

# ODISHA REVIEW

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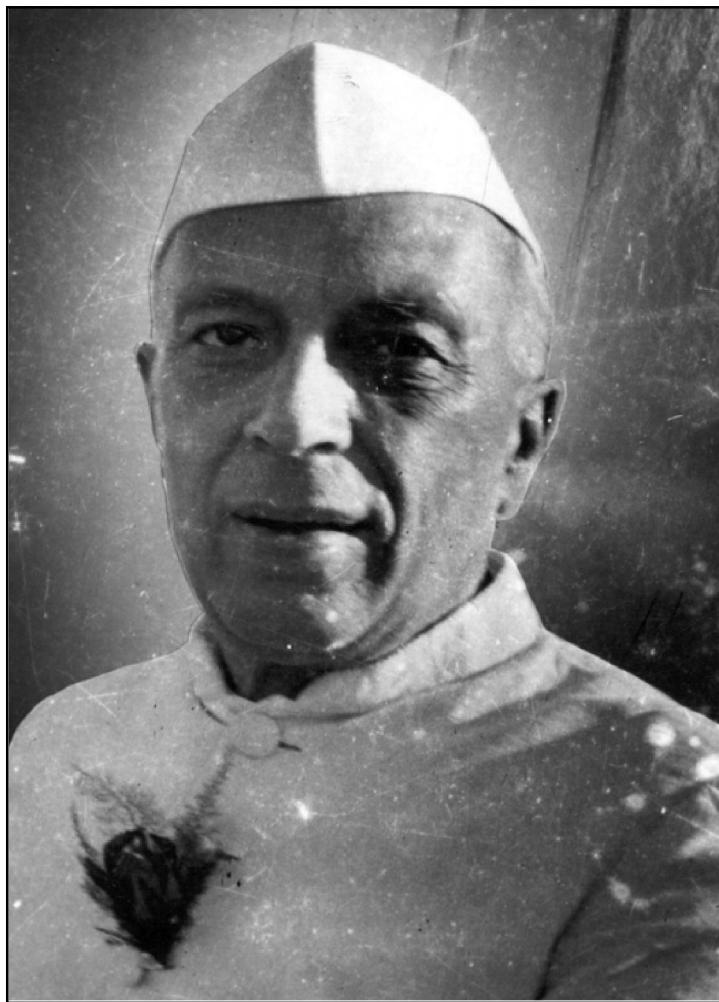
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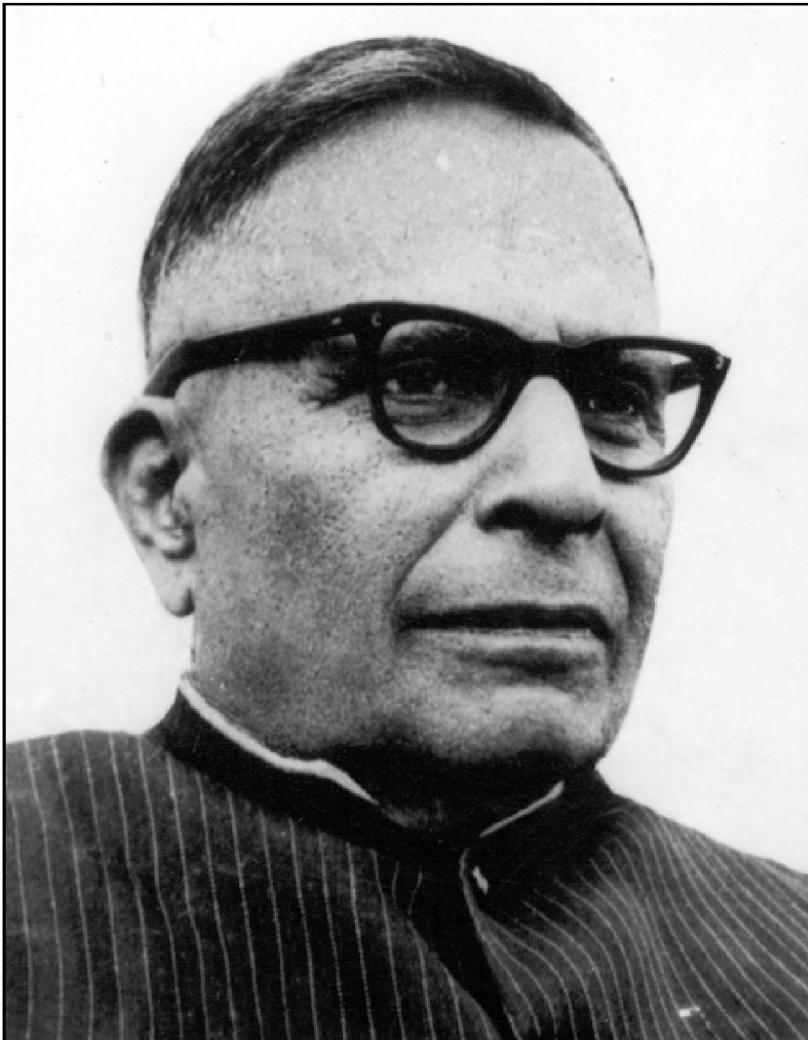
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# BIRTHDAY TRIBUTES



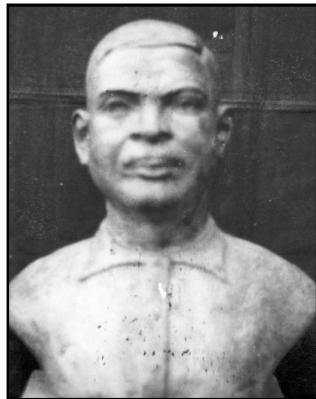
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## BIRTHDAY TRIBUTES



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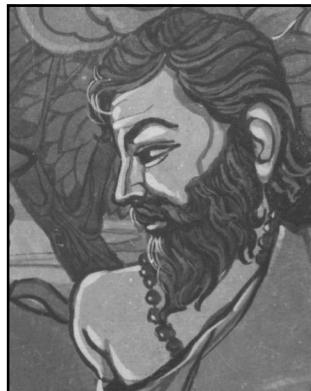
## BIRTHDAY TRIBUTES



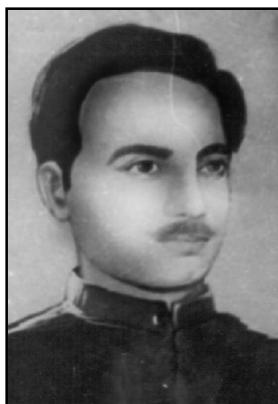
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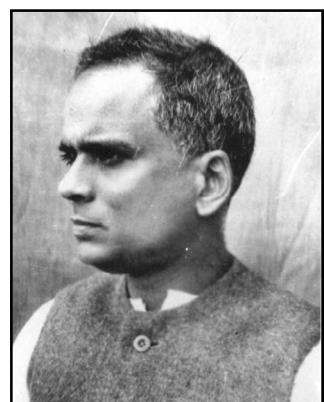
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Dibakara Parida



Nabakrushna Choudhuri

# **Our Sincere Obeisance**



**Late Harishchandra Baxipatra**

## *Editor's Note*



Due to less rainfall and climatic changes there is drought-like situation all over the country. In Odisha also, the drought-like situation looms large. The Government has already announced a farm package of Rs.1000 crore on October 14<sup>th</sup>. The Government is well prepared. It was assuring to hear the message for farmers by the Hon'ble Chief Minister that "together we have faced many calamities in the past. The farmers of the drought-affected areas need not worry about loan. The State Government is making all out efforts to mitigate the sufferings of our farmers and protect their interest".

As I write my editorial, Shri Nitish Kumar has joined the hattrick league. However, the discourse happening and interactions being made has baffled me a lot. We in India have a rich legacy of tolerance and peacefulness.

Amidst a huge spectacle of festivity, the people of Odisha are about to celebrate the Deepavali and Kali Puja which is preceded by Laxmi Puja on the full moon day after Durga Puja. In the meanwhile, the people of Bhubaneswar in Odisha are making all out efforts for this Smart City tag. In a boost to enhance tourism and specially Buddhist tourism, at the initiation of the State Government Air India has started operation between Varanasi and Bhubaneswar. It is a matter of pride that Hon'ble Prime Minister has appreciated Odisha for being one of the top States in the ease of doing business during his address at an Economic Conclave.

In the month of Karttik (October-November) people in Odisha have religious priorities spread across the month. As the month ends in the Karttik Purnima during the hallowed hours before dawn, the people of Odisha wake up to perform their ritual in the holy waters. They then

float tiny boats of coloured papers, banana barks or cork with lights placed on them. They also invoke the blessings of their ancestor in return for the austerity observed. The blowing of the conch shells and ululation of the women folk makes us feel the presence of the Lords and our ancestors amongst us. This moment arrives every year on a full moon day in the month of Karttik. The symbolic festival of floating tiny boats recalls the ancient period of maritime glory of Kalinga which continued from 3<sup>rd</sup> Century B.C till 18<sup>th</sup> Century A.D. Reports of historians and visitors like Fahien and Hiuen Tsang bear eloquent testimony to wealth and prosperity of Kalinga during that time. Kali Das in “Raghuvamsam” rightly refers to kings of Kalinga as the king of seas (Mahodadhipati).

After a long time under the leadership of our present Chief Minister we are again regaining back our glory. In every field we have proved our mettle and made India proud. The agenda of our Government is to maintain transparency and fight against corruption so that we are able to have inclusive growth. The persona of our Chief Minister, his simplicity, honesty remains our driving force.



Editor, Odisha Review

## The Greatness of Purusottam Kshetra

*Bhagaban Mahapatra*

The greatness of Purusottam Kshetra is narrated in Skanda Purana (Vaishnav Khanda) which is the largest of all Puranas. It contains eighty eight thousand and one hundred *slokas* (stanzas). Once, while sage Jaimini was describing about the greatness of Purusottam Kshetra to the assembled sages, all of them curiously asked him “Where is Purusottam Kshetra ?” Jaimini replied Purusottam Kshetra is situated at the eastern coast of Bharatvarsha and to the south of the river Mahanadi which is in Utkal. There is a Nilagiri mountain at the sea coast known as Tirtha Raja Mahodadhi.

*Odra desha Iti Khyate Barshe Bharatsamgyake  
Dakhinasyodadhestire khetram Sripurusottamam*  
(Sloka 23Ch. 7 Skanda Puranam)

All the persons of this land are devotees of Lord Vishnu. This holy place never experiences natural calamities of any kind. This Purusottam Kshetra is graced by the presence of a majestic wooden idol Vishnu i.e. Lord Jagannath. During ancient time, Lord Vishnu incarnated as Varah liberated Prithivi (Bhu Devi) from the depth of Rasatala from the clutches of a mighty demon Hiranyaksha and Prithivi had then gained normalcy. Lord Brahma thereafter resumed the task of creation with forests, mountains and holy places wherever necessary in a beautiful manner.

Being affected with the task of creation and wondered about the means by which the human



beings could get escaped from three major types of sorrows that is Adibhoutika, Adhidaivika and Adhyatmika. Lord Brahma prayed Lord Vishnu for guidance and the latter directed him to go to Purusottam Kshetra for solution. This Kshetra is the holiest of all places in the world. Those who have fully devoted to Me take birth in this Kshetra. This place is not affected by deluge. I dwell at this holiest place leaving all my kith and kin as Lord Purusottam.

*Sarbasangaparityaktastatra tishami dehabhut  
Surasurabatikramya barteham Purusottame.*

(Sloka 36 Ch. 1 of Skanda Purana)

In That Kshetra there is one Banyan tree known as Kalpa Bata and near to that tree there is a holy pond called Rohini Kunda. Anybody who gets chance to take a holy dip in Rihini Kunda or get in contact with the water of that pond gets absolved from all of his sins in life. O Brahma ! You pay your visit to that place so that you will be able to know the virtuous of the place. Lord Brahma went to Purusottam Kshetra as per instruction of Lord Vishnu. On reaching Purusottam Kshetra Lord Brahma could see Lord Vishnu in the same form as he could see at the time of prayer and meditation. At this moment Lord Brahma saw a thirsty crow came and after taking bath in Rohini Kunda and seeing the celestial body of Lord Vishnu, his crow image was changed alike of Vishnu. Lord Brahma was astonished and thought that like crow all would be freed from vicious cycles of birth and death. Suryanandan Lord Dharmraj (Yamaraj) also equally thought that his power of causing death had no effect on people living in Purusottam Kshetra. Worried with this, Yamaraj rushed into Purusottam Kshetra and prayed for Lord Vishnu's intervention in the matter. Being satisfied with the prayer of Lord Yamaraj, Lord Vishnu glanced at Goddess Laxmi to advise Yamaraj. Goddess Laxmi replied- "Your aim and desire will not be fulfilled here; because this Purusottam Kshetra is our dwelling place and We will remain here always. Further whoever enters this place,

whether the man, animal, birds and insects, there sins will be completely absolved of like cotton sets in fire. Those who reside here are not under your control." Yamaraj then wanted to know the area of the Purusottam Kshetra. Goddess Laxmi said- Purusottam Kshetra resembles like a conch shape voluted towards the right hand side and its area is ten sq. miles, of which about six sq.miles are inside the sea for which the sea is known as Tirtha Raj. Rest portion of Kshetra is graced by the presence of Lord Shiva. They are Yameswar, Kapalmochan, Markandey, Isaneswar, Nilakantha, Khetrapala, Bilweswar and Bateswar. Man becomes liberated from gravest sins on worshipping the above eight Lord Shivas. Further the Purusottam Kshetra is well protected by eight Goddesses from all the eight directions. The names of these eight Goddesses are Mangala, Alamba, Kalaratri, Marichika, Ardhasini, Chandarupa, Sarbamangala and Khetreswari Vimala. As the center of this conch shaped Kshetra Lord Vishnu manifests Himself in the form of wooden structure as Lord Jagannath, Lord Balabhadra, Mother Subhadra and Chakraraj Sudarshan to bless all in the world.

---

Bhagaban Mahapatra, Sri Gundicha Vihar,  
Sarbodayanagar, Puri 752002.



## ODISHA-A DESTINATION OF CHOICE

Perpetually washed by the blue waters of the Bay of Bengal, Odisha aptly called the epitome of India, lies on the India's East Coast with a 482 km. stretch of golden sea-beach. With the alluvial belt running along the sea-coast, the State consists of rugged tracts dotted with jungle clad blue hills of the Eastern Ghats and occasionally broken by ravines and deep valleys. The innumerable villages nestling through the palm, coconut and mangroves with picturesque environment provide excellent atmosphere and repose for the people who seek retreat from din and bustle. With deep woodlands, natural springs and wild riverine gorges, Odisha boasts varied and picturesque scenic grandeur.

At the dawn of history, Odisha formed part of the powerful kingdom of Kalinga which was practically co-extensive with the Odia speaking tracts and stretched from the mouth of the sacred River Ganges to that of the Godavari. In this land, Emperor Ashoka learnt the basics of Non-violence or Ahimsa. Kharavela, the Emperor and Gajapati Kapilendra Dev glorified this soil in the past which has been inscribed in the golden letters in the annals of history. 2500 years old ancient Odia language has been granted recognition being accorded with the classical status. Odisha is a land of rich diverse artistic achievements and has a distinct tradition of painting, architecture, sculpture, handier music and dance. This land of Lord Jagannath stands for harmonious fusion and assimilation of the tenets of mainstream of Indian religions like Buddhism, Jainism, Saivism, Vaishnavism into the eclectic cult of Lord Jagannath.

Our State houses world famous temples like the Lingaraj temple of Bhubaneswar, Jagannath temple at Puri and the Sun temple at Konark. The Jain caves of Udayagiri and Khandagiri and the Buddhist Viharas and the Stupas of Lalitgiri, Udayagiri and Ratnagiri are the unique landmarks of Odisha's architecture and artistic excellence. The Mukteswara temple at Bhubaneswar of 10th century is considered a gem of Odisha architecture. Odisha sculptures has majesty, grace and beauty, rarely found elsewhere. Enriched repertoire of Odisha art has a distinct identity of its own with the tie and dye textiles, sea-shell works, the appliquéd works, terracotta, pottery artefacts, lacquer works, bell metal ware, brassware, filigree, stone and wood carvings, patta paintings, golden grass and cane works which has made the daily life of Odisha artistic and offers avenues for flourishing trade and commerce. This year the State celebrated the Nabakalebar Rath Yatra after a gap of 19 years. The concerted efforts of the State Govt. in organizing this mega event and making it a grand success is indeed praiseworthy. Keeping in view the huge turnout of devotees from across the globe to Puri, the State Government has made remarkable infrastructural developments in and around Puri.

Today's Odisha is experiencing structural transformation with sectoral shift towards industries and services sectors. Bestowed with abundant natural resources, the State offers many opportunities for investors in all fields of trade and commerce. Odisha is emerging as an industrial destination. The State considers industrial growth as a means to sustainable livelihood by promoting higher capital formation absorbing supply of workforce. To realise those benefits and hasten the socio-economic changes, industrial development is accorded top priority by the State Government. As a result, industry and service sector have emerged as main drivers of growth during the past decade.

A vibrant industrial eco-system, abundant availabilities of skilled manpower, an excellent road, rail and port connectivity coupled with a progressive and responsive administration is going to feel the industrial growth in the coming years.

### **Food Security – Ensuring Food for All**

To ensure a hunger free Odisha and food security, the state government is providing rice at Rs. 1 per kg to people living below poverty line as well as scheduled castes and schedule tribes, disabled and beneficiaries covered under Antyodaya Yojana. With the launching of National Food Security Act in the State on 2nd October, 2015, 3.26 crore people are entitled to avail 5 Kg of rice or wheat at subsidized rate. 78 % of the total population of the State have been covered under the programme. 56% of the urban population and 82% of the rural population will be benefited under this programme. To ensure food for all, the State Government would continue supplying subsidised rice among the 473737 inmates of ST & SC hostels from the State coffer. For this, digitized ration cards have been distributed and the Government has prepared the final list of beneficiaries in such a way that not a single beneficiary is left out. The State Government has implemented "Aahaar" Scheme which provides subsidised cooked meal @ Rs.5/- for urban poor in five towns.

### **Education for all – emphasizing human resources development**

The State Government has been consistently striving to improve literacy level and quality of education in the State by providing free text-books, uniform to students, bicycles to the students of Class-X. To strengthen school education the State Government has decided to establish model schools in CBSE pattern in all 314 blocks in phases from its own resources. In addition, a large number of vocational and technical institutions have come up during last few years to help equip the youth with employable technical education and soft skill. National level institutes like IIT, Bhubaneswar, AIIMS, Bhubaneswar, NISER, Bhubaneswar, IIM Sambalpur, Central University at Koraput and National Law University at Cuttack have been set up in the State. Free Laptops have been distributed to the meritorious +2 students. Odisha Youth Innovation Fund Scheme has been launched for enhancing entrepreneurship and innovative ideas among the youth.

### **Agriculture-Prioritizing the interest of the Farmers**

Agriculture continues to remain a priority sector for the State because of its high potential in employment generation, inclusiveness and sustainable growth. The irrigation potential created has increased by 13.25

lakh hectares from 36.06 lakh hectares in 2000-01 to 49.3 lakh hectares in 2013-14. 10 lakh acres of farm land is to be irrigated during a period of five years. Thrust is given to enhance productivity of important crops by seed replacement, availability of quality planting material, water management, farm mechanism and technology transfer. Biju Krushak Kalyan Yojana, a path breaking state sponsored health insurance scheme is being implemented to provide at least five members of farmers' family with health security. The State has been awarded prestigious Krushi Karman Award thrice in the last four years for excellence in agricultural productivity.

### **Make in India**

Odisha is one of the richest mineral States having iron ore, chromites, nickel, bauxite ore and coal deposits to the extent of 33%, 97.9 %, 92.5 %, 51% and 33.2 % respectively of the total deposits of the country. Apart from the investments in mineral based sector, the State has taken initiative to attract large scale investments in agro- processing, auto-components, textiles, apparel and ancillary and downstream industries. The State Government has made pioneering efforts in formulating a robust rehabilitation and resettlement policy by adopting a holistic livelihood approach for rehabilitation and resettlement of project affected families.

With the appropriate management of good governance, Odisha has been a primary destination for setting up a good number of large and medium industries in the State. This has enabled the State to sign MoUs with reputed investors across sectors like Steel, Aluminium, Cement, Power etc. Of 93 MoUs, 49 have been signed with various steel promoters with an investment of Rs.2,30,422 crore for an estimated production of 83.66 million tonnes per annum. Of these 49MoUs, 30 projects have started partial production of 12.66 MTPA of Steel, 11.45 MTPA of Sponge Iron and 4.23 MPTA of other products. The Government of Odisha has initiated steps to create mega integrated Petroleum, Chemicals and Petrochemicals Investment Region (PCPIR) on 284 Sq. km land in Jagatsinghpur and Kendrapara districts. This will be the fourth PCPIR in the country. By boosting manufacturing sectors, Odisha Government implemented Industrial Policy Resolution-2015 with plan to attract fresh investment of Rs.1,73,000 crore in 4 years and targeting direct employment to about three lakh people. The policy focuses on providing quality industrial infrastructure, creation of a large land bank, financial assistance to the private sector for development of industrial infrastructure and sustainable environmental protection. The aim of the policy is to make Odisha "a destination of choice," for industrial enterprises.

### **Healthier Citizenry: Sign of a prosperous State**

Health is a state of complete physical, mental and social well being and not merely the absence of diseases or infirmity. Keeping this in view, State Government prioritises "Health for All". Mamata Yojana is an important intervention aimed at well being of pregnant and nursing mothers. Establishment of Odisha State Medical Corporation for procurement and distribution of free medicines "Niramay", free 108 Ambulance Service for all, free 102 ambulance service for pregnant women and children are other key interventions to keep everybody healthy. Upto Rs.3 lakh medical treatment assistance is provided to the critically ailing patients through Odisha State Treatment Fund.2nd phase of Mission Indradhanush and Pentavalent 5-in-1 immunisation programme launched to reduce rate of infant mortality and to protect children below 5 years of age from 5 diseases.

### **Ameliorating the average standard of living**

Odisha is making consistent efforts for reducing poverty and achieving Millennium Development Goal. There has been a tangible reduction in poverty by 24.6 percentage points between 2004-05 and 2011-12 in Odisha as per the Tendulkar Committee methodology. Besides, seven lakh Pucca houses are to be constructed under Biju Pucca Ghar Yojana for economically weaker and low income groups by end of current financial year. Around 10 lakh construction workers in the State registered till date for availing special package. "Biju Gaon Gaddi Yojana" implemented for better connectivity in the inaccessible, scheduled and backward regions. Department for "Social Security and Employment of Persons with Disabilities" is now functional for the welfare of senior citizens, transgender and differently-abled persons. The State Government recently launched 'ABAAS' Urban Housing Mission with an aim to provide affordable dwellings to economically weaker section, low income groups and slum dwellers in urban areas along with basic amenities like pipe water supply, electricity, concrete roads, drainage and community centre. To ensure safe drinking water to the rural people, the state government has installed 395920 spot water sources and 9618 pipe water supply projects across the state. 115827 homesteadless families and 35780 landless families in the rural areas have been provided with homestead land and cultivable waste land respectively. The State Government has added 50 additional mandays with the provision of normal 150 mandays under Mahatma Gandhi National Rural Employment Guarantee Programme.

### **Infrastructure : Accessing better living**

Good infrastructure is a pre-requisite for accelerated development and higher economic growth. Therefore, the State Government focuses on Bijli, Sadak and Pani. The State Government signed MoUs with independent power producer to set up thermal power plant having a capacity of 37,440 MW of which State's share would be 6,141 MW. An economic Corridor from Jagdalpur to Rourkela named "Biju Express Way" is in progress at an estimated cost of Rs.3200 crore which is considered as lifeline of western Odisha and KBK districts. An ambitious programme for increasing the number of bridges and cross drainage under Biju Setu Yojana has been undertaken to ensure all-weather connectivity to remote habitations. Chief Minister's Sadak Yojana launched to connect villages not included under any other rural connectivity programme. Cement Concrete Road in all the villages has facilitated the rural mass for better connectivity. Moreover, Gopabandhu Grameen Yojana have been extended to 30 districts of the State strengthening thereby the basic infrastructure of rural Odisha. The State is to make provision of world class infrastructural facilities for industries with active participation of private sector; thereby encouraging the public private partnership.



# GOOD GOVERNANCE

# Pro-People Initiatives by Government of Odisha for Inclusive Development

## **Niramay (Free Distribution of Medicine)**

- \* Free distribution of medicines to the patients undergoing treatment in all Government Hospitals.
- \* To start with Niramay is going on the three government run medical colleges, 30 district headquarters hospitals besides Capital Hospital and Rourkela Government Hospital.
- \* 570 nos of different medicines will be provided free of cost.
- \* The State Government will distribute essential quality medicines through procurement agency Odisha State Medical Corporation.
- \* Tertiary-level medicines for cancers and heart diseases will be part of the free drugs in Government hospitals.
- \* Drug distribution counter will be opened in medical colleges, district headquarters hospitals, community health centres and public health centres.

## **Aahaar (Subsidised Cooked meal for urban poor)**

- \* Provision of cooked meal under “Aahaar Scheme” @ Rs.5/- per meal for the urban poor.
- \* The scheme is in operation in 5 major towns of Odisha.
- \* Apart from Bhubaneswar, the scheme is also implemented at Rourkela, Cuttack, Berhampur and Sambalpur.
- \* The subsidised meals would be provided to the patients, attendants of patients, street children, rag pickers, street vendors and rickshaw pullers at people visiting urban areas for various works at four crowded places in each of these five towns from 11 AM to 3 PM.
- \* About 20,000 people per day will be benefited under the scheme.
- \* Decision has been taken for expansion of this scheme to all district headquarters hospital and other industrial cities.

## **Biju Expressway (An Economic corridor from Jagdalpur to Rourkela)**

- \* Biju Expressway, considered as the lifeline of Western Odisha, envisages to connect 8 backward districts of Western Odisha and KBK region.
- \* From Chandli village of Koraput district to Rourkela of Sundargarh district it will pass through inaccessible, backward and maoist-prone areas of 8 districts of KBK and Western Odisha.
- \* 656 km long Expressway will be constructed at an estimated cost of Rs.3200 crore.

- \* In the first phase 254km corridor would be converted into four lanes and the rest 402 km widened to two lanes at a cost of Rs. 1471 Crore.
- \* In the second phase 258km road would be made four lane at a cost of Rs. 1729 crore.
- \* It would be completed by the year 2019.
- \* It would be immensely helpful in boosting agriculture, industrial activities and socio-economic condition of Bargarh, Sambalpur, Jharsuguda and Sundargarh districts of Western Odisha and Koraput, Nabarangpur, Kalahandi and Nuapada districts of KBK region.

### **Mamata Yojana (Extending financial support to pregnant and nursing mothers)**

- \* Mamata is an important intervention aimed at welfare of pregnant and nursing mothers and to increase utilisation of maternal and child health services, especially ante-natal care, post-natal care and immunisation.
- \* It is a conditional cash transfer scheme that compensates partial wages to them so that they are able to get rest adequately during their pregnancy and post-delivery period.
- \* Under this scheme Rs.5000 will be paid to six lakh pregnant and nursing mothers in rural areas in instalment.
- \* The target beneficiaries are pregnant women of 19 years of age and above for the first 2 live births, except all Government/ PSU employees and their spouses.
- \* Women registered with Anganwadi Centres will receive Rs. 5000 in four instalments through bank account.
- \* The instalments have been designed to ensure that the beneficiaries get cash assistance in every three months, after they fulfil certain condition like immunisation, vaccination, ante natal check up and other formalities related to child birth and health of new born.

### **Industrial Policy Resolution-2015 (Ease of Doing Business)**

- \* The Industrial Policy Resolution-2015 is formulated to create conducive environment through an enabling policy and regulatory framework to drive sustainable industrial growth in the State.
- \* The State shall guide and facilitate the investors through a dedicated ‘Facilitation Cell’ and a robust single window clearance mechanism.
- \* The Policy focuses on providing quality industrial infrastructure, creation of large land bank, financial assistance to the private sector for development of industrial infrastructure.
- \* The State has taken initiative to promote the priority category such as Information Technology, IT Enabled Services, Electronic System Design and Manufacturing, Bio-Technology, Agro, Marine and Food processing, Tourism, Textiles and apparel and automotive industries.
- \* To encourage linkage between MSME and large industries and make focused efforts for development of ancillary and downstream industries.
- \* Industrial units shall be eligible for incentives in land, interest subsidy stamp duty, electricity duty, vat reimbursement, entry tax, employment cost subsidy, patent registration, assistance for technical knowhow.

**Biju Pucca Ghar Yojana (Shelter Security for All)**

- \* Government of Odisha is committed to convert all the Kutcha houses to Pucca houses by the year 2019.
- \* The Rs. 3000 crore new scheme has been launched with the objective of converting all the Kutcha houses in rural areas into Pucca house within 5 years.
- \* The unit cost for construction of new Pucca houses is Rs. 70,000 for non IAP districts and Rs. 75,000 for IAP districts.
- \* About 5 lakh houses will be constructed in a year for next four years.
- \* The rural household whose name does not find place in the BPL list but is otherwise genuinely poor, and not having a Pucca is eligible to get a Pucca house.
- \* The houses to be constructed by the beneficiaries themselves.
- \* At least 3% of the houses will be reserved for people with disability from each category.
- \* Selection of beneficiaries is made on the data available in SECC 2011 survey as updated from time to time through lottery.

**ABAAS (Dwelling Unit for Urban Poor)**

- \* ABAAS-the Odisha Urban Housing Mission-that envisages at providing all residents of urban areas access to range of housing options in the State was launched recently.
- \* The State Government is looking at creating one lakh dwelling units for urban poor in different cities over next five years.
- \* To start with 10,000 houses for economically weaker section and low income groups will be constructed in Bhubaneswar.
- \* Protection and welfare of slum dwellers by providing affordable houses along with basic amenities such as pipe water supply, electricity, concrete road, drainage and community centres.
- \* The mission will supplement the central scheme Pradhan Mantri Awas Yojana. The State Government will contribute land free of cost and grant permission at no cost.
- \* Pre-cast and pre-fabrication technology will be used for quick construction of the houses.

**Re.1 per Kg Rice Scheme (Ensuring Food Security)**

- \* The State Government is providing rice at Re. 1 per Kg to people living Below Poverty Line (BPL) as well as Scheduled Castes, Scheduled Tribes, Disabled and beneficiaries of the Antyodaya Scheme since the year 2013.
- \* People living Above Poverty Line (APL) in the backward KBK (Undivided Kalahandi, Bolangir and Koraput) districts are also provided rice at the same rate.
- \* The government is providing 25 Kg of rice at Re.1 per Kg every month to each family of above mentioned category.
- \* The scheme is aimed at providing benefits to over 58 lakh families and to ensure a hunger free Odisha and food security.
- \* Earlier, the State was providing subsidised rice @ Rs.2 per Kg per family to about 5 million people including poor and other selected categories since 2008.

### **Gopabandhu Grameen Yojana (GGY) (A special Development Programme)**

- \* Government of Odisha have launched the Gopabandhu Grameen Yojana, with a view to providing additional developmental assistance to the targeted eleven districts which are not covered under Backward Regions Grant Fund launched by Government of India.
- \* Now the scheme is being implemented in all the 30 districts of the State.
- \* The basic objective of the scheme is to provide additional development funds for the purpose of infrastructure development which primarily aims at Bijli, Sadak and Pani to every revenue village on need based manner.
- \* Construction of cement concrete roads inside village with drainage facility shall be given maximum emphasis. The approach road/ link road from the main road to the village can also be developed.
- \* Items such as street lighting, lighting at places of congregation, electrification of Government residential/ non-residential schools will be taken up.
- \* Priority will be given for replacement of burnt transformer.
- \* Maximum emphasis shall be laid on work such as renovation/ excavation of village tanks, strengthening of embankments, construction of water harvesting structures, field channels and such similar projects enhancing irrigation facilities.

### **Odisha State Policy for Girls and Women (Empowering women)**

- \* “Odisha State Policy for Girls and Women” is to ensure an enabling environment for girls and women that promotes equal opportunities, eliminates discrimination, achieve holistic development and empowerment through changes in social attitudes, building strong institution and enhancing capacities.
- \* Enabling provision of inheritance, equal rights for women.
- \* Free homestead land of 4 decimals in rural areas to women belonging to low income group and not in possession of any house or homestead land and who are either widowed, unmarried, divorced or separated from husband, having attained 45 years of age or more or women with more than 40% disability who have attained 30 years age or more.
- \* Create a conducive environment for women leadership and effective participation in decision making.
- \* Establishment of working women’s hostels so that women’s safety and security is ensured that they are encouraged to work in the formal sector away from home.
- \* A notable livelihood initiative of the Government is Mission Shakti, a movement that has by now created more than half a million women SHGs.

### **Adarsha Vidyalaya (Model School)**

- \* To strengthen the School Education in Odisha the State Government has decided to establish model schools of CBSE pattern in all 314 block headquarters in phases from its own resources.
- \* These schools will be built at a cost of about Rs. 4.5 crore each and will be affiliated to Central Board of Secondary Education.
- \* It shall educate rural children from Class-VI to Class-XII.

- \* In the first phase 104 Adarsh Vidyalayas will be opened from the academic year 2016-17.
- \* It will provide high quality English medium school in each block headquarter with infrastructure and facilities as in Kendriya Vidyalaya.
- \* Besides usual syllabus, students will be imparted vocational training keeping in view of their employability.
- \* Stipulation as pupil-teacher ratio, ICT usages, holistic educational environment, appropriate curriculum and emphasis on output and outcome.

### **Mukhyamantri Sadak Yojana (All -Weather Connectivity)**

- \* With the objective of meeting the connectivity requirements of the habitation that are not eligible under Pradhan Mantri Gram Sadak Yojana programme or any other connectivity programme, the State Government has decided to implement Mukhyamantri Sadak Yojana.
- \* It will provide all-weather connectivity to the unconnected habitation with population of 100 and above.
- \* Only the roads requiring new construction will be taken up under this scheme.
- \* Single road connection is to be provided.
- \* The prime objective of the scheme is to construct at least one road in each village.
- \* 408 roads in 29 districts will be constructed in the year-2015-16 under Mukhyamantri Sadak Yojana.

