

Mineral Potential of Orissa State : A Kaleidoscopic Review

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Orissa, a major state of India has enormous mineral potential and is rich in mineral resources. Many of the minerals are known to be in abandon supply, while many are least known in this state. Orissa produces enormous minerals including non-metallic, metallic and fuel minerals. Orissa stood one of major producer of Chromite, Nickel, Iron, Manganese, Tin, Graphite, Bauxite, Lead and Zinc in India. Among the fuel minerals, coal of Ib-River and Talcher coalfields continues to play a dominant role among the domestic energy resources in this state. In terms of geographical distribution of mineral resources of India, about 10-14 % of mineral production comes from the state of Orissa. Let us discuss the mineral potential of the state one by one briefly.

BAUXITE ORE

Introduction

Bauxite is a heterogeneous ore of aluminium. It is derived from Khondalite and Charnockite consists of Gibbsite, Goethite and Kaolinite in varying proportion with some Garnet, Hematite, and Ilmenite as accessory minerals.

Although Bauxite is the main source of aluminium, it is the second abundant metal element in the earth's crust after silicon. Bauxite is mined for production of alumina by the Bayer's process.

Occurrences

The main Bauxite deposits of Orissa are associated with the Eastern Ghats Super Group of rocks and form the major component of the East Coast Bauxite (ECB) deposits. All the East Coast Bauxite cappings over Khondalite in Orissa sector e.g., Ballada, Maliparbat, Panchpatmali, Kodingamali, Karnapadikonda, Bapulimali, Sijimali, Lanjigarh etc. of Koraput and Kalahandi districts occur in a single planation surface (+900m above MSL).

Bauxite caps the Gandharmardan plateau over Khondalite on the Border of Bolangir-Sambalpur districts. It occurs at an elevation of 940-1000 above MSL.

Bauxite occurs in the Kandhamal hills overlying the Vindhyan shale at an elevation of 960m above MSL.

Small and isolated bauxite cappings occur over BIF (shale) formation at elevations of 610-671m above MSL around Kusumdihi in Sundargarh District.

Bauxite with intercalated laterite caps over metavolcanics on the flat-topped hill namely Dholkata Pahar and Kanjipani range of Keonjhar District. These areas range from 727 to 848m above MSL with intervening valleys around 600m above MSL.

All the hill ranges west of Nawana and east of Similipal Garh and Bakua of Similipal Complex (Mayurbhanj), laterites are observed around 1000m above MSL (Das and Mohanty, 1998).

COAL

Introduction:

Out of 57 Gondwana and 14 tertiary coalfields considered for the national inventory of coal, Orissa state has only two. They are Ib-River coalfield and Talcher Coalfield. Yet its share in the reserve so far established in the country amounts to 23.6%.

Occurrences:

The Ib-River Coalfield is named after a tributary of the Mahanadi. The coalfield is located in the southeastern part of Mahanadi Master Basin and occupies an area 1460 sq. km. The coalfield is bounded by latitudes 21°30' and 22°14'N and longitudes 83°32' and 84°10'E. It covers parts of Sundargarh, Jharsuguda and Sambalpur districts. It embraces the Hingir Sub-basin in the north and the Rampur Sub-basin in the south.

Coalfields	Latitude	Longitude	Districts	Basinal area in sq. Km.
Ib-River Coalfield	21°31' 22°14'	83°32' 84°10'	Jharsuguda, Sundargarh & Sambalpur	1460
Talcher Coalfield	20°50' 21°15'	84°09' 85°33'	Dhenkanal, Angul & Sambalpur	1813

The Talcher Coalfield constitutes the southeastern most member of the Lower Gondwana Mahanadi Master Basin and occupies an area of over 1813 sq km. The coalfield is bounded by latitudes 20°50' and 21°15' N and longitudes 84°09' and 85° 33' E. This basin mainly occupies the Brahmani River Valley. It covers parts of Dhenkanal and Angul districts along with a small portion of the adjoining Sambalpur District.

The major parts of the Talcher and Ib-River Coalfields are covered by the Talchir, Karharbari, Barakar, Barren Measures, Lower Kamthi (Raniganj) and Upper Kamthi sediments. Among them only Barakar, Karharbari and to some extent Lower Kamthi (Raniganj) sediments are coaliferous (Manjrekar et al, 1998).

