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Perception of material culture and fishing of Puri district in Orissa

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Abstract

Perception of environmental resources is one of the key factors in development of material culture of the people. The natural environment has opened up a number of elements and possibilities to convert them as resources. Sometimes a single object may have multiple resource possibilities and their utilization as resource depends upon the applied knowledge and experience of the people. The physical environment of the study area of the state of Orissa has created immense scope of marine resource development. Fishing is one of the most important resource processes in the state. Here three different types of fishing namely, marine fishing, brackish fishing and inland fishing have developed. Both inland fishing and brackish fishing have been developed by the Oriya people of the state whereas marine fishing in the state has been developed by the migrant people of Telugu community. Herein the role of perception is the key factor in the growth of resource processing. In the present paper, the role of perception in evolution of marine fishing in the study area is studied with the background of physical resource potentialities, difficulties and prospects of other resource processes. The degree and magnitude of influence of perception on the material culture of fishermen of Orissa has also been taken into consideration in this paper.

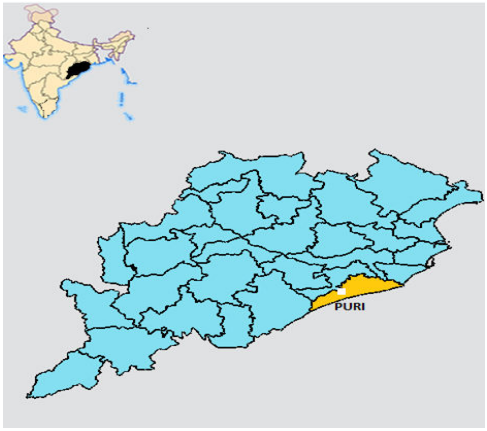
Keyword: *1.Material culture, 2.Fishing 3.Economy, 4.importance.*

Introduction

The fishing community of Puri district is mainly composed of the people of Andhra Pradesh. One of the largest fishing villages in Asia is located at Pentakota (ward number 8of Puri municipality) where the fishermen are domiciled Oriya belonging to the Telugu community. Similarly, the fishing centre located at Bali Nuli Shahi (ward number 11 of Puri municipality) is also inhabited mainly by domiciled Oriya of Telugu community. In this context, it may be mentioned that ancestors of these fishermen, being refugees in their homeland, settled down in Orissa with experience in marine fishing, Orissa and Andhra Pradesh being neighboring coastal states. As the inhabitants of Andhra Pradesh they are used to and familiar with marine fishing, fishing has become one of the most important occupations to them.

In Andhra Pradesh, the deep-water fishing is also well developed. Whereas the local inhabitants of Orissa earn their livelihood mainly by cultivation of crops, they have not inherited the perception of fishing and hence, they do not venture out to exploit vast marine resources exposed to them. Although agriculture in Orissa suffers from natural calamities, such as drought, cyclones and food, the local inhabitants try to stick to their traditional occupation of cultivation of crops. The migrant fishermen of

Andhra Pradesh have been able to develop one of the largest fishing hubs in Asia at the Puri district. They are highly resourceful and can maintain their own social and political entity. The people of the present generation at Pentecostal ward speak only in Telugu language, their mother tongue, maintaining their own culture without adapting themselves to local inhabitants' language and culture in any way, although they are born and brought up in Orissa.



Location map

Location

In the state of Orissa, marine fishing is practiced in six coastal districts of Ganjam, Puri, Jagatsinghapur, Kendapara, Bhadrak and Baleswar. The study area covers specifically the Pentakota and Bali Nolia Sahi wards of Puri municipality of Puri district. But in broad sense, the fishing villages of the Puri district as a whole have been considered as a part of study.

Physical and demographic back ground of the distract

The Puri district lies around the latitudes 19° and longitudes 84°29'E. It has a geographical area of 3051 km^2 or 264988 Ha. It has a varied geographical and geological divisions depending upon the available rock types, soil, vegetation, water bodies and climate.