### **Mission Shakti (Empowering women)**

- \* Empowerment of women is one the key development initiatives identified by the Government of Odisha.
- \* Helping Women to achieve economic independence by enabling them to have independent employment and income has been accorded topmost priority.
- \* Promotion of Women's Self Help Groups (WSHGs) has therefore been adopted as a key strategy for achieving women's empowerment.
- \* A mission approach has been adopted for this purpose through launching of Mission Shakti which aims at promotion of Women's Self Help Groups.
- \* Providing them required technical support, market linkages and credit linkages wherever necessary.
- \* Till date 5.63 lakh women SHGs have been formed where more than 67 lakh women are directly involved across all geographic location, covering all castes and tribes.
- \* Till date financial assistance of Rs.23,783.44 lakh has been given to 3,42,435 nos of WSHGs.

### **Educational Initiative for ST&SC Students (SC & ST Hostel)**

- \* There are 1670 residential schools with over 4700 Hostels functioning with an enrolment of 4,50,000 SC & ST students of which about 60% are girls.
- \* In order to encourage and motivate SC students to continue their education, the State Government will increase the number of hostels for SC students at the Ashram/ High Schools.

- \* The Government is going to construct another 350 hostel buildings in Ashram/High Schools and 100 nos of Hostels in Colleges/ Universities.
- \* Enrolment of girls in primary schools has been possible on account of hostel facilities.
- \* Reduction of dropout among students.
- \* Reduction in gender inequality.
- \* High importance to the safety and security of girls and boys in schools and hostels with particular attention to prevent any form of abuse and exploitation.

### **Swachha Bharat Mission (Gandhiji's Dream of Clean India)**

- \* Access to every person with sanitation facilities including toilets, solid and liquid waste disposal system, village cleanliness and provision of adequate drinking water.
- \* The Government of Odisha has taken strong initiatives and strives to make Odisha open defecation free by 2019 by ensuring construction and use of individual household latrine alongwith environmental cleanliness.
- \* Encourage cost-effective and appropriate technology for ecologically safe and sustainable sanitation. Emphasis on construction of school toilets and Anganwadi toilets.
- \* Focus on behaviour change with regard to toilet construction as well as its use.
- \* Provision of community sanitary complex. Kashinagar of Gajapati District becomes the first Block to be open defection free Block in Odisha.
- \* Swachha Bharat Mission is gaining ground and becomes a movement all over Odisha.

### **Water Resources (Potential & Achievements)**

- \* The surface water combined with ground water make Odisha a water rich State of the Country.
- \* The State has created water resources assets in the form of major, medium, minor flow, minor lift irrigation project and a wide network of canal system covering length and breadth of the State.
- \* The State is committed to provide irrigation facilities to 35 % of the cultivable land in each of 314 Blocks of the State.
- \* The main objective is to provide irrigation facilities to all the 198 deficit Blocks during 12th Plan period.
- \* Till date 19538 Km of canal completed under major, minor and creek irrigation projects and 9376 Km under 2461 minor irrigation projects.
- \* Ample opportunity to create water infrastructure to build storage, boost irrigation potential to guarantee food security.
- \* The State Government is committed to create conducive environment and facilitate water allocation to investors for establishing industrial ventures.

## Exclusive Interview

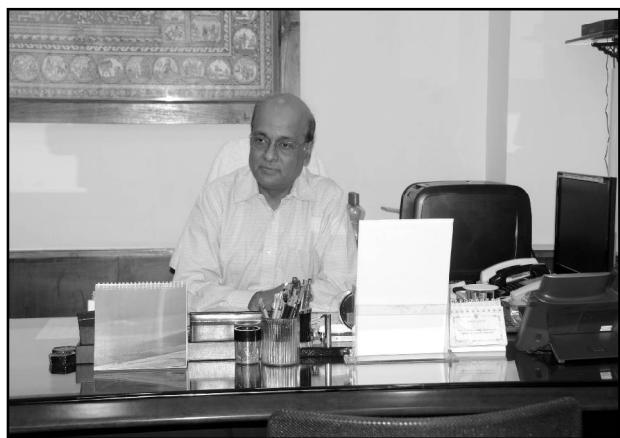
# "The Successful Nabakalebar is a Collective Achievement of the Government led by Hon'ble Chief Minister"

— Shri Gokul Chandra Pati, Chief Secretary

**We took some time to meet and have an interaction with Shri Gokul Chandra Pati, Hon'ble Chief Secretary, Government of Odisha to have his views on multiple issues pertaining to development scenario of the State and implementation of Government policies. Substantially unassuming, simple, suave, dynamic and having an impeccable administrative career of more than 3 decades Shri Pati assumed the Office of the Chief Secretary on 1.8.2014. He opines that "Every problem in life can be a step towards your achieving the ultimate goal. For every problem there is a solution. We have to get together and find that solution and move forward in life. Let us go ahead on the path of entrepreneurship, creativity and innovativeness." Shri Gokul Chandra Pati has an illustrious executive career. Shri Pati has completed his HSC from Mangalpur High School, B.Sc. from Ravenshaw College, Cuttack and M.Sc. from IIT, Kanpur. He has also acquired a Masters Degree in Business Administration from Australia. Shri Gokul Chandra Pati joined Indian Administrative Service in the year 1978 and has a wide range of expertise and experiences in grassroot level administration as also in industries, rural development, labour and employment, communication and information technology and defence production. He has also acquired special training and skill in poverty alleviation, agriculture and rural development, organisational behaviour, international trade, inter government financial relations and e-governance. An Exclusive interview by the Editor, Odisha Review with Chief Secretary, Odisha Shri Gokul Chandra Pati.**

**Editor, Odisha Review - What is the strength of Odisha for higher growth rate and what are the priority sectors ?**

**Chief Secretary-** Odisha has an excellent potential for higher growth mainly because of its potential for industries. It is rich in mineral resources like iron ore, chrome, bauxite and due to Government policy the value addition to these mineral resources have really taken a big boost. Large numbers of industries with huge investments have come to the State and so there lies the potential for industrialization. There is a huge scope for value addition downstream in terms of ancillary and sister units, which is already happening. At the same time this industrialisation has given a big boost to the technical education



as a result of which a large number of educational institutions, professional institutions have come up in the State. **The State has virtually become an educational hub in eastern India and also an excellent hub for medical institutions/ hospitals.** So in all these areas there is extensive potential for growth. At the same time Odisha's economy by and large is an agricultural economy where more than 70 % of the people particularly in rural areas depend on agriculture. **Unfortunately agriculture here is subject to vagaries of nature, weather and climatic fluctuation.** Last year we had flood and cyclone like HUDHUD, before that we had Phailin and this year we are having deficient rainfall as a result of which paddy cultivation has been badly affected in a number of districts. This is a major problem. Seventy per cent of people depend on agriculture which is vulnerable to these weather fluctuations like flood, cyclone and drought. This has really affected the farmers very badly. We have to have a strategy where the farmers can take up scientific agriculture which will be reasonably resilient to these weather and climatic fluctuations. Then only real growth can commence. Benefit of growth can be enjoyed by a larger section of people particularly the farmers and poorer sections of the society. That is the challenge. Only Industrialization will not be enough or adequate. While we have excellent potential for growth and scope for higher economic growth but for the greater benefit to the people we have to give equal stress or more stress on development of agriculture, irrigation and adoption of the technology by the farmers. In such a way the agriculture will be reasonably resilient to climatic changes.



**Editor, Odisha Review - You have been in charge of defence production and you have been an excellent administrator. You have also been in charge of State administration simultaneously. During your tenure, there has been a beautiful micro management of natural vagaries as well. What is the enthusiasm that keeps you motivated for such challenging assignments ?**

**Chief Secretary - Here the zeal to do the work is because of the expectation of the people, expectation of the Government that is big motivating factor and doing for my State Odisha is a matter of pride for me. But let me tell you that the achievement is not of mine. I don't claim it to be of mine. It is the collective achievement of the Government which is headed by Hon'ble Chief Minister and all of us like all Secretaries including Chief Secretary is a part of the team.** This team has taken up a number of responsibilities that has been entrusted to it. The team has performed reasonably well but I should say still I find there is a lot of scope for improvement in a number of areas and there is always a scope for continuous improvement, that is my feeling. All these micro managements of natural calamities have evolved over a period of years. It is not a matter of one year or two years of work. With experience right from the year 1999 we had to face the super cyclone in Odisha. Administration has come in a big way to enable itself to tackle all the natural calamities very effectively. All credit goes to the entire administration. **The entire team who has been a part of it and also the credit goes ultimately to the people.**

**Editor, Odisha Review - Your experience about State Administration and as a person with such a vast experiences your message for the new entrants?**

**Chief Secretary - My message for the new entrants is to keep their mind always open to the new ideas. You don't know who can give an excellent idea for you to act upon.** This may be an ordinary farmer in the village, who can show you an excellent way how to manage a particular adverse situation. I can see there are a number of reports for example small and marginal farmers, women farmers how they have been able to effectively handle the drought-like situation that we are facing. So by proper mix up of cropping a proper strategy by a small farmer in a remote village has proved to be very effective. **We have to keep our mind open always and have a willingness to learn from a good work which is being done by anyone.** Any human being is capable of doing something brilliant and it is up to the administrator to always look for these kinds of instances and pick up such type of good works and try to make it a system so that this excellent example can be replicated in a larger way and benefit can go to the larger number of people.

**Editor, Odisha Review - It has been a long span of administrative experience of last 3 decades. Can you site one thing which has touched the most ?**

**Chief Secretary -** After super cyclone in 1999, the way the administration came together under the leadership of Hon'ble Chief Minister and went ahead to professionally handle the rehabilitation, reconstruction that was very unique and memorable for me. There are number of issues besides this work. The other thing is that during the last Navakalevar, the way the entire administration responded as a team as was required. It was not the job of one particular department. **Everyone came together and supported each other and worked like a real team which resulted in the successful conduct of the last Navakalevar. So that was very very remarkable achievement. I am thankful to all the departments and everybody who has been a part of this particular team.**

**Editor, Odisha Review- I wanted to ask you the challenges that a policy maker and executive encounters in the State administration ? You have been there for a quite long time. Sir, few challenges you have faced ?**

**Chief Secretary -** Number of challenges. You know, one as Commissioner, Commercial tax, the challenge was how to switch over from an age old tax system to a value added tax system. Process of reforms, discussions, consultations we had to go through that everybody had a lot of concern and reservations. It was a huge challenge to make the people convinced and convince officers and colleagues of the departments, convincing them that there is a much superior system than the sale tax. It was a big challenge and I am very happy to say that all of them had been very responsive and ultimately the value added tax has been implemented very successfully in the State bringing higher revenue in the course of time. The other bigger challenge I faced as Secretary, Rural Development when the Pradhan Mantri Gram Sadak Yojana was announced for the first time and first lot of projects were being implemented. The scheme had a provision that whatever land will be required for improvement and widening of the road the land acquisition will not take place and the land owners have to voluntarily donate the land. So in respect of the farmers and the land owners there was a lot of opposition for voluntarily donation initially. This was a major challenge and we launched a campaign to convince the

land owners that how the widening of the road and improving the roads will be ultimately beneficial to the land owners and to the villagers and they should co-operate and we encouraged them to discuss in village level meetings together in a group so that the villagers can come together and convince the affected land owners to voluntarily donate the lands to utilize for expanding and widening the roads. All these logics were used and I am happy to say that finally the people were convinced and they willingly came forward to voluntarily donate their land. Then the Projects were implemented very successfully. Till date, there has been no problem absolutely in implementation of this important Pradhan Mantri Gram Sadak Yojana.

**Editor, Odisha Review - *Your take on Land Bank Concept ?***

**Chief Secretary** - That, we find the acquisition of land is being the most critical and problematic area for any industry or investors. That has been the reason for delay and litigation etc. So we thought of land bank. If you can identify the Government land i.e. available and which will be suitable for industries and which will not be utilized for agriculture and some other purposes. Then perhaps industries can come and choose from this land. Once the Government land is identified the contiguous private land can be purchased by IDCO as per the existing policy and the entire patch become contiguous. The infrastructure provisions like fencing, approach road, electricity provision can be taken up by IDCO beforehand depending on the potential of that particular location. All these steps can be taken in advance by IDCO so that the time generally taken by the industries for acquisition of land can be substantially reduced. This is the basis behind the concept of land bank. May be in Odisha it is new but this practice is adopted in many developed states like Maharashtra, Gujarat and many other states. That is the idea from where this concept of land bank was developed and when we started dialogue with the Collectors about identifying these land they responded very positively and as a result we now have land bank and the proposal has been worked out and finally approved by the cabinet. So this will substantially help facilitating the investment to the state.

**Editor, Odisha Review - *What has been the greatest achievement in the long course of your profession as a civil commander ?***

**Chief Secretary** - Very difficult to say what can be greatest achievement ? **I should say I have learnt a lot in my career and my ideas have continuously been enriched as I have progressed in my career and enriched myself with very valuable experience. I am really very thankful and grateful to everybody for that, as far as achievement is concerned.** I don't credit myself with any achievement. I feel whatever achievement that you are saying or others are saying the achievement is, thanks, due to the entire team. May be I have been able to guide the team and provide the leadership whenever required but I don't claim the credit for the achievement in the administration. **Here the achievement belongs to all and belongs to the State. It does not belong to any particular individual officer.**

**Editor, Odisha Review - *Will you please relate any memorable incidents/regrets in your career for guidance of future incumbents ?***

**Chief Secretary**- There are many failures also. I should say many things I wanted to do but could not be done because of many reasons. For example, I wanted to say that a number of industries are running

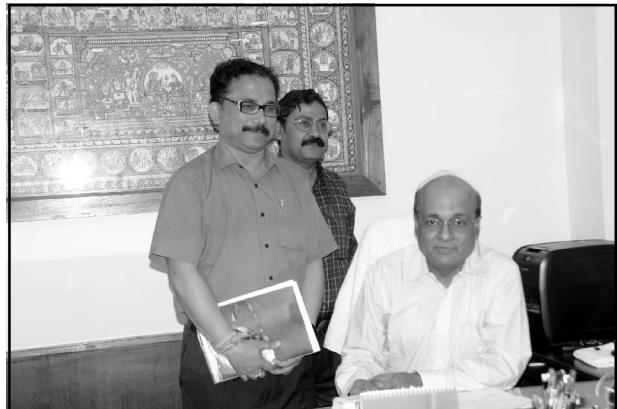
below capacity. There is a huge investment which is idle in the State. I wanted to create an atmosphere where actually this idle capacity can be utilized. But this did not happen because of many reasons like external reasons, general sluggishness in the market and relatively slow overall growth in national and international conditions. So I can say this is something which could not be achieved. I have created a framework and improved the facilitation mechanism to single window and other reforms for ease in doing business in Odisha which will eventually ease out this problem. I should say that there is strictly nothing as such I can call regret. There are number of ideas in my personal list which could not be achieved because of number of reasons as I say.

**Editor, Odisha Review - *One last question Sir. It has been a brilliant career of yours. Who have been your ideal ?***

**Chief Secretary** - As my ideal there are many senior officers whom I respect, my senior colleagues both in the State and in the Govt. of India. It will not be appropriate to name anyone in particular. All of them are my ideals and I really respect and try to follow their dynamism and ideals. **But there are also a number of my subordinates and other colleagues to whom I also appreciate. Number of them have shown exemplary qualities which I have tried to imbibe as well. Let me also say generally the political leadership with whom I have worked so far fortunately have been very kind and I have seen exemplary leadership quality in most of them.**

**Editor, Odisha Review - *Your message for young people of Odisha ?***

**Chief Secretary** - The message for the young people from Odisha that under no circumstances we should be disappointed or there is no cause for feeling disappointed or depressed. Every problem in life can be a step towards your achieving the ultimate goal and improvement. So therefore for every problem there is a solution. We have to get together and find that solution and move forward in the life. There would be any problem or crisis situation one has to face but the real strength lies in going ahead and overcoming the crisis rather than getting depressed and feeling helpless which needs to be avoided at all cost. The second thing is that there is lot of potential for entrepreneurship in our youth and a number of young persons are coming forward with their enterprises and they are doing very well. Now, this should be taken as ideal where everybody can do and can excel in any area wherever he or she has some strength. **My message to young generation is that, please go ahead on the path entrepreneurship, creativity and innovativeness.**



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***Dr. Lenin Mohanty, Editor, Odisha Review***

# Maritime Activities of Early Odisha : An Archaeological Perspective

*Dr. Benudhar Patra*

Maritime archaeology opens up new vista in the field of research on the early Odishan maritime history. It, however, is not confined to the study of archaeological remains under water, rather it includes the study of various aspects such as identification of landing places, harbours, the nature of wood work, sea routes, cargo items etc. It is the archaeological excavation that has unearthed a number of ports like Che-li-ta-lo/ Manikpatna, Khalkattapatna, Palur/ Dantapura, Dosarene etc., which confirm early Odisha's maritime activities on a firm footing. It also proved ancient Odishan interaction with the countries of South-East Asia and the western world. Archaeological excavation, indeed, has tremendous contribution towards unearthing the glorious maritime activities of early Odisha or Kalinga. In the present paper, an attempt has been made to reconstruct and analyze the maritime heritage of Odisha on the basis of excavated and explored materials along with epigraphic records, numismatics, art, architecture and sculptural evidences. It is also intended to deal with the problems and prospects of maritime archaeology in Odisha.

Odisha is veritably an *El Dorado* of archaeological remains lying scattered throughout the state. The recovery of some pre-historic tools during the second half of the 19<sup>th</sup> century by V.

Ball<sup>1</sup> and exploration of some other pre-historic sites, for the first time, gave us an idea regarding the progress of society in Odisha from hunters to breeders and food production and settled life. The excavations at Kuliana, Kuchai and Baiyapur in the Mayurbhanja district of Odisha have yielded the evidences of the use of polished shouldered tools, rice and cord-impressed pottery belonging to the Neolithic age. In view of the technological affinities of shouldered adzes with those of the South-East Asian countries it is believed that Odisha's maritime connections with the South-East Asia probably began from the Neolithic period. However, the possibility of introduction of shouldered adzes into India through land-route via north east India cannot be ruled out.

At Sankarjung (Lat. $20^{\circ} 51' 113''$  N and Long. $84^{\circ} 59' 483''$  E), in the Angul district of Odisha, the initial spade work by the Department of Archaeology, unearthed the cultural stratum of Chalcolithic period. On the basis of the bar-celts, discovered from Sankarjung it can be argued that they were the earliest musical instruments in India and in structure were similar to those in Vietnam,<sup>2</sup> which reinforces our conviction that early Odisha had cultural link with Vietnam in ancient times.

The recent excavations conducted at Golabai Sasan (Lat. $20^{\circ} 22' 103''$  N and Long.

85° 342 363 E) in the Khurdha district by the Excavation Branch, ASI under B.K. Sinha<sup>3</sup> has provided us evidences of “Copper Age” along with a sequence from the Neolithic period to the Iron Age. On the basis of materials, obtained from the excavation, the sequence of culture though can be divided into three phases, i.e. period I- Neolithic (*c.* 1600 BCE), period II A-Chalcolithic (evidence of copper, *c.* 1400 BCE to *c.* 900 BCE) and period II B Iron Age (*c.* 900 BCE to *c.* 800 BCE) the latest determination of dates by carbon 14 traced the earliest level of Golabai to *c.* 2300 BCE. A large number of material remains, tools of stone, bone and copper have been discovered from this site. The polished tools include celts, adzes, shouldered celt, chisel, etc. The bone tools, made of antler and semi-mineralised bone comprised digging tools, points, burin, chisel, long points (27cm), arrow heads and harpoon. The copper objects obtained from the site include bangle, rings, chisel and a fishing hook. Of these discoveries, the bone implements, harpoons and polished stone adzes which indicate a culture where people possibly lived mainly on fishing, and probably building boats is most noteworthy. Especially, the recovery of a sizable number of adzes for wood working gives the positive indication that Golabai was a boat building centre.

The systematic excavation at Shishupalgarh (Lat. 20° 132 303 N and Long. 85° 512 303 E) near Bhubaneswar by B.B. Lal<sup>4</sup> revealed one integral culture throughout different stages and brought into light rouletted ware, knobbed ware, glass beads, semi-precious stone beads, clay bulla resembling Silenu’s head imitated from those of Roman coins, a unique gold medallion showing “Kushana type of standing king and a Brahmi legend in character of third century A.D. [CE] on the obverse and Roman head with a Roman legend on the reverse.” One of the most

concrete data obtained from the excavation is that it proves ancient Odisha’s maritime contact with the Roman world on firm footing. The discovery of rouletted ware which is regarded as an important evidence for Indo-Roman trade from Shishupalgarh, Manikpatna and Radhanagar in Orissa, Chandraketugarh, Tamluk in West Bengal, Salihundam, Dharanikota in Andhra Pradesh, Kaveripatnam, Uraiur and Arikamedu in Tamilnadu and from Buni complex in north Java, from Sembiran on the north coast of Bali, Vietnam, Sri Lanka, Bangladesh etc., implied the Roman trade network among these places. It also suggests a trade route connecting the eastern coast of India with the South-East Asia.<sup>5</sup>

The excavations at Bamanghati in the Mayurbhanja district of Odisha and Tamluk in the Midnapur district of West Bengal (Tamluk known as Tamralipti in ancient times was in the geographical limits of Odisha) also testify to the flourishing maritime trade of ancient Odisha. A large number of rouletted wares have been discovered from the ancient port site of Tamralipti (modern Tamluk). They were probably brought to Odisha by the Roman merchants. A horde of fine gold coins of the Roman origin have also been discovered from Bamanghati area of the Mayurbhanja district.<sup>6</sup> These findings suggest trade relations of ancient Odisha with the Roman Empire. Beglar who has reported about this for the first time speculated that those gold coins came to Mayurbhanja in the early part of the Common Era through the sea-port of Tamralipti. The availability of these coins at Bamanghati shows that it lay on the road from the sea port of Tamralipti to the interior, for it is more probable that they came in via Tamluk than overland from the Roman empire. A terracotta tablet containing the thanks giving of an unknown Greek sailor to the East wind has been discovered at Tilda, situated between Tamluk and Bamanghati.<sup>7</sup> The

excavation at Barabati fort<sup>8</sup> (Lat. 20°29' N and Long. 85°52' E) situated on the right bank of the river Mahanadi at Cuttack also provide us welcome light on the maritime trade and overseas activities of the people of ancient Odisha. A few shreds of Chinese ceramics have been discovered from Barabati.

The excavations at Lalitagiri, Udayagiri and Ratnagiri, the three great Buddhist sites, have established sculptural link of Odisha with the South-East Asia and China. The discovery of relic caskets from a *stupa* at Lalitagiri has been the most significant one in this connection. The system of preserving of these relics is unique. These caskets cover four-in-one and kept systematically one inside the other. It is a feature alien in the soil of Odisha but common in China which indicates that there was good interaction between ancient Odisha and China.

The material evidences from the recent archaeological excavations at Manikpatna (Lat. 19°12' 43" N and Long. 85°12' 36" E), in the northern tip of the Chilika Lake and Khalkattapatna (Lat. 19°01' 52" N and Long. 86°02' 02" E) on the left bank of the river Kushabhadra near Konarak supply us sufficient clue of Odisha's overseas contact with far off countries. The excavated material remains prove that they were international ports having contact with many countries. The discovery of Chinese celadon ware, Chinese coin, white porcelain, blue, white and brown glazed porcelain shreds, Roman roulettes and fragments of amphora, knobbed ware, Burmese potteries, Ceylonese coins, Siamese potteries, Indonesian terracotta, egg white Arabian pottery, moulded ware, stamped ware, decorated ware, kaolin ware etc., at Manikpatna testify to its trade link with far off countries like Rome, China, Burma (Myanmar), Sri Lanka, Arabian countries, Indonesia etc. The

excavation at Khalkattapatna has revealed the existence of a brick jelly floor which might have served as a loading and unloading platform.<sup>9</sup> The pottery recovered from here consists of Chinese celadon ware; Chinese porcelain with blue floral design on white background, egg white glazed ware and glazed chocolate ware, all of foreign origin.

The recent archaeological discoveries in Sri Lanka, Indonesian Islands, Thailand, Vietnam, Burma etc., also have thrown new light on Odisha's maritime connections with those countries. Archaeological excavations at Anuradhapura in Sri Lanka prove the introduction of Indian cultural elements including Buddhism into Sri Lanka even before the days of Ashoka.<sup>10</sup> The material remains brought to light from Don Ta Phet in Thailand in the forms of semi-precious stone and glass beads, knobbed base, bronze vessels etc., tangibly indicate the brisk commercial contact of Odisha with Thailand. The knobbed ware pottery for the first time was identified at Shishupalgarh and subsequently at several sites of Eastern India and the Ganga Valley. In view of the knowledge of knobbed ware technique and rich deposits of semi-precious stones in western Odisha, in Kalahandi, Bolangir, Boud and Sambalpur areas we assume that Odisha had intimate relationship with Thailand. It has been also mentioned that the discovered bronze bowls, some of those with a central knob have much similarity in form with the so called 'knobbed ware' found in several sites of the coastal Odisha and Bengal.<sup>11</sup> I.C. Glover<sup>12</sup> says that these knobbed base vessels were associated with Buddhist rituals.

The inscriptions and epigraphic records of Odisha and of abroad also shed some authentic light on the maritime enterprises of the people of ancient Odisha. The Hathigumpha Inscription (c. first century BCE) of Kharavela refers to the

existence of a navy. It also indicates that Magadhan emperor invaded Kalinga to acquire the sea ports of Kalinga as Magadha did not have any sea port of its own. The very location of the Ashokan Edicts at Jaugada, a place far away from the actual scene of the war i.e. Dhauli is an indication of its association with the port of Palur, a well known ancient port of Odisha. An inscription of the Bhaumakara period refers to an ocean related tax called *samudrakarabandha*. The Tugu Rock Inscription<sup>13</sup> of western Java (c. fifth century CE) says that a river named Chandrabhaga, probably named after the Chandrabhaga river of Odisha was regulated by a canal. The Kuki Copper Plate (c.840 CE)<sup>14</sup> of Java speaks of potters and all sorts of servants of inner apartments hailing from *Kling* meaning Kalinga.

The numismatic evidences also throw a plenty of light on the overseas trade and commercial activities of ancient Odisha. The silver punch-marked coins, Kushana and Puri-Kushana coins, the Andhra-Satavahana coins and a horde of Gupta coins have been discovered from different parts of Odisha.<sup>15</sup> These coins have supplied enough information regarding the trade routes and trade centres of ancient Odisha. A large number of Kushana and Puri-Kushana coins which have been discovered from different parts of Odisha<sup>16</sup> suggest, that the Kushanas had close commercial contact with Odisha, and might have used ports of Odisha as an outlet for the overseas trade contacts abroad. Finding of the Roman gold coins from Shishupalgarh, Bamanghati, Tamralipti, and the depiction of ships on a few Andhra Satavahana coins<sup>17</sup> of second and third centuries CE corroborate to the fact that the east coast, especially the Odishan coast had brisk maritime trade with the foreign countries. Recently, the discovery of the Roman coins are also reported from two other places in Odisha i.e., Gumuda and Koraput in the Koraput district which will

throw some new light on the Odisha - Roman trade contacts.

Representation of boats, in the temple art of Odisha similarly testifies the importance attached to the transoceanic activities of the people of Odisha. The maritime pride of ancient Odisha inspired artists to depict boats in their sculptures and paintings. The earliest representation of ships is noticed in a sculptured frieze collected from the vicinity of the Brahmeswar temple, Bhubaneswar, now, preserved in the Odisha State Museum. The frieze depicts two ships, one is fully represented and in the second one only the frontal part is shown. In the first ship, it can be noticed that there is a standing elephant in the front part of the ship. In the centre of the ship, two persons are represented being seated, and two sailors are shown with oars in the rear end steering the ship. The second ship which is not completely shown depicts a standing elephant on its frontal portion. From this depiction it may be inferred that probably the sculptural panel depicts the transportation of elephants from Odisha by ship to other countries. Further, the sculpture justify at least two points that the ships of ancient Odisha were well built and were big and strong enough to carry elephants, and that elephant was an item of export among many other items. The panel may be dated back to c. ninth century CE. Near the same Brahmeswara temple, another interesting slab containing an eight armed image of *Mahishamardini* Durga is lying under a banyan tree having representation of a boat below the pedestal of the goddess. The goddess is supposed to have been engaged in a fierce sea-battle with the ferocious demon Mahishasura (named so as revealed out of the trunk of a buffalo). The scenes represent a naval fight and such naval fight between the goddess and the demon are extremely rare in the Hindu art. The image on

archaeological ground is also datable to c. ninth century CE.

In Bhubaneswar, there is a temple on the western side of the Bindusagara tank worth mentioning in this connection. The temple is called Vaital *deul* after the peculiar form of its roof resembling a ship or boat capsized<sup>18</sup>. The term *Vaita* is probably a contraction of the Sanskrit word *vahitra* which means a sea-going vessel or ship. Another magnificent representation of a boat can be noticed in the Lingaraja temple of Bhubaneswar (c.11<sup>th</sup> century CE). The scene represents a woman steering a boat with an oar.<sup>19</sup> The depiction of a woman steering a boat is a unique specimen in the history of the Indian art tradition. It indicates that maritime activities were so popular in those days among the people of Odisha that even women were associated with the steering of the boat.

At Konarak, on the *beki* (parapet) of the *Jagamohana* (audience hall or hall in front of the sanctum) of the Sun temple, the *martanda-bhairavas* are shown as dancing on boats. Another interesting stone sculpture of a full-fledged boat of Odisha, supposed to have been collected from Konarak (c. 12<sup>th</sup> century) and now preserved in the Indian Museum, Kolkata, depicts a boat being rowed by four persons. It is observed from this sculpture that in the middle of the boat there is a cabin with an upraised platform inside, and a man probably of a royal personage is sitting with a bow and arrow. This type of boat on the basis of the location of cabin is called *madhya-mandira* type of royal pleasure boat as described and categorised in the *Yuktikalpataru* of king Bhoja.<sup>20</sup> The depiction of a giraffe, exclusively an African animal in the sculpture of the sun temple, Konarak positively indicates that Kalinga had overseas commercial link with Africa.

There is also a magnificent representation of a boat in chlorite stone on the *bhogamandapa* (hall of offering) of Lord Jagannath temple at Puri. The represented scene is of the *nava keli utsava* (rowing festival) of Lord Jagannath. From the analysis of this depicted boat, it can be presumed that the king and his attendants are shown preparing for the rowing festival.<sup>21</sup> The boat represented here is also of *madhyamandira* type.

A close study of the art of Khandagiri-Udayagiri caves reveals the use of West Asian decorative elements such as honey suckle, acanthus, stepped melons, winged animals etc. Some of the pilasters facing the doorways of the caves of Anantagumpha have *ghatta* bases, ornamented in the Hellenistic fashion. The huge Bell capital at Bhubaneswar imitated from Ashokan columns also shows west Asian motifs in its ornamentation.

Whatever may be the reason for the depiction of boats in the sculptures and paintings of Odisha they are indicative of the fact that, the association of the people of Odisha in the overseas activities was quite intimate. There is also no doubt about the fact that the design of those Odishan monuments and sculptures must have come to the minds of their artists, not out of complete imagination, but from the memory of the scenes of the ships of those times, which they might have witnessed in the locality during their life times.

Outside Odisha, in the far off countries, especially in the South-East Asian countries, art pieces, sculptures and monuments also reflect the maritime contact of those countries with ancient Odisha. From an analysis, it is gleaned that many of them were byproduct of the Odishan architecture through overseas contact. In some of the sculptures of the Shwezayan Pagoda at Thaton in Burma, remarkable similarities with the Odishan art are found. The dressing and hair style

of some of the females are of the Odishan varieties.<sup>22</sup> Some of the bas-reliefs, in high technical as well as artistic efficiency, show affinity with early medieval sculptures of Odisha. The similarities of a Siva image seated with Parvati from this Pagoda with Hara-Parvati on the outer wall of Vaital temple of Bhubaneswar is the most striking one. In the Ananda temple, constructed during the reign period of Kyanziththa (*c.* 12<sup>th</sup> century CE), the Pagan king of Burma, the Odishan influence is evident in the architectural and decorative programmes. The cave temple of Ananta in the Khandagiri hills (near Bhubaneswar in Odisha) inspired the builders to build up the Ananda temple in imitation of Ananta.<sup>23</sup> The *sikharas* (spire or tower) of the monuments of Prome have remarkable similarities with that of Bhubaneswar temples.

The Buddhist art of Odisha, particularly, the standing Buddha images of Lalitagiri, had a profound influence on the stylistic Buddha images of Thailand. I.C. Glover,<sup>24</sup> the excavator of Dan-Ta-Phet site gives credit for such sculptural transactions between Odisha and Thailand to the Buddhist missionaries. The tower or *sikharas* of the 12<sup>th</sup> century CE temple of Maha-Tat at Sawank' alok shows an affinity with Bhubaneswar temples in detailed treatment.<sup>25</sup> Further, the discovery of an ivory comb from Chansen in the central Thailand suggests that the comb was exported from India, especially from Odisha because Odisha was famous for the export of elephants and ivory tusk to the overseas countries. It is also significant to mention that the *srivasta* motif of the Hathigumpha Inscription of emperor Kharavela became later on enormously common in coins of Oc Eo in Vietnam to Arakon.<sup>26</sup>

There are also some resemblance between Indonesia and Odisha in the domain of art and architecture. Some of the statues of the Buddha at Borobudur (Java) show resemblance

with the Buddha images of Odisha. The *Dhyani* Buddhas of Borobudur remind us of massive heads of the Buddha at Ratnagiri, one on the slope and another at the top of the hills.<sup>27</sup> The stepped tiers of Candi Bima (*c.* eighth century CE) in the Dieng plateau in Central Java resembled the *sikharas* of the temples of Orissa.<sup>28</sup> The holding of a Javanese kris by the door-keeper of the Parasurameswar temple of Bhubaneswar, amply testifies to the wide spread interaction between the regions on firm footing. Thus, it can emphatically be said that archaeological explorations and excavations along with the discovery of coins, inscriptions, monuments and sculptures have substantially contributed to reconstruct the maritime history of early Odisha.

