aid of Srivastava et al., [3] and Anon, . In the existing take a look at the fish yield has been predicted for the consecutive years. It is observed that the fish manufacturing has accelerated from 1, 48,799tonnes to 1, 86, 960 tonnes wherein because the sparkling water prawn production turned into decreased from 3,229 tonnes to 1,881 tonnes. However a good way to growth fish manufacturing there was an growth of strain on those water our bodies that results in ecological imbalance, it's miles discovered.

Keywords: Reservoir fisheries, Fisheries improvement, Yield optimization, Fish way of life

Introduction

Water is one of the maximum crucial natural assets to be had in abundant in nature which man has exploited more than some other useful resource for the sustenance of lifestyles. Basic feature of the earth is in abundance of water resources. According to estimation, the sector's overall water resources can roughly be categorized as ocean water ninety three%, floor water four%, glaciers and polar ice caps 2% and fresh water 1%. As according to the only estimation the overall quantity of the water in the international stays constant as it's far being constantly recycled via hydrological cycle. Only 3% of the worldwide content of approximately 1.4 billion cubic kms of water is freshwater and suitable for utilization through human being, of this again about 77.2% completely available as frozen, 22.Four% arise as ground water, and moisture 0.35% are containing lakes and wet lands and 0.01% rivers and streams. It has been estimated that 0.00192% of the full water on the earth's planet is available for human intake Trivedi and Goel (1986). The water unfold place in India is 4.5 million

hectares. Inland aquaculture assets which approximately three million hectares which encompass 0.72 million hectares of natural water our bodies and 2 million hectares of synthetic water reservoirs.

Reservoirs or guy-made lakes represent an essential Inland fishery aid of India. Reservoirs have been usually categorised as small (< 20 000 km2), including the Godavari and Krishna, that have an annual discharge of one hundred and five 000 and 67 675 million m3 respectively. Pennar, the third major river includes 3238 million m3 annually. The medium rivers (catchment 2001 – 20 000 km2) comprising Nagavali, Sarda, Eluru, Gumdlakamma, Musi, Paleru, Muneru and Kunleru have an annual discharge of 6 430 million.

Material and Methods

Telangana is a country in the Southern vicinity of India. It has a place of 114,840 km2 and is the 12th biggest nation in India. Most of it become part of the princely state of Hyderabad (Medak and Warangal Divisions), dominated through the Nizam of Hyderabad throughout the British Raj, joining the Union of India in 1948. On 2 June 2014, Telangana was separated from Andhra Pradesh as a new twenty ninth kingdom of India, with Hyderabad as its capital. Telangana is bordered with the aid of the states of Odisha and Chhattisgarh to the north, Maharastra and Karnataka to the west, and the residuary Andhra Pradesh to the south and east. Telangana has an area of 114,840 square kilometres (forty four,340 squaremi) and a populace of 35,286,757 . Telangana is a semi-arid vicinity and has a predominantly hot and dry climate. Summers start in March, and peak in May with average excessive temperatures within the 42 °C (108 °F) range. The monsoon arrives in June and lasts until September with approximately 755 mm (29.7 inches) of precipitation. A dry, mild winter starts in late November and lasts until early February with little humidity and common temperatures within the 22–23 °C (72–seventy three °F) range. The sparkling water bodies that were surveyed during the prevailing research are particularly on positive small reservoirs in North Telangana Zone consists of the Districts of Adilabad, Karimnagar, Nizamabad, Medak(besides southern borders), Warangal (except western portion and N.W. Part), Northeastern hints of Nalgonda and Khammam (maximum elements of Khammam). Fishes had been accrued personally through the usage of nets and the assist was additionally taken from the nearby fishermen. The fish have been gathered from the landing websites alongside the tank quickly when they have been caught. They have been delivered to the laboratory for his or her identification and they have been then preserved in 10% formalin for in addition remark. Thefishes had been identified as much as species level following the usual approaches within the literature.