The whole of the district may be divided into two dissimilar natural divisions i) The littoral tract ii) The level alluvial tract

I) **the littoral tract**

The strip of the country lies between the alluvial and the Bay of Bengal. It assumes the form of a bear but sandy ridger which stretches along the sea- shore for the full length of the District, Varying from 6.5 km. to a few hundred metres in with . Accumulations of wind blown sand give rise to ridges parallel to the coast. It forms the dividing line between the Chilika lake and the ocean

II) T**he level alluvial tract**

This level of alluvial region is full of villages and rice fields, watered by a network of channels, through which the water of distributaries of the most southerly branch of Mahanadi, find their way to the sea. There is no hill in Puri District except a small cultivate land are under plough. Generally biali or autumn rice, sarada or winter rice and dalua or spring rice these three types of rice are cultivated.

Sea-coast bays

The length of the sea-coast of the district of Puri is nearly 150.4 km. Sandy ridges are found along the sea-coast which stretch into the districts of Jagatsingpur and Ganjam . One such sandy spit divides the lake Chilika from Bay of Bengal . These sandy ridges and dunes are formed by the strong monsoon currents which blow over the country for nearly 8 months of the year . The ridges vary from about 7 km to a few metres in width and have prevented most of the rivers of the district from finding their way into the ocean.

Island

No Island is found in the coastal waters of Puri, but the Chilika lake is separated from the Bay of Bengal by a group of Islands.

River system

All the rivers of Puri district have a common characteristics. In the hot weather they are beds of sand with tiny streams or none at all, while in the rains they receive more water than they can carry. Generally all rivers are distributaries of Mahanadi rivers.

- Kushabhadra River- A branch of Kuakhai river originates from Balianta and meets the sea of Bay of Bengal at the shrine of Ramachandi, located 15 miles east of Puri. Its tributary Mugei joins with Kushabhadra.

- Daya River- A branch of Kuakhai river drains into the Chilika lake. Two small rivers join with Daya river i.e. the Gangua and the Managuni below Kanas. Daya river has been attributed with problem of causing silt build-up in Chilika Lake.

- Bhargavi River- A branch of Kuakhai meets the sea of Bay of Bengal after breaking up into numerous distributaries in the last two and half miles of its course. There are four main branches all branching off from the left bank viz. Kanchi, the East Kania, the Naya Nadi and the South Kanchi (which drains into Sar Lake); and by various channel the first three are interconnected and finally join the Suna Munhi river which falls into Bali Harchandi and ultimately drains to the Bay of Bengal sea via the mouth of Chilika. The South Kania gets lost in the marshes on the western shore of Chilika.

- Kadua River- It is a monsoon fed river that drains into Prachi river.

- Prachi River- It is a branch commencing from Puri and Jagatsinghpur district. It has its origin near Kantapara on Cuttack-Gop road and passes through the village of Kakatpur before draining into the sea of Bay of Bengal.

- Devi River- It is a branch of Kathajori. It runs into Puri district near the extreme east forming numerous branches.

There are also a few small rivers worth a mention, chiefly Ratnachira and Nuna, which drain into Bhargabi river and Daya river respectively.

Population

According to the 2011 census Puri district has a population of 1,697,983, roughly equal to the nation of Guinea-Bissauor the US state ofIdaho. This gives it a ranking of 291st in India (out of a total of 640). The district has a population density of 488 inhabitants per square kilometre (1,260 /sq mi). Its population growth rate over the decade 2001-2011 was 13%. Puri has a sex ratio of 963 females for every 1000 males and a literacy rate of 85.37%.

Economy of Odisha

The economy of Odisha is one the fastest growing state economies in India. According to 2014-15 economic survey, Odisha's gross state domestic product (GSDP) was expected to grow at 8.78% in the 2014-15 fiscal year. Odisha has an agriculture-based economy which is in transistion towards a industry and service-based economy. According to Dun & Bradstreet, the GSDP is expected to grow at a rate of 8.1% during 2015-2020. Odisha is also one of the top FDI destinations in India. In the fiscal year 2011-12, Odisha received investment proposals worth 49,527 crore (US$9.296 billion). According to the Reserve Bank of India, Odisha received ₹53,000 crore (US$8.33 billion) worth of new FDI commitments in the 2012-13 fiscal.