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# Odisha and South-East Asia — A Study of Ancient Relations and Maritime Heritage

*Dr. Sunil Kumar Patnaik*

The Indian archipelago established its maritime supremacy over the world trade from the time immemorial. It has spread its activities in the far-off countries of Africa, South America and Europe in general and in the Far East and South East Asia in particular. The story of settlements, the evolution of civilization and the synchronized religious and social activities had indelible imprints on the aspects from early times. The sea-farers of India had the knowledge of the sea pertaining to wind, currents, tides, weather conditions and ship-building since the 3rd millennium BCE. The geographical setting of Indian Peninsula has supported the development of sea ports all along its coastline from the early times. On the great maritime facades, there are different regions along the east and west coast connected to hinterlands, which are favourable to sea traffic (Ahmad 1972). Majority of the rivers of India and their distributaries are suitable for navigation and many ports developed and existed along the estuarine mouths. The origin of lagoons, lakes and other sheltered bodies along the east and west coast favoured for the development of many ports, provided sheltered anchorages and moreover facilitated the plying of various types of boats. The people of Kalinga (ancient Odisha) in fact, had played a leading role in the Indian overseas activities. By their adventurous overseas activities

they not only contributed to the mainstream of ancient Indian culture and civilization but also in different parts of the world.

The Kalinga or ancient Odisha was the epicentre of the inland and foreign trade. It was a prosperous land with riverine criss-cross from west to east and east to west and its free and flexible accesses to the Kalinga-Sagar which was re-designed later as Bay of Bengal. The geographical position of Kalinga with several rivers, shelter ports, provided an ideal environment for sea voyages. The sailors of the rivers like Rupnarayana on lower Ganga, Bhudhabalanga, Subarnarekha, Baitarani, Brahmani, Birupa, Chitratpola, Mahanadi, Prachi, Rusikulya up to the river Vamsadhara etc., where we could mark the imprints with tangible and intangible historical remains. Recently, the series of Buddhist sites discovered/documentated by OIMSEAS on the coastal area of Bay of Bengal starting from Tamluk, Mughalmari (WB), Jayarampur, Ayodhya, Kupari, Kaupur, Solampur, Tarangasagarpur, Khadipada, Kankia-Radhanagar, Tarapur, Kayama, Langudi, Vajragiri, Lalitgiri, Udyagiri, Ratnagiri, Brahmavana, Natra, Nagasapur, Dhauli, Sisupalgarh, Aragarh, Jaugarh, and till Vamsadhara estuary and Kalingapatna, Salihundam, Dantpura (AP) all are in the river



*The original Branch of Bodhi Tree (3rd c. B.C)  
Anuradhapura*

valleys from the river Rupnarayan on the lower Ganga Valley to the river Vamsadhara down south which were all parts of Kalinga country presents an unique sacred geography that enriched maritime heritage of our state. All these Buddhist sites are located on the coastal area in one row and developed some in 3<sup>rd</sup> century BCE and some in 4<sup>th</sup> -5<sup>th</sup> century CE and continued up to 12-13<sup>th</sup> century CE. It is an established fact that like Magadha, Kalinga was an important geographical orbit where cities like Tosali, Kalinganagar, Somapa, Dantapura, Simhapura were in existence at the earliest period of Indian history. Here, it is appropriate to quote R Balkrishnan that remarkable similarities between place names of Java, Sumatra and Bali regions of Indonesia on the one hand and the place names of Odisha, particularly those of southern Odisha, on the other as revealed by his study. He says that the Chilika region, the districts of Ganjam and Gajpati along with adjoining boarder areas of Andhra Pradesh (Srikakulam Dist particular) seem to have been focal points of Kalingan interaction with South East Asia (Balakrishnan 2007:155:OIMSEAS)

Buddhism had always given importance to sea voyage. The growth of Buddhism was largely due to the contributions of trader

community. The early Buddhist settlements like Vikramasila, Sanchi, Champa, Amaravati, Nagarjunikonda, Tamralipti (Tamluk), Salihundam, Kalingapattna and Lalitgiri, Langudi, Radhanagar, Udayagiri, Ratnagiri, has provided enough material evidences for continuity of maritime activities in ancient Odisha. The Mahayana text *Aryamajusrimulakalpa* refers that all islands of Kalinga sea were dominated by ships of Kalinga. Scholars have accepted (Ray,1994:121-161) that in addition to trade, a potent motivating factor in this expansion of network from the Indian subcontinent was Buddhism. A brief discussion is made here, on ancient Odisha's role in the cross cultural expansion with South-east Asia with references to the recent researches conducted by Odishan Institute of Maritime and South-East Asian Studies.(OIMSEAS)

In the oldest Pali books mostly written in Sri Lanka, we have accounts of the journeys, which generally have followed already established routes. Later, we have accounts of routes actually followed by merchants, either on boats or with their caravans of bullock carts. The *Divyavadana*, dating to second century CE, states that dangers from sea-voyages arise from 1. the whales and tortoises 2. from waves and tides 3. from running aground 4. from sinking in water, 5. from being struck on the marine rocks 6. from monsoons and 7. from pirates. Indeed *Jatakas, Majjhimanikaya*, which generally date from pre-Common Era abound in stories of shipwrecks during the sea voyages on account of one or other reasons stated above. The *Sussundi Jataka*, for instance refers to *makaras* (crocodiles) and huge Leviathans swallowing up whole ship. A graphic description regarding the attacks by huge whales in the Arabian Sea has been narrated by Diodorus (c.50 BCE) in connection with return journey of Alexander's

sailors. From the age of Buddha (6<sup>th</sup> century BCE) onwards there was a second phase of urbanisation in India and a proliferation of arts and crafts organised with guild system. The literary data such as Pali texts combined with archaeological evidence to demonstrate the unmistakable growth of cities, structural activities in brick, use of iron technology, arrival of new and advanced pottery technology—the Northern Black Polished Ware- and the emergence of coinage in north India. (Sharma. 1983,118-127) Between c. 700 BCE, the date of advent of the NBPW in Gangetic valley and c. 300 CE the point immediately preceding the Gupta age of maturity, India witnessed the growth of urban centres in all her major geographical regions (Chkavarti,1997: 170). Odisha or ancient Kalinga region is also no exception to that. Recent studies, particularly by Odishan Institute of Maritime and South East Asian Studies under Department of Culture shows that the City centres had developed with all urban traits like fortification, gateways, moat, bastions, royal residential complexes etc were unearthed through excavations at Sisupalgarh, Jaugarh, Dhauli, Asurgarh and recently at Kankia-Radhanagar and Talapada. So also the spread and growth of Buddhism in Odisha in ancient times are known with the material evidences discovered at Kalingapatnam, Salihundam, Tamralipti, Lalitgiri, Langudi, Tarapur, Kayama, Udayagiri and Ratnagiri. The cultural sequence of Buddhism from 3<sup>rd</sup> century BCE to 13<sup>th</sup> century CE are best reflected in the inscriptions, stupas, monasteries, chaitays and plethora of images together with sculptural art apart from descriptions in Pali literature. (OIMSEAS, 2014). Now, Odisha is considered as the 4<sup>th</sup> State in India having rich legacy of Buddhism which has played an important role for dissemination of cross cultural links within India and South East Asia.



*The Buddhist Temple built by Nissankamalla at Polonnaruwa -ancient Capital of Sri Lanka.*

In the earliest strata of historical period (3<sup>rd</sup> century BCE) of Indian History, the Mauryan attitude to the sea and maritime trade is known from various sources. *Megasthenes* considered that Mauryan had a state monopoly on ship building. *Arthashastra* recommends that the state supervision of shipping was under the officer *navadhyaksa*. One has to take into account the fact that the Mauryan realm included within it long stretches of coastal edicts are sites like Sopara in Konkan, Girnar in Kathiawad, and Tamralipti, Palur, Dantapura, Kalingapatnam, Tosali, Dhauli and Jaugada (Somapa) in Kalinga, which are situated on or near the coast.

Evidence of such diversification was also available in the western Deccan and parts of Eastern India. The recovery of *punchmark* coins from about the 5<sup>th</sup> century BCE onwards from different parts of the country was least monetized, which helped in the intensification of trade and commerce. For development of maritime trade two aspects were important i.e the first is the technology of ships and the second is the role of Buddhism. These two are more prominent in Odishan context and have more evidences particularly known from recent excavations of



*The tooth relic brought from Kalinga at the sacred temple Kandy, Sri Lanka.*

Kankia (Radhanagar), Langudi, Palur, Kalingapatna and Manikapatna. (OIMSEAS, 2014)

In a sculptural depiction in Kanheri (Maharastra) caves of 2<sup>nd</sup> century CE, representation of a scene of a shipwreck on seas are seen - two men praying for rescue to the Bodhisattva, who sends two messengers. This is one of the oldest representations of sea voyage in art when India's maritime trade had reached far and wide to Rome, Egypt, China and Sri Lanka. Again in Ajanta we find three important scenes in paintings of shipwrecks in context with Jataka stories in cave no 2 and 17. Similarly, a boat motif dated to the pre-Common Era is reported from Tamluk.

In the ancient period (2<sup>nd</sup> -1<sup>st</sup> century BCE), several ports flourished on the coast which served the outlets of India's trade with the Roman Empire, Sri Lanka and countries of South-East Asia and Far East. During the period under discussion India's trade through the Bay of Bengal was controlled by the ports on Kalinga and the Coromondal coast. The rise and fall of the ports were closely linked with the growth and decline of overseas trade.

In the early centuries of the Common Era, Kalinga (Odisha) had active trade contact with the western world, especially with the Roman Empire. The western trade flourished because of the demand for luxury articles of Kalinga in the Roman Empire. The *Periplus of the Erythraean Sea* (1<sup>st</sup> century CE) of an unknown author besides mentioning the Kalingan port of Dosarene, has referred to the trade relation between Kalinga and the Roman world. The author mentions Dosarene as producing the best type of ivory known as Dosarenic. (Mukharjee JOH, 1982). Ptolemy, the Greek geographer during the second century A.D. has referred to another famous port of Kalinga named Palur from where ships disembarked directly across the Bay of Bengal to the South-East Asian countries. The discovery of rouletted ware from Manikapatna, Sisupalgarh, Kankia-Radhanagar (Odisha), Kalingapatna (Now in AP) and Tamluk in the Midnapore (now in West Bengal) is very significant in this regard. The roulette ware was first identified and dated by Wheeler at Arikamedu (Pondichery) is one of the parameters for trans-oceanic trade. These were probably brought into Odisha by the Roman merchants. Rouletted ware is often regarded as important evidence of Indo-Roman trade. Influenced by the Hellenistic tradition of impressed decoration, rouletting is usually produced by the continuous rolling motion of a toothed-wheel, called roulette, when it is held against the revolving clay vessel. It is observed by Archaeologists that the finer varieties of rouletted ware were imported from Roman empire, while the coarser varieties were made in India (Mukharjee, 1996). It may be mentioned that Roman bullae have been discovered at Sisupalgarh and Radhanagar and Roman coins at Biratgarh and Bamanghati in the Mayurbhanj district, which suggests trade link of Kalinga with the Roman empire. Besides, a gold coin bearing Graeco-Roman motif together with

pottery fragments and terracotta figures of the Roman origin have been also discovered from Tamluk (the site of ancient Odishan Tamralipti port). A terracotta Greek tablet containing the thanks-giving of an unknown Greek sailor to the East wind has been discovered at Tilda, situated between Tamluk and Bamanghati. It is indeed accepted that there was a well developed indigenous maritime network in existence in Asian waters long before 15<sup>th</sup> century CE. It is indeed a priceless heritage that focuses ancient Odisha's strength on trade and commerce.

Several sculptures are found from Ratnagiri, (one now in Patna Museum) and Sheragarh in Balasore district where Jalarnavavaya is depicted belonging to 8<sup>th</sup>-9<sup>th</sup> to 11<sup>th</sup>-12<sup>th</sup> century A.D. These sculptures are Buddhist Tara and called *Astamahabhaya* Tara which is regarded as the saviour from great eight perils. The *Astamahabhayas* or eight great perils are carved on the back slab four on either side. The endangered persons are depicted praying reverently to Tara for succour. In all these three sculptures *Jalarnava-bhaya* or peril from a boat sinking at Sea is depicted. This depiction understands the great veneration by the boatmen to the Buddhist Goddess Tara for rescue and Buddhist Goddess was regarded as saviour. This is again a representation of sea voyage which was very much active during 7<sup>th</sup> to 12<sup>th</sup> century CE in Odisha. (Patnaik, 2012 : 170). Similarly the depiction of Martand Bhairav and double masted Boats in the sculptural panel of Sun Temple, Konarak and Jagannath Temple Puri are another evidences of sea voyage in 12-13<sup>th</sup> century CE. H B Sarkar writes that for the first fifteen hundred years of the Christian Era or Common Era, Kalinga played a very significant role in the history and culture of South East Asia. (*Kalinga Indonesian Cultural Relations*, OIMSEAS, 2007: 9). It may be mentioned that the book

referred deals exhaustive study on cultural relations and role of Kalinga in the history and culture of South East Asia. However, we supplement here, further recent discoveries made by OIMSEAS.

Now, let us have an overview the maritime cross-cultural link of Odisha with other countries like China, Sri Lanka, Java and Thailand .

### **China:**

Both China and India have a long and great history that goes back thousands of years. The Chinese and Indian civilizations are among the oldest of human civilizations. They represent the two pillars of the civilization of the East. The towering Himalayas have not prevented them from mutual attraction and illumination. Fahien and Hiuen Tsang, two eminent Chinese monks of the Jin and Tang dynasties respectively and Bodhidharma of ancient India all made outstanding contribution to religious and cultural exchanges between China and India.

China was one of the earliest eastern markets for Indian cotton. During the later Han dynasty, c. 25-220 CE., the Chinese came to know about *xibu* (fine cloth) through direct and indirect contact with Indian traders. (Ray, 2003:161). The Chinese needed large quantities of white cotton cloth for the uniforms of their soldiers serving in dry, hot regions, and it remained a valuable import for a long time. White cloth was accepted as tax and used for payment to the imperial officers and soldiers. The same cloth later came to be known as *kanipha* in Ming dynasty, *bafta* in Thailand and *kain* in Malaysia (ibid). Indians used to carry the cloth to Southeast Asia on the way to China, while Southeast Asian countries re-exported it along with other commodities. The *Silappadikarm* refers to this growing trade which included agile, silk, candy sandal, salt and camphor (Sarkar, *Cultural Relations*, p.252.) Fahien mentions Indian

merchants conducting trade with his country. He calls the cotton fabric trade of India po-tie which is connected with the Sanskrit word *pota* or *patti* in Dravidian language.

The history of the Song dynasty in China refers to the arrival of envoys from He-luo-dan (a locality perhaps situated in Sumatra). Among other things that the envoys brought with them were Indian textiles. This is the first reference to the export of Indian textiles from India to Southeast Asia.(ibid.250)

Textiles were the binding factors in the cultural history of these two regions from ancient times. One of the early civilizations in Java was Taruma Nagara (5<sup>th</sup> century CE.) *Taruma* means indigo and *nagara* comes from the Sanskrit word *nagara* means city state. Indigo was the dominant colour in the dyed and printed trade cloths of India ( Dhamija, 2002:9) The two coastal regions of the Bay of Bengal, particularly Kalinga, were an important source of cotton textiles to Southeast Asia at an early date. *Kling* was used in the Indonesian Archipelago as a common term for South Asians and Kling cloths for textiles.

The sea route to China in ancient times was very popular. Chinese traveller Fa-Hien (c.5th CE) has narrated that, he stayed for two years at Tamralipti which was famous port of Kalinga and returned from India to China via Ceylon and Java by sea route. Fa-Hien is known to have returned to China in a large vessel having 200 passengers. It is referred that another Chinese pilgrim scholar Hiuen Tsang (Yuang Chwang ) in c.7<sup>th</sup> CE had taken the sea route to China in his return journey who also visited Kalinga, Utkala and Odisha (Odisha). I-Tsing left Tamralipti by the sea route through Sri Lanaka to China. Sea route was preferred since the central Asian land route

was not safe. During the rule of Bhaumakara king Subhkara Deva, (8<sup>th</sup>-9<sup>th</sup> Century CE), a Buddhist monk from Odivisa (Odisha) Prajna visited China with an autographed Buddhist manuscript of the king through the sea route. According to Chinese sources, in 795 A.D, an autograph Buddhist manuscript *Gandavyuha-* a part of *Avatamasakasutra* was presented to the Chinese Emperor Te-tsung in 795 A.D. (Panigrahi,1979:21). The manuscript and the accompanying letter were entrusted to the monk Prajna for translation. We learn from Hiuen Tsang that Prajna who was born at Kapisa, had commenced his studies in northern India and continued in Central India (Madhyadesa) where he had resided at Nalanda. During his stay he visited the sacred places and completed eighteen years in learning. Afterwards he had settled in the monastery of king of Wu-Cha (Orissa) to study yoga there. He then moved to China, and made his debut there in 780 A.D., by a translation of the Mahayana Buddhist text - *Paramitasutra* (Das, 1977:145.)

This indicates that till 8<sup>th</sup> -9<sup>th</sup> century CE, Kalinga maintained cultural and commercial relations with China. The travel of scholar pilgrims was possible as merchant vessels were plying between Kalinga and China. Chinese sources further mentioned to 'Kalingan sea going vessels' of two different types. From the account of Wang Van Yuun (14th century CE.) it is known that popular product of Wu-tu-cha (Odiyas) were rice, bees-wax, fine cotton fabric and semi-precious stones etc. Wang Telynan further stated that for the cheaper living condition in Kalinga, nine out of every ten persons coming here for trade preferred to stay on. Rice was known to have been sold at a throw-away price of 46 baskets for one cowrie. Kalinga mostly imported gold, silver and silk from China.

The stamped ware sherds are found from Khalkattapatna, excavated port site near Konarak are similar to the finds of Kota China of North Sumatra and Bagan of Burma which are datable to the 12th and 13th centuries. District paddle marks can be seen on these sherds. On the left side of the Chinese sherd pond, lotus leaf and flower with stock of bunch is depicted, whereas the other sherd is decorated with blackberry vine and scroll with leaves. These sherds belong to the Ming and Yuan Dynasties respectively and datable to the 15th century AD. All the celadon sherds belong to the 13th century AD (Tripati 2014). Khalkattapatna port was active during the rule of the Ganga Dynasty.

Two Chinese copper coins with square perforation in the centre were found from stratified context of Manikapatna excavation (OIMSEAS) which gleans Odisha's relationship with China during medieval period. Besides, Chinese pot-sherds like kaolin, celadon, porcelain also reported from the excavation which strengthens the above discussed historical facts.

Thus, till late medieval period there were hectic commercial and cultural contacts with the Chinese world. However, more field research in this direction is absolutely necessary to exploit Chinese sources on Kalinga or Odisha to know more about maritime history and Buddhist heritage.

### Ceylon:

Since the 5<sup>th</sup> century BCE, there were cultural relations between Kalinga and Ceylon. Kalinga was known to the people of Sri Lanka from the earliest days of island's recorded history. As narrated in the Ceylonese records (*Dipavamsa & Mahavamsa*) king Vijaya, son of Simhabahu of Simhapura in Kalinga was the 1<sup>st</sup> king of the land in the 3rd century B.C. (Patra, 2013). Kalinga one of the earliest names of an

Indian region (along with Vanga and Magadha) with which Sri Lankans are familiar is also mentioned in the Pali Buddhist literature that came into the island as a consequence of the introduction of Buddhism by the Ven Mahinda during 3<sup>rd</sup> century BCE. The *Majjhima Nikaya* (1.378) refers to forests of Kalinga and the *Digha Nikaya* (19.36) to the coastal settlements and the capital city Dantapura. Sanghamitra, daughter of Asoka went to Ceylon by sea route through the famous port Tamralipti of Gangaridae Kalinga. The tooth relic of Buddha was taken to Ceylon during the rule of Sri Maghavarman from Dantapura in Kalinga in 310 A.D. Hemamala and Danta Kumara took the sacred emblem. From early time there were matrimonial relations between the royal houses of Kalinga and Simhala. The story is related very briefly in the *Mahavamsa* (37,92-97) and in almost epic proportions in the 12<sup>th</sup> century Pali poem. *Dathavamsa* by the Van.Dhammaditti, evidently based on a Simhala poem, *Daladavamsa* by name composed at the request of king Meghavanna during whose reign (301-27 A.D) the relic arrived. Now, the tooth Relic is in the Temple of Kendy and venerated by Ceylonese with high honour. The author was at this temple in Oct 2013 and observed the ritual. The 10 days tooth Relic Festival is being observed here like that of our Rath Yatra. Incidentally, the two festivals are observed in the same month.

A Seal of pre-Kushan period has been recovered from Radhanagar excavation in the year 2007. The inscribed seal reads as *Sadabhu Tissa*. (OIMSEAS). It is referred in Srilankan genealogy that King Sadatissa (77-59 BC) was one of the rulers of Ceylon. It is said that king Tissa sent a mission to India to bring the collar-bone and other bone-relics of the Buddha and that it returned with these relics and also the alms-bowl of the Buddha. The collar- bone was kept in the Thuparama dagaba, which thus became the first Chaitya to

be built in Sri Lanka. Early Buddhist missionaries from India who left for Sri Lanka also took Pali sacred texts with them and these remained preserved there for ages. The title '*Devanampiya*' might have also been adopted by king Tissa through his enthusiasm for Asoka. This regular exchange of missions also furthered commercial contacts between the two countries. In the Mauryan period Indian traders were keen to obtain pearls and other gems from Sri Lanka.

One more reference found in the inscription of Polonnaruva states that Shasa Malla was a ruler of Sri Lanka and the dates Sahasa Malla's accession is ascribed to 1473 after the Buddha's *nirvana*. A coin of Srimad Sahasa Malla was discovered from Manikapatna excavation (Pradhan, 2000). It shows there were some contact between Srilanka and Odisha.

Vijayabahu (1054-1109) a king Simhala, married the Kalingan princess Trilokasundari. Nisanka Malla who ruled Sri Lanka from c.1189-1198 A.D was the son of this king. Nisanka Malla from Kalinga had established his capital at Polonnaruva in Simhala. The inscriptions found from the vast ruins of Polonnaruva settlement testifies the fact. The Polonnaruva site is beautifully maintained and now is world heritage site. (Mantunga: 2014) Gold fanams of eastern Ganga King Anantavarma Chodaganga (1078-1147) was found in the regions of Kandy are suggestive of commercial relations carried on during this period between the two countries. There was close political relations between the two countries. During the time of political crisis kings of Kalinga used to help the kings of Ceylon. The maritime trade with Ceylon continued up to late medieval period.

In India, we have the south-west monsoon from the month of June to September which used to blow from the south-west direction.

This wind is favourable for the return of ships / boats from Ceylon to Kalinga. This fact is attested by a series of festivals like the *Khudurkuni Osha* associated with the return journey of ships. So also we have the north-east monsoon during the months of October to February referred to as 'retreat' monsoon which is quite favourable for ships sailing to Ceylon from any ports of Kalinga. The *Sadhavs* (marine traders) of Kalinga taking advantage of this favourable wind, which is referred to as 'fair wind or fair 'whether winds' used to set their sail during these months. This fact could be attested by celebration of the boita bandana ustav on the day of *Kartika Purnima* (full moon day of *Kartika*). The further research is underway to know scientifically more about in this aspect. But historical resources with its Buddhist legacy could be used for marketing Odisha in Srilanka and initiatives has already been started by OIMSEAS and Department of Tourism. However, more intensive research is necessary to unfold the historical trivia.

#### **Java:**

The famous king of Java, Jayabhaya (12 century A.D.) has written a legend and believed himself to be the descendant of Kalinga family. There is a place called 'Holing' in Java. The people of Kalinga were said to have landed there. Scholars are of the opinion that 'Holing' is Chinese equivalent for Kalinga. The inscriptions of *nagari* character found in Java are similar to the inscriptions of Odisha. The construction of two canals Chandrabhaga and Gomati in Java in 5<sup>th</sup> century A.D. are attributed to these migrants. Chinese traveller Fa-Hien who visited Java in 413 A.D. mentions that Brahmins and Buddhist monks of Kalingan country frequently travelled to China and the ship in which he went to Canto had hundreds of Hindu traders on board. From the history of Chinese Tsang dynasty, it is definitely

known that a kingdom called Kalinga was in existence in Java. In these heydays Kalingan culture had echo and reverberation in Sumatra as well. (Patra B 2013)

A group of Brahmins, in a district of Bali are called Brahamana Boudha Kalinga, which may indicate that these Brahmins came from Buddhist Kalinga. In Bali the entire Buddhist village of Boudha Keling is located on the slopes of Bali's highest mountain peak, Gunung Agung. The recent finds of non-local coarse pottery "Black Ware" and knobbed on the coast of Java, Bali and Odishan coasts (Radhanagar) corroborates the presence of a complex network of luxury and subsistence goods which sustained the maritime system.

The legends narrate that twenty thousand families migrated to Java along with the prince of Kalinga in the early medieval period. R Balkrishnan proved that the place name research corroborates a mass scale migration to Java (Balkrishnan 2007: 156 OIMSAES) The Jaha inscription of Java mentions the Kling (Kalinga people and its contact with Java. The Buddha figure of Java are very much akin to some of the Buddha images found at Lalitgiri and Ratnagiri. The excavation finding at Tamralipti (WB) Kalingapatna (AP) and Sisupalgarh, Ratnagiri, Radhanagar of Odisha of 3<sup>rd</sup> century AD also throws light on this aspect. It needs to be documented scientifically.

In sphere of Buddhist art and architecture Joanna Williams (2007) writes that the Buddhist shrine of Chandi is known as Mendut in Central Java. This is located on a single axis with the tiny shrine of Pawon and the sumptuous Borobodur and the three were laid out around c.800 CE. The exterior walls of the Mendut bear a series of eight Bodhisattvas, the attributes of each supported on long, narrow lotuses in the manner

which is also distinctive of Lalitgiri and Udayagiri images which is termed as *manusi* Buddhas. The Javanese group has been identified as Eight Great Bodhisattvas known in Far Eastren literature. There are number of such images found in the three great sites i.e Lalitgiri, Udayagiri and Ratnagiri. Not only the images but the lay-out of Vihara at Mendut is similar to Ratnagiri Vihara so also the position of image Hariti found at Lalitgiri and Ratngiri are akin to the description given by Chinese traveller I –tsing. The similarities of style as well as iconography of some Buddhist images and Votive stupas of Borobodur and Ratnagiri testify the cultural interaction between the regions.

### **Thailand**

India and Thailand, located in each other's extended neighbourhood, share unique civilizational links going back several millennia. Hindu elements could be traced among those reflected in Thai architecture, arts, sculpture, dance, drama and literature. The Thai language incorporates Pali and Sanskrit influences. A large Indian Diaspora living and working in Thailand is another important bond.

The roots of civilization in Thailand were firmly anchored in the pre-historic past, but were nourished by contact with exotic societies. It is known that the iron age in Central and Northeast Thailand involved large settlements within which certain individuals were interred with impressive wealth. These were the people who encountered a new range of goods and ideas as Indian traders reached the shores of Southeast Asia. In the India of the day, Southeast Asia was described as the land of gold (Suvarnavumi). Thailand was source for artefacts of high-tin bronze, an alloy which looks like gold because of its yellow colour during late 1<sup>st</sup> century B.C. Monochrome beads including the opaque browny red mutisalah varieties have been found in many late prehistoric sites of

Thailand such as Ban Chiang, Ba Na Di, Non Muang, Ban Don Ta Phet and Kok Ra Ka and the very similar were reported from Rajghat, Taxila, Arikamedu of India. Bringing with them trade goods –jewellery of agate, carnelian and glass, and keenly interested in acquiring spices, aromatic wood and gold. Indians provided local leaders with the opportunity of cornering a new source of valuables .They also provided an outlet for increased local production. The trade contact was very much active in the Bay of Bengal. Number of iron implements and bronze materials, spindle whorls, glass beads were found from the excavation materials of Ban Ta Phet (1980-85). Scholars are of opinion that the location of Ban Don Ta Phet would have facilitated its participation in trade, for it lies at the Thai gateway to India. In an excavation at Don Ta Phet among others, there is one large and a small broken fragment of another, carnelian pendent carved in the form of a leaping lion which is almost certainly Indian origin (I Glover, 1996 :140). A similar lion terracotta figurine from the post Mauryan and pre Kushan level was recovered from the excavations at Radhanagar which has foreign influence. Before representation in human form was acceptable (a tradition which developed only from first century A.D), Buddha was often shown by one of his attributes such as the foot-print, the Umbrella of royalty, the empty throne or the lotus, bull, elephant to recall the circumstances of his conception and birth, or as a deer to remind devotees of the sermon in the deer park at Saranath (Coomarswamy 1966:30-1). However, a particularly common representation was of Buddha as a lion, a reference to him as Sakyasimha, or lion of the Sakya clan and it is highly probable that the lion head from Don Ta Phet, as well as the others are early Buddhist icons and as such probably the earliest witness to

Buddhist ideas and values yet recognised in Southeast Asia. Subsequently, the wave of Buddhism was influenced and retained in Thailand of course migrated from India and Sri Lanka.

Archaeological finds show that Buddhism first reached Thailand when it was inhabited by Mon-Khmer, whose capital, Dvaravati,(now called Nakon Pathom or in Sanskrit *Nagara Prathama*) was about fifty kilometres to the west of Bangkok. There was a vast Pagoda which was called Phra Pathom Chedi (*Pathama Cetiya*). Scholars say that Buddhism was brought to Thailand by missionaries of the Emperor Asoka, two of whom the theras Sona and Uttara who went to Suvarnabhumi (the Land of Gold).The first form of Buddhism to reach Thailand was that of Thervada and this is borne out by many historical remains found at Nakon Pathom. Among these were rock inscriptions in Pali, the Buddha footprints and seats and Dharma-Chakra or wheel of Law. All these existed in India before images of the Buddha were introduced around First century BCE/CE. It is evident that Buddhism reached Thailand in 3rd century BCE in more or less the same form as that propagated by Asoka. Many Buddha images were found in Nakon Pathom's ruins and in other cities and on looking at their style, it can be assumed that early missionaries went there from Magadha or Kalinga. The great Stupa (Phra Pathom Chedi) can be compared with Indian Stupas like Sanchi. Thus Indian culture with language and religion gradually started to spread to South-East Asia.

Mahayana Buddhism was also spreading and it flourished in Northern India under king Kaniska in the second half of first century CE, notably and went to Sumatra, Java and Kambuja (Cambodia). Possibly it went through Magadha/ Kalinga region to Burma and Pegu (Lower Burma) and to West Thailand as well as Malaya.

Today, in Southern Thailand, there is much evidence showing that Mahayana Buddhism was established there and the *cetiyas* in Chaiya (Jaya) and Nakon Sri Thammarath (Nagara Sri Dharmaraj) indicates this. Many other *stupas* and *cetiyas* were found in Java and Sumatra. Some scholars think that as Mahayana Buddhism had spread to China by the beginning of the Christian Era, the Thais in their original home (in China) may have already come into contact with it there. From 1002 to 1182 AD, in Cambodia there ruled the Suryavarmana dynasty of kings who were Mahayana Buddhists and also propagated this with a strong admixture of Brahminism. A rock inscription tells of a king in Nikon Sri Thammarath in around 1078 AD, who traced his ancestry back to the Srivijaya rulers and this inscription is now in the National Museum at Bangkok. He ruled at Lodhapuri in central Thailand and his son became king of Cambodia. (Hazra :1994: 4)

Trade with Southeast Asia was established by the 1st century AD, and may have much earlier origins. Later findings include 12th century Ceylonese coins and 14th century Chinese coins. Similar coins from Kotchina in Sumatra point to a triangular trade between Kalinga (Odisha), Ceylon and Sumatra. Trading was not without risks. The kings of Kalinga, Siam and Java had to periodically mount expeditions to put down Malay and Bugis pirates operating in the Strait of Malacca and throughout Maritime Southeast Asia.

Arabian sailors began to intrude into the Bay of Bengal as early as the 8th century, and later Portuguese, Dutch, English and French ships became dominant, reducing the sailors of Odisha to the coastal trade. In 1586, the Muslim ruler of Bengal, Sulaiman Khan Karrani succeeded in conquering the land, ending its independence. Odisha was subsequently ceded to the Marathas in 1751, and came under British rule during the

Second Anglo-Maratha War (1803–1805). Odisha lost much of her maritime trade during the British period (1803–1947). Mahfuz Bandar, the port of Srikakulam, on the Vamsadhara River was constantly frequented by boats coming from the sea and in 1711 in the Ganjam River, there were '98 three masted vessels grounded on the beach.

Although, scholars like B N Mukharjee, K.S Behera, A. K. Pattnayak, H.P Roy, K.K Basa, Sila Tripathi, B. Patra, S.K. Patnaik and Odishan Institute of Maritime and South East Asian Studies has taken up research work in this field, more micro studies is the need of the day to document the varied and vast evidences available in the coastal area of Southeast Asian countries as well as ravine hinterland of Odisha. Some work (2011-14) in this direction is being undertaken by the Odishan Institute of Maritime and Southeast Asian Studies. The study resulted that from Tamluk on Rupnarayan River (WB) to Kalingapatna on Vamsadhara River (AP) have as many as 50 Buddhist sites/early historical sites that have been documented and has given resources that could unravel a new era in the historical research of Eastern India, more precisely in the Odishan history and Culture.

To recapitulate, it is seen that the coast of Bengal and ports of Odisha were humming with trade and cultural contacts and interlinked with ancient land routes as well staring to north – west reaching the plains of the Ganga. The long south – east coast and convenient for anchorage has not only been a transmitter of brisk overseas trade but of religions too. The merchants of Kalinga sailed along with sailors from Tamilnadu and Kerala to South East Asian countries. The mariners took their voyage to Malaya peninsula through straits of Malacca to Sumatra, Java, Bali Borneo through the Sunda straits to Champa and Kamboja from east coast of India. The sailors of

Kalinga had landed at various places including Srikheta in Burma, Takkola, Kokkonagara in Malaya peninsula, Sri- Vijay in Sumatra, Purva Kalinga in Java, Tonking in Cambodia etc. The religious preachers travelled in merchant vessels to preach Buddhism in Southeast Asian countries.