3. Results and Discussion

Telangana Zone Karimnagar district has the maximum quantity of reservoirs (10) observed with the aid of Nalgonda (nine), Nizamabad (6), Warangal (5) districts. Nalgonda, Karimnagar have huge awareness of small reservoirs. Medium reservoirs are well dispersed many of the districts and four big reservoirs are allotted among Karimnagar and Nizamabad district. Majority of the reservoirs within the North Telangana Zone are small (24), followed through those within the medium (12) and huge (04) categories. The 4 big reservoirs have

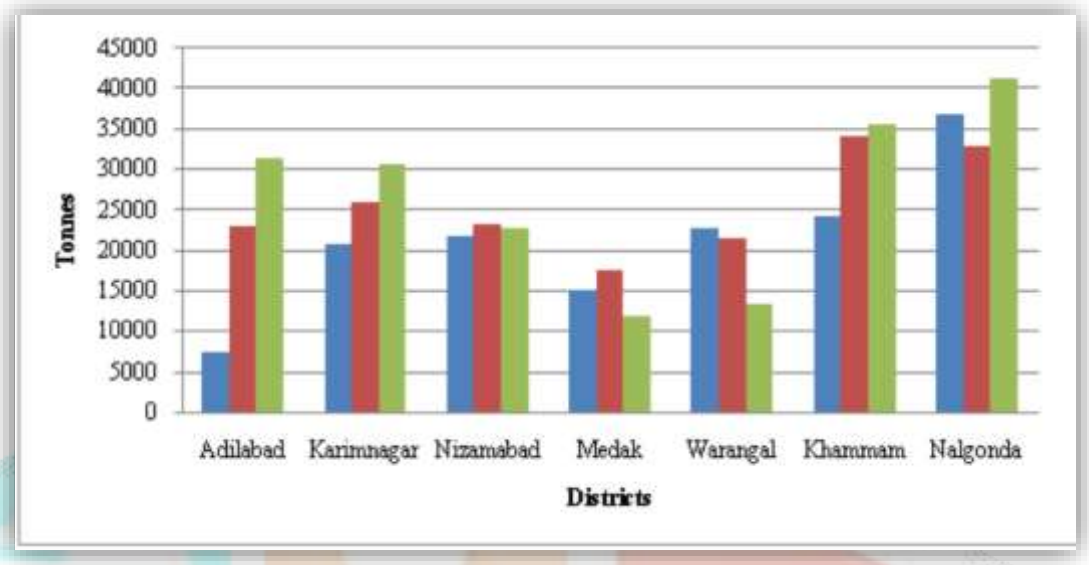
a complete surface vicinity of one, 10,477 ha, while the medium and small reservoirs cover 25,970 ha and 8769 ha respectively. Taking the irrigation tanks in to the account the whole range and location is lots higher. Irrigation tanks of Telangana are categorised in to two classes, viz., perennial and lengthy seasonal . Although an inventory of all perennial tanks in the State isn't available their wide variety and location by way of districts are recognized. More than half of of the perennial tank is located in Nizamabad district in North Telangana, both numerically and in terms of water spread. Reservoirs and tanks together constitute large amount of water region in North Telangana Zone. Fish fauna varies with meals spectrum of the aquatic device. The small reservoirs by virtue of dominant planktonic meals chain harbour mixture of plankton feeding fishes like Amblypharyngodonmola, Gadusiachapra, Puntiusspp., Gambusiaafflnis, Chelabacaila. Osteobramacotio, Esomusdanrica, Ambasisnamaand A. Ranga.Big sized carnivorous fishes viz,,Wallagoattu, Mystussp. Channaand the main carps like Labeorohita, Catlacatla, CirrhinusmrigalaandLabeocalbasuare also discovered. Many reports were published on reservoir, canal and tank fisheries. Authors like Mohanty defined the development of reservoir fisheries in Orissa. Sinha stated gift status and destiny potentialities of fisheries in North Eastern location of India. So many researchers are also worked on fisheries of reservoirs, and reviewed the fisheries improvement in Andhra Pradesh. Fish spectrum is conspicuously exceptional in shallow water ecosystems. Despite the high natural deposition, the fish fauna includes very few of the detritivores due to the negative habitat. Fishes in these systems mainly belong to small planktivores and carnivorous species along with Channapunctatus,C.Marutius,C. Gachua, C. Striatus, Nandusnandus, Glossogobiusgiuris, Xenentodoncancila, Notopterusnotopterusand air-respiration fishes like Anabas testudineus, HeteropneustesfossilisandClariasbatrachus.