Overview

In 2013-14, the GSDP growth rate dropped to 2.21%. This slown down was attributed to the Phailin cyclone, which caused a negative growth of 9.78% in the agriculture sector and also affected several other sectors. According to the 2011 Census of India, Odisha has a working population of 17,541,589, among them 61% are main workers and rest are marginal workers. 33.9% of the total working female population are main workers. As of June 2014, Odisha has 10,95,151 people registered in various employment exchanges of the state. Of them, 10,42,826 reported themselves educated. Odisha had a rural unemployment rate of 8.7% and a urban unemployment rate 5.8% calculated based on the current daily status basis in the 68th National Sample Survey (2011-2012)[1]The per capita income of the state was ₹54,241 (US$930) in 2013-14. The state has a public debt of ₹38,666 crore (US$6.34 billion), which is ₹8,909 per capita (US$146), at the end of 2013-14.

According to ASSOCHAM, in the fiscal year 2011-12, Odisha received investment proposals worth ₹49,527 crore (US$9.296billion). According to the Reserve Bank of India, Odisha received new FDI proposals worth Rs 53,000 crore (8.333 billion USD) in the 2012-13 fiscal year. In 2012-13, ₹125 crore (US$19.66 million) worth of foreign aid was received by NGOs in the state.

Contribution of each sector to the GSDP (in percent)

Service (51%)
Agriculture (15.4%)

Industry (33.6%)

Sector

Agriculture and fishing

GSDP by year		GSDP by year	
Year	**GSDP**	**Year**	**GSDP)**
2001-02	46,756	2008-09	148,491
2002-03	49,719	2009-10	162,946
2003-04	61,008	2010-11	197,530
2004-05	77,729	2011-12	214,583
2005-06	85,096	2012-13	255,459
2006-07	101,839	2013-14	288,414
2007-08	129,274		

According to the 2011 Census of India, 61.8% of the working is engaged in agricultural activities. In the 2001 Census, it was recorded at 61.8%. However, the agricultural's contribution to the GSDP was 16.3% in the fiscal year 2013-14 and it was estimated to be 15.4% in 2014-15. The area under cultivation was 5,691 hectare in 2005-06 and it dropped to 5,424 hectare in 2013-14. Rice is the dominant crop in Odisha. It is grown on 77% of the area under cultivation. Odisha produced 8,360 metric tonne in 2013-14, a drop from 10,210 metric tonnes due the cyclone Phailin.

During 2013-14, the state exported 4.13 lakh tonnes and ₹1,800 crore worth of seafood. In 2014-15, the value of exports rose by 26% to ₹2,300 crore with 4.67 tonnes being exported. Odisha is the fourth largest shrimp producing state in India.

Industry and power

In Odisha, the primary industries are manufacturing; mining and quarrying; electricity, gas and water supply; and construction. The industrial sector's contribution to the state's GSDP was estimated at 33.45% in 2014-15. Most of Odisha's industries are mineral-based. Odisha has 25% of India's iron reserves. It has 10% of India's production capacity insteel. Odisha is the top aluminium producing state in India. Two of the largest aluminium plants in India are in Odisha, NALCO and Vedanta. Mining contributed an estimated 6.31% to the GSDP.

Power

Odisha has 9036.36 MW installed capacity of electricity production, out of which 6753.04 MW is coal-generated. 2166.93 MW is generated by hydro power and 116.39 MW by other renewable sources.