Buddhism and Buddhist monuments of Odisha were the outcome of the brisk trade activities as we have discussed in South East Asian context and now become a major source for Odishan History, Culture and promotion of Tourism. Tourism is the only medium which can ventilate the application of our cultural past or applied history through its various mediums like promotion through leisure packages, destination target which has bondage, as we have discussed and showcase the cultural milieu as well as provide employability and economic boom. The need of the day is that packaging and popularising of our cultural resources that include temples, Buddhist sites, maritime heritage sites, historical landscapes together with fairs and festivals that offer uniqueness in every respect. The tour operators and travel agencies and travel consultants should come forward with competitive tour packages with our vast heritage resources, of course, that need the help of subject matter specialists.

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# Status and Performance of Sericulture in Odisha

*Dr. Kabita Kumari Sahu*

Sericulture known for its exquisite silk and tussar fabrics in Odisha is also a major source of livelihood for rural poor, mostly in the tribal dominated districts of Mayurbhanj, Keonjhar, Sundargarh, Kandhamal, Rayagada, Koraput, Gajapati, Kalahandi, Nawarangpur, Jajpur, Deogarh and Dhenkanal. The state is traditionally a 'Tasar' belt. Sericulture had been introduced in the early part of the year 1978. It is highly labour intensive agro-based livelihood activity that goes round the year and provides remunerative income to the farmers. About 90% of the farmers practicing sericulture belong to ST, 6% SC and 4% to the other caste. It can generate employment for 11 persons for every Kg of raw silk produced out of which more than 6 persons may be women.

In Odisha, three types of silkworms such as Mulberry, Tasar and Eri are cultivated. Odisha occupies 2<sup>nd</sup> position in the production of tasar silk. Tasar is very old and traditional and mostly cultivated in the natural forest by the people in a traditional manner. Mulberry cultivation is a new venture in the state. Eri is also very old and mostly cultivated by the women and weaker sections of the society. In Odisha, sericulture is practiced as a sustainable livelihood activity by about 50,000 traditional families involving one lakh people in 22 districts. It provides indirect employment to equal number of reelers, spinners and weavers.

At present with Govt. support tribals and few non-tribals under the BPL category are practicing sericulture and producing silk cocoons.

## **Growth of Silk Cultivation**

### **Mulberry silk**

Mulberry sericulture is non traditional in the state. Mulberry cultivation is done in 12 districts such as Gajapati, Rayagada, Koraput, Phulbani, Kalahandi, Sonepur, Deogarh, Nayagarh, Khurda, Sambalpur, Keonjhar and Mayurbhanj etc. About 30,000 to 50,000 kg. of cocoons are produced annually and about 1300 SC/ST farmers are able to get about Rs.30-50 lakh annually. In Odisha Mulberry Programme has been taken under anti poverty programme. All the beneficiaries belong to SC, ST, OBC and BPL category. All most all the mulberry gardens are developed under rainfed conditions.

### **Growth of Mulberry Sericulture**

Mulberry sericulture was introduced during 8th plan. During the year 1986-87, a special Bivoltine Sericulture Development Project (BSDP) was implemented in the undivided Ganjam district, in R.Udayagiri and Mohana block covering Chandragiri, Chandiput and Ramgiri areas and subsequently National Sericulture Project (NSP) was launched in Koraput district. At first, sericulture activities were

mainly confined to Govt. organization (Mulberry Demonstration farmers) with only a small number of tribal beneficiaries. During seventh five year plan, sericulture activities were further intensified with the patronage of Central Silk Board and benefits were extended to the farmers at large. The status of mulberry sericulture in Odisha is given in table-1.

**Table-1 Achievements of Mulberry in Odisha from 2008 to 2014**

Activities	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Mulberry area in Acre	774	762	772.50	946.90	990.50	1027.50
Procurement of Dfls (lakh nos.)	0.86	100	0.84	0.96	1.16	1.28
Consumption of Dfls (lakh nos.)	0.86	100	0.84	0.96	1.16	1.28
Production of reeling cocoons (lakh nos.)	25.50	30.00	17.99	21.47	24.70	25.25
Production of raw silk (M.T.)	2.50	3.30	2.02	2.70	3.30	3.30
Production of silk waste (M.T.)	0.65	0.75	0.24	0.23	0.33	0.25
No. of farmers covered (Nos.)	1400	1094	1187	1208	1152	1003

*Source :- Odisha Economic Survey, 2014-15*

Table-1 shows that land area under Mulberry cultivation has increased continuously from 774 Acres in 2008-09 to 1027.50 acres in 2013-14. Production of raw silk has increased from 2.50 metric ton in 2008-09 to 3.30 metric ton 2013-14.

The production of cocoon has shown an increasing trend from the end of 10<sup>th</sup> five year plan. During 2000 to 2008, procurement of dfls and consumption of dfls are almost same in quantity (Appendix Table). The average consumption of dfls is 69/farmer with average cocoon production is 16kg/ farmer.

### Tasar silk

Tasar culture in Odisha was first organized by princely state of Mayurbhanj under the Royal patronage of Bhanja Dynasty during 1952. Odisha is presently positioned 2<sup>nd</sup> in tasar cocoon production in India. Tasar culture in Odisha is a traditional occupation of tribals who are utilizing

8,450 hectares of land for economic arjun and asan plantation. Tasar culture in Odisha still remains as a subsidiary occupation of the tribal in the backward districts. There are more than 46,828 SC/ST families enrolled as members of primaries in tasar culture in these above 14 hilly districts. Most of such people engaged in tasar culture come under BPL group. Out of the 10,000 registered tasar farmers in the state, only 68% rear single crop, 24% rear 2 crops and only 3% rear 3 crops in a year.

12000 families are actively engaged in tasar culture. Annually more than 45,500 kahans

of tasar cocoons are produced and marketed in the state. The tribal farmers earn about 7.3 crore rupees out of it with a very nominal investment on seed. About 50% of the cocoons are marketed by cooperative societies and rest 50% are transacted in the open market. The production of tasar cocoons has increased over the years. Considering the vast forest wealth, availability of skilled weavers and human resources in the state, tasar industry has a bright future.

### Growth of tasar culture

The state has four types of forests of which tropical humid forest constitutes 80%. of the total forest area and primary tasar food plants are abundantly available. Thus the state has 15,000 hectares of natural forest and about 6000 hectares of economic plantation is presently being used for tasar farming. The reared race daba constitutes 66.62% of the total production, where as wild cocoon collection accounts for about 33.38% during the last five years. The state contributes about 40.245 MT of tasar silk and 7.18 MT of silk wastes. In the year 2008-09 it was highest in comparison to previous years (Appendix Table-

A.2). The total tasar cocoon production of the state is estimated at 465.23 lakhs during the end of 10<sup>th</sup> five years plan yielding 34.89 MT of raw silk. It increased to 729.3 lakh and 57.00MT during 2009 respectively. The progress and achievement of tassar silk is given in table-2.

### Eri silk

In Odisha eri silk moth rearing was introduced by the erstwhile Bihar-Odisha Government during 1940s, with establishment of an institute at Bhagalpur (Bihar). In 1957, there were four eri rearer co-operative societies in Cuttack district viz. Sidhal, Dampara, Bhandal and Indupur. There were 13 eri centres, 2,379 eri rearers and 137 eri spinners in the state. Government of Odisha established three eri seed stations at Pattangi, Khurda and Chandaka. At present three seed stations, thirteen eri centres and one eri cooperative society are devoted for ericulture in Odisha. Eri culture exist in 14 districts of the state viz, Cuttack, Kendrapara, Jagatsingpur, Nayagarh, Khurda, Deonar, Anugul, Rayagada, Kalahandi, Gajapati, Keonjhar, Karaput, Phulbani and Sundargarh

**Table-2 Achievements of Tassar in Odisha from 2008 to 2014**

Activities	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Tassar Food Plants(Ha)	9115	10487	11035	11440	12137	13017
Production of Dfls(lakh nos.)	14.40	18.70	15.43	17.76	18.05	17.09
Procurement of Dfls(lakh nos.)	3.70	4.17	4.36	4.61	5.33	4.00
Consumption of Dfls(lakh nos.)	18.10	22.87	19.79	22.37	23.38	21.09
Production of reeling cocoons (lakh nos.)	729.20	915.00	922.96	689.93	1168.00	555.55
Production of raw silk(M.T.)	57.00	71.00	77.57	89.70	95.00	45.14
Production of silk waste(M.T.)	4.40	14.20	15.50	17.00	19.00	9.03
No. of farmers covered(Nos.)	9570	16343	12500	13233	13256	12170

*Source*-Odisha Economic Survey, 2014-15

districts. This type of silk is well known as "Ahinsa silk" because the pupae is not killed as in other silk culture, as the yarn is spun after the emergence of the moth. Eri is very old and mostly cultivated by the women, weaker sections of the society and tribes as a source of their subsidiary economic gain in the form of an old past time professional cottage industry. Besides castor, it can feed on kesseru, payam, cassava, sankru etc. which are available in plenty. As eri silk is cheaper than other types of silk it can be used by all classes of people. For tribes pupae and larvae of eri are kind of delicious food. These have high nutritional value, rich source of proteins and oils. So, people should be aware of its nutritional and medicinal values. Not only eri silk is health friendly as food, medicine but also it has been added to cosmetics and soft drinks. Due to its multifarious utility eri silk has a high demand in the international market. Thus, owing to its overseas demand and export potential ericulture can help to earn foreign currencies, which can aid to national income.

### Growth of Ericulture

The market for eri silk in the textile industry is growing day by day. Increased silk production can be a means to earn foreign exchange and contribute lots to our country's economy. Eri silkworm is multivoltine can be reared indoors in all seasons. But the winter season seems to be

the most favourable one in order to produce both qualitative and quantitative eri silk in Odisha. The ericulture is practicing in the state in the smaller scale but presently sericulture department is giving more emphasis for its expansion and as a result the growth is gradually increasing over the year.

During 9<sup>th</sup> plan period (1997-2002), 223 farmers reared 1.182 lakh of dfls and produced 4.185MT of cocoon from which 2.376 MT (Appendix Table-A.3). of spun silk was obtained. During 10<sup>th</sup> plan period (2002-07) eri plantation area went up to 921 acres covering 1090 beneficiaries and 2.13 MT of cocoons are being produced annually. During this period a total of 1.4702 lakh dfls were reared and 8.169MT of spun silk was obtained. The data presented in table-3, indicates that during the Xth plan, particularly from the year 2005-06, eri production registered an upward trend owing to implementation of developmental programmes. The present production of eri cocoon (green) is 8.8 MT and yarn production is 6.6 MT with a castor plantation area is about 1085 acres. Castor population in the state is found between 30 to 40 millions. Nearly 4,730 rearers are found engaged in ericulture. Each rearer produces about 2.5 kg to 4.0 kg of cut cocoons i.e. 15 kg to 17 kg green cocoons per 100 Dfls from which about 2.0 kg to 2.4 kg of eri yarn is spun. The status and achievement of Eri in Odisha is given in table-3.

**Table-3 Achievements of Eri in Odisha from 2008 to 2014**

Activities	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Existing Castor Plantation(Ac)	1300	845	1282	1033	1300	1325
Consumption of Dfls(lakh nos.)	1.32	1.35	0.78	1.48	1.73	1.43
Production of cut cocoons(M.T.)	8.80	9.40	4.40	5.02	7.50	6.02
Production of raw silk(M.T.)	6.60	7.00	3.30	3.80	6.00	4.80
No. of farmers covered(Nos.)	2140	2250	2264	2027	2308	2513

*Source* :- Odisha Economic Survey, 2014-15

As per table-3, production of eri raw silk has declined from 2008-09 to 2013-14 but number of farmers have increased.

### **Problems of Sericulture Industries**

The progress of tasar industry in the state is showing gradual increasing trend and therefore seems to be satisfactory in performance. Regarding marketing, the capacity to purchase by the apex society is required to be increased gradually by enhancing working capital funds and due to slump in the export front, the indigenous marketing system with diversification of the products are required to be looked into. In view of the both scope and potential of eri industry in the state, expansion on the industry to the potential pockets of the state might help in poverty alleviation programme. Since the state is having considerable size of SC/ST population, sericulture industry is specially helpful for their economic up gradation.

### **Conclusion**

Sericulture in Odisha is capable of providing a strong support for under privileged

people as dependable and additional avenues of income at frequent intervals. Tribes and poor can accept sericulture as subsidiary occupation for their economic gain. Hence horizontal and vertical development is highly necessary by replacement of low yielding local variety with high yielding variety (HYV), percolation of improved technologies by organizing training, seminars, demonstration or awareness programmes,, special emphasis to be given on awareness about prophylactic measures to prevent diseases, audio-visual programmes for mass awareness on disease management, development of region wise, district wise disease and pest forewarning calendar, demonstration programme for transfer of technology, skill development programmes for staff in Pre and Post cocoon sector, stress to be given to persuade farmers to use separate ideal rearing house close to mulberry garden as far as practicable, effective utilization of rearer force to check unemployment, organized plantation of host plants, mixed plantation of mulberry and castor, training of farmers to motivate to undertake sericulture on commercial lines and creation of market Linkages.

### **Appendix**

**Table – A.1 Mulberry Sericulture in Odisha during period 2002-03 to 08-09.**

Activities	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Existing mulberry area (Acres)	1387	832	885	993	1084	-	-
Effective plantation Area (Acres)	1356	832	885	733	533.5	669.0	790
No. of farmers covered	1269	1470	1468	1246	1494	1308	1330
Production of dfls (in lakh)	0.54	0.51	0.25	0	0	0.00	0.00
Procurement of dfls (in lakh)	0.89	0.35	0.50	0.86	0.87	0.79	0.86
Consumption of dfls (in lakh)	1.43	0.86	0.75	0.86	0.87	0.79	0.86
Production of reeling cocoon(MT)	40.00	19.13	18.45	15.21	20.15	20.3	25.6
Production of raw silk (MT)	3.90	1.91	1.84	1.52	2.01	2.05	2.56
Production of silk waste (MT)	1.42	.066	0.60	0.23	0.03	0.2	0.65
Consumption of dfls/ac./yr	105	103	85	118	163	-	-

Consumption of dfls / farmer / yr	112	58	51	69	58	-	-
Average cocoon yield /100dfls(kg)	27.97	22.24	24.6	17.62	23.11	-	-

**Source :** Department of Textiles & Handloom, Govt. of Odisha, Bhubaneswar.

**Table –A.2 Growth of Tasar Culture in Odisha.**

Activities	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Tasar plantation (ha)	N.A.	N.A.	N.A.	8458	8458	8450	9115
No. of farmers covered	9506	6183	6754	4594	7622	8872	10224
Production of dfls ( lakh)	20.49	8.28	7.77	5.45	13.66	10.90	14.40
Procurement of dfls (lakh)	1.29	1.01	1.80	1.88	1.68	2.816	3.70
Consumption of dfls (lakh)	21.78	9.29	9.57	7.33	15.34	13.72	18.1
Production Total cocoons	692.20	474.43	416.38	248.74	465.23	661.04	729.3
Production of Raw silk(MT)	54.00	37.00	32.50	18.65	34.89	47.68	57.00
Production of silk waste(MT)	8.10	5.60	5.50	6.00	11.50	2.2	11.40

**Source:** Department of Textiles & Handloom, Govt. of Odisha, Bhubaneswar

**Table –A.3 Growth of Ericulture industry in Odisha.**

Parameters	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Dfls Reared (in lakh)	0.046	0.078	0.180	0.542	0.624	0.957	1.32
Production of cocoon (MT)	0.277	0.152	1.170	2.130	4.440	6.53	8.8
Production of spun yarn (MT)	0.150	0.080	0.550	1.600	3.280	4.90	6.6
No. of farmers covered	86	215	498	907	1280	1545	2231
Existing castor plantation (Ac.)	-	-	-	519	813	938	1085

**Source:** Department of Textiles & Handloom, Govt. of Odisha, Bhubaneswar.

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## Rediscovering the Jagannath Sadak

*Anil Dhir*

The Jagannath Sadak was the old pilgrim road from Calcutta to Puri. It took form sometime in late 1700's and was the lifeline for all pilgrims who came to the Lord's abode at Puri. It was, from 1825, known as the Orissa Trunk Road, but for the devotees who descended on this path and made the slow way to Puri, it had always been the Jagannath Sadak. The road wound its way touching Belda, Dantan, Midnapore, Jaleswar, Basta, Balasore, Nilgiri, Bhadrak, Jajpur, Dharamshala, Chhatia, Cuttack, Bhubaneswar and Pipili. The travellers covered the distances by bullock carts, hackneys, palanquins, horses, camels and elephants, but most of them trudged on foot.

The road was a well-travelled one with many amenities for the pilgrims and travellers. There were Serais, Dharamshalas, wells, tanks, culverts, bridges, temples, rest sheds, Ghats, orchards etc. Many remnants of these are still visible on the isolated stretches of this once grand road.

The Jagannath Sadak was the road that was taken by Sri Chaitanya, Nanak and Kabir when they visited Puri. There are various travellers' accounts, from the French, English, Dutch and Persian, travellers. This was the road which the conquering armies of the Mughals, Marathas, Afghans and later on the East India Company



took to conquer Odisha. In fact, during their tenures, the Marahattas and the Englishmen had implemented a system of collecting toll tax for the maintenance of the road.

With the advent of the railways in 1898, the Jagannath Sadak fell into disuse and over the next few years was lost forever. The railways shortened the travel time from three weeks to fifteen hours. Many stretches of the road just vanished with time, it was encroached upon by villages and some lengths now form the NH-5. Today, only 168 km out of the original 510 km of the old road still exists.

The circulation of travellers and the production of travel accounts in the late 1700s and early 1800 was limited to that those of the missionaries and the East India Company officials,



and there was a marked asymmetry of relations and the perceptions that they had obtained and recorded. Most of the early accounts were missionary reports, and were typical stereotyped accounts of idolatry, pagan worship, moral degeneracy, hellish characters etc. and revealed the broad spectrum of opinions and views and were remarkably parallel.

The significance and importance of this road can be gauged by the following which is an extract from a letter of 27<sup>th</sup> February 1877, written by Father G. de Clercx, a French priest of The Company of Jesus. This letter was written from Balasore where the French had a mission where Jesuit missionaries used to be stationed. He gives a vivid account of the road and pilgrims.

"It is at Jaggernauth, towards the south of Orissa, that one finds the place of pilgrimage the most visited in the whole of India. People come here from hundreds of miles away and even from the districts located on the foothills of the Himalayas. Balasore, which is situated on the route of the pilgrims coming from the north-east of the peninsula, is continuously crossed by a crowd of pagans of all ages; of both the sexes and of all social levels, who visit or return to this place. The largest number comes on foot; some come on horsebacks, on the backs of camels or of elephants, or in carts of all types. When, in January last, I was on the route from Midnapore to

Balasore, the number of pilgrims was so -large that it looked like a procession as far as the eye could see. Most of them were full of tiredness; they moved forward painfully; quite a few had blood on their feet."

"During the month of February about 3,000 pilgrims stay at Balasore each day. In the eyes of the pagans, even the route going to Jaggernauth is sacred; often the indigenous people taking this route touch the earth with hands and kiss it with respect before putting their feet on that route."

My favourite traveller account was that of Yenugula Veeraswamy whose KasiYarta Charitra is a detailed history of the Sadak. Veeraswamy was a scholar who had joined the board of trade under the East India Company and was the head interpreter and translator in the Supreme Court of Madras. With a party of hundred, he had set out from Madras on the 18 May 1830 and for the next one year three months and five days travelled with his entourage on a circuitous pilgrimage passing through Rayalseema, Hyderabad, Nagpur, Jabalpur, Banaras, Calcutta and Odisha. In Odisha he went to places such as Balasore, Bhadrak, Jajpur, Cuttack, Puri, Chilka, Ganjam, Chatrapur and Berhampur.

Veeraswamy maintained a journal in which he recorded his experience. He was a keen



observer of even minute and commonplace things. His travelogue ranks high in the literally historical account of any traveller who visited this part of India. The Telugu edition was translated by the Andhra Pradesh Government Oriental Manuscripts Research Institute in 1973 and has been published as "Enugula Veeraswamy's Journal".

Jeremiah Zimmerman's "The God Juggernaut and Hinduism in India" written in 1890 gave a vivid travellers account on a journey on the road, albeit through a westerner's eyes. He writes: "Day and night throughout every month of the year, troops of devotees arrive at Puri, and for 300 miles along the great Orissa road every village has its pilgrim encampment. The parties consist of from 20 to 300 persons. At the time of the great festivals these bands follow so close as to touch each other; and a continuous train of pilgrims, many miles long, may often be seen on the Puri high road."

"They march in orderly procession, each party under its spiritual leader. At least five-sixths, and often nine-tenths of them, are females. Now a straggling band of slender, diminutive women, clothed in white muslin, and limping sadly along, announces a pilgrim company from Lower Bengal; then a joyous retinue with flowing garments of bright red or blue, trudging stoutly forward, their noses pierced with elaborate rings, their faces freely tattooed, and their hands encumbered with bundles of very dirty cloth, proclaims the stalwart female peasantry of Northern Hindustan. Ninety-five out of a hundred are on foot."

"Mixed with the throng are devotees of various sorts, some covered with ashes, some almost naked, some with matted, yellow-stained hair, and almost all with their foreheads streaked

with red or white, a string of beads round their necks, and a stout staff in their hands."

"Every now and then, covered wagons drawn by the high-humped bullocks of upper India, or by the smaller breed of Bengal, according to the nationality of the owner, creak past on their wooden wheels. Those from the Northern Provinces still bear traces of the licentious Mussalman rule, by being jealously shut up. The Bengali husband, on the other hand, keeps his women good-tempered, and renders pilgrimage pleasant, by piercing holes in the wagon-hood, through which dark female eyes constantly peep out."

"Then a lady in coloured trousers, from some village near Delhi, ambles past on a tiny pony, her husband submissively walking by her side, and a female domestic, with a hamper of Ganges water and a bundle of dirty cloth, bringing up the rear. Next a great train of palanquins, carrying a Calcutta banker and his ladies, sweeps past. I met one consisting of forty palanquins, with 320 bearers and about fifty luggage-carriers, whose monotonous chant made itself heard far off in the silent night."

"But the greatest spectacle is a north country Raja with his caravan of elephants, camels, led horses, and swordsmen, looking resigned and very helpless in his sedan of state, followed by all the indescribable confusion, dirt, and noises of Indian royalty."

It was sometime in late 2010 that I did my first recce of the Jagannath Sadak. I traversed the distance from Jaleswar to Balasore, spending time in each village on the way, exploring the remnants of the old road. I met the villagers and was greeted with amused curiosity, many of the people I spoke to just did not know anything about the road at all. Some of the old folk recollect the early memories of the Sadak and

others literally put me on the road by directing me to persons who would have more knowledge. The two weeks that I spent in the area, I gathered that searching the road would be no easy task, there were very few of the old generation left who had recollections of the road.

The oral history of the Jagannath Sadak is still rich and varied. There are many tales, fables and episodes which are still prevalent in the villages that were on the path of the old road. Popular ditties and limericks (called *dhagas*) are still sung. The Jagannath Sadak, the ancient travellers and pilgrims, the invading armies, all find mention in the songs, *bhajans* and religious texts of coastal Odisha.

The road was still called the Jagannath Sadak but few knew of its ancient history. Jaleswar was a sleepy town, more influenced by the neighboring Bengal than Odisha. However the 70 kilometers patch that I had picked up for my first recce of the road was the original road, and in places had remained unchanged since the last two centuries. I made notes on all that I had gathered and while spending the nights in the Old Dak Bungalows and the Circuit houses, I would go over these notes, unraveling the mysterious road that had disappeared with time.

In the next few months I covered other patches between Jajpur and Dharamshala, Chhatia to Cuttack and nearer home in Bhubaneswar itself. The old Jagannath Sadak just gave the ancient old town of Bhubaneswar a pass and skirted on the eastern side of the town. However there were two good roads which branched off it and ended at the Lingaraj temple. I had gathered from the old accounts that the travellers inevitably made their way to the old temples that encircled the Bindusagar pond.

I had managed to get facsimiles of good maps from the British Library at London that

showed in detail the road as it was in the year 1845. Other maps which figures in reports of the Famine Commission too made mention of the Jagannath Sadak. I also got many old maps of the areas through which the Sadak passed from the Asiatic Society, National Archives, Government Record rooms at Cuttack and Calcutta and a few from private collections.

My earlier trips of these places had by now generated some levels of curiosity amongst the villagers who stayed on the route of the Sadak. Many school teachers and college lecturers whom I had met in my reconnaissance surveys were now giving me tidbits and snippets of what they had gathered about the road. In six months, I had collected enough material and decided to make a trip to retrace the Jagannath Sadak.

In 2011, I undertook a Bullock Cart Journey on the old road, trying to retrace it. The journey was undertaken to highlight the deplorable condition of this once great and now forgotten road. It was a humble attempt to revisit and revive the lost glory of Kalinga, and to relocate and retrace the road with the help of modern scientific survey equipment.

We took a Bullock Cart, canopied it in the traditional style and put the three Lords on it. We had with us a two pairs of bullocks, a cart man, a farrier (to nail on the horseshoes), students from the history, archeology and geography departments from the Utkal University and a group of 25 *bhaktas*. We started one morning from the Jagannath Ghat at Kolkata and for the next two weeks walked the entire distance. We would walk the whole day, stopping to meet the villagers who were drawn to the bullock cart by sheer curiosity, and at night would camp at the small temples that dotted the road.

During the journey I discovered many remnants of the great road. I interacted with the

villagers on the way and visited the ruins that dotted the terrain of the route of the Jagannath Sadak. I have located more than two hundred archaeological remains of this road. Most of what remains is in ruins, but nevertheless they still resonate with what the ancient pilgrims underwent while on their way to Puri. Many of the old structures are still upright and can be restored. Most of them have fallen into disuse and decay or have been converted into Government offices, police stations, Dak bungalows etc. We also discovered marker stones, survey pillars, remnants of British era factories, encampments and mutts etc. which were scattered all along the old road.

I and my team spent two weeks in the villages on the route. We met scores of villagers, farmers, herders, traders, housewives, way side temple priests, holy men, revenue officials, government land record section employees etc. and gathered valuable information of the ancient road. We took photographs and interviewed many of the old folk who had recollections of the old road. The culmination of the journey was a soul stirring experience for all of us. I shall never be able to relate or pen down all that I gathered on the pilgrimage. The ghosts of the old travellers still haunt the road, many villagers told me that they still hear the tinkling of the bells of the bullock carts, the chanting songs of the palanquin bearers and the cries of 'Jai Jagannath' which the pilgrims broke into on seeing others.

After completing the journey, I was left with a huge amount of materials in the forms of papers, books, photographs, maps etc. Compiling them and assimilation of the information was a herculean task for me. It was then that the Convener of the State Chapter of INTACH, Shri A.B.Tripathy, proposed that I should compile a

complete list of the Monuments that we found on the road. The project was sponsored by INTACH's head office at Delhi, and I hit the road once again, this time for a scientific listing of all the remnants. Initially, I was told to document the remnants of the road in Odisha only.

The project "Documenting the Monuments of the Jagannath Sadak in Odisha" was launched on the 4th of June 2014. I was told to cover the distance of the road in Odisha and to complete it before the Nabakalebar. As the Project Head, I made forty trips on the road between Jaleswar and Puri, and then I stopped counting. Every inch of the old road has been traversed. It took me nearly one year to complete the trip. The sheer richness of the history of the road can be still gauged by whatever remains. The final report contains a listing of 200 monuments which besides temples and mutts, also has listing of 5 Churches, 8 Mosques and three Gurudwaras, which all have associational significance with the old Sadak. There are listing of 21 bridges, 20 wells, 15 tanks and scores of old Dharamshalas, rest houses, buildings etc.

The listing of the Bengal stretch of the Sadak too has been sanctioned and will be completed soon. INTACH has appealed to the governments of Odisha and West Bengal to ensure that the remnants of the old road are preserved for posterity. Further the pilgrim trail should be opened once again and the Kolkata Puri stretch of the National Highway should be renamed as the Jagannath Sadak.

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## Brave Odias' Maritime Voyage

*Parikshit Mishra*

Historically and geographically Odisha was inalienable and inseparable part of India in whatever form it was and name it was called. It is believed that not less than six racial elements formed the Indian population. They were the Negrito, the Proto-Australoids, the Mongoloids, the Mediterranean, the Alpine, Dinaric and Armenoid (which formed sub-groups) emerging from Central Asia. They bore characteristic of people of Bengal, Odisha and Gujarat etc. The Nordic people spoke Aryan language as used in the Vedas.

The religion of human race in pre-historic period (50,000 - 30,000 BC) believed in life after death. Dead bodies were buried with tools of stone, animal parts to appease the dead and prepare for the next life. In absence of decipherable chronology of their lifestyle and authenticity of their beliefs history is based on the shaft of anthropological research.

In 261 BC Ashok invaded Kalinga when it was an organised and militarily strong state Aryan culture, Vedic Brahmin religion and Jainism and Buddhism spread from north India had great influence. About 300 B.C. South Asian Countries had maritime relation and brave Odia sailors set up colonies in those countries. In ancient time Kalinga covered northern Andhra Pradesh, major

portion of Odisha and a portion of Madhya Pradesh. Founder of Nanda dynasty Mahapadma conquered it in 4th century B.C.

Chinese tourist Hiuen Tsang 7th A.D. (about 638 CAD) travelled to south from North through Odisha. He had reached the Udra state about 140 miles from Karnasubarna of Murshidabad district in Bengal.

Research scholars have discovered the fact that in distant past Indians sailed across the high seas, settled in distant land and spread the Indian civilization. The Odias were in forefront. Ptolemy (born CAD 100-died CAD 170) the Greek astronomer writing geography of India enlisted important ports of Odisha. They were Palur, Nainaraina, Katikadam, Kanaantar and Mabair river mouth. Except Palur in the district of Ganjam Kannagar might be Kalinga Nagar, some believed to be Konark. Efforts have not been made to identify others. They are believed to have been sub-merged or extinct in the sea. Besides, it is stressed that Palur was an ancient port in the mouth of the river Rushikulya. According to Ptolemy ships sailed up to Malaya, a group of islands. Up to 15th century AD Palur was a bustling and prosperous port.

In ancient time Kalinga and Kangod were active in marine mercantile searching for fortune.

In doing it, Odias also set up colony which survived three hundred years. A slew of Islands were brought under their control. Kalinga empire in distant Islands were intact till 11th century A.D. This apart king of Kalinga dispatched 20,000 families to Java. Those people were resourceful. They settled there and expanded their number. The contact of Odisha with Subarna Island was not a hearsay. It has support of historical description.

Central Asia contributed Alpine and Dinaric which formed main elements in population of Odisha. A mixture of Aryans and Dravidians elevated Hinduism, God-belief and temple-building in the beginning of civilization.

Mediterranean people knew use of metals, made pottery, boats, ships besides developing agriculture, spinning and weaving. Idol-worship and performing rituals with flowers, myrrh offering to gods also originated. This is assumed in absence of authentic history.

Odias' rich art and sculpture are a live commentary on the surviving portion of the Konark temple. Now ceremonially Odias float paper, wood, banana bark or rind made and tastefully decorated boats mostly in the rivers and ponds. And in modern time high-tech exquisite sail boats are floated with pomp and splendour on the full-moon day of the month of Kartik.

Modern research indicates that Subarnadwip (made of 13,600 islands mainly with Java, Sumatra, Bali and Borneo called Indonesia now) had contact with old Kalinga. The area of mega Kalinga spread up to south east Asia such as Burma, Indo-China and Indonesia.

Before 500 or 600 B.C. Odisha's trade and commerce by boat was impressive. Megasthenes' description emphasizes that. By 4th or 5th century B.C. Kalinga had traded elephant with Ceylon which was renamed as Srilanka.

Odisha has about 500 km. of long coast line. Brave Odias were going on sea voyage in sail boats with cargoes. Those were fine fabrics, brass utensils, ornaments, toys, fancy things, tobacco, wooden and stone idols. They were returning with gold, sapphire, jewels, fresh tomato, pumpkin and English potato etc. In foreign land or Island Odishan promoted Indian and Odia culture in Burma (now Myanmar), Malaysia, Indonesia, and Thailand which is now history of the past. Once upon a time people of Kalinga familiarised the epic Ramayan in those places and left distinguishable traces of Hindu religion and culture particularly at Bali. And now Hindu temples stand as the eloquent testimony of Odia sailors irrefutable presence sometime in history.

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## Religious Harmony in a Plural Society

*Prof. Surya Narayan Misra*

India is a civilisation, not nation. It has more than two thousand and five hundred years of recorded history. It is home to all the great religions of the world. Yet, its largest subscribing faith is not religion, but a concept. India is a source of inspiration for others due to its vibrant functioning democracy and culture and traditions.

India is a sub-continent. In terms language, region, religion and social identity it presents a clear but confusing image. It is clear because it believes in 'Sarve Vabantu Sukhinah'. It is confusing due to missing link between participation and development. Accommodation, tolerance, understanding and respect for diversity are essential if India remains in currency as a great civilisation with pluri-cultural background.

'Hate and Hydrogen' is a bad mixture. They produce human killing bombs. This caused two world wars and two phases of cold war. But after the demise of cold war only 'Hate' persists and all the tensions of post-cold war era are based upon 'hate theory'. Whenever this situation prevails the development of men and nation are affected. In this context, recent incidents of hate and hatred against others in India have become more significant because a democratic order does not accept either of the two.