CHINA CLAY

Introduction:

China clay is also a clay like material comprising mostly mineral Kaolinite ($Al_2O_3 \cdot 2SiO_2 \cdot 2H_2O$) where Al_2O_3 , SiO_2 and H_2O % are 39.5%, 46.56% and 13.94% respectively. It has a specific gravity of 2.6 and a fusion point of 1.785°C.

Kaolin deposits have been formed by decomposition of feldspathic granite. Kaolin occurs in form of pockets or lenses within the main mass of granite.

Occurrences:

China clay is found to occur in a long belt stretching from southern Singhbhum to

Mayurbhanj Granite belt. Badampahar-Joshipur, Karanjia- Ramchandrapur belt with a number of deposits on either side of NH-6 is the most important china clay producing area of the state.

Besides these, there are a few occurrences in Keonjhar, Sambalpur, Koraput, Sundargarh and Dhenkanal districts.

The important deposits in Mayurbhanj District are found near Joshipur, Dumuria, Jamba,

Kadodiha, Jamkeswar and Thakurmunda. The china clay found in Joshipur area of the Maurbhanj District is pale cream to yellow in colour (Mohanty, 1998).

CHROMITE

Introduction:-

Chromium is indispensable for industrial complexes including aerospace, steel and special alloys. Chromite is the only economic source of chromium. Chromite belongs to the spinel group and has the basic formula $R^{++}R_2^{+++}O_4$, where $R^{++} = Mg, Fe$ with traces of Mn and Ni and $R^{+++} = Cr, Al, Fe$ with traces of Ti and V. It has five major components viz., $MgO, FeO, Cr_2O_3, Al_2O_3$ and Fe_2O_3 , whose proportions are greatly controlled by the composition of the magma from which the primary silicates and chrome spinel crystallized. Pure chromite contains 67.9% by weight of Chromic Oxide (Cr_2O_3) or 46.5% by weight of Chromium.

Occurrence :- In Orissa chromites are confined to three areas.

(a) Boula-Nuasahi in Keonjhar district. The chromite deposits occur at and around Bidyadharpur barrage, Nuasahi and Agarpara.

(b) Sukinda in Jajpur district. The main deposits of Chromite and Nickel of Sukinda are present in the area Kamardah, Saruabil, Kaliapani, Kathpal, Maruabil, Bhintangar etc.

(c) Bhalukasuni in Balasore district. The main deposits of this area are Bhalukasuni village of Nilgiri Sub-division.

(d) In Similipal ultramafic complex of Mayurbhanj District, probable reserve of 27 million tonnes of laterite Nickel ore has been estimated by GSI (Sahoo, 1998).

NICKEL ORE

Annual consumption of nickel in the country is about 15000 tonnes and almost the entire quantity is met through imports. Hence Sukinda ultramafic complex, the only indigenous resources of Nickel ore of India, should be utilized.

The Sukinda ultramafic body is stratiform in nature and comprises inter-layered nickel and chrome rich rocks (dunite-peridotite and orthopyroxenite). The serpentinised dunite-peridotite members have been subjected to intense chemical weathering resulting in the formation of a nickel rich limonite cover. Thus the lateritic nickel ore is of secondary origin (Sahoo, 1998).

PLATINUM GROUP OF ELEMENTS

Platinum Group of Elements i.e. Platinum (Pt), Palladium (Pd), Rhodium (Rh), Ruthenium (Ru), Osmium (Os) and Iridium (Ir) are the rarest of precious metals in the earth's crust. In India, only a minor amount of Palladium is recovered as a byproduct from Singhbhum Copper belt, Jharkhand. Besides, no other Platinum Group Elements mine production is known in India.

Moreover, on the basis of geological criteria such as rock association, age, tectonic setting, depositional environment, geochemical association and abundances, the principal terrains for identification and delineation of Platinum targets are: 1. Baula-Nuasahi, Keonjhar District 2. Sukinda area, Jajpur District, 3. Singhbhum-Orissa Craton and 4. Amjori Hill, Keonjhar District (Mukherjee, 1998).

IRON ORE

Introduction:

Iron is a very important element comprising about 5% of the earth's crust. It is rarely found in native condition except in the meteorites and eruptive rocks in association with Cobalt and Nickel.