Odisha was the first state in India to reform its power sector. In 1995, it passed the Orissa Electricity Reform Act to restructure and privatize the sector. Before the Act, the single public-sector firm Orissa State Electricity Board (OSEB) had been producing and supplying electricity in the state since its establishment in 1961. But by 1994-95, OSEB had run into heavy losses and there was a gap of 45% between consumption and production. The reforms unbundled power generation from transmission and distribution. Following the reforms, hydro power plants were handed over to Odisha Hydro Power Corporation (OHPC) and the existing thermal power plants were transferred to Odisha Power

Generation Corporation (OPGC). Grid Corporation of Odisha (Gridco) was given the task of power supply. Initially, these were operated as state-owned firms, but later were corporatised.

In August 2014, the government announced a plan to invest ₹54,000 crore in the power sector over the next 5 years, to provide 24-hours electricity to both the urban and rural regions. Odisha expects to reach a power surplus during its peak consumption months by 2015-16.

Service

The service sector contributed an estimated 51% to the GSDP in 2014-15. The primary sub-sectors are: community, social and personal services, which contributed 13.45% to the GSDP; trade, hotels and restaurants, which contributed 13.09%; financial and insurance services, which contributed 13.64%; and transport, storage and communication, which contributed 10.99%. The state has a well-developed banking network compared to many states of India. There is one bank branch for every 12,000 people. 90% of the branches are in the rural region.

Objective of the study

- To study favourable physical environment of the coastal areas of the district a well as the state for marine fishing and potential stock of exploitable fishes in favourable areas.
- To study the development of marine fishing in puri district.
- To study the role of perception of the migrant fishermen in marine fishing.

Physical resource

The study area is located just on the coast of Bay of Bengal. The vast ocean water has opened up ample scope of different types of aquaculture on the coastal belt. The state of Orissa has a long stretch of continental shelf extending up to 120 kms in northern part and up to 40 kms in southern part. The continental shelf consists of an area of 1,200 sq km of about 200 m depth. The southern coastline is composed of sandy beaches and surf beaten sea shores whereas the northern coastline has rivers, estuaries and estuaries and extended tidal area.

The estimated potential exploitable fish stock in the continental shelf of Orissa is 100,000 to 120,000 tons of fish (Indian Institute of Foreign Trade). Out of the total reserve, 25% is expected to be within 18 metre, another 25% within 18 to 72 metre and rest of the stock (50%) within 72 to 180 metre.

Source and development of marine fishing in Orissa

The practice of marine fishing in Orissa was developed by the migrant non-Oriya group of people. Marine fishing in Arkakhuda of Puri district has been developed by the Telugu migrants during the second half of 18th century. In 1908, 'Nolia' group of fishermen and boatmen migrated to Puri from the then state of Madras (O'Malley, L.S.S, 1908, 1929)

All the marine fishermen of Puri district are composed of migrant population of Telugu people. In the southern coastal districts of Puri, the fishermen migrated from 50 coastal villages of Ganjam district of Orissa and Shrikakulam district of Andhra Pradesh. The Vadabaliya of Vadapeta (VV) and Jalary (JP) migrated in Puri about 100 years ago. The Vadabaliya of Pentecostal (VP) migrated in the study area of Pentecostal around 50 years ago from 48 coastal villages of three districts, viz. Vishakhapatnam, East Godavari and West Godavari of Andhra Pradesh. The size of population of the VP, VV and JP are 8,000, 4,000 and 800 respectively (Reddy, 2001).

In the northern coastal districts Kendapara (with more than 80% Bengali population), Jagatsigapur and Bales war of Orissa, Bengali fishermen dominate in marine fishing. The Bengali fishermen migrated in northern districts especially in Kendapara in two different phases: in 1948 after independence of East Pakistan, and in 1971 during Bangladesh war. The Hindu refugees got settled in the northern coastal district of Kendapara by the Indian Government (Sridhar, 2003). Later on Bengalese fishermen from 24-paraganas district of West Bengal also migrated to northern coastal districts of Orissa for marine fishing. In recent years, increased demand for marine fishing and facilities of mechanization in boat and trawlers stimulated people of inland fishermen of Oriya community and persons of other occupations by casts to join marine fishing (Kalavathy, 2003). Basically, the Oriya fishing community would practice inland and brackish water fishing.