We are living in a world of diversity. Ever since human search for both knowledge and survival people across the world had changed their geographical identity. It is because of this that 'paper mills' an innovation in China could be pirated to Mesopotamia. The luring effect of Indian glory attracted Europeans at different phases of Civilisational journey. Both Mauryan and Guptan era contributed to the growth of human ideas through institutions and instruments. Thus 'Zero' whose birth place in India ultimately gave us 'Computer'. Modern grammar was born in India. The civilisation was much benefited by the visit and settlement of different communities through their culture, life style and ideas. The synthesis of all these presents today's India. It is not only second most –popular country but its credential are known through religious tolerance, accommodation, respect for diversity and not me but you concept.

The onset of electoral democracy in India was disturbed by communal frenzy. The last people to rule India was the Britishers preceded by the Mughals. In 1857 revolt India accepted Mughals as their ruling elite. This disturbed the colonial rulers and they adopted separatism by proclaiming English as civil language replacing 'Persian' which was very dear to Muslim brethren in this country. The English knowing middle class

Hindu population got benefit and this distanced the muslims from Hindus leading to religious fundamentalism born out of Linguistic chauvinism.

Indian independence coupled with its partition was a British machination to weaken India as the colonial rulers were aware of the strength of this great nation. They also aided in the evolution of both hate and communal feeling among the people of their erstwhile colony. Political ambitions on both the sides led to an undesirable partition and the hatred of partition era continues unabated till today. In fact, the creation of Independent Bangladesh ended the Pak claim over Kashmir on religious lines. But Pak rulers depended on anti-Indian international support and this caused the 'Simla Agreement' spirit of 1972 remaining in pen and paper only.

The electoral democratic process in India caused the origin and growth of political groups which gave low priority to Indian tradition and culture. One must understand what a civilisation is. It is a movement and not a condition. It is not a stagnant pool of water but a flowing river. Civilisation is the refinement claimed from barbarism. The State of refinement in a civilisation is culture. Culture represents the rules and guidelines that shape the way of life of people. It is not understood that a Civilisational country having richness of tradition and culture could play into the divisive plans of cynic colonial masters. Their cynicism did not end with partition, it had its spread effect into our Socio-Cultural life which is dominating the political system and processes from 1950s on words. A country known for great ideas have become prone to avoidable wrongs.

The Constitution of India which is best ever possible looking at the challenges from within and outside has spread the concept of equality, tolerance and respect for human beings. The

preamble sets the tone of our mend set which accorded liberty of thought, expression, belief, faith and worship. The Indian Constitution with its rich secular credentials assures the Minorities Constitutional recognition and protection. The Right to Equality and Right to Freedom of Religion gave in part III of the constitutional urges upon religious harmony and fraternity. People denigrate theocratic states because of poor understanding of essentials of that State. It only envisages a State which has a State religion. In contrast Secular State does not have any preference for a religion to be identified as a State religion. A Secular State is not an irrigation State. It has religion within it. India is a Secular State by Choice. It does not necessarily mean that India has no religion Communities. Rather, all the religion communities peacefully stay here. In a theocratic state, other than the state religion, other religions operate. There is no harm in their operation except that they are not State religions. The democratic society we have founded with elected representatives and their chosen leaders need to understand these basics and then shore it with the people of the country. If this is done in a positive Sense it will and then share it with the people of the country. If this is done is a positive sense it will lead to peace and peace will lead to development of all.

In terms of plurality nature of its population India is second to none. Its pluri-cultural ethos has created a visible space amidst countries of same background. Cultural synthesis across the centuries India has consumed it is more benefited than contributed. This fact needs acknowledgement. Many people today believe in this concept. Hinduism, which is not a religion, but a concept, does not believe in proselytisation. But today, a Section of the Indian population conducts religion conversion which causes

unnecessary tension and at times lead to communal hatred.

Religion is a belief system. It is also a way of life. It is not the only way of life. Religion takes people out of darkness. It works like a lantern and focuses attention of people towards noble things. Hatred, bloodshed, thinking ill of others and grab nature of people do not fall in the domain of religion. The aims and objectives of all religions are same. People subscribing to different faith may have different presentations, dress code, ritual styles and celebrations. But no religion ever thinks ill of the other faith. Religion connects people never divides. Hence religious harmony has to be properly internalised by each faith. The post Babri Masjid desecration caused innumerable loss of innocent lives and their property. The cruel assassination of late lamented Indira Gandhi brought same to the concept of tolerance which the youngest Indic religion, Sikhism had stood for. A Pluri-Cultural society is a better place to live in than Uni-Cultural one.

Indian society is plural in composition and Indian civilisation is multi-faceted and multi-dimension in nature. It has observed and assimilated many exogenic elements during the course of its long history. At the same time it has retained its own socio-political identity. Unity of India has to be seen through its diversities. Her unity is just like a pyramid. According to Prof. N.K. Bose, there is more differentiation at the

material base of life and progressively less as one mounts higher and higher.

India is not a monolithic society, but a socio-political reality in spite of diversities and divergences within the Indian life pattern, based on caste, class, ethnicity, religion and differential degree of Socio-Cultural development, India manifests a strong spirit of nation-hood.

The diversities are so vast in India that only the concept of Hindu Rastra may not be able to solve the challenges of the contemporary world. The other differences cannot be solved by the same approach. It is not feasible at all. Hence, the concept of unity where each one will merge into one faith is redundant and integration which allows retention of one's identity yet one is part of larger concept happens to be the most appropriate model before us. If the political system and its processers absorb to itself the principles of integration it will cause religious harmony to bind all together in the most beautiful plural society on earth.

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## Remembering the Great Barabati Fort

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Ganga king of Kalinga, Chodagangadeb defeated Karnakeshari, the last Somavamshi ruler and annexed Utkal either in 1118 or in 1134 A.D. By this act of conquest he accomplished the task of political unification of Odisha to a great extent. With the emergence of a great Ganga empire the humble and traditional capital of Kalinganagar (Mukhalingam in Srikakulam district of Andhra Pradesh) lost its relevance and Chodagangadeb shifted his capital to Katak, a place centrally located and well protected by mighty rivers. He built forts around his capital city and made it highly inaccessible. One such fort was built towards the north of the river Kathajuri named Sarangagada (near Baranga). He also built a fort at Chudangagarh (near Chaudwar) and most probably resided there. On the outskirts of Chudangagarh he built forts at Amarabati Kataka (Chhatia) and Jajpur. It is said that he built a fort at Cuttack, but the trace of it is not to be found.

In fact another ruler of the Ganga dynasty Anangabhima Dev III (1211-1238 A.D.) built a new city in the village Barabati and named it as Baranasi Katak. He, with the royal family, left Chaudwar and started residing in Abhinav Baranasi Katak. He must have fortified his capital city and for this it is naturally assumed that the Barabati fort was erected by Anangabhima Dev III. That he erected a fort at Abhinav Baranasi

Katak is also corroborated by the Nagari plate of Anangabhima Dev III.<sup>1</sup>

That the Barabati Fort was situated at the bifurcation of the rivers, Mahanadi and Kathajori was mentioned in the *Ain-i-Akbari* of Abul Fazl, compiled in 1594-95. From the accounts of *Ain-i-Akbari* it is evidenced that Raja Mukunda Deva of Chalukya dynasty had built a palace in the Barabati fort. This palace had nine '*asianas*'. Later on this Persian word '*asiana*' was misunderstood and it was misinformed that Mukundadev had built a nine storied palace there. But in fact it was not a nine storied building as understood now a days.

Fergusson saw the fort in 1837. In his book he wrote "Abul Fazl's description of this palace, however, has been misunderstood by the translators, who have represented it as consisting of nine storeys instead of nine courts or enclosures.<sup>2</sup> M.M. Ganguly has also given the same view in his article in the Orissa Review<sup>3</sup>. Two British merchants named Bruton and Cartwright attended the Mughal governor in the Barabati fort in 1633 A.D. They never mentioned about the nine-storied building. Rather they said that they were conducted to the court of public audience through a labyrinth of buildings.<sup>4</sup>

However from the description of *Ain-i-Akbari* it is clear that nine-inter connected

enclosures were present at different heights in the structure. The first floor was used to keep elephants, the second for artillery, guards and quarters for attendants, the third for the gatekeepers and patrols, fourth for the workshop and the fifth for the kitchen. The sixth floor was used as reception rooms; the seventh for private apartment, the eighth for women's apartment and the ninth was the sleeping chamber of the governor.<sup>5</sup>

We are unfortunate to prove anything beyond doubt as the whole area was excavated in 1856-57 for stones and nothing substantial is left to inform about the exact nature of the structure. But from the writings and accounts of contemporary writers and travellers we came to a conclusion that there was no nine-storey building in the fort complex. The '*Nabatal*' palace was in fact a structure having nine courts standing on platform of increasing heights, the ninth one being at the highest level. The built up area went on decreasing as one ascended to next higher enclosure.

Even now a days one can see the remains of the deep moat (*Gadakhai*) excavated around the fort to make it more and more inaccessible. The soil excavated for construction of the moat was probably spread on the ground inside in such a way as to form platforms of different heights, one upon another in an ascending order. On each of the platform stood one court. The courts were probably in form of concentric circles, outermost being the largest and lowest and the innermost being the smallest and highest in area and altitude respectively.<sup>6</sup>

From the military point of view the fort was erected in an ideal location. But this was too small a fort to withstand a longer siege. The Barabati fort has a length of 2150 feet and breadth

of 1800 feet. Considering its humble dimension and strength, in 1766 T. Mootee had revealed that the fort was however too small to make a long defence against the European army<sup>7</sup>. So it is assumed that Barabati fort was a part of bigger fortification, the inner ring of defence and also a safe loyal residence. It is very likely that the revetment along the two rivers of Mahanadi and Kathajori with watchtower and bastions at intervals probably formed the out ring of fortification.

From the above discussion, however, it is clear that Anangabhima Dev III of Ganga dynasty erected the fort of Barabati. Chalukya king Mukundadev constructed a structure with nine enclosures at various altitudes. And in all probability it was the inner ring of defence being a part of bigger fortification. In between the reigns of the above two rulers this Barabati fort had witnessed the glorious days of Odisha under the great Ganga king Narasinghadev. It had also seen the conquests of the Suryavamshi kings like Kapilendra Dev and Purusottama Dev. It had also witnessed the plight of Prataparudra Dev and the end of the Gajapati rule. With mute helplessness it had to tolerate the murder of the last Suryavamshi king in the hands of treacherous Govinda Bidyadhar. After murdering his master's son Govinda Bidyadhar established the Bhoi dynasty in Odisha. His death ushered an era of political instability stained with regicides and conspiracies. During the reigns of these Bhoi rulers off and on Mukundadev was the guardian of this Barabati fort. He also established his own Chalukya dynasty by murdering his royal master. But very soon he proved his worth and demonstrated that he could revive the pride of Odia race. In fact Barabati fort was very dear to him. After Mukundadev Odisha was occupied by the Afghans in 1568. Kalapahad, the Army

General of Bengal Sultan Sulainian Karanni had broken certain portion of the fort. But the fort was habitable. It became the headquarters of the Mughal and Maratha governors for Odisha.

During the Mughals some additions and alternations were effected to the fort so that it would suit to the Mughal taste and style. The Mughals also built a mosque inside the fort complex. The Marathas, who ruled Odisha after the Mughals, also made some constructional changes in the fort. T. Motte visited Cuttack in 1766, when the Bhonsle of Nagpur ruled Odisha. Motte recorded that the moat around the fort was 7 feet deep and 20 feet wide. There were two clusters of walls, outer and inner. The outer wall was five feet higher than the inner wall.

The English force reached Cuttack on 13 September 1803 and stormed the fort on 14<sup>th</sup>. Major Harcourt was in charge of the operation. The artillery weapon the Britishers used for this operation were a 12 pound battery, two howitzers and two 6 pounders. Harcourt described the fort as one of considerable strength and with the exception of only bridge it was inaccessible. After silencing the Maratha guns the gates of the fort was forced open in the face of heavy fire and the fort was captured. When Sterling visited Odisha this fort was standing intact.<sup>8</sup>

After the British occupation of Odisha for sometime this fort was used for confinement of the state prisoners. But later on it fell into disuse and government sponsored vandalism started to eliminate this relic of Odia pride from its very existence. This fort was subjected to excavation for its stones producing an unsightly picture of ruin and devastations. As if stones and metals were not available otherwise, the stones were excavated out of this great heritage site of Odisha and used for the construction of roads and embankment in

and around Cuttack city. The mindless British authority in Odisha did not hesitate to dismantle this historic fort of Barabati, the stones and earth of which was made from the blood and flesh of the Odia heroes.

From the records available in the Odisha State Archives it is evident that the stones of the fort was used for the construction of buildings, roads and embankments at Cuttack. One Mr. Shore, the Magistrate of Cuttack tried his best to stop this vandalism and as a result of his effort the Governor of Bengal in their Letter No. 1701 dated 31.5.1856 stopped the demolition of the fort of Barabati. But by that time a lot of damage was already done and a little was left for preservation. But that was also not possible. Later on excavation of stones from the fort complex continued till nothing was left except the dilapidated main gate. The fort was systematically converted into a mound of debris consisting of earth, broken stones and bricks.

The Barabati fort, which was once creating sensation in the body and mind of the Odia militia, which was once a nightmare for the enemies of Odia race, is now in a sorry state of helpless ruins. But the moat, the main gate still exists to narrate the stories of heroism and bravery of the great Odia race.

After independence the historian-chief minister of Odisha, Harekrishna Mahtab conceived altogether a novel idea to convert this Barabati into a great memorial for Odia martyrs. He was contemplating to convert the entire area around the fort in to a great sports complex. It was the month of August 1948, a football match was to be played at Cuttack between Bhawanipur Football Club and Orissa XI. Harekrishna Mahtab was to inaugurate this event. There was heavy rush of the spectators and the field was too small

to accommodate the sports-loving enthusiastic spectators. Mahtab was shocked. Then and there he announced that very soon Cuttack should have a big stadium and sports complex. Without delay 20 acres of land towards the east of the Barabati fort was earmarked for the stadium. A sum of Rs. 1 Lakh was also sanctioned for the spadework of the stadium. In 1950 the foundation stone of the Barabati stadium was laid and the construction work started. Bhairab Ch. Mohanty, a deputy minister of Odisha remained in charge of the construction of the stadium. Subsequently Sri Mohanty became emotionally attached to the project.

This was in fact a big project in which provisions for a big field, clubhouse, pavilion, clock tower, architecturally rich main gate were made. Side by side facilities for the recreation for the sportsmen, provision for their stay, courts for certain sporting events was to be made. The main field was to be surrounded by the huge spectators galleries. Such a big project was necessarily very much expensive and the poor government of Odisha could not afford it. In this juncture of financial exigencies the idea of Barabati Raffle (Lottery) was conceived and after its implementation the lottery proved highly rewarding. The profit of this lottery was used for the ongoing construction work of this dream project and this dream became a reality. Big sport events started to be organized in this stadium from the early 60s. In this stadium hockey and football matches of national standard were organized. This was also the venue of a number of one-day international cricket matches as well as a recognized Test Cricket Centre. The recently installed floodlight has made the stadium more attractive and useful.

In the Barabati fort area itself two other sports complex have been established to lessen

the burden on the Barabati stadium. They are Satyabrat Stadium and Jawaharlal Nehru Indoor Stadium. The area around the fort is promising as well as inspiring for upcoming sportsmen. The local children and youths are using the Balijatra ground in front of the main gate of the fort for sports practice and exercises. One can see youth and enthusiasm around the fort in the morning and afternoon. As now a days the venue of Balijatra has been shifted to the riverbed of Mahanadi, the Balijatra ground can be leveled and made more suitable for sports practice. The river Mahanadi at the northside of the fort can be suitably developed for a water-sports complex of international standard. The fort, the stadium and the area around it can be well developed and the whole integrated complex can be the sports capital of Odisha. It has all the infrastructure and natural suitability. Only will power is needed to accomplish such a goal. That shall be the greatest tribute for the martyrs nurtured in the great Barabati fort.

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## BALIYATRA

(A Festival of Odisha's Ancient Maritime & Historical Glory)

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The literally meaning of **Baliyattra** is “**Voyage to Bali**”. Bali is an island of Indonesia and the Baliyattra festival is generally celebrated in the coastal Odisha on the day of “**Kartika Purnima**” which falls in the month of November every year. It is an unique socio-cultural event with history of 1000 years old which commemorates the past association of the people of Odisha with Bali and the glorious maritime tradition of trans-oceanic voyages they undertook to South East Asian Countries. The celebration of **Baliyattra** on the Bank of river Mahanadi takes us back to remember our ancestral cultural heritage and maritime legacy. During this period the traders of Odisha (Sadhabapuas) were undertaking voyages, along the sea trade route, on huge boats called “**Boita**” from this place on full moon day in the month of November (During the month of Kartika). So Kartika Purnima is an auspicious day for the people of Odisha as the Sailors used to start their voyage to the places like Bali, Java Borneo, Sumatra in Indonesia and Srilanka for a successful trade. Baliyattra is not only a ritual of sailing of Boats on Kartika Purnima day but it also represents the ancient maritime tradition of Odisha and economic glory.

The present Odisha once formed part of the ancient kingdom of “**Kalinga**” and the Kalinga sailors had command on maritime



activities of India in the past. This brave Kalingan Sailors were making during voyages to different far off lands of the world. So great was the fame of Kalinga as a maritime power in ancient times that “**Kali Das**” in his Raghuvansa referred to king of Kalinga as the “**Lord of Sea**”. By the beginning of the Christian era the merchants of Odisha or Kalinga established cultural and trade ties with countries like Indonesia, Malaysia and Cambodia. Bali, Java & Sumatra were the ports most frequented by the merchants from Odisha. Maritime history of Kalinga sailors lies littered in this island Indonesia.

“**Boita Bandana**” or “See off” ceremony of the merchants in day of Kartika Purnima is observed throughout Odisha. On this day the women folk of Odisha sail small boats

made out of Cork, Colored paper and banana bark lit by lamp on all available water. Courses in the same fashion in which the ladies of yore used to send their men on voyages wishing them well.

In Kalinga (Odisha) & Bali (Indonesia), one can find the influence of each other culture to a considerable extent. Lot of similarities are found between the culture and life style of the people of both the countries. Both Bali & Odisha boast of the strength of their culture in tourism that includes graceful dance forms, art and handicrafts, temples monuments and distinctive style of architecture, tie & dye, weaving technique and elegant textile designs, specialties of their cuisine and tranquil spread of their coconut fringed golden beaches.

Besides, we may also find a big similarities between “**Boita Bandana**” event celebrated in Odisha with the celebration of “**Masakapan Tukad**” festival of Bali where similar floating of toy boats in memory of maritime ancestors is made. The “**LOYKRATHONG**” or “**LOY**” festival organized by Thailand in the month of December represents ritualistic floating of boats which has an adequate similarities with Odishan custom.

The legend related to “**Boita Bandana**” or **Baliyatra** festival signifies the association of Taa-poi & celebration of the ritual of Khudurukuni OSHA by every house hold of Odisha. The legend says Taa-poi was ill treated by her sister in-laws during the sailing period of her seven brothers but it was Maa Mangala- the sea goddess who punished them for their ill treatment.

Apart from other places, Baliyatra festival is celebrated with much pomp and grandeur in

the historic city of CUTTACK for seven days from Kartika Purnima on the bank of the river Mahanadi. Lakhs of people throng to this place to enjoy the fair by taking delicious food like Thunkapuri, Dahibara & other traditional food with a boat ride with their family & friend in the full moonlit night.

To revive & refresh the memories of Kalinga’s glory in general & to promote Tourism in particular, the Govt. of Odisha led by legendary Biju Patnaik made a humble effort for an expedition by boat to “**Bali**” on the day of Kartika Purnima of 1992. The aim was to woo tourists from South-East Asia. Lot of events related to Odishan Culture were organized by the artists of Odisha who had also travelled to Bali in a big delegation. The same was also reciprocated by the artists of Indonesia (Bali) when the delegation reached at Bali. This amalgamation of culture in the form of cultural exchange between two Odisha & Indonesia helped to promote the influx of South- East - Asian tourists to India & Odisha.

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# Growth of Museums in Odisha During the 21st Century

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After the independence of India, the development of the museums are growing rapidly with the improvement of the education and mass communication. Towards the close of the 20<sup>th</sup> century and the beginning of the 21<sup>st</sup> century a large number of new variety of museums were established in the eastern part of Odisha. They are Temple Museum, Natural History Museum, Tribal Museum, Insect Museum, Personalia Museum etc. which are small in size but the collections of the museums are very important for the students, research scholars and teachers. The Temple Museum, Konark only preserves the various parts of the Konark temple and development of art and architecture in Odisha. The tribal museum speaks of the tribal style of the tribal people of Odisha. The science museum preserves the importance of the science and the improvement of our living condition from ancient time to present time. Some of the miscellaneous museums are given below :

## **Regional Museum of Natural History, Bhubaneswar :**

The present eastern regional centre of National Museum of Natural History, Union Ministry of Environment and Forests, situated in a prime location inside temple city of Bhubaneswar. Six acres of land was given free

of cost by the Government of Odisha. Initial phase of construction began after foundation stone laid on 5<sup>th</sup> November 1994.<sup>1</sup> Subsequently the museum was opened for the public on 10<sup>th</sup> August 2004 with the objective of promoting non-formal environmental education among general public and younger generation in particular.

To achieve this objective various galleries depicting biological diversity of the region is beautifully presented in a learning set up supported by aesthetically designed landscape. The vibrant biodiversity of Chilika, Bhitarkanika, Simlipal, Andaman and Nicobar Islands and North East has been showcased in the galleries portraying natural richness under one roof. It is experienced that knowledge disseminated with the help of realistic museum exhibits inside permanent gallery, temporary exhibition hall, aptly oriented discovery centre, impact exhibits played an important role for the visitors since its inception.

Research driven exhibit showcases comprising skeletal display with poignant story of Shankar. The wild rogue tusker and African black rhinoceros intricate architectural nest building behaviour of hornet wasp displayed in a moveable showcase. The story of big and small cats of India, interesting facts of butterflies and valuable collection and display of sixteen rhino, Skulls belonging to three different species of the

world encourages responsible visitors to spread the message of creative learning environment. A scientific laboratory consisting of baseline information with the help of simple instruments and chemical encourages school students to understand and visualize different curriculum based practical activity which is lacking in modern formal learning system inside classrooms. Hopefully this has turned into substitute for online information for the students to prepare their projects with real educational potential of firsthand experience. Some interactive exhibits and multi dimensional programmes have resulted in gradual increase in visitors inflow. This is the only centre where one can see and understand the working principle of rain water harvesting system associated with artificial recharge of ground water and solar lighting system.<sup>2</sup>

#### **Galleries and Exhibits :**

Museum houses four spectacular galleries, beautiful aquariums and magnificent osteological exhibits of mammals, birds, reptiles and rare herpetological collections.

#### **Gallery – 1 : Unique Creations of Nature**

Temporary gallery which portrays rare, extinct and endangered animals of India like whale, pythons, stuffed crocodiles, models of black buck, hyena, wild dog and clouded leopard.

#### **Gallery – 2 : Bio-diversity Gallery**

Permanent gallery depicts vast bio-diversity of different habitats like Chilika, Bhitarakanika and Simlipal Biosphere Reserve besides North Eastern Region, Andaman and Nicobar Islands were showcased to captivate young minds toward better understanding about ecology.

#### **Gallery – 3 : Discovery Centre**

This gallery is specially designed for children to achieve enjoyable learning involving

all senses to inculcate interest about environment. Various scientific facts have been displayed with visual aid and in a manner of questions and answers.

#### **Gallery – 4 : Second Phase Gallery**

Ongoing gallery development activities focused on natural phenomenon also given importance for exhibit design and display.

Recently valuable and interesting collection of geological and zoological specimens brought from Madagascar island were donated by Shri Abasar Beuria, former Ambassador of India. The whole collection have given into develop a concept for design and display to educate the visitors about natural treasure of Madagascar. This happens to be the only museum in India where one can see the artist's expression about extinct elephant, bird with its largest egg of the world. There are interesting fossilized remains of tree, vertebra of dinosaur, ammonites and fish reveals million years evolutionary history related with their origin and extinction. The fascinating collection of shining spherical agate, calcite, quartz, rocks, has given us to interlink different continent in time and space.<sup>3</sup>

#### **Wild Africa :**

The mounted specimens of zebra and cheetah made by Vanlugen a taxidermist of international repute is on display inside a panoramic view of African wilderness.

#### **Museum Activities :**

On the occasion of Earth Day a sit and draw competition was organized in association with Centre for Environmental Studies, Department of Forest and Environment, Government of Odisha. About 292 participants from primary to +2 classes grouped into four categories participated in the programme on the

themes- My house, Our Earth in our own urbanization and Deforestation and Terror of Tsunami.

### **Summer Programme 2007 :**

The museum has also organized a summer programme on 1<sup>st</sup> May 2007 in which 125 participants took part. Nature in art and craft was conducted from 18<sup>th</sup> May to 21<sup>st</sup> May with exposure visit to 200. Children were engaged in creative activities like clay modeling, making of masks of animals and birds etc. with demonstration by experienced resource persons. In the high school category about 25 participants participated in the nature camp activity from 22<sup>nd</sup> to 25<sup>th</sup> May with field trip to Satkosia Gorge Wildlife Sanctuary and Chilika Lake. Experts in the field of forests, wetlands, ecology and wildlife were invited to orient the students about various aspects of environment. The programme for +2 and +3 level was held from 26<sup>th</sup> May to 2<sup>nd</sup> June. Valedictory Function was held on 5<sup>th</sup> June 2007.

### **World Environment Day and Valedictory Function of Summer Programme :**

The World Environment Day was observed in the premises of the museum where Prof. Madhab Chandra Dash, former Vice-Chancellor and former Chairperson of Pollution Control Board graced the occasion as the Chief Guest. He presented a very informative lecture on global warming. Later in the evening a cultural programme was presented by students after which certificates were distributed to the participants for their enthusiastic participation in the summer programme.<sup>5</sup>

### **Workshop for Teachers of Eco-Club :**

A five day workshop for teachers of Eco-Club was organized from 5<sup>th</sup>-10<sup>th</sup> August in association with centre for Environmental Studies, Department of Forest and Environment,

Government of Odisha. About 27 teachers from 27 districts participated in the workshop. The workshop was inaugurated by Dr. L.N. Pattanaik, Chairman, Pollution Control Board in the presence of Sri B.K. Pattanaik, Director, CES and Dr. P. Ray SIC RMNH. The programme included lectures on different topics related to eco-club activities and field visit to Regional Plant Resource Centre Nandankanan Zoo, Pollution Control Board, and field visit for on site demonstration on medicinal plants, vermiculture, vermi-composting and rain water harvesting.<sup>6</sup>

### **Collaboration with Centre for Environmental Studies :**

Museum organized a pre-proposal workshop for NGO's community organizations and Govt. organizations in connection with NEAC 2007-08 in collaboration with centre for Environmental Studies, Govt. of Odisha on 24<sup>th</sup> September 2007. Dr. S.N. Patra, President, Odisha Environmental Society was in Chief Guest, Dr. P. Ray, Scientist-in-Charge made a presentation about the importance of bio-diversity conservation and the need to take up activities at local level to create awareness about the bio-diversity aiming at establishment of museum corner in selected schools in Odisha.<sup>7</sup>

### **Wildlife Week :**

In collaboration with World Wide Fund for Nature India Museum organized a two-day programme for school and university students. The programme aimed at giving the students an exposure to the common plants and animals around us. Initial step for basic knowledge towards conservation of bio-diversity through lectures and field visits. Prof. Bhabani Choudhury former Professor, Department of Botany, Utkal University guided the students about the field identification of plants. A field visit to Chandaka-Damapara Wildlife Sanctuary was arranged to

explore the variety of flora and fauna and to understand elephant habitat.<sup>8</sup>

#### **Collaboration with University :**

Museum conducted a special collaborative programme with Utkal University for the students of M.Sc., Fishery Science, Botany and with Institute of Hotel Administration and Culinary Technology affiliated to Utkal University of Culture.<sup>9</sup>

#### **State Level Environment Quiz :**

A state level environment quiz was organized jointly with Centre for Environmental Studies on 24<sup>th</sup> December 2007. Students from all over state in 19 groups had participated. After short-listing through a preliminary written quiz the selected candidates were put into 06 groups. The winners were awarded alongwith encouragement prizes for all the participants.<sup>10</sup>

#### **Special Programme for Differently Abled :**

Special programme for hearing impaired, visually challenged and mentally challenged was organized during the month of February 2008. A workshop was organized on "Access to Museum by Visually Challenged" for teachers of visually challenged.

#### **Konark Museum :**

Konark is a small village in Puri district situated on the sea coast of Odisha. The place is well connected by good motorable roads from Bhubaneswar and Puri. The place is sacred and famous for the Sun temple. It is one of the principal Kshetras mentioned in the Kapila Samhita. It is otherwise called Arka Kshetra or Padma Kshetra. The term Konark is attributed to the word Kona and Arka meaning thereby corner and Sun respectively hence the etymology corner Sun.

The Konark Museum is called the temple museum because all the structure of the temple has been displayed in the museum showing the need of the preservation and conservation of the ancient monuments.

#### **Sun Temple at Konark :**

The Sun temple was designed in an unusual manner like a celestial chariot huge and magnificent befitting the Sun God the source of life. The chariot stands on twenty four giant wheels and drawn by seven horses. Infront of the temple there was the huge monolithic Aruna Pillar which has been shifted to Puri and is at present infront of the Jagamohana temple.

The Konark temple consists of three structures Vimana, Jagamohana and Natamandira. The Vimana and Jagamohana were built on one platform and the Natamandira was at a distance in front. The Vimana and Natamandira are in ruins only the Jagamohana has survived and kept preserved in a damaged condition. The chariot like temple along with the wheels and heavily ornate not even inch of space was left without decoration. Each wheel measures 9' 9" in height and has sixteen spokes, eight thick and light thin. The measurement once stood on a platform of 13' 3" height which again stood on a Upana. The Upana carries fine relief figures of elephants all around busy in various activities.<sup>8</sup>

The Vimana is without the curvilinear roof. In the sanctum there is the lion throne, but no deity. A portion of the high raising plinth has survived. On the *bada* in each cardinal points of west, north and south are found three colossal figures of Sun mounted on horseback. They represent the rising, mid-day and setting Sun. The images express mood commensurating the position of the day. They are highly ornate and made of blue chlorite stone brought from distant places like

Nilgiri and Mayurbhanj. The lion throne is also made of blue chlorite representing in sculpture the king and the royal retinue coming in procession to offer worship.

The Natamandira is seen only upto the platform. Though there is no dancing hall of large size, the large number of dancers, musicians who adorn the walls and pillars bear proof of the purpose for which this structure was built. The structure being detached from the Vimana and Jagamohana probably mark a new stage of evolution in temple architecture. The shape of the roof is not known. But the Jagamohana being intact is found to be having a pyramidal roof of the *pidha deula* pattern. The pyramidal roof is divided into three stages each separate from the other. In between the three tiers are to be seen female musician holding musical instruments and in dancing pose.

From the architectural point of view the Jagamohana is Pancharatha in plan. It is known as "Black Pagoda". According to James Ferguson this building is one of the very best specimens of Indian architecture. It had been provided with three entrances East, North and South. The western opening was leading to the main temple cella where the deity was enshrined.

The beauty of Konark temple as a monument is amazing and incomparable. It is the final product of Odishan architect done with great care and dedication. The legend says that Narasingha Deva I the Ganga King who was the builder of the temple appointed twelve hundred masons for the construction of the temple for twelve years. Twelve years revenue of the state had been utilized for completion of this magnificent edifice. This monument has been declared as one of the World Heritage Monuments in 1984 and only one in the Eastern India as a whole.

### Museum :

The fallen architectural members and sculptures focused the attention of the scholars and the Government how to preserve and protect the objects not only from Sun and rain but also from human Vandalism that led the way for the creation of a museum. This museum is now the product of this thought and action to convey the message of the aesthetic and cultural grandeur of the times by presenting them on scientific display methods in the galleries. The collection of the sculptures, architectural members from the complex got preserved in the complex and then shifted to the present building in 1968.

Presently this museum consists of four galleries and corridor with open verandah where the blow-ups of various monuments of Odisha have been displayed for the benefit of public. The fourth gallery was opened in 2004 only.

The museum greets the visitors with duel bearers and a chart of evolution of Odia Script from the earliest script Brahmi of Asokan period and gradual development till 13<sup>th</sup> century. The visitors may have to see the plan of the temple and empire of Narasimhadeva I on a blow up before entering to the gallery No. 1.

The gallery No. 1 greets with object of a colossal images of sand stone Surya, reconstructed chariot wheel and the sculptures of Varaha, Trivikram and Narasimha of chlorite stone from brick temple of the Sun Temple Complex. In the adjoining hall of gallery 2 a few scenes of reconstructed temple wall along with two large celestial musicians, animal motifs and *dikpala* figures are the centre of attraction. Besides Panchadevatas are found on one platform.<sup>9</sup>

The gallery No. III contains two celestial stupendous female figures as if paying homage to Suryanarayana and two fantastic animals,

Gajalaxmi panel are remarkable. Further, Narasimhadeva worshipping the triad (Shivalinga, Purusottam Jagannath and Goddess Durga) on one platform is very remarkable and signifies the religious harmony during the 13<sup>th</sup> century.

The newly organized gallery has been coined as gallery No. IV which contains the figure of the King witnessing dance scene, the Surya image, the marching elephants, the erotic figures and the showcases contains the celestial Kanayatas on various postures. The visitors have the scope and opportunity to study our ancient cultural values in depth as well as enjoy and entertain.

The museum serves the purpose of the visitors in the every field not only in education but also helps in creating awareness about our ancient culture among the masses. It highlights how to protect and preserve our heritage for future. It educates the youth of the day about the site, environment, cultural ethos as well as the ethical values of the ancient days.

The monument along with other edifices is enlisted in the world cultural heritage by the plays a UNESCO in recognition of its outstanding contribution to humanity in the field of art and architecture not only in the Indian context but also in the international sphere. The museum which is a part and parcel of the Sun temple in which it plays a pivotal role conveying the message of the past glory to the public in the field of education and culture. The museum is further trying to keep the ethos of our culture intact by way of exhibits, audio-visual shows etc.