The source minerals from which iron is being extracted on commercial scale are only a few, like Hematite, Magnetite, Goethite, Siderite.

Occurrence:

The iron ore deposits of the state occur in five distinct zones.

- (a) Bonai (Sundargarh District) Kendujhar (Keonjhar District) Bett
- (b) Gandhamardhan of Keonjhar District.
- (c) Tomka- Daitari of Jajpur District.
- (d) Gorumahisani-Badampahar of Mayurbhanj District.
- (e) Hirapur of Nawarangpur District (Mohanty, 1998).

FIRECLAY

Introduction:-

The term fireclay has been commonly applied to refractory clays, which can withstand of 1500°C or higher temperature. It is basically Kaolinite.

On the basis of plasticity, fireclay is classified as plastic, semiplastic and non-plastic. An important parameter of fireclay in refractoriness expressed in terms of pyrometric cone equivalent (PCE).

Occurrence :-

In Orissa fireclay are confined to three geographical belts.

(a) *Talcher Coalfield in Dhenkanal and Angul :-*

In Talcher Coalfield, fireclay has been encountered in the following locations.

- * Jagannath Colliery
- * South Balanda Colliery
- * Near Kaniha Village
- * Near Ghantikhal Village

(b) *Ib-River Coalfield :-* The occurrences of this area have been recorded near Jurabaga, Darlipali, Rampur, Kuropal, Bariapahar, Khinda, Lukopali, Kulda, Siarmal etc.

(c) *Athgarh Basin :-* Clays of Talabasta area belongs to Athgarh formation of upper Gondwana of Cuttack district (Nanda and Bhol, 1998).

BASE METAL DEPOSITS

Introduction:-

Though Orissa is not a rich state in terms of the base metal ore deposits (Cu, Pb and Zn), it has three small deposits to its credit, at various stages of exploration and development.

Occurrences: -

There are three occurrences of base metal deposits in Orissa.

(a) *Adash Copper ore deposits :-* It belongs to Sambalpur district. The copper prospect (21°23'05"latitude 84°37'45") is situated at a distance of 120 km from Sambalpur Railway Station and can also be approached from Reamal on the Deogarh -Angul NH-6, 30km. Here Graphite is produced as co-product.

(b) *Kesarpur Copper deposits: -*The villages of Mayurbhanj like Kesarpur, Dudhiasal and Madansahi encompassing the copper ore deposit are located between latitudes 22°04' and longitude 22°07'. The chief minerals of the ore are pyrite, pyrhotite and chalcopyrite, with minor amount of Nickel and Molybdenum.

(c) *Sargipalli Lead ore deposits:-* Sargipalli deposit lies between the village Lokdega (22°02' : 83°55') and Bharatpur (22°03' : 83°56') in Sundargarh district. The common primary minerals of the deposits are galena, chalcopyrite and sphalerite (Patnaik et al, 1998).

GRAPHITE

Introduction:-

Natural graphite is an allotrope of elemental carbon, which crystallises in the hexagonal system. It is a soft and opaque black mineral with a metallic luster, greasy feel, hardness of 1 to 2 in *Moh's* scale, specific gravity of 2.09 to 2.93.

Occurrence :-

The major graphite zone of Orissa is coincident with the migmatized quartz- garnet - sillimanite - graphite schists of khondalite suite and its contact with medium -grained granite gneiss. The important graphite belts of the state are -

(a) Sargipali belt :-(21°00'-22°22':83°15'-83°40')

Sargipali belt contains more than 150 occurrences, which belongs to the deposits of Sargipali, Dangachancha, Darhamunda, Sapmuna, Rengali, Mohanilah, Raju-Nagphena etc of Bargarh, Bolangir and Kalahandi districts.

(b) Titilagarh belt: (20°06'-21°24' :83°00'-83°45')

Titilagarh belt contains more than 120 occurrences which belongs to the deposits of Titilagarh, Boroni, Malisira, Singjharan, Loitora of Bolangir and Kalahandi districts.

(c) Tumudibandh belt: (18°45'-20°00':83°00'-83°45')

Tumudibandh belt contains more than 50 occurrences, which belongs to the deposits of Tumudibandh, Lakhajorna, Palur, Raisil, Ambaguda of Phulbani, Rayagada and Gajapati districts.