From field investigation and household survey, it is known that in Puri district, the marine fishing community of Telugu origin is settled in Pentecostal, Bali Nolia Sahi of Puri municipality, Chandrabhaga Nolia Sahi of Konark municipality and Arkhakur of Chilka lake area. From the household survey in Bali Nolia Sahi, it is observed that the marine fishermen of Bali Nolia Sahi are primarily part-time fishermen especially the elderly persons. Among the fishermen, participation of children in ago group of 12 to 16 years in marine fishing is noticeable at the rate of more than 40% of total fishermen group. The elder group of fishermen engage themselves in ancillary activities like collection of shell, selling of different types of sea shell, life guard, etc. simultaneously. There is a definite division of work between male and female among the Telugu fishermen. The male persons go to sea for fishing and female start processing the catch and also sell fishes within the villages. The fishermen use non-motorized and to some extent motorized teppa (indigenous wooden boat). Though they live in urban areas, their houses are kuccha type built on the sides of open sewerage system, they lack in municipal drinking water supply and do not have sanitary and lavatory facilities.

In Pentecostal, more than 80% are engaged in full-time marine fishing. The total number of fishermen is estimated around 12,000. During peak period of fishing of prawn during November to January, a group of fishermen migrate to Pentecostal from Andhra Pradesh every year (Cunningham, Mahapatra, Tietre, 2003). At least, 10% of them are engaged in ancillary activities. In Pentecostal, the total number of fishing craft is about 1,199 among which 1,097 are non-motorized teppa, 67 motorized teppa and 37 BLC (Beach Landing Craft). Almost all the fishermen of Pentecostal use traditional boat (teppa) for marine fishing. Pentecostal is an important fish landing centre in Puri District.

The fishermen of both Bali Nolia Sahi and Pentecostal go to sea at around 4 to 5 AM for marine fishing and come back with catch at around 2 to 4 PM. Some of old and child fishermen of Bali Nolia Sahi come back around 9 AM with their catches. The types of fishes of their catches are catfish, sea perch, shark, seer fish, ribbon fish, shrimp, Indian mackerel, elect. The peak period of marine fishing starts from the month of September and continues up to the month of March.

The fishermen of Bali Nolia Sahi sell their fishes mainly on agreement basis. Bicycle vendors are the most important buyers of their fishes. In Pentecostal, the fishermen sell their catches mainly on auction basis. There are two ice factories in Pentecostal. They do not own land. They live in thatched huts built on the sand dunes just on sea beaches. They have isolated themselves from the mainstream culture of Orissa totally. In Pentecostal total number of fish trip with traditional boat is around 150 throughout the years.

Conclusion

Agriculture is the main means of sustenance of the people of Puri district. Agriculture suffers from climate-induced natural calamities of food, cyclone and drought severely almost every alternate year. The cultivators, especially the marginal cultivators, are bound to search alternative sources of livelihood. The state of Orissa has favorable condition for inland fishing, brackish water fishing and marine fishing the marginalized people by inland fishing, breakish water fishing and marine fishing. The marginalized people by caste of Orissa practice both inland fishing and brackish water fishing. They did not adopt marine fishing though the state is endowed with a vast stock of marine fishes and long stretches of continental shelf. The native people of Orissa could not exploit marine resources because of lack of perception of techniques of marine fishing. The Telugu community with their age old experience of almost more than 1,000 years started marine fishing in Orissa. Still now the non-Oriya group of people dominates marine fishing in the state. The study area is fully dominated by the Telugu fishermen because the beach near Pentecostal and Bali Nolia Sahi is surf beaten. In such areas, marine fishing requires arduous and skilled fishermen belonging to Telugu fishing community. Perception thus plays the most important role in adopting marine fishing as a prime occupation in the study area.

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