#### **Science Museum, Bhubaneswar :**

Regional Science Centre, Bhubaneswar is one of the 28 science centres under the network of National Council of Science Museums which is an autonomous council under the Department of Culture, Govt. of India. The museum aims at

inculcating scientific temper and to popularize science and technology in the state of Odisha through exhibits, exhibitions, special shows and programmes amongst people of all walk of life. The museum was established on 18<sup>th</sup> September 1989 in the temple city of Bhubaneswar on 8 acres of land with part financial support from Govt. of Odisha. At present this Science Museum houses three sciences galleries. They are motion, mathematics and fun science. Recently a science park and a pre-historic life park have been established within the compound of the museum.

#### **Science Galleries :**

The gallery on motion showcases motions of various kinds : biological, atomic, celestial etc. and their implication on our daily life. The gallery on mathematics exhibits different branches of mathematics as they shape our everyday life. Here numbers and shapes, equations and angles are no longer fearsome or drab rather, one can play with them. For more inquisitive children, it is a place to learn the intricacies of mathematics through a process of participation interaction and discovery. Covering an area 5000 square feet with fun filled yet informative exhibits, this gallery is the first of its kind in India.<sup>10</sup>

#### **The Beginning of Counting :**

The exhibition opens with the story of numbers. Browse panels to watch how the early man did count his animals or use the Sun as his guide to reckon time and many others including the development of different tools of mathematics like arithmetics, geometry and trigonometry down the generation. The gallery gets a flavor with an exposition of the development of mathematics in ancient India.

The study of shapes in space is called geometry. An array of hands on exhibits with sliding beads, turning knobs, hitting strikes, and

pressing switches are displayed here which help the visitor to know the nature and behavior of various geometrical shapes like circles, ellipses, parabolas, hyperbolas etc. Geometrical solids like pyramids, cones and polyhedrons also greet the visitors.

Here mathematics is not a thing to be scared or bored, but a source of joy and irresistible temptation. The gallery houses a lot of games and puzzles with mathematical flavour to satisfy the curiosity of visitors. Many recreational and fun filled exhibits are there to expose the beauty of mathematics in a variety of fields like chaos and fractals, penrose tiling, cryptography, game theory, map theories and the like. The working exhibits are supplemented with a number of audio-visual interactive facilities with computers and multimedia, special film shows, unmanned quiz and children's play corner to make the visit really memorable.<sup>11</sup>

The Fun Science Gallery contains an array of exciting exhibits which allow visitors to interact and unravel the mysteries of science through fun-filled ways.

#### **Science Park :**

The science park contains large interactive exhibits which visitors can play and handle to learn science through fun. Press-levers, turn-wheels, pull ropes, peep through hole and many others are the activities to guide visitors along the path of enquiry in their fascinating journey in the park.

#### **Light and Sound show on Pre-Historic Life :**

The story of evolution of life on our planet Earth is told to the visitors through a light and sound show medium in an interesting way. The show highlights some of the salient moments of evolution of life on our planet and depicts animals which became extinct in the course of time.

#### **Special Shows and Programmes :**

The special shows include 3D movies. Taramandal Mini Planetarium shows, science magic shows, non-fall bicycle shows, science film shows etc.

The centre conducts regular teachers training programmes, creative ability camps, vacation hobby camps, popular science lectures, science quizzes and sky observation programmes with telescope, science seminars, science drama, science fairs etc.

The museum also celebrates important days and occasions by organising an array of activities for students. It also runs a mobile science exhibition bus as an outreach programme carrying messages of science to cater to the needs of rural schools.

#### **Tribal Museum, Bhubaneswar :**

The idea of setting up a tribal museum in SCSTRTI located CRPF Square, Bhubaneswar was originally conceived in 1987 but materialized on 5<sup>th</sup> March 2001. The exhibits of the museum represent the elementary human cultural values that had shaped our past, are determining our present and will be guiding our future. So the tribal museum can be conceptually labelled as "Museum of Man". In common parlance museum of man means an integrated institution which disseminates knowledge covering the human species in its totality.

The museum has approximately 1900 displayed tribal artifacts in five halls. They exhibit dresses and ornaments, dhokra items, dances and musical instruments, hunting implements, fishing nets, weapons of offence and defence, personal belongings, arts and photographs.

The indigenous tools, technologies, weapons, basketry, pottery, textiles, dresses, ornaments and rural objects are losing their

meaning to the new generation. Hence protection and preservation of these tools, appliances and material traits in the museum have become a necessity to know the antecedents of human and living.<sup>12</sup>

Tribals have enriched the complex ethno-cultural mosaic of the state. Each individual tribe is unique in terms of its material culture, settlement pattern, house type, mode of subsistence, social organization, traditional decision making institutions, language, dance, music, adornment, food habit, tools and technology, aesthetics, belief system, traditional practice of health and healing etc. They have excellent creative talents, skills and power of imagination in designing art, crafts and artifacts.

The dress and ornament section of the museum has 34 textile items of 8 tribes and ornaments belonging to 17 tribes. The traditional costumes include tropical textile items like "ringa" of Bonda "phute saree" of Santal, *gatungkap* of Lonjia Saora etc. Bead necklace like *tangam* of Langia Saora, Shaska of Kutia Kondha, Kunti of Juang, coin necklace like Mecodica of Dong Kondh, paste of Koya, Dabu and Lubeida of Bonda tribes figure in the ornament section.<sup>13</sup>

Dhokra and musical instrument section of the museum has 117 dhokra items of Bathudi, Desia Kondh, Dongria Kondh and Kondh tribes. Among these Dhokra items lionet, paji and snake charmers of Desia Kondh, ox head of Bathudi and elephant of Bhuirya tribe are quite spectacular. Besides, 13 musical instruments like horn trumpet of Kutia Kondh, Lanjia Saora, Santal, Bonda double membrance, drum of holva flute and violin of Santal, Changu of Juang attract all categories of visitors incuding musicians.

The agricultural implements include a variety of hoes of primitive tribal groups, wooden plough of progressive farmers along with 168

tribal household objects such as tumba gourd container of Dongria Kondh, Siali net, Siali oil, extractor and Siali fibre, basket of Mankirdia, wine container of Paroja and wine pot of Lanjia Saora create a vivid picture of the ancient culture of a remote tribal area in the visitor's mind.

Hunting implements of 22 tribes including the primitive groups, 36 items of fishing nets and crafts of 15 tribes add to the speciality of the museum where axe of Kondh, spear of Paroja, sword of Oram, knife of Dongria Kondh and bows & arrows of all the tribes attract researchers and commoners alike. Besides all these, the presence of net traps of Mankirdias, Kutia Kondh, Santal, Kisan, Juang, fish basket of Bonda, fishing traps of Gond enhance the beauty of the museum.

The attraction of the art and photographs section includes snaps like 'Shaman' and anital of Saora, Koya dancing girls, women of Bonda and Dongria Kondh with traditional costumes and sketches drawn by tribal children at school.

Saora shrine crafts like Manduasum and Jenanglosum, Dongria Kondh shrine crafts like Kateibali, Meriah Past, Kandru duma displayed on the open air platform inside the museum and Saora shrine crafts like Jodisum gun war rang beneath the trees beyond the museum premises amuse visitors of all hues.

A centrally air conditioned auditorium having sitting arrangement for 112 people annexed to the museum building provides a venue for cultural interface of the ethnic performing arts, dance, musical get together with the visitors.

The tribal museum surrounded by a sprawling campus has steadily grown over past five decades. It has been serving as a spring board for eco-tourism in tribal Odisha. Overseas eco-tourists came to the museum as their first

itinerary before fanning out to the back waters of tribal Odisha. Scholars, students and general public are also visiting this institution and their number is increasing over years.<sup>14</sup>

#### **Aquarium Museum, Bhubaneswar :**

Aquarium keeping has been age-old practice. The Sumerians, the ancient people of Mesopotamia have been keeping fishes in ponds since at least 4,500 years ago. Other early human cultures that fashioned aquarium keeping include the Egyptians, the Asians, the Chinese, the Japanese and the Romans. These ancient aquarium served several purposes including entertainment, a place to breed fishes for market as also ready source of food. The Chinese developed the practice of breeding ornamental fishes suitable for keeping in small containers. A classic result of their efforts is the gold fish.

The term aquarium first appeared in the works of Phillip Gosse (1810-88) a British scientist. First public aquarium of its kind was opened in 1853 in Regent's Park, London followed by aquarium in Berlin, Naples and Paris. By 1928 there were 45 public or commercial aquariums throughout the world. After World War II growth became slow and few public aquarium were established.<sup>15</sup>

In India, this concept of aquarium and aquarium fish keeping has been practiced since long ago, popularized mainly by the Britishers through inclusion of exotic varieties. Presently it is gaining popularity and almost every house hold is keen to keep aquarium.

#### **Pearl Museum, Bhubaneswar :**

Pearls known as Queen of Gems have been occupying a unique place due to their fascinating beauty ever since their discovery in ancient times. Pearls were considered as an exclusive privilege of royalty and throughout

history held presence within wealthy and powerful. Pearls are viewed as magic charms, symbols of purity and love or sources of wisdom and power. Hindus believe Pearl being happiness, to Chinese it brings wealth, to Egyptian love and so on. A natural pearl is formed when a foreign particle such as a piece of sand or parasite make its way into particular species of mollusk and cannot be expelled. As a defence mechanism, the animal secrets a substance, known as nacre, to coat the foreign body. Layer upon layer of this coating is deposited on the irritant resulting in a shimmering and iridescent creation of a gem. The culture pearl undergoes the same process of formation as that of natural pearl. The only difference is that an irritant otherwise called as nucleus of desired shape and size is surgically implanted into the body of Bivalve Mollusk where it cannot be expelled. The animal does the rest creating the precious biological gem, the pearl. Thus the nature's hand is not completely eliminated, in fact it is the animal that determines. The character of the pearl produced. The biomimetication of pearl thus is the outcome of the synergy between man, animal and ambient minerals.

Fresh water pearl culture is more advantageous in terms of commercial scale availability of natural stocks of pearl mussels in easily accessible habitats, wider area of framing even in non-maritime regions, operational easiness in management of fresh water culture environment, absence of natural fouling boring and predatory organisms and overall cost effectiveness of the operations. Realizing the potential and the scope of inland pearl culture, the Central Institute of Freshwater Aquaculture, Kausalyaganga, Bhubaneswar has been involved in research investigation. Since 1987 and evolved the base technology of growing pearls from freshwater environment using three important freshwater

mussel spines viz. Lamillidens Manginalis, Lacorianus and Parreysia Corrugata. Considering the importance and need for greater excellence of the pearl museum the Indian Council of Agricultural Research has awarded to the Institute since 1999 which is a great honour for the museum.<sup>16</sup>

### **Insects Museum, Bhubaneswar :**

Insects are invertebrates and belong to the group called arthropods. They are the only arthropods that can fly. Many have a complex life cycle. Wherever they exist, they have a huge ecological impact as herbivores, hunters, decomposers, plant pollinators, and disease carriers. Adult insects have a head, a thorax and an abdomen each composed of segments. They also have six joined legs modified for walking jumping, digging or swimming. All parts are enclosed in an exoskeleton. The Insect Museum, Bhubaneswar was established in the year 1954 which possess 4367 numbers of objects. This museum was developed by the financial assistance of Indian Council of Agricultural Research, New Delhi. The aim of the opening of this museum is to acquaint the under Graduate, Post-Graduate and Ph.D. Scholars about the identification of various species of insects attacking crop plants.<sup>17</sup>

### **Jatin Das Centre of Art Museum, Bhubaneswar :**

The Jatin Das Centre of Art Museum was named after the name of Jatin Das the greatest artist of Odisha. From the princely state of Mayurbhanj in Odisha, Jatin Das went to Bombay to study art, a trip from the east coast to the west. He took a great interest for the need and importance of the traditional art and artefacts. The Jatin Das Centre of Art Museum is popularly called the JD Centre of Art Museum. This museum brings together two initiatives : a long-standing invitation to Jatin from the Government of Odisha to set up

a museum on the state's tribal and folk arts and its desires to honour him as an artist of international standard. Originally the land was offered to Jatin Das to build a studio and museum of his works, but by the time he addressed the project, his collection had become varied and substantial. To house this core collection of art objects not only form Odisha but also from other parts of India and the world, the idea was enlarged to make a holistic art centre where contemporary and traditional art sit together.

Facing 3<sup>rd</sup> century B.C. caves on the outskirts of Bhubaneswar, the state capital, the centre is taking shape on land allotted by the Government of Odisha free of premium. A trust, registered on 26<sup>th</sup> July 1997 with Board of Trustees has been pursuing programmes from a house allotted by the state until the new centre is built. An office also operates out of Delhi. It has an international Advisory Committee comprising people from diverse walks of the life and professions. B.V. Doshi, the renowned Indian architect has completed a master plan and is designing the complex.<sup>18</sup>

### **Sudarshan Sahoo Art and Craft Museum, Bhubaneswar :**

Sudarshan Sahoo was born in the holy city of Puri in 1939, the epicenter of Odisha Arts and Crafts. Living close to the habitat of traditional sculptors, he was attracted to them and at the age of 13 was brought under the tutelage of late Guru Bhubaneswar Mohapatra and Guru Kunia Moharana of Puri. His extraordinary capacity to visualize and crate a sculpture brought him into the world of art.

In 1971 he was selected for an assignment to carve the Jataka Tales at the Dhauli peace pagoda on the outskirts of the city of Bhubaneswar by the Japan Buddha Sangha. The successful completion of this assignment eventually

resulted in drawing him close to Buddhism and Buddhist philosophy.

In 1977 he set up the Sudarshan Crafts Museum at Puri which became a centre of training and produced the best traditional sculptures in stone, wood and fibre glass. His long cherished dream of Sudarshan Art and Crafts village saw the light of day in 1991. With the coded rules of Guru-Sishya Parampara, he started training for young students in this village. It draws many a connoisseur of art for its unique concept which is situated in the heart of the temple city of Bhubaneswar in an idyllic surrounding.

Sudarshan Sahoo's contribution to the art of sculpture is enormous. He has created his own style by imbibing different techniques from temple carving from all over the country. Today he stands tall as the master of masters not only in the state of Odisha but also of India.<sup>19</sup>

#### **Handicraft Museum, Bhubaneswar :**

Odisha was once known as Utkala a synonym to excellence in the field of arts and crafts. Handicrafts and Handlooms were the main stay of maritime trade of Kalinga Empire. Even today Odishan handicrafts have a global recognition as objects of great value and beauty. Generations of artisans have worked with exquisite craftsmanship, innovative techniques and unmatched skills to produce valuable products that have carved worldwide identity. Our precious handicrafts are not merely products, they are an integral part of our culture, a living herigate a link to our glorious past.

Recognition of its artisans at national and international level speaks the excellence of craftsmanship. The artisans of Odisha have got various type of awards like National Award, Padma Award and Shilp Guru Award for their

excellence in craftsmanship. The Handicrafts Museum was organized in Bhubaneswar in order to preserve the ancient arts and crafts of the state of Odisha. This museum reminds the contributions of the great artisans of Odisha.

#### **Stone Carving :**

The stone of both hard and soft available in Odisha intricately engraved into the living expressions by magic hands of traditional crafts persons. Khiching in Mayurbhanj, Dhakota in Keonjhar, Lalitgiri in Cuttack, Sukhuapada and Chhatia in Jajpur, Bhubaneswar, Nayagarh Puri and Konark in Puri district are the treasure house of stone crafts.

#### **Pattachitra :**

The mythological stories are most minutely depicted on different media covering *patta*, tussar cloth, palm leaf wood, terracotta etc. by magic hands of the talented artists. It is rooted in Lord Jagannath Culture and originated in village Raghurajpur near Puri.

#### **Terracotta :**

Pottery and terracotta are primitive crafts thriving through the ages. With change in technology and product diversification innumerable items blended with utility are produced in almost all districts of the state.

#### **Wood Craft :**

Wood like Gambhari, rose, teak etc. are carved into innumerable utility and decorative products with traditional and modern motifs. The painted wooden toys, boxes etc. are the added attraction. Bhubaneswar, Raghurajpur, Puri, Khairpadar in Kalahandi, Chandahandi in Nabarangpur, Biridi in Jagatsinghpur district are the main places of wood carving clusters.

### **Appliquéd :**

The traditional patch work with elegant colours are also the greatest work done by the artisans of Odisha. The striking range of widest possible varieties of products crafted mainly by women of Pipli, Puri, Balipatna and Bhubaneswar.

### **Lacquer Craft :**

Lac comes from the resinous secretion of a tiny insect lacifer lacca. The work is executed in delightful folk designs like bangles, necklace, toys, boxes and wall plaques by applying molten coloured lac and terracotta cores. Lacquerware crafts persons stay in Nabarangpur, Balasore, Berhampur, Dharakote in Ganjam and Padampur in Rayagada district.

### **Golden Grass :**

“Kaincha” a rich yellowish variety of grass is generally seen in swampy areas during the rainy season. This grass is spilt and woven mostly by women folk to make a wide range of product like baskets, sets of curio boxes, table mats, coasters and hats etc. The places like Jajang of Kendrapara district, Godamadhupur of Jajpur district, Japanga of Sundargarh district are famous for golden grass craft.

### **Dhokra Casting :**

Dhokra casting of “Sutlias” is another example of Odisha’s metal ware. Dhokra is an alloy of brass, nickel and zinc which emanates antique look. This craft is practiced mainly at Adakata in Nayagarh, Sadeibareni in Dhenkanal, Kuliana in Mayurbhanj, Badabarsingh and Ransinghpur in Cuttack, Pati and Jampalli in Suvarnpur, Nabarangpur.

### **Silver Filigree :**

Filigree is a unique craft. It has its own intricate design and superb craftsmanship. Cuttack district has a long tradition of meticulous

and sophisticated craftsmanship in silver filigree works which is locally known as “Tarakasi”. This silver filigree work is very famous for its delicateness and intricate workmanship.

### **Brass and Bell Metal :**

The brass and the metal are the earliest known alloys found in Odishan arts and crafts. Bell metal ware occupies a pride of place in the history of Odisha. The crafts persons of brass and bell metal are traditionally called “Kansari”. The flexible brass fish of Ganjam, the cute brass figurine of Khalisahi, the brass and bell metal wares of Cuttack, Khurda, Dhenkanal, Jajpur and Sambalpur are typical examples of Odishan metal ware presenting syntax of beauty and utility.<sup>20</sup>

In its relentless attempt to bring the crafts sector to the forefront, Directorate of Handicrafts and Cottage Industries, Odisha has taken of another novel beginning in organising a gift fair for extending Market Support to the artisans by exposition to their creation to high end customers.

### **Lalitgiri museum**

Lalitgiri is situated in Cuttack district at a distance of around 100 kms from Bhubaneswar. The Buddhist relics found during excavation at Lalitgiri are proposed to be housed in a museum. The excavated Buddhist site Lalitgiri was notified as centrally protected in the year 1937. The site has been extensively excavated by the Archaeological Survey of India during the year 1985-1992. The remains of massive *stupa* including a relic casket consisting of four containers made of Khondalite Steatite, Silver and Gold containing corporal remains have been recovered during the excavation besides other important structure and archaeological remains. In order to set up a site museum at Lalitgiri the site has been inspected and preparation of detailed drawing of the proposed museum building have been initiated by the Bhubaneswar Circle ASI.

The museum displays the relic caskets of Gautam Buddha and other archaeological finds excavated from the locality. Excavation work carried out here have brought to surface the ruins of a wonderful brick monastery with beautiful carvings, a temple with bow shaped arches, four monasteries and a huge *stupa*. The Buddhist treasures unearthed from here also include a large number of gold and silver articles, a stone container, earthen pot and traces of Kushana dynasty and Brahmi script. A massive image of Buddha is unique find, the image has pursed lips long ears and wide forehead.<sup>21</sup> All these objects are being exhibited in the Lalitgiri museum. Beside these, this museum also comprises the collections of colossal Buddha figure, Bodhisattva statues, Tara, Jambhala etc. This museum is very important for the students of archaeology and history. It helps to reconstruct the life history of Gautam Buddha.

#### Ratnagiri Museum :

Archaeological Museum at Ratnagiri is one of the important site museums of Archaeological Survey of India built on the northern crest of the Ratnagiri hill of Asia hill ranges at Ratnagiri village, District -Jajpur, Odisha.

Tibetan records refer to the existence of a flourishing monastic settlement at Ratnagiri. Inscriptional evidences have also proved the same. However, excavation conducted at the site between 1958-61 brought to light a large number of sculptures, inscribed slabs, terracotta, seals and sealings, votive *stupas* and an elaborate Buddhist monastic establishment including *viharas*, *stupas*, shrines etc. Before the establishment of the museum the antiquities were mostly kept at the site, storeroom and in other places which deserved proper display for mass awareness. Thus the need and idea of establishing a museum highlighting the antiquities, culture and heritage of

this part of the country cropped up and Archaeological Survey of India took up initiative in this respect.<sup>22</sup>

The construction work of a building for the museum antiquities was completed in 1990 and after necessary arrangements the museum was opened to the public on 15<sup>th</sup> August 1998. It has 3400 listed antiquities of which 220 are displayed in the galleries.

The museum consists of four galleries with a long stepped corridor displayed with sufficient numbers of antiquities, mainly related to *tantric* Buddhism. These are varied in nature and include small votive *stupas*, sculptures of different medium and dimension in stone, bronze, ivory stone and copper inscriptions, inscribed pot-sherds, innumerable terracotta, seals and sealings, terracotta figures, variety of other metal objects like chhatras, haloes, ornaments, triangular objects, finials, flowers, decorated bands, small vessels, glass bangles, coins etc.

Amongst the displayed antiquities in gallery No.1 mention may be made of stone images of Buddha in various poses, Avalokitesvara, Khasarpana, Lokesvara, Manjusri, Tara, one six-armed deity all belonging to 9<sup>th</sup> to 10<sup>th</sup> century A.D. Special mention may be made of an image of seated Tara and an image of Manjusri in *dhyanamudra* both of which mark the excellence of modeling.<sup>22</sup>

The important displayed antiquities in gallery No.2 include stone sculpture of Buddha, Bodhisattvas, Jambhala, Tara in various poses, Vasudhara, Chunda, woman in dancing posture etc. A colossal Buddha head, Buddha in *bhumisparsha mudra* seated on Visvapadma are also found in this gallery.

Gallery No.3 has been organized with *stupas*, images of Buddha, Bodhisattva, Maitreya

and some other Vajrayana deities, images of Durga and Vaishnavi, inscribed stone slabs, stone disc etc. attract the attention of the visitors.

In gallery No. 4 miscellaneous objects have been displayed which include terracotta objects, seals and sealings, ivory objects, inscribed copper plates, potsherds and relic pots, objects of daily use etc. The special attention of this gallery are the bronze images of Manjusri, Yamari etc.

In the stepped corridor we can find few monolithic votive *stupas* and photo blow ups of excavated sites and remains of Udayagiri, Lalitagiri and Ratnagiri.

In the reserve collection there are a number of antiquities which include stone sculptural pieces, monolithic votive *stupas*, terracotta, seals and sealings, bronze objects, coins, glass bangles pieces etc. which found from Ratnagiri.

#### **Netaji Subhash Bose Museum :**

Netaji Subhas Bose Museum is a personalia museum which is located in Cuttack town of Odisha. The personalia museum is intended to preserve the memory of great men and women, whose life is model in some form or the other. This museum is named after the name of a great personality in order to pay respect and gratitude and also to perpetuate his/her activities for posterity. It is a biographical museum which is more impressive and educative than ordinary biographical literature. This museum is the audio-visual institutions provided with life sketches, personal effects and voice records of great personality.

The present Netaji Subhas Bose personalia museum is functioning at Janakinath Bhawan, the ancestral house of Subhas Bose at Odia Bazar in Cuttack city of Odisha. Subhas

Bose was born in this house and spent his early childhood at Cuttack. He lived in this house with a large family of eight brothers and six sisters. His father Janakinath Bose was an advocate by profession and a man of repute during his time. Subhas Bose passed entrance examination from Ravenshaw Collegiate School in 1913 and went to Calcutta to pursue higher studies.

The house complex consists of an old two storeyed building with the main block running from west to east. There is a small temple on the back of the building on east side. Another row of houses is located close to the eastern boundary wall which was used as the stable. There used to be a garden on the northern side of the building with an open courtyard on the south of the main building. Each floor has four living rooms. Each floor has running long verandahs.<sup>23</sup>

With financial assistance from the Department of Culture, Government of India, the Janakinath Bhawan has been now converted into the Netaji birth place museum of national standard. The living rooms have been converted into galleries displaying the different stages of life and activities of this great personality of our country through photographs. The other important exhibits in the museum include old furnitures, household articles, documents, books and other objects of use found in this house and collected from various sources. A library is being organized where books published on Netaji in any language and any place are being gradually collected.

Interesting collections in the museum include 22 original letters written by Netaji from Geneva, Milan in Italy, Shillong Mandalay jail, Rangoon jail in Myanmar, Presidency jail, Alipore New central jail in Calcutta and Berlin to his parents and family members. A number of books on Veda, Upanishad, Epics and Law are being exhibited in the museum.

### **Gangadhar Meher Museum, Barpali :**

The Gangadhar Meher Personalia Museum is an important museum of western Odisha. This museum was founded in the old house of Gangadhar Meher where the museum specimens are being displayed. Gangadhar Meher, the poet of nature is a well known poet in Odisha. His place in the field of Odia literature is unique and he is considered as the director of Odia poetry in 20<sup>th</sup> century. He was born in a weaver family in the village of Barpali of Bargarh district. In the memory of this great poet of Odisha a small museum has been founded highlighting his works and activities. The belongings of this poet are displayed in a small room. Efforts have been made by his grandsons and great grandsons to display the objects in a proper way and proper care has also been taken by them for the smooth functioning of the museum. The personal objects of the poet like his coat, *dhoti*, dishes, glass, pen etc. are preserved in this museum. There is also a library in which large number of books on Odia literature have been kept for the students and research scholars. The students of history and Odia are visiting the museum and the library regularly in order to know the contribution of Gangadhar Meher towards the field of Odia literature. There is only one caretaker appointed in this museum.<sup>24</sup>

### **Zoological Museum, Nandankanan :**

The Zoological Museum, Nandankanan is a 990 acre zoo and botanical garden located in Bhubaneswar was established in 1960. It was opened to the public in 1979 and became the first zoo in India to join World Association of Zoos and Aquariums in 2009. It also contains a botanical garden and part of it has been declared a Sanctuary Nandankanan, literary meaning "The Garden of Heaven" includes 134 acre Kanjia

Lake. More than two million visitors visit Nandankanan every year.

The forest officials decided to exhibit plants and animals in Odisha in the year 1960. Proposal was sent to the forest department to capture many small animals for display. The State Finance Department raised objections to a zoo in Odisha because of the cost of both establishing and maintaining the facility. A large numbers of animals were captured and was brought to Bhubaneswar in May 1960. The forest department took a lot of steps for housing and feeding the animals. P. Mohandra, Divisional Forest Officer, Puri and G.K. Das, Divisional Forest Officer, Deogarh built temporary structure for the animals. Dr. H.K. Mahtab, the then Chief Minister of Odisha visited the site where animals were kept. At last a site was chosen to display the animals and the Nandankanan Zoological Park was officially inaugurated on December 29, 1960 by Sri S.K. Patil, the then Indian Minister of Food and Agriculture.<sup>25</sup>

At present Nandankanan Zoo comprises various types of animals like deer, tiger, lion, horse, leopard, panther, monkey and birds like parrots, peacock, duck, etc. There is also snake, fish, crocodile exhibited in the park which attract the visitors and tourists.

### **Pathani Samanta Planetarium :**

Pathani Samanta Planetarium, located near Acharya Vihar, Bhubaneswar was established to make people aware about astronomy, astrophysics and space science. The planetarium also aims to generate awareness among them regarding their environment. It offers regular shows about outer space to create awareness in the field of astronomy, astrophysics and space science. The shows organized by the planetarium include night sky watch, audio-visual

programme, poster show and display of astronomical instruments.

To support scientists wishing to conduct research on sciences and technology, the planetarium offers financial help. Further, it also provides them with a bigger platform where they get the opportunity to interact in the conferences of international repute. Works of the planetarium are also focused on creating awareness about the remote sensing technology. At the library, located within the planetarium collection of books on environment, technology and science are found.<sup>26</sup>

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## Karttika Purnima and Maritime Heritage of Odisha

Balabhadra Ghadai

Karttika Purnima which falls on the 15th day of the Sukla Paksha (Waxing moon) of the *Karttika* month (November), is a day of reminiscence of Odisha's ancient overseas trade with far off South-eastern ports. The people of Odisha float small boats made of banana peels and *Sola* in nearby ponds and rivers to recall the glories of daring Sea Voyages of ancient Kalinga.

There was a time when Odisha, the greatest Kalinga was the most advanced state in India. The merchant-sons of Odisha, through their maritime trade and commerce with the distant islands of Java, Sumatra, Bali and Borneo used to bring back immense wealth to their native land. Kalinga made a name as a maritime power and so great was her fame in this regard that Kalidas in his famous work *Raghuvamsa* has mentioned the king of Kalinga as 'Mahodadhipati', the king of oceans. Sarala Das in the *Mahabharata*, Narasimha Sena in his *Parimala Kavya*, Yosawant Das in *Tika Govinda Chandra*, mentioned maritime terms like Botia, Naha, Sadhava, Sadhavani, Manga, Nabika etc. and islands like Srilanka, Java, Bali, Suvarna Dvipa, Bramhadesa etc.

The ancient texts mention "*Kalingah Sahasikah*" while referring to the brave sons of Kalinga. The geographical position of Kalinga, with several rivers, sheltered ports and the ocean



by its sides, provided an ideal environment for sea voyages (*Samudra Yatra*). The famous ports of Kalinga were Tamralipti, Palur, Pitbunda, Chelitalo, Manikpatna etc. which were famous for sea voyage from India to South- East Asian countries.

Among the ports of Odisha, Tamralipti (Modern Tamluk in the Midnapore district of West Bengal) served as the main gateway for ancient Kalingan innumerable sea-going traders, travellers and missionaries where the Royal household was of Kaibarta caste. Ptolemy in the second century A.D. called it as Tamailitis. King Tissa of Ceylon had sent four envoys to the court of emperor Ashoka who came and went through this port. Ashoka arrived at the island of Ceylon and converted Tissa into Buddhism. Sanghmitra,

the daughter of Ashoka sailed from this port to Ceylon with the sacred 'Bodhitree'.

Fa Hien in the fifth century A.D. saw it a strong maritime settlement of the Buddhist and left for Ceylon from this port. He saw there 24 monasteries with rich libraries and was so much fascinated by its libraries that he stayed there for two years copying out *sastras*. In the 7th century A.D. Hiuen Tsang visited the place and saw about 50 Hindu Temples and a few Buddhist monasteries. Though on the declining stage Tamralipti counted to be Buddhist centre till I-Tsing reached the port in 671 A.D. Thus Tamralipti was an important sea port on the east coast of ancient India from which people travelled to China, Ceylon and South East Asia.

Another important port was Palur which is identified with modern village of Palur on the coast of Bay of Bengal in Ganjam District. The Greek author Ptolemy in the middle of the 2nd century A.D. refers to Palur as a flourishing port of Kalinga.

Dantapura, mentioned in the Buddhist and Jaina text, is perhaps same as Palur since 'Palla' and 'Ur', the two terms in Tamil indicate the meaning tooth (Danta) and city (Pura). Gerini, the researcher on Ptolemy's geography further refers to a port, from where ships sailed to 'Suvarnabhumi' (Burma) and 'Suvernadipa'. This port has been identified by scholars with Gopalpur, a sea resort in Ganjam District.

Pithunda was the next important port of Kalinga. The Jaina text *Uttaradhyana Sutra* mentions that being a famous centre during the day of Mahavir, merchants from Champa used to come to this place for trade. Kharavela's Hatigumpha inscription mentions Pithunda as metropolis of Kalinga. Sylvain Levi located

Pithunda to south of Pallur near Chicacola and Kalingapatnam.

Che-li-ta-lo (Chhatra) as described by famous Chinese Pilgrim Hiuen Tsang was another port town situated on the sea-coast of Odradesha (North Odisha). He is of opinion that this town was the resting place for the sea-going traders and it contained four Buddhist *stupas* in its neighbourhood. Various suggestions made by scholars about its location and identity still remains to be confirmed by historical and archaeological evidence.

Manikapatna, located close to the present mouth of Chilika is regarded as a sheltered port of ancient Odisha. Recent excavations brought to light roulettes ware, fragment of emporia etc. indicating contact with Roman empire in the early centuries of Christian era. The discovery of celadon ware and a coin of Sahasamalla, king of Srilanka shows trade relation with China and Srilanka in the early medieval period Undoubtedly Manikapatna had an important role in the east-west maritime trade. Abul Fazl, the court historian of Akbar, mentions Manikapatna as a large port where salt dues were collected during his time.

**Kalinga and Suvarnadvipa:-** The islands of Bali, Java, Sumatra, Borneo and Malaya were collectively known as Suvarnadvipa. From the ancient times the people of Kalinga had commercial, colonial and cultural relations with these islands. Legends and local traditions of Java mention that "20,000 families were sent to Java by the prince of Kling; these people prospered and multiplied". The term 'Kling' is evidently derived from Kalinga. The legends say that three generations of Klings of that Kalinga race ruled over Java for a total period of four hundred years. In 12th Century A.D., a king of Java named Jayabhaya or Jaya Baya has recorded the above legend.

During the period from 2nd century A.D. both Brahmanic Hinduism and Buddhism were two flourishing religions of Suvarnadvipa. During that long period the literatures, architecture and social customs of India deeply influenced the people of this region. In the 6th century A.D. a Hindu king named Puruna Varman ruled over Western Java. It is known from his inscriptions that his father dug a long canal from his capital to the sea. That canal was named as Chandrabhaga. It is possible that the canal was named after the river Chandrabhaga (near Konark) of Odisha. Many such Hindu names were used in Java in those days.