Reservoirs have wealthy species range. Kanwate and Kulkarni studied fish and fisheries of Kandhar tank, District Nanded Maharashtra. Battulet al., studied fish range from Ekrukhlake close to Solapur, Maharashtra. Karnataka. Rathodeet al., studied fish variety of Umra reservoir, Wasim district, Maharastra. Ravindar studied biodiversity of fishes in Dharmasagar reservoir, Warangal District, Andhra Pradesh. Fish yield in reservoirs fluctuates extensively depending on the fish fauna and food spectrum, recruitment potentialities and usual habitat. These elements vary from one system to the alternative resulting in variation of the yield sample.

The common annual yield from reservoirs levels among 150 and 350 kg/ha. This low fish production is on account of the fish spectrum dominated by the small sized planktivores and carnivores. In reservoirs, the yearly fish yield fluctuates among 250 and 475 kg/ha. The species contributing to the fish production are planktivores, detritivores and omnivores. Medium reservoirs yield fish at high charges of 500 to1,000 kg/ha/yr. The Inland fish manufacturing in North Telangana districts is in particular from reservoirs, perennial tanks, village tanks and farmar dugout ponds. From all of the resources the district Khammam produced 24,250, 34, 084 and 35, 585 tonnes of fresh water fish at some stage in the year 2010-11, 2012-13 respectively. This district usually stood in first function in fish production as well as clean water prawn production also(Table – 1 and Figure-1). Apart from the reservoirs and tanks, the Adilabad district produced least amount of fish and prawn manufacturing in those three consecutive years. Warangal produced 22781, 21,436 and 13,300 tonnes of fish

and 689, 748 and 262 tonnes of prawn production during the year 2010-11, 2011-12 and 2012-13 respectively (Table – 1). The fish manufacturing specifically includes Carps, Cat fishes, Murrels, Barbus, Hilsa and other miscellaneous organizations. The Carps dominate with 70-eighty% of the production accompanied by Cat fish and Murrels.

Fig.1: district wise annual inland fish production of north telangana during the year 2011-13



As Pillay emphasized, so one can beautify the fish production in inland waters to cater the food requirement of the people, efforts have not been made on this direction. The common annual fish yield in Indian reservoirs may be improved to 75 kg/hectare according to year at some stage in 1981.

The reservoir fish productivity became a lot better in China than that of India. In China the productiveness is 60 kg/hectare in step with yr in massive reservoirs, 225 kg/hectare consistent with yr in medium reservoirs and one thousand kg/hectare in line with 12 months in small reservoirs having less than 500 hectares of water spread vicinity. This degree of yield must have been completed only beneath intensive monitoring. When compared to reservoirs of China, the productiveness of Indian reservoirs is also low. As Mahaptra recorded most effective 15.6 kg/hectare consistent with 12 months in Hirakud reservoir and 5-10 kg/hectare according to 12 months in other main reservoirs of Orissa. It changed into located that there has been scope to boom yield fee @ 100 kg/hectare in line with yr, furnished right control practices are adopted. However the prevailing fish yields from the reservoirs in Telangana remain high with one hundred fifty kg /hectare and above in line with yr. The fishing methods practiced in reservoirs are conventional. Gill nets, scoop nets, seine nets, encircling nets and lifting nets are deployed depending at the requirements and suitability in their operation. Gill and lift nets are intensely operated in huge and medium reservoirs at the same time as traps and scoop nets are the main gear in small reservoirs. The reservoir resource of the State is extensive and various in ecological characteristics. For proper control, they need to be categorised on the basis of ecological and manufacturing characteristics. However, there's an pressing need to conserve these water our bodies and defend them from environmental degradation because of anthropogenic sports. Reopening or excavation of the linkages anyplace viable is one of the prime wishes.

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