The Kalingan influence in Suvarnadvipa reached its zenith in 8th century A.D. The Sailendra empire sprang up during this period which included Java, Sumatra, Malayan, Peninsula, Borneo and Bali. The contemporary Chinese and Arab historians are of opinion that the Sailendras of Suvarnadvipa were the descendants of the Sailodbhaba dynasty that ruled over Odisha in 7th century A.D. The rulers of the Sailendra dynasty were Buddhist. Under their influence Buddhism became the state religion of the entire Suvarnadvipa. They were great builders too. The famous monuments at Chandi-Kalasan and Barabudur were the immortal works.

**Kalinga and Simhala:-** The Contact between Kalinga and Simhala dates back to the 5th century B.C. According to the Buddhist chronicles of Ceylon Mahavamsa and Dipavamsa Prince Vijaya, son of king Simhabahu of Simhapura (a famous city of Kalinga) has gone to Ceylon alongwith his followers and became the first king of the island. His grandmother was a daughter of the king of Kalinga, Sanghamitra, the daughter of Ashoka sailed from Tramalipiti to Ceylon to preach Buddhism. Eight Buddhist families of Kalinga also accompanied her to Ceylon. Those Kalinga

families settled there permanently and preached the *Theravada* doctrine of Buddhism in that distant island. The Ceylonese Chronicle *Chulavamsa* also states that king Vijayabahu (1054 A.D. to 1109 A.D.) married Kalinga Princess Trilokasundari and made her his chief queen. *Dathavamsa* of Srilanka from Dantapura of Kalinga. Hemamala and Danta Kumar took this holy relic to Ceylon. This is even now worshipped in Srilanka at Kandy.

**Kalinga and Burma:-** Kalinga seems to have maintained contacts with Burma through sea routes. The ancient name of Pegu was Ussa. Most probably this name was derived from the word Odisha. The old name of Prome was Srikshetra which is after the name of Puri in Odisha. In ancient times, one part of Odisha was Kalinga. Merchants and traders of the Kalinga had settled in the coastal region of Burma. Those people called themselves 'Tolaing, because they had originally come from Trikalinga'. Gradually the original Burmese inhabitants of that region also came to be known as Tolaing. According to the renowned historian Dr. R.D. Banerjee, "it is now acknowledged universally that the Tolaing people of Burma, through of Mon origin, obtained their name from Trikalinga".

**Kalinga and China:-** The Chinese sources reveal that there existed close commercial and cultural relations between Kalinga and China. The sea-route from Kalinga to China passed through Simhala and Java. According to the Chinese sources a famous Kalingan scholar named Subhakara visited the Court of the Chinese Emperor Husan-Tsung and translated the Buddhist text *Mahavirochana Sutra* into Chinese language. Another Buddhist monk, named Prajna, who had settled in the monastery of the king of Wu Cha (Odisha) went to China in 795 A.D. He carried with him a Buddhist

manuscript and presented it to the Chinese Emperor Te-tsong. Further, the discovery of celadon ware from the excavations of Manikpatna and Chinese coins along with China ware from Khalkpatna indicate the maritime contacts of Odishan people with China. It is believed that the merchants of Odisha carried diamonds, costly stones, ivory, spices, medicines and fine cloth to China.

**Kalinga and other Countries:-** The discovery of Roman coins at Bamanghati in Mayurbhanj district and Vizagapatam district which were within the boundaries of ancient Odisha, prove that Kalinga exported her goods to Rome and brought the Roman coin in return. Also in the body of the Sun temple of Konark, the picture of a giraffe is seen in sculpture. The giraffe being an African animal, it is believed that the Odishan merchants brought that animal from Africa.

Thus, Kalinga's contribution to the cultures of countries abroad and particularly to

South-East Asia, is quite significant. In reminiscence of the glorious Sea-Voyages to the Suvarnadvipa an annual festival is observed on the Karttika Purnima when the people irrespective of caste and creed throng on the river banks or on the edge of tanks to float tiny boats made of paper, *solo* or banana peels with *deepa* (lamp), *pana* (betel leaf), *gua* (betel nut) chanting joyously 'A a Ka Ma Boi' which symbolizes three Odia months i.e. Ashwina, Kartika and Margashira. The ceremony however, evokes the memories of those bye-gone days of our ancestors, the Sadhabas who transformed Odisha not only into a prosperous but also a powerful kingdom.

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## Handicrafts of Odisha - An Overview

Sanghamitra Kanungo

Odisha, the land of enchanting beauty is well known for its exquisite handicrafts. The State was known as "Utkal", which meant place of art of highest degree. It has a rich tradition of handicrafts, unique in its characteristics that have evolved along with its art and sculpture, temple architecture, folk art, dance and music. The craftsmanship is unique for its technical perfection and artistic excellence. Having an ancient tradition of making splendid pieces of art by hands Odia artists have long been presenting their awe-inspiring masterpieces to the world. Age has not withered the beauty and dynamic diversity of Odisha's traditional arts and crafts. Even today, despite the industrial revolution and availability of cheap machine-made products, the handicraft industry has not only survived but also flourished amidst stiff competition.

Almost each district of the State makes a rich contribution to the numerous ranges of hand-crafted articles available. Each article is a class by itself and is also perceived as a painstaking self expression of the artisan and the local culture. As an industry it is highly labour intensive and decentralized, being spread all over the state in rural and urban areas and has contributed significantly to employment and also to GDP of the State. Also, many artisans are engaged in certain crafts work on a part-time

basis. However, despite the large production base the domestic as well as export market still remains under-tapped.

A huge potential exists in the state for economic development in rural areas through employment and income generation by promoting handicrafts. Next to the handloom sector, they are the major providers of employment in the non-farm sector. Based on assessment of the socio-economic status, employment and market position, the handicrafts of Odisha, which are 50 in number, may be broadly categorised under the following heads:

(a) popular crafts such as stone-carving, wood-carving, silver filigree work, applique work, *pattachitra*, palm-leaf engraving, golden grass craft, wooden painted toys, sea-shell work, terracotta and clay toys, costume jewellery, dhokra casting, paper-mache, cane and bamboo work and the like. These are called popular crafts because of their good market potential and they provide employment to a large number of artisans in the state.

(b) Rare and languishing crafts, those are on declining trend and some of them are on the verge of extinction. For example, the Jari work of Cuttack, solapith of Puri, Jaikhadi work of Parlakhemundi, cloth flower garlands of Tusra in

Bolangir and Baleswar town, glass beads of Berhampur and theatrical dress making of Cuttack, Keora leaf work of Ganjam and Kendrapara, artistic footwear of Barang, paddy crafts of Koraput, Kalahandi and Bolangir, musical instruments of Koraput, Baragarh and Nawrangpur, lacquered toys of Nawrangpur, Bargarh ritual toys, *durry* and carpet work of Bolangir, flexible brass fish of Ganjam, betelnut work of Aska and Berhampur and the like. There are very few artisans now left to run these crafts and keep them alive.

It is estimated that Odisha houses about 1.30 lakh artisans. The total amount of production generated by the handicraft sector is about Rs.150.00 crore. The handicraft goods are also exported to foreign countries. The export oriented crafts of the state mostly consist of dhokra casting including brass metal wares, stone carving, appliqué and patch work, silver filigree, natural fibre craft etc.

In order to promote the handicraft products and livelihood of the artisans, the Government is taking major initiatives like establishment of two State level Apex Bodies for promotion of handicrafts that are Odisha State Co-operative Handicrafts Corporation Ltd and State Institute for Development of Arts and Crafts. Apart from providing training and skill development, product development programmes, GI Registration etc., the Corporation has shouldered the responsibility of marketing the products through Utkalika. Utkalika has now entered in to the Web-based Marketing System, tied up with e-bay, Indiamart and Snapdeal for retail purchase by the domestic and overseas buyers along with its traditional outlets both inside and outside the State.

The State Institute for Development of Arts And Craft (SIDAC) is managing the training

courses, Design Cell, Museum and International Marketing Cell. Besides, they are implementing the schemes of both State Govt. and Development Commissioner (Handicrafts), New Delhi. The schemes/ programmes are like development of craft clusters, revival of Languishing Crafts, Organisation of Exposure Visits and Organisation of Seminars/ workshops. With implementation of modern technological interventions our products are now entering in to global market. By engaging reputed national and state level designers, Design Development Training Programmes are organized in different clusters. Financial assistance up to Rs.12.00 lakhs is provided as back-ended subsidy for availing bank loan for projects up to Rs.50.00 lakhs for modernization of handicraft enterprises. Besides, financial assistance for construction of Work-shed-cum-Housing for Handicraft Artisans, for setting up of own production unit, Government is providing financial assistance up to Rs. 10,000/- as margin money for availing bank finance up to Rs.50,000/-. Solar Lanterns to Artisan Households are being distributed to augment productivity.

Lastly, Handicraft is a labour-intensive sub sector of MSME which is of high potential employment for poorer section of the society. It is economically important because of low capital investment, high value addition. Promoting handicraft is not only an attempt for reduction of rate of migration to urban areas but also preservation and protection of old age tradition and trade. It is only the mindset of the people which needs to be changed to accept and appreciate the craft, craftsmanship and the craft people of our State.

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## The Folk Dance of Ganjam : Danda Nacha

*Rabindra Nath Dash*

The folk dance is the dance of the common people living in the countryside. All dance forms owe their origin to the folk culture. Any folk dance, essentially is the fragrance of the soul of the rustic soil and is vibrant with rural sentiments.

Though dancing, as an art, is primarily for the sake of enjoyment and amusement of the individual performer and the audience, it serves as an instrument of social unity. No festival, ceremony or celebration of any conspicuity is considered complete without a dance performance. Every community, tribe or state has its distinctive variety of folk dance. On the other hand, folk dances are intricately intertwined with the rituals and ceremonies of the rural folk and their religious faith.

The district of Ganjam is a veritable nursery of lively folk-dance traditions. It boasts of a composite culture, comprising the best of Aryan and non-Aryan traditions. Ganjam, a border district, is a rendezvous of the Aryan culture of Kalinga and the Dravidian culture of

Andhra Pradesh providing for a visible confluence of cultures, languages and literatures of both the north and the south. In such a backdrop, the folk dances of Ganjam are highly captivating and distinctive. If we compare the tradition of folk

theatres of other states with Odisha we find that the Odishan tradition of folk theatre is the richest in comparison with all forms of folk-theatres of other states of India. There are innumerable folk theatres of Odisha which have

contributed immensely to the development of folk-culture of India. Among thirty districts of Odisha, the people of Ganjam have shown remarkable artistic qualities in sustaining and nurturing many of their folk theatres. Perhaps Ganjam has the richest tradition of folk theatre both in respect of quality and quantity among 30 districts of Odisha. That is why, theatre actor and director like Habib Tanbeer has shown keen interest in the folk theatre of Ganjam specially in '*Prahala Nataka*'.

A close look reveals that the people of Ganjam have shown indomitable creative energy



in enrichment of their folk theatres in spite of economic deprivation and lack of patronage. The creative literary texts and musical tradition of *Champu*, *Chhanda*, *Chautisa* of Ganjam district which are enriched by the poet Upendra Bhanja, Kavisurya Baladeva Ratha and Gopal Krushna Pattanayak shaped the aesthetic sensibilities of the minds of the performing artists of the districts in sustaining their folk theatrical forms. Religiosity and musicality are two features of folk theatre of Ganjam district.

Resting for about twelve months, spring comes with sheer joy and happiness. Usually spring arrives during the month of March and April with various fairs and festivals. And then the whole of Odisha dances . Among these dance forms, '*Danda Nacha*' is very popular in the western part of Orissa, weaving religion and theatre together. *Danda Nacha* forms a part of the rich folk tradition of Ganjam. This is performed in the month of *Chaitra-Vaisakha* with much enthusiasm. Performed over a period stretching over thirteen to twenty-one days, *Danda Nacha* is a robust show of devotion of Lord Shiva and Goddess Kali.

*Danda Nacha* is one of the major theatrical forms of Ganjam district associated with the Saiva cult<sup>1</sup>. It has its root in the religious and cultural history of Odisha with special reference to Hindu deities. *Danda Nacha* is essentially a ritualistic folk theatre in its nature and associated with Siva Kali myth<sup>2</sup>. Ritualistic in nature, the *Danda* (Penance) elucidates the Rudrakali myth narrating the activities of Lord Siva and Kali<sup>3</sup>.

### Origin

Its origin is traced to 8<sup>th</sup> and 9<sup>th</sup> centuries (inception of Tantrism) after decadence of Buddhism in Odisha<sup>4</sup>. In Odisha, after the degradation of Buddhism, Saivism became a

predominant religion. The downtrodden 'untouchables' and low castes took to the worship of Lord Siva outside the Hindu temples<sup>5</sup>. When the upper class Hindus hated the downtrodden untouchables and debarred them from entering the Hindu temples , they began to worship Siva, for their salvation, once a year at a festival called *Danda Nacha*.<sup>6</sup>

"*Ábhinava Chandrika*", a literary work of 1568 A.D mentions the prevalence of '*Danda Jatra*'. That signifies that this folk-theatre was very much popular in the medieval period.

### Meaning:

*Danda* means penance and *Nacha* means dance. Together they mean a festival celebrated for the worship of Siva in which penance, dance, songs and physical feats are all meant to please<sup>8</sup>. The term '*Danda*' has also another meaning. It refers to a stick or staff which symbolises a measuring rod of devotion, representing 'Hara'(Siva) and Parvati (Siva's consort Goddess Parvati). Thus *Danda Nacha* is derived from "*Danda*"(either penance or a pole) and '*Nacha*'a dance which is usually performed in a religious fair called '*Danda Yatra*'. In this Lord Siva and His consort, Gouri are propitiated.

It is noticed that *Danda*, a huge wooden rod or a long bamboo stick having 13 knots, is worshipped by thirteen or more devotees for thirteen to twenty one days terminating with *Chaitra Samkranti* or *Meru Parva* (i.e. *Meru Samkranti*). The devotees or *Bhaktas* known as '*Danduas*' observe '*Manasika*' (fasting with austerity). When a person craves for early fulfilment of his desires viz. to be blessed with a son or to overcome some difficulty or to win a dispute he takes part in *Danda Nacha*. It involves very rigorous self discipline, such as taking food once a day, observing vigil etc. They dance and

sing songs for the entertainment of village community. *Danda Nacha* is a ritual dance accompanied by musical instruments like Dholo (drum), Jhanja (Cymbals), Mahuri or Kahali (Trumpet), *Magaravina* (a bow with a jingling bells), Mukhavina (a shahanai like wind instruments), *Gini* and *Kartal* etc.

#### Aims:

*Danda Nacha* aims at arousing religious fervour as well as entertaining aesthetic pleasure among the spectators. The main aim of this type of folk dance is to promote spiritual upliftment through self-discipline. People pay reverence to the Danda dancers for their observance of religious rites during the course of their dance.<sup>9</sup> This dance is mainly associated with agricultural activities like ploughing, sowing, reaping and harvesting of paddy. From time immemorial, the oral tradition of performing art in varied forms has been maintained by the rural folk with the twin objectives of aesthetic pleasure and education<sup>10</sup>. Thus, apart from entertaining the village-folk with varieties of dances and songs, the main objective of this folk theatre is to impart moral teachings in order to remove superstitions and blind faiths that exist in the society<sup>11</sup>.

The persons who participate in this *Nata* (dance) are called as *danduas* or *bhaktas*, irrespective of their castes, creeds, economic status and social standing. There is no caste distinction in *Danda Nacha*, whoever desires may join it without any fear of excommunication from orthodox society<sup>12</sup>. Thus, the *bhaktas* or devotees are drawn from various castes. However, participation is allowed to males only.

*Danda Nata* troupe always consists of more than thirteen *Danduas* or *bhaktas*. The leader of *Danda Nacha* troupe is called *pata-dandua* or *pata-bhakta*. The *bhaktas* stay in

the group, avoiding all contact with women or any worldly pleasure. They voluntarily undergo all the ordeals by being participants in their respective 'manasikas' or holy commitments for the fulfilment of their desires. The '*danduas*' or *bhaktas* of different groups are required to observe strict discipline by observing fasting for the whole day and taking very simple food at night.

The *bhaktas* offer their reverence and devotion to both Lord Siva and Goddess Kalika by way of their participation in the *Danda nata*, which means a dance of inflicting punishment on themselves in correspondence to the sins which they think that they have committed in their lives. A *dandua* undergoes several courses of ordeals while doing *Danda*, inflicting injury and torture on himself, so that he would be able to liberate himself from the cycle of *karma* and *pratikarma* or the law of actions and reactions or free himself from the results of the sins if he had committed inadvertently or otherwise.<sup>13</sup>

The *bhaktas* move from village to village and perform at a house only when invited. The *bhaktas* roll on the hot sand in the mid-day sun of summer, dance and sing, praying for the welfare of the householder. Whether someone in the family is childless or poor or suffering from some incurable diseases, the householder usually vows to become a '*bhakta*' next time if his miseries are removed.<sup>14</sup>

There was a general belief among the people that men would be free from all the sins if they become *danduas* and observe all rituals. The austerities and physical sufferings include walking on fire, piercing the back with sharp nails, using poisonous snakes as garlands and making them sting the body, piercing the tongue or walking on a sharp sword-edge etc. These are aimed at controlling their senses and taking upon themselves the suffering of the people in general

in order to please and secure boons from Lord Siva, the divine ascetic<sup>15</sup>. A *dandua* remains practically on fast with all sanctity in all these days except taking simple food in the night hours, along with his co-participants, in total silence in a remote place away from din and bustle of human settlement. This rigorous dance or *nata* is related to that of the aboriginal tribals. The very conception of this *nata* rallies round a tribal story about how a man while hunting in forest was caught and bitten by a deadly snake, fell unconscious on the ground. His wife deeply perturbed at the pitiable condition of her husband, started instantly praying and worshipping God Siva and Goddess Kalika invoking their divine blessings for bringing her husband back to life and at the end both the God and Goddess being pleased at the prayer of the woman bless her and her husband finally come back to life, which proves the divine aspect of the *Nata*. It also gives emphasis on the eternal truth of the ultimate victory of the good over the evil, and of the truth over the untruth<sup>16</sup>.

### Different Phases of *Danda Nacha*

The *Danda* is taken into a procession by a large number of devotees. The *Danda natcha* procession starts from the Merughara<sup>17</sup> to the invited places when the occasion starts. The *Danduas* (i.e. the *Danda* performers) never use any vehicle to reach at the different places. The procession is led by *parabha* (or *prava*) a person, believed to be wielding mystique powers and is joined by local artists, who fashion themselves on multiple characters like, Siva-Parvati, Chadheya and Chadheyani, Sabar-Sabarani, yogi, Binakar etc<sup>18</sup>.

*Danda Nacha* is a ritualistic theatre. The *Danduas* move from village to village carrying the colourful triangular flags, *damdaghadis*, *champabara* (straw coil/ added with fire),

*Khatuli* (a portable wooden pedestal) where the Siva idol is enshrined, *parabha* (a printed Kali banner) etc.<sup>19</sup> During the performing hours, the *pata dandua* performs their acrobatic actions, lighting the *Dandaghadis* following the beats of music. The *Jhuna-atika* (rasin-pots) are meant to carry rasin powders and the *champabaras* utilises to preserve the fire in smoky condition.

The *Danda Nacha* is held in four phases. The first phase is *Bandana* or prayer in the morning. The second phase is *Dhuli-danda*, in the midday, the third phase *pani Danda* in afternoon, the fourth phase is *Agni Danda* (in midnight).

### 1. The First Phase (*Bandana*):

In the morning Bandana or prayer is conducted by the *danduas* in front of the house of the sponsoring *Bhakta*. In this phase, a contract is concluded between the sponsor and the *Danda* party about holding of a *Nata* (Dance drama) on that day night in front of the former's residence.

### 2. The Second Phase (*Dhuli Danda*)

The second phase starts at the midday around 12 O' clock in front of the residence of the sponsoring *bhakti* with the performance of 'Dhuli-Danda' (punishing his own body by sleeping on and playing with hot sands on the surface of earth by *Danduas*) where the *danduas* do all kinds of torturous physical exercises on the heated ground with bare bodies under the hot midday sun. By doing such painful physical exercises the *Danduas* believe that they are doing a penance for their sins by their prayer to God Siva and Goddess Kalika to bestow blessing on them and as well as on the sponsorer *bhakta*. Thus, the performance done by the *Danduas* (persons, who follow all the rituals of Saiva cult for purification of soul) during day time is known as 'Dhuli Danda'<sup>20</sup>. The conductor *Danduas*,

at whose instructions the *Danduas* do their physically torturous dances with the beatings of the Dholas (big drums) is called *Pata dandua*. *Dhuli Danda* is largely associated with the agricultural life of the people in general<sup>21</sup>. During the play different characters such as *hailas* (servant), *khambari* (chief-servant), *tapia* (mason), *bepari* (business person), *kasturia* (plank cutter), *mulia* (labourer etc. come to the arena in their costumes and make up and perform their notes.<sup>22</sup> The roles of the different characters are performed by men only.

### **3. Third Phase (*Pani Danda*):**

Another special feature of the *Danda Nacha* is *Pani Danda* (dance in water). Every day after the completion of *Dhuli Danda*, all the *danduas* go to the river or tank to take their bath. Thus, the third phase of *Danda Nacha* begins with the dipping of the *Danduas* deep in the water of an allotted tank off and on for about an hour called '*Jala Danda*' or *Pani Danda* (meaning-receiving punishment or physical torture in the water). At the bathing ghat, the *parabha* (painted Kali banner) is worshipped and the *patta-dandua* lights the *Danda-ghadis* (earthen torches) for the *parabha* with certain rituals and the torches are used to be burnt for the whole night.<sup>23</sup> After *Jala Danda* is over, the *danduas* get themselves ready for taking the days only meal at midnight which is simplest in kind and menu<sup>24</sup>.

While the only meal of the day is being consumed amidst the continuous sound of drum (*dhol*) beatings, beaten by the drummer, and as soon as the drum beating stops, the *danduas* stop taking their meals. The beating of the drum is felt necessary so that the *danduas* while eating their meals would not be able to hear any sound other than that sound. If a *dandua* happens to hear any external sound, in that case, he abandons his meal

till the next meal on next night and he is to remain on fast without any food till then<sup>25</sup>.

### **4. Fourth Phase (*Agni Danda*)**

After eating they proceed to a temple preferably that of Lord Siva and stay there till the fourth phase starts in the night around 12 O' clock with the performance of *Agni Danda* (playing with fire). This is sort of offering worship to Lord Siva and Goddess Kalika through *Agni Danda* or playing and dancing with fire in front of the images.

The *danduas* go to the village in procession during mid-night holding the lighted *Danda-ghadis*. They reach in front of the house of the sponsoring *Bhakta* displaying *Danda-khela*<sup>26</sup>. During *agni-Danda*, the *parabha-nata* or *Kalika nata* (Kali dance) is also performed. They amuse the general spectators by performing different folk arts including dance and drama. In *Agni-Danda* (midnight performance), the characters like Iswara (Siva), Parvati, *Chadheya*, *Chadheyani*, *Sapua*, *Binakara* etc. appear in the *mandala* with their acting costumes. The performers stage the dance drama on social, historical and mythological themes. Now a days the *Danda* parties stage different social dramas (operas) to entertain the public. Thus from midnight till dawn beautiful dramatic performances take place accompanied by melodious music and beating of *dholas* (drums)<sup>27</sup>. In the morning, after the end of the dance and drama, *Danduas* disperse from there in a procession with the beating of drums alongwith the images of deities to the doors of the next sponsored *bhakta* where they would repeat the routine *nata* performance in the same and similar manner. On the 21st day, they conclude the *Danda Nacha* on the *Bishuba Samkranti* or *Meru Samkranti* day with all serenity and sanctity in the observation of rites and rituals in the valedictory celebrations.

### **Conclusion:**

This popular folk dance of Ganjam *Danda Nacha* is mainly based on mythological legends. It is influencing the society to a large extent by creating the sense of patriotic spirit, love for literature, belief in God, taste for music, theatre and dance. It serves as an instrument of social unity.<sup>28</sup>

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# An Analysis of Fertility Status of Women of Odisha as per Census 2011 Data

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Fertility is one of the important aspects in the field of demography. Census of India is collecting data about the fertility particulars of 'all ever married women' irrespective of their age or marriage. It is an indicator to measure the growth of population. It throws interesting data about the people at present and what has happened in the past. A co-relation has been made with the age group and fertility pattern of a woman. The reproductive age of a woman in India is generally between 15-49 years.

During 2011 Census, three questions were asked to know the fertility particulars of all 'ever married woman'. Two questions were asked to every 'currently married', 'widowed, separated and divorced woman' irrespective of their age,

about the children ever born and children surviving on the date of census enumeration. The third question was asked to currently married women about the children born alive during last one year prior to the date of enumeration. From the above information, the reproductive age and child bearing capacity of a woman could be measured.

The table below gives the number of women and ever married women by present age, percentage of ever married women with total children ever born. The ages have been grouped under different categories.

From the above table, it is revealed that, out of 1,19,92,001 ever married women in the state, 14.27% of the ever married women have not given birth to any child, 17.04% have given

**Table – 1: Ever Married Women and Children Ever Born**

Present Age	Total Women	Total Ever Married Women	Percentage of ever married women with the number of children ever born									Total Children Ever Born		
			No of children											
			0	1	2	3	4	5	6	7+	P	M	F	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
All Ages	2,07,62,082	1,19,92,001	14.27	17.04	22.93	17.74	12.23	7.13	4.10	4.56	3,13,67,713	1,64,33,311	1,49,34,402	
Less than 15	59,09,421	41,729	74.39	9.34	16.27	0.00	0.00	0.00	0.00	0.00	17,474	9,246	8,228	
15-19	19,52,714	2,90,089	69.79	22.52	4.23	1.55	1.92	0.00	0.00	0.00	1,25,588	65,598	59,990	
20-24	19,12,588	11,65,440	36.39	40.59	17.17	4.02	1.01	0.29	0.14	0.40	11,22,936	5,79,771	5,43,165	
25-29	18,01,161	15,67,701	17.53	31.06	31.73	13.19	4.37	1.22	0.38	0.52	25,75,296	13,25,268	12,50,028	
30-34	15,60,758	14,78,580	10.33	19.10	33.88	20.76	9.75	3.76	1.39	1.02	33,04,296	17,00,552	16,03,744	
35-39	15,22,503	14,75,269	7.86	12.69	30.10	23.88	13.88	6.54	2.94	2.11	39,35,013	20,27,827	19,07,186	
40-44	13,03,554	12,72,097	7.32	10.08	25.51	24.36	16.34	8.51	4.27	3.61	37,64,488	19,57,139	18,07,349	
45-49	11,21,664	11,01,386	7.18	9.04	21.57	23.80	17.88	10.07	5.40	5.06	34,98,763	18,34,778	16,63,985	
50-54	8,90,288	8,77,209	7.25	8.36	18.03	22.16	19.10	11.73	6.68	6.68	29,72,566	15,80,010	13,92,556	
55-59	7,39,429	7,31,214	7.64	8.25	15.45	19.85	19.08	13.08	7.95	8.70	26,12,148	13,89,786	12,22,362	
60-64	7,36,426	7,26,787	9.67	9.03	14.03	17.00	17.51	13.26	8.75	10.75	26,34,578	13,98,377	12,36,201	
65-69	4,91,676	4,84,713	10.41	8.76	12.46	14.99	16.46	13.68	9.98	13.26	18,36,655	9,78,061	8,58,594	
70-74	3,87,435	3,82,839	11.74	9.12	11.74	13.54	15.35	13.37	10.12	15.02	14,67,131	7,82,218	6,84,913	
75-79	1,81,506	1,79,696	11.46	8.78	11.02	12.63	14.54	13.35	10.97	17.26	7,18,031	3,84,887	3,33,144	
80+	1,93,135	1,86,315	13.49	10.25	11.67	12.30	13.37	11.97	9.91	17.05	7,13,722	3,82,453	3,31,269	

birth to one child, 22.93% have given birth to two children, 17.74% have given birth to three children, 12.23% have given birth to four children, 7.13% have given birth to 5 children, 4.10% have given birth to 6 children and 4.56% have given birth to 7 or more children. It is reflected from the data that the highest percentage of ever married women (22.93%) have preferred for two children.

It is interesting to note that, though the age of marriage of a girl is fixed at 18 years, but it reveals from the above table that, women in the age group of less than 15 years have given birth to one to 2 babies. In the age group of less than 15 years, out of 41,729 ever married women, 74.39% of the women have not given birth to any child, but 9.34% of these women have given birth one child and 16.27% of these women have given birth to 2 children. Similarly, in the age group of 15-19 years, there are 2,90,089 ever married women in the state, out of which 69.79% have not given birth to any child. 22.52% of these women have given birth to one child. 4.23% of these women have given birth to two children, 1.55% of these women have given birth to three children and 1.92% of these women have given birth to four children. It is also worth mentioning to note here that in the age group of 20-24 years, there are 11,65,440 ever married women in the state as per 2011 census. Out of these women, 36.39% have not given birth to any child, 40.59% have given birth to one child, 17.17% have given birth to two children, 4.02% have given birth to three children, 1.01% have given birth to four children, 0.29% have given birth to five children, 0.14% have given birth to six children and 0.40% have given birth to seven or more children. From the above data, it reveals that, there is not only deviation in the age of marriage from the legal age but also the minors have given birth to many children at the younger age.

With the increase in the age of the ever married women, gradually the percentage of the

ever married woman giving birth to no children has come down up to the age group of 60-64 years and again it has been increased from the age group of 65-69 to the age group of 80+ years. Out of the 1,86,315 ever married women in the age group 80+ years, 13.49% of the women have not given birth to any child.

In the age group of 15-19 and 20-24 years, the highest percentage of ever married women has given birth to only one child. In the age group of 25-29, 30-34, 35-39 and 40-44 years, the highest percentage of women have given birth to two children. Similarly, the highest percentage of ever married women given birth to three children is noticed in the age group of 45-49, 50-54 and 55-59 years. Similarly, the highest percentage of ever married women given birth to four children are reported in the age group of 60-64, 65-69 and 70-74 years and the highest percentage of ever married women given birth to seven or more children is noticed in the age group of 75-79 and 80+ years.

Out of the total women of 20,762,082 in Odisha reported during 2011 census, 11,992,001 women are ever married (57.76%). These ever married women have given birth to 31,367,713 children out of which 16,433,311 are males and 14,934,402 are females. It reveals that on an average an ever married woman in Odisha have given birth to 2.6 children. The highest percentage of children ever born i.e. 39,35,013 is noticed to the women in the age group of 35-39 years followed by 40-44 years (37,64,488), 45-49 (34,98,763) and 30-34 years (33,04,296).

The sex ratio of the children ever born to all the ever married women in the state is 909, which is less than the sex ratio of the state (979). This shows that the preference of male child in the society still prevails in spite of several steps taken by the Government, non-government and semi-government agencies.

### NUMBER OF SURVIVING CHILDREN:

The table below gives the total number of women and ever married women by their present age with the percentage of women in various age groups having different number of surviving children and total surviving children in the state as per 2011 census.

It is seen from the above table that out of the total ever married women of 11,992,001, 16.16 percent of these women have no surviving child, 18.83 percent women have one surviving child, 24.82 percent women have two surviving children, 18.65 percent of the women have three surviving children, 11.44 percent of the women have four surviving children and 10.11 percent women have five or more surviving children.

While making a comparison with the data on the number of children ever born, it is seen that 14.27 percent of the ever married women have not given birth to any child whereas 16.16 percent of the ever married women have no surviving children. This increase in percentage indicates the death of the children born to ever married women. Similar situation is noticed in case of one child, two children and three children. The percentage of women having four surviving children has been decreased to 11.44 percent from 12.23 percent of the women who have ever given birth to four children. The decrease is more in case of five or more surviving children. There are 10.11 percent of the ever married women of whom five or more children are surviving though

**Table– 2: Ever Married Women and Total Surviving Children**

Present Age	Total Women	Total Ever Married Women	% of Women with Different Numbers of Surviving Children						Total Surviving Children		
			0	1	2	3	4	5+	P	M	F
1	2	3	4	5	6	7	8	9	10	11	12
All Ages	20,762,082	11,992,001	16.16	18.83	24.82	18.65	11.44	10.11	27,357,593	14,372,114	12,985,479
Less than	5,909,421	41,729	77.23	8.26	14.51	0.00	0.00	0.00	15,557	8,260	7,297
15-19	1,952,714	290,089	71.90	21.74	3.72	1.28	1.36	0.00	111,571	57,532	54,039
20-24	1,912,588	1,165,440	38.99	40.70	16.07	3.19	0.61	0.44	1,021,564	524,030	497,534
25-29	1,801,161	1,567,701	19.74	32.32	31.79	12.00	3.14	1.02	2,359,096	1,209,901	1,149,195
30-34	1,560,758	1,478,580	12.22	20.66	35.24	20.37	8.07	3.44	3,009,903	1,546,116	1,463,787
35-39	1,522,503	1,475,269	9.56	14.50	32.31	24.48	12.23	6.93	3,530,709	1,818,821	1,711,888
40-44	1,303,554	1,272,097	8.92	12.11	28.24	25.71	14.85	10.17	3,328,989	1,736,564	1,592,425
45-49	1,121,664	1,101,386	8.76	11.32	24.71	25.67	16.68	12.86	3,049,834	1,609,297	1,440,537
50-54	890,288	877,209	8.82	10.87	21.38	24.60	18.43	15.90	2,556,452	1,370,860	1,185,592
55-59	739,429	731,214	9.24	10.89	18.92	22.64	19.04	19.27	2,216,786	1,189,502	1,027,284
60-64	736,426	726,787	11.52	11.90	17.48	19.76	17.87	21.47	2,194,383	1,172,326	1,022,057
65-69	491,676	484,713	12.24	11.52	15.77	17.96	17.46	25.05	1,520,702	815,307	705,395
70-74	387,435	382,839	13.57	11.81	14.81	16.51	16.72	26.58	1,208,302	648,035	560,267
75-79	181,506	179,696	13.21	11.20	14.03	15.75	16.32	29.50	590,957	318,894	272,063
80+	193,135	186,315	15.41	12.73	14.33	15.01	14.80	27.73	584,514	314,965	269,549

15.79 percent of the women have given birth to five or more children. It indicates that where the number of children ever born is high, the survival rate is low i.e. more number of children have died. Similar trend is noticed in all other age groups. In case of ever married women having no surviving children and no child ever born, it is seen that the percentage of ever married women having no surviving children is more than the % of ever married women having no child ever born.

Out of the total children ever born i.e. 31,367,713 to all ever married women, the surviving children are 27,357,593 which indicates that 40,10,120 children i.e. 12.78% of the children ever born have died. Among males, 20,61,197 children are dead (12.54%) and among females, 19,48,923 children are dead (13.05%). The death percentage of female child is more than the male child.

Table below gives the number of children ever born and number of children surviving by present age of ever married women and percentage of children died by sex.

It is revealed from the above table that 12.78% of the children ever born have died. 12.54% of the male children ever born and 13.05% of the girl children ever born have died. While analyzing the age group wise data of ever married women, it is seen that for the girls who have married below the age of 15 years, 10.97% of their children have died. In case of ever married women of 15-19 years, 11.17% of their children have died. It is worth-mentioning to note here that for the women aged 19 years and above, the death rate of their children is less than average death rate up to the age of 40-44 years. The death rate increases for currently married older women aged 45 years and above indicating improved health care in recent years.

**Table – 3: Total Children Born and Total Surviving Children to Ever Married Women**

Present Age	Total Children Ever Born			Total Surviving Children			% of Child Dead		
	P	M	F	P	M	F	P	M	F
1	2	3	4	5	6	7	8	9	10
All Ages	3,13,67,713	1,64,33,311	1,49,34,402	2,73,57,593	1,43,72,114	1,29,85,479	12.78	12.54	13.05
Less than 15	17,474	9,246	8,228	15,557	8,260	7,297	10.97	10.66	11.32
15-19	1,25,588	65,598	59,990	1,11,571	57,532	54,039	11.17	12.30	9.92
20-24	11,22,936	5,79,771	5,43,165	10,21,564	5,24,030	4,97,534	9.03	9.61	8.40
25-29	25,75,296	13,25,268	12,50,028	23,59,096	12,09,901	11,49,195	8.40	8.71	8.07
30-34	33,04,296	17,00,552	16,03,744	30,09,903	15,46,116	14,63,787	8.91	9.08	8.73
35-39	39,35,013	20,27,827	19,07,186	35,30,709	18,18,821	17,11,888	10.28	10.31	10.25
40-44	37,64,488	19,57,139	18,07,349	33,28,989	17,36,564	15,92,425	11.57	11.27	11.89
45-49	34,98,763	18,34,778	16,63,985	30,49,834	16,09,297	14,40,537	12.84	12.29	13.43
50-54	29,72,566	15,80,010	13,92,556	25,56,452	13,70,860	11,85,592	14.00	13.24	14.86
55-59	26,12,148	13,89,786	12,22,362	22,16,786	11,89,502	10,27,284	15.14	14.41	15.96
60-64	26,34,578	13,98,377	12,36,201	21,94,383	11,72,326	10,22,057	16.71	16.16	17.33
65-69	18,36,655	9,78,061	8,58,594	15,20,702	8,15,307	7,05,395	17.21	16.64	17.85
70-74	14,67,131	7,82,218	6,84,913	12,08,302	6,48,035	5,60,267	17.65	17.15	18.20
75-79	7,18,031	3,84,887	3,33,144	5,90,957	3,18,894	2,72,063	17.70	17.15	18.34
80+	7,13,722	3,82,453	3,31,269	5,84,514	3,14,965	2,69,549	18.11	17.65	18.64

### CURRENT FERTILITY:

During census 2011, one question was asked about the number of children born to every currently married woman to know the current fertility rate.

The table below gives the number of women and currently married women by present age and percentage of last year births by sex and birth order.

During last year i.e. one year prior to the date of population enumeration (2011), 10,247,249 currently married women have given birth to 6,89,249 children, out of which 52.37% are males and 47.63% are females. It is seen that 46.71% of the births occurred last year are the 1<sup>st</sup> child, 28.24% are the 2<sup>nd</sup> child, 13.21% children are 3<sup>rd</sup> child, 6.20% children are 4<sup>th</sup> child, 2.83% children are 5<sup>th</sup> child, 1.35% children are 6<sup>th</sup> child and 1.46% children are 7<sup>th</sup> or higher child in last year's order of birth. It is interesting to note that out of the 1847 total births taken place during

the last one year to 38,354 currently married women of less than 15 years of age, 57.61% births are of 1<sup>st</sup> child and 42.39% births are 2<sup>nd</sup> child in order of birth. Similarly 36,537 births occurred to currently married women in the age group of 15-19 year during last one year from the date of enumeration. 84.62% births are of 1<sup>st</sup> birth, 11.33% births are of 2<sup>nd</sup>, 2.36% births are of 3<sup>rd</sup> and 1.69% births are fourth in order of their birth for this age group.

It is interesting to note here that though the reproductive age of a woman is generally 15-49 years, but it is revealed from the Census that 9,197 children have been born to the women aged 50 years and above. Out of these births, 6.06% births are of first in order, 15% births are of 2<sup>nd</sup>, 21.81% births are of 3<sup>rd</sup>, 24.43% births are of 4<sup>th</sup>, 15.22% births are of 5<sup>th</sup>, 8.44% births are of 6<sup>th</sup> and 9.04% births are of 7<sup>th</sup> or more in order of birth which shows that the child bearing capacity still prevails with the women of 50 years and above.

**Table – 4: Birth Given during Last Year by Currently Married Women**

Present Age	Total Women	Total Currently Married Women	Total Births Last Year	Number of Births Last Year		Last year's Births of Order							
				Total	M	F	1	2	3	4	5	6	7+
1	2	3	4	5	6	7	8	9	10	11	12	13	
All Ages	2,07,62,082	1,02,47,249	6,89,249	52.37	47.63	46.71	28.24	13.21	6.20	2.83	1.35	1.46	
Less than 15	59,09,421	38,354	1,847	53.82	46.18	57.61	42.39	0.00	0.00	0.00	0.00	0.00	
15-19	19,52,714	2,83,091	36,537	50.87	49.13	84.62	11.33	2.36	1.69	0.00	0.00	0.00	
20-24	19,12,588	11,44,842	2,19,698	51.31	48.69	65.56	26.26	6.04	1.33	0.28	0.10	0.43	
25-29	18,01,161	15,28,443	2,17,190	52.11	47.89	42.95	33.80	15.19	5.39	1.65	0.48	0.55	
30-34	15,60,758	14,20,258	1,07,403	52.63	47.37	29.28	31.32	19.55	10.72	5.24	2.27	1.62	
35-39	15,22,503	13,90,092	48,715	53.56	46.44	22.79	25.53	20.06	13.58	8.44	4.91	4.69	
40-44	13,03,554	11,60,971	24,262	55.38	44.62	20.66	22.57	21.00	14.12	8.98	5.58	7.09	
45-49	11,21,664	9,71,181	24,400	59.40	40.60	18.56	23.26	24.94	15.07	8.18	4.57	5.42	
50+	36,19,895	22,84,583	9,197	53.40	46.60	6.06	15.00	21.81	24.43	15.22	8.44	9.04	

## Cottage Industries in Colonial Odisha

*Dr. Prabodha Kumar Ratha*

Odisha is famous for variety of cottage industries. They met the requirements of the villagers. Once upon a time Odisha was the home of many flourishing industries. In the pages of Indian History Odisha's name would shine perpetually as a producer of fine cloth, bell and brass metal, mat, stone carving, sculpture, fine filigree and Ivory work and other home made productions.<sup>1</sup>

The cottage industries generally suffered from lack of organization, finance and competition from foreign as well as large scale Indian producers. They were lack of modern process of efficient production and use of labour saving devices. The native industries of Odisha were badly affected by the Industrial policy of the alien rulers.<sup>2</sup> But actually the process of decline started during the Maratha Rule (1751-1803).

**Fishing :** Fish was largely exported from the sea-side districts of Odisha as well as from the Chilika lake. The illiterate fisherman followed primitive and unscientific methods to catch fish. They used two types of nets. Such as *Sangalajal* and *Changijal*.

**Salt Industry :** Odisha had a rich tradition of Salt manufacture, It was the main occupation of the people of Coastal Odisha. The British Government introduced the system of salt monopoly. It caused economic hardship to the

people. Though salt monopoly was abandoned in 1863 but the import of cheap Liverpool salt gradually flooded the market of Odisha. Due to its cheap price and good quality it gradually destroyed the salt industry of Odisha.

**Handloom weaving :** Handloom weaving was the most important cottage industry in Odisha. The goods were highly appreciated and there was a great demand for it in foreign markets. Cotton



weaving is still carried on throughout the three undivided districts of Odisha such as Cuttack, Puri and Balasore. Weaving was not carried on as an organized industry. There was no regular system and no fixed hours of work. Silk weaving was carried on in Patpur and Raibania village of north-Balasore and village of Purusanda in the Bhadrak sub-division. The weavers of these

villages only considered this industry as only a supplementary means of augmenting their limited income. The weaving industry as a whole failed to compete with machine-made cloths of English manufacture and the weavers were gradually taking up other means of earning for livelihood in increasing numbers.<sup>3</sup>

**Jute:** Jute spun into strings and it made many useful articles. At Bant, Basudevpur, Chandbali people made excellent gunny bags. They also made beautifully coloured doormats, durries and staircase runners. The process was so simple that any villager could weave it in his own home.<sup>4</sup> The cultivators and common villagers used a considerable amount of rope for drawing water and for agricultural purposes. They mostly made their own ropes. It was mainly a spare time occupation. The Chief materials used for rope making in Odisha were Jute, Indian sisal hemps, coir and jungle grasses. Gradually with the use of plastics in rope making and carry bags this cottage industry gradually lost its hold in Odisha as well as in Indian market.

**Brass and Bell-metal:** *Thatary* and *Kansari* caste people carried on this ancestral profession of making bell-metal and brass utensils and vessels in their own home. For instance Balakati and Kantilo in undivided Puri district, Ghantimunda in Cuttack and Remuna in Balasore district were very famous for the particular types of utensils made there. With the use of ceramic, glass, stainless steel utensils and pots these metals gradually lost the lions share of their market.

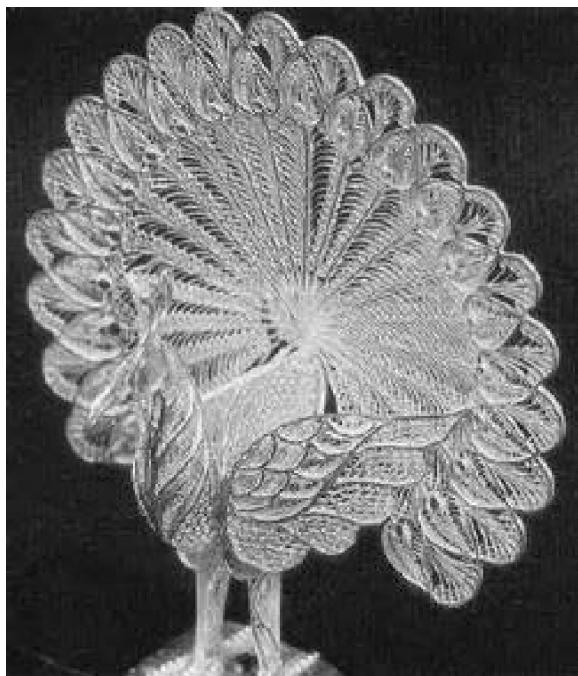
**Oil-Pressing:** Oil is used in large quantities as a cooking material. The requirements of oil of the rural population were supplied by a class of people known as '*Teli*'. They were found all over the state. Generally they used bullock-driven wooden of presses. They were meeting with serious

competition from Oil mills and the age old profession was gradually dying out.

**Pottery :** pottery manufacture was a vital village industry in Odisha. The articles made by the village potters were universally used in all homes of Odisha both by rich and the poor. They manufactured cooking pots, water vessels, pots of different sizes for storing food grains and for other purposes. They also made roofing, flooring and ceiling tiles, drain pipes and earthen ware rings for wells. They also worked as brick-layers and toy makers. A caste known as *Kumbhars* manufactured the earthen things and brought them to market for sale.<sup>5</sup> Some of the potters made toys but the toys made specially at Cuttack were quite artistic in design and had a good market outside.<sup>6</sup> With the coming of electronic and rubber toys from outside gradually these toys lost their hold in the market.

**Wood Work:** The manufacture of furniture, boxes, packing cases, doors, windows, shelves and tool handles etc. was carried on all over Odisha. The village carpenters also did the work of building and repairing houses and agricultural equipments. The carpenters of Cuttack town had great reputation in furniture making and their workmanship was highly appreciated.<sup>7</sup> But with the widely use of plastic and iron furnitures and concrete materials in building making gradually this industry is going to face a major challenge.

**Filigree Work :** The filigree works of Cuttack were famous for their excellent craftsmanship. They have a great market inside and outside India. The skilled artisans engaged in this sector were mostly poor and they worked only as wage earners. The maximum benefit of their artistic productions went to the middlemen and merchants who were mostly outsiders. Madhusudan Das, the pioneer of industrialization of Odisha founded the Orissa Art wares in 1897 to enrich the range



of filigree works and to secure for the workers employed there a great part of the benefits. Efforts were also made by organizing the workers into unions or co-operative societies which would protect their interest and save them from exploitation.<sup>8</sup>

**Horn and Ivory Articles :** The chief centre of this industry in Odisha was Cuttack town. Horn goods were made mostly by buffalo horns. These horn articles were exported to Kolkata and to many other places. Combs, Sticks, Pen-holders, paper cutters, tooth brush sticks and many varieties of fancy articles and toys were made with horns.

**Cane Work:** Cane grew throughout Cuttack and Puri districts. Generally cane was used in rural Odisha for tying the bamboo framework of thatched roofs and for making baskets. Banapur in Puri district and Dampara in Cuttack district were the two important centres for production of cane articles. Cuttack Jail and Madhusudan village Industries institute made varieties of cane

articles such as chairs, tables, baskets, and trays etc.

**Mat Weaving :** mats were made out of reeds, grasses, jute and coir. All these items were plentifully available in Odisha. A particular type of mat *sapa* were greatly in demand. *Sapas* were made in some villages in North Balasore. Most of the mat weavers were poor, landless labourers and pretty cultivators. They could not stock sticks for seasoning them.<sup>9</sup>

Regarding the manufacture of mats in North Balasore, L.S.S. O' Malley of Indian Civil Service wrote: "Mats of three kinds are made. The reed mats called *hensa* are prepared by all classes for home use, the *panas* making a large number, which they sell in the markets at one or



two annas each. They are thick and the poorer classes use them to cover them in cold weather. The date-leaf mats called *patiya* are made by the gipsy castes, Kelas and Ahirgaures, and are sold for an anna a piece in the markets. Chatai or malting of a coarse description was also made by the Rajus, Chasas and other cultivators in

Kamardachaur and Kakhrachaur for local use.”<sup>10</sup>

**Stone Work :** Stone works of considerable carving was carried on in Puri district. There was also a good deal of architectural works in stone carried on in Puri. There were stone carvers who could produce works of great artistic value. A few of them were employed by the Archaeological Department in restoring ancient carvings at Bhubaneswar and Konark. The Director General in his report for 1902-03 said: The work of the modern stone mason, a native of Bhubaneswar does not fall much behind the old work except that modern restorations of human and animal figures are less graceful than their old models.<sup>11</sup>

On the whole cottage industries were in precarious stage as compare to other parts of India, Odisha was mainly rural in its character. Any industrial innovation that did not directly help the village artisan was not calculated to improve the condition of the people. As a member of Bihar-Orissa Legislative Assembly, Gopabandhu Das sincerely tried to revive the cottage industries of Odisha mainly through Government help and initiative. But the Government did not pay adequate attention towards the revival of these ancient industries of Odisha. After Odisha became a separate province in 1936 Industries Department was created in November 1936 and it mainly devoted to the development of cottage industries. The first Congress ministry headed by Biswanath Das in Odisha framed a scheme with the help of Kumarappa to develop cottage industries. It was also decided to utilize the machinery of the All India Village industries Association in developing village industries and crafts like Oil crushers and pottery.<sup>12</sup> The Second Congress Ministry headed by H.K. Mahtab also took certain steps for the development of small scale and cottage industries in right earnest.<sup>13</sup> The

progress of cottage industries is still required to eradicate unemployment and poverty from Odishan Society. In this context Government, N.G.Os and overall people has a vital role to play.

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# A Study on the Health Status of Tribal People in Gajapati District of Odisha

*Dr. Babita Das*

## ABSTRACT

Many tribal communities in Odisha are unevenly distributed in forest and hilly areas. They mainly depend on gathering of forest products and shifting cultivation. Gajapati district is being selected as it is the most tribal district of Odisha. Tribal people in general are highly diseases prone. Their misery is compounded by poverty, illiteracy, ignorance of causes of disease, poor sanitation, lack of safe drinking water and blind beliefs etc.

**Keywords-** Infirmity, shifting cultivation, isolation, remoteness

## INTRODUCTION

The state of Odisha, the most picturesque state in Eastern India, occupies a unique position in the tribal map of India having many tribal communities, unevenly distributed in forest and hilly areas. They mainly depend on gathering of forest products and shifting cultivation. According to the World Health Organization (WHO), the definition of health is a state of complete physical, mental and social well being and not merely the absence of disease or infirmity. Health is an essential component of the well-being of mankind and is a prerequisite for human development. The health status of any community and especially of tribal people is influenced by the interplay of health consciousness of the people, socio-cultural, demographic, economic, educational and political factors. Ill health of tribal people is mainly associated with their existing environment, social isolation, poverty, inadequate housing, mental illness, widowhood etc.. Generally, at household level,

cultural norms and practices and socio-economic factors determine the extent of health problems among tribal. Tribal communities in general are highly disease prone. Their misery is compounded by poverty, illiteracy, ignorance of causes of disease, poor sanitation, lack of safe drinking water and blind beliefs etc..

The topic is being selected as the health status of tribal people is poor because of the isolation, remoteness and being largely unaffected by the developmental process going on in India. Gajapati district is being selected as it is the most tribal district of Odisha. In 2011, Gajapati had population of 5777,817 of which male and female were 282,882 and 294,935 respectively. Main objectives of health and family welfare in Gajapati is,

- To ensure adequate, qualitative, preventive and curative health care to people of the Gajapati district and state.

- To ensure health care services to all particularly to the disadvantaged groups like scheduled tribes, scheduled castes and backward classes.
- To improve health care facility in the KBK and Gajapati districts.
- To reduce maternal, infant and neo-natal mortality rates.
- To improve hospital services at the primary, secondary and tertiary level in terms of infrastructure, drugs and personnel.

## **OBJECTIVES**

- To identify the health problems of tribal people
- To find out the reasons responsible for their ill health
- To study the socio-economic characteristics of the tribal people

## **REVIEW OF LITERATURE**

The work reviewed and analyzed in the present investigation includes Ravindranath Rao's "Tribal Social Transformation" [Article in Samaja Shodhana Vol-I, No-2 Oct 1992]; Ram Ahuja's Social problems in India; Read Margaret's "Children of Their Fathers", Holt, Rinehart and Winston, New York, 1960 etc

## **METHODOLOGY**

The study was conducted in the Gajapati district of Odisha. Interview schedule was prepared for the collection of data. Information was collected from primary and secondary sources.

## **HYPOTHESES**

1. As they are less educated they have less idea about the health consciousness programme.

2. Most of the tribal people are suffering from disease due to the poverty.

## **ANALYSIS OF DATA**

So far as the health status of tribal people in Gajapati district of Odisha is concerned tribal people are in ill condition. The health status of tribal people is poor because of the isolation, remoteness and being largely unaffected by the developmental process going on in India. Most of the respondents are not conscious about the health programmes as they are less educated and are suffering diseases due to their poor socio-economic conditions.

## **CONCLUSION**

Tribal people in general are highly disease prone. Good health of tribal people will take a great change not only in their community but also the society.

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## Diwali in the City

*Dr. Shruti Das*

An aura of peace and joy  
surround the cacophonous city.

The milling crowd jostle  
and press ahead to reach  
vendors selling crackers and fun.

Blaring horns and rickshaw bells- a refrain  
to the welcome-music shrieking full-throat  
– ceaseless from sweet shops-  
over human and Divine ears.

The streets and homes sparkle  
with lamps and fairy lights  
glowing like the expectant Orient bride,  
bedecked in precious gems.

The Hindu household bids  
the sacred basil plant to listen  
to the chanting of the *mantras*  
and carry narrow wishes into  
the broader lanes of Heaven.

The women and their husbands  
and children sit around a sacred fire  
built with care inside  
colourful patterns drawn on the floor,

filled with desire's tiny glowing lamps,  
filling the air with sonorous  
murmurings and prayers.

A crowd with sweets and flaming lamps  
march into the dark, to reach Kaali,  
their saviour Goddess,  
to appease Her with chants.

The crackers bold and sharp  
send out with boisterous cackles  
-high into the skies-  
coloured petals and confetti of embers and ash  
to scare off the demons  
and the devil from the scared minds  
where till date they sit sweet-smiling,  
flexing muscles and spreading dread.

The aura of peace and joy  
finds its way and surrounds  
the cacophonous Diwali crowd.

Dr. Shruti Das, Associate Professor in English, P.G.  
Department of English, Berhampur University,  
Berhampur.

## Odisha Marching Ahead Towards Women Development

*Dr. Jyotirmati Samantaray*

The goals of human development are closely interlinked with development and empowerment of women.

The Government of Odisha is continuously striving towards the all round well being, development and empowerment of women. The women and child Development Dept. was created as a separate Department during 1994-95. Since inception it has been working for the overall development of children and women through a host of specially designed schemes and programmes. MAMATA, formulation of Odisha state policy for girls and women-2014 ushers a new era towards the empowerment of women. In the state policy for girls and women the focus areas are survival, health and nutrition, education, livelihood, Asset ownership. Decision making, participation & political representation, safety, security and protection. There are working women's hostel to provide safe and affordable accommodation to working women, Mahila Vikas Samabaya Nigam undertakes training programme for upgrading skills and for capacity building for women as well as persons with disabilities Training support to Mahila and Sishu Desks. State Commission for women functions at Bhubaneswar to sort out any atrocity against women. 37 integrated Anti Human Trafficking units are set up in our state covering all the districts. Protection

officers have been declared for all the districts for implementation of protection of women from domestic violence. Local complaints committee have been formed in all 30 district and district officers are there under sexual harassment of women (prevention, prohibition & redressal, Act. 2013. There is state social welfare Board & State Govt. also provides funds for rehabilitation of women in distress.

### Mission Shakti

Mission Shakti is one of the Women Empowerment Programme of Govt. of Odisha. Empowerment of women has been the topmost priority of the Govt. of Odisha. It firmly believes that empowerment of women refers to the process of providing power to women to stand up against the Control of others & help themselves to lead an improved life. A state initiated campaign was launched on 8<sup>th</sup> of March 2001, as Mission Shakti. Today it has active participation of more than 67 lakh women across all geographical locations, covering all castes and tribes.

Through mission shakti, the Government thrust has been on the areas of promotion, capacity building, enhancing marketing opportunities for women entrepreneurs, that would enable them to enhance their income generation

opportunities. The target is to cover all revenue villages of the state.

Till date 5.63 lakh women SHGs has been formed where more than 67 lakh women are directly involved (as per 135<sup>th</sup> SLBC report).

Odisha Govt's achievement so far has been in the areas of (a) Economic Empowerment (b) Micro credit support (seed money) & (c) Revolving funds support. The present focus is on Drudgery reduction scheme.

This Mission Shakti Bhawan has a total built up area of 7057.97 sqr mtr with 16 Halls for meetings & exhibition and residential facility for 80 people. The Mission Shakti Bhawan not only provide the infrastructure support for capacity building activities for the empowerment of women but the grand structure symbolizes its strength & power.

### **Home Economic Training Centre (HETC)**

Home Economic Training Centre is a residential training centre for Anganwadi workers, the frontline workers of ICDS. It is a flagship scheme of the Development of women and Child

Development. Presently, 7.74 lakh pregnant and lactating women, 43.88 lakh children (0-6 years) and 10.30 lakh Adolescent girls receive services from the Anganwadi workers through 71,306 centres across the state.

HETC has the capacity to annually train 3080 Anganwadi workers for job course training and 3520 Anganwadi workers for refresher course training through its four units for 300 days in a year.

The new HETC building will function as an upgraded HETC with modern facilities including Nutrition Demonstration and library facility.

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Dr. Jyotirmati Samantaray, Research and Reference Officer, Information & Public Relations Govt. of Odisha, Bhubaneswar.

## ODISHA UPDATE

### **ADDRESS OF HON'BLE CHIEF MINISTER SHRI NAVEEN PATNAIK ON THE OCCASION OF DISASTER PREPAREDNESS DAY AND NATIONAL DAY FOR DISASTER REDUCTION.**

All of us are assembled here to observe the Disaster Preparedness Day and National day for Disaster Reduction. On this solemn occasion, we remember the men, women and children who lost their lives in super cyclone, on this date in 1999, and during other disasters. The State Government has been pursuing a pro-active, community based and technology driven disaster management strategy to protect lives, livelihoods and assets of the people of our State. With the creation of Odisha Disaster Management Authority, we have concentrated in improving our disaster preparedness response standards through construction of disaster resistant infrastructure, and trained community based organizations, and strengthened state and district emergency operation centers.

In the aftermath of the cyclone Phailin in 2013, the government has taken up construction of over sixteen thousand disaster resilient houses for the affected people in the districts of Ganjam and Khorda under Odisha Disaster Recovery Project. About eighty percent of the total houses are in the completion stage. The project will help the people to protect themselves better from future natural disasters. This is a clear example of 'Building Back Better'.

We have also constructed 432 multipurpose cyclone and flood shelters are in disaster prone areas. 445 shelter buildings are presently under construction. In our effort to strengthen the participatory approach, the ownership and management of these shelters are handed over to local Cyclone Shelter Management Committees. We have enhanced our levels of awareness and skills to deal with disasters. We have been attempting to reach global standards in disaster management. The Sendai framework for disaster risk reduction for the period 2015 to 2030, adopted at the third UN World Conference in March 2015 at Sendai, Japan has stressed the need to enhance disaster preparedness and 'build back better' in recovery, rehabilitation and reconstruction. I am happy to note that "Use of Space Technology in Disaster Management" has been chosen, as this year's theme. I am hopeful that our disaster preparedness will be enhanced with the use of proven space technology. Space technology should help in giving more timely information in dissemination of data through GIS - based platform.

I take this opportunity to thank the volunteers, ODRAF, NDRF, Fire Service, the Department of Space and all officials including the Armed Forces, engaged in relief and rescue operations. I thank the

Cyclone Shelter Management and Maintenance Committees, PRI & Community members, NGOs, Indian Red Cross Society and UN Agencies for their cooperation and service in managing disasters in the State. I once again appeal to my fellow citizens to come forward and join hands to work towards a disaster resilient Odisha.

*Sukanta Kumar Panda, Information Officer*

## **CORPORATE GOVERNANCE TRAINING FOR MSMEs – A NEW BOOST FOR GROWTH**

In another step towards making MSMEs of Odisha more competitive in global market, Govt have taken up the issue of corporate governance training for them in the context of new Companies Act-2013. This has been discussed in a high level meeting held under the chairmanship of Chief Secretary Shri Gokul Chandra Pati in Secretariat Conference Hall wherein Vice President, Indian Institute of Company Secretaries of India (ICSI) Mrs. Mamata Binani along with Chairperson Eastern India Regional Council of ICSI Mrs. Sunita Mohanty outlined the issues for discussion. Considering the issues, Chief Secretary has advised MS&ME Department to take up specific training and sensitization programme on corporate governance for MSMEs in Odisha. The proposal for setting up MS&ME clinic in Odisha under joint partnership of the State Govt and ICSI also received in principle approval in the meeting.

Chief Secretary Shri Pati outlined that individual entrepreneurs are subject to high financial risk and vulnerability in these units. Their conversion to new Companies Act of 2013 would reduce this risk to limited liability. The MS&MEs need to be sensitized about the new provisions in the law. Company Secretary Mrs. Binai mentioned that as per provisions of the new Act, the MSME units can be registered as One Person Company (OPC). The existing proprietorship units could also be converted to Companies under the new Act. It was decided to prepare definite action plan for training and sensitization of MSMEs and PSUs on these provisions. The programme will be implemented under joint aegis MS&ME Department and ICSI. Further, Chief Secretary advised the Department to sensitize farmers' groups to be registered under the new Act as producer companies.

Replying to a media query after the meeting, Mrs. Binani mentioned that conversion of the MSME units to companies under the new Act would be helpful for them in a number of ways. Their liability would be limited only to the extent of unpaid amount in the capital fund of the company. Besides, banks and venture capitalists would also be comfortable with them in extending financial assistance.

## **STATE ACHIEVES MORE THAN 25% GROWTH IN REVENUE GENERATION BY END OF SEPTEMBER.**

Befitting the global slowdown in steel and mineral market, State has achieved 25.43% growth in revenue generation both from tax and non-tax sources by September, 2015 in comparison to the corresponding period of last fiscal year. This has been discussed in all Secretaries meeting held under the Chairmanship of Chief Secretary Shri Gokul Chandra Pati in Secretariat Conference Hall. The State Plan Expenditure has also grown by 24.07% at the end of September in comparison to the same period of last year.

Chief Secretary has advised various Departments to expedite implementation of administrative reforms, further simplify the ease of doing business in the State and facilitate the process for setting up the industrial units. Shri Pati has also directed to provide handholding support to local entrepreneurs and start up ventures. Focusing on redressal of public grievances Shri Pati has directed all Departments to ensure 100% disposal of all grievances taking each case to a logical end.

Chief Secretary has warned that any delay in the implementation of administrative reforms and redressal of public grievances on part of any Govt officer will be seriously viewed. Chief Secretary has also directed to expedite the process of reform in administration and management of Jagannath Temple at Puri. It has been decided to build up a corpus fund for the Temple.

Available data show that the own tax revenue generation by end of September, 2015 has been Rs.10134.48 cr marking a growth of 29.27% over last year. This includes land revenue, professional tax, stamps & registration duties, sales tax, vehicle tax, electricity tax etc. The revenue from non-tax sources like mining royalty, industrial water tax, irrigation water use, forest & wild life, and other sources has been Rs.3053.10 cr marking a growthrate of 14.18% over last year. In total there has been overall revenue growth of 25.43% with total collection of Rs. 13.187.59 Cr.

The Development Commissioner Shri Upendra Nath Behera, Additional Chief Secretary to Chief Minister Shri Aditya Padhi along with Principal Secretaries, Secretaries and Special Secretaries of various Departments participated in the discussion.

*U.K.Mohapatra, Information Officer*

## **INDUSTRIALISTS KEEN ON SETTING UP CHEMICAL-BASED INDUSTRIES AND RESEARCH CENTRE IN ODISHA**

The outcome of research and development along with the cooperation of research institutes will help chemical based industries in the long run in the competitive market, expressed Shri Devi Prasad Mishra, Minister, Industries. Addressing at the International Conference and Seminar of leading industrialists of chemical-based industries organised by Institute of Chemical Technology(Deemed University), Mumbai Shri Mishra said that the chemical industry can compete in the world market with the co-operation of the research institute. In the conference attended by industrialists and technocrats from different countries, Shri Mishra discussed in detail about the new progressive industrial policy and Special Economic Zone and the opportunities offered by the State Government headed by Shri Naveen Patnaik, Hon'ble Chief Minister of Odisha for establishing chemical industries in Odisha. Shri Mishra invited the industrialists to set up chemical based and allied industries in the state. He reiterated that there are ample opportunities to establish petrochemical based industries at Paradeep Petro-Chemical Complex and coal and gas based industries along with fertilizer, pesticides, pharmaceutical and organic based industries at Talcher.

In the panel discussions held in the afternoon Vice-Chancellor Prof. G.D. Yadav, noted industrialist Raju Bhai Saraf, Bimal Gokul Das, Rajendra Gogri, Deepak Mohan, Shri Singhvi and coordinator Durga Prasad Mishra discussed at length about the scope and prospects of chemical industries in

Odisha. Industrialists exchanged their views in setting up chemical, petrochemical, fertilizers industries in Odisha and will submit their proposals in this regard. Shri Mishra requested Vice-Chancellor of the Institute of Chemical Technology to set up a campus in Odisha. The conference was attended by the representatives from USA, Canada, Malaysia and SAARC countries.

*Tapas Saha, Information Officer*

### **OTDC TO OBTAIN ISO CERTIFICATION FOR ITS HOTELS**

Odisha Tourism Development Corporation (OTDC) would obtain ISO Certification for its 20 hotel units by improving facilities, services and other parameters by March, 2016. OTDC shall standardise the interiors and other facilities in all of its Panthanivases and would create OTDC as a brand in hospitality, it is resolved in the 94th meeting of Board of Directors of the Corporation held recently. It was also decided that OTDC shall upgrade its Hotel Units to Star categories in a phased manner. This will help the tourists visiting the State, to get quality accommodation at reasonable price. It was felt that OTDC has significant role to play in putting Odisha Tourism on the national tourism map.

The Board also decided to computerize the operation; expand online booking of accommodation and tour packages, organise capacity building of its employees through training and digitisation of inventories etc. The present portal visitodisha.org is providing online booking facilities in Panthanivases.

The Board also decided to firm up its investment plan to improve its products and associated infrastructure. OTDC has signed MoU with yatra.com portal for online reservation of OTDC hotels and tour packages. This facility shall be available shortly for the tourists visiting the State. OTDC will tie up with others leading travel portal offering similar facilities for booking. The Corporation's financial result for the year ending 2014-15 were also considered and approved by the Board. The Corporation has made a profit after tax of Rs.5.10 Cr. in the year 2014-15 as compared to Rs.2.85 Cr. of previous year which represents an increase of 79%. The gross revenue of the Corporation has recorded an increase of 16% i.e. from 29.35 Cr. to 34.14 Cr. It has also been decided to improve the capacity utilization in different Panthanivases by offering special prices and improving the facilities and services.

*Surya Mishra, Information Officer*