(d) Dandatopa belt:-(20°37'-21°00' : 84°15'-84°45')

Dandatopa belt contains more than 22 occurrences, which belongs to the deposits of Dandatopa, Adeswar, Kamalpur, Akharkata and

Girida of Dhenkanal and Angul districts (Mishra et al, 1998).

MANGANESE ORE

Introduction:

It was recognised as an element in 1774 by Swedish chemist Scheele, whose fellow countryman, Ghan isolated the metal in the same year. The average crustal abundance of manganese is slightly less than 1% (950 PPM).

Manganese deposits are widespread in the world's land areas. The common primary minerals of Manganese deposits of Orissa are pyrolusite, Rhodonite, Manganite, Jacobsite and Psilomelane.

Occurrence:

Manganese ore deposits of Orissa occur in three distinct geological set-up

(a) *Bonai-Keonjhar* :- Bonai-Keonjhar belt constitutes the most important manganese ore producing region of the country.

(b) *South Orissa*:-The manganese ore deposits of south Orissa comprising parts of Rayagada, Kalahandi and Bolangir districts are associated with Khondalite suit of rocks belonging to the Eastern Ghats Super Group.

(c) *Ghorijhor area of Sundargarh District* - Manganese bearing gondite of Ghorijhor formation is the youngest horizon occurring in the core of Gangpur synclinerium and confined to the central part of the Gangpur group of meta-sedimentaries (Sarangi and Mohanty, 1998).

VANADIUM

Introduction :-

Vanadium is an important alloying element. Addition of small amount often less than 0.1% to steel and cast iron can significantly increase their

strength, toughness and ductility. In Orissa vanadium is confined to the by-product sludge of Alumina plants.

Magnetite associated with gabbro-anorthosite suite of rocks contain Vanadium and Titanium, occur at several locations in Mayurbhanj District. Vanadium bearing magnetites had also been recorded near Boula in Keonjhar district and Godasahi and Rangamatia in Balasore district. The Magnetite and Ilmenite form the bulk composition of the ore. The mineral Coulsonite $(\text{FeV})_3\text{O}_4$ is responsible for the vanadium content of the ore.

Occurrences :-

In Orissa Vanadium bearing magnetite is confined to five geographical belts.

- a) Rairangpur -Bisoi :-It includes deposits at Kumardubi, Betjharan, Amdabeda, Gargari, Kunjakocha, Bhangapahar, Hatichar.
- b) Bisoi -Joshiapur :-It includes deposits at Mayurbeka, Kesham, Dhulabeda, Sialnoi, Bariadihi, Kundabari.
- c) Baripada -Podadiha :-It includes deposits at Bahalda, Andipur, Chitrabania.
- d) Rangamatia (Betei) Godasahi :-Deposits at Rangamatia and Godasahi.
- e) Nausahi -Boula :-Deposits at Nausahi and Baula (Nayak and Das, 1998).

BEACH SAND MINERALS

Introduction :-

The term "Beach Sand Minerals" also called Heavy minerals is usually associated with a group of industrial minerals comprising mainly Ilmenite, Rutile, Zircon, Monazite, Garnet and Sillimanite. The major gangue mineral in the beach sand deposits is quartz. The specifications of these minerals are given in the Table 1.

Occurrence :-

The resources of beach sand mineral in India are confined to the states of Kerala, Tamilnadu, Orissa, Andhra Pradesh and Maharashtra. In Orissa, Atomic Minerals Division has explored a stretch of about 50 km from south of Mahanadi mouth to Orissa-Andhra Pradesh Border and identified a number of potential deposits ranging in grade from 5% to 30% heavy mineral. Ganjam coast is most important from the point of view of reserve and grade. The Indian Rare Earths Limited (IREL) leasehold extends for a length of 18 kms along Chhatrapur coast between Rusikulya River confluence in the NE and Gopalpur on the south-west. The different identified blocks of this deposit are Pedalaxmipuram- Ramayapatna, Ramayapatna-Markandi, Niladripur- Kantiagarh, NE of Kantiagarh, East of Jhatiapadar, SE of Arunpur (Siddiqui, 1998).

DIMENSION AND DECORATIVE STONES

Introduction :

Any natural stone irrespective of composition and origin, which can be cut, sized and shaped to suit the fancy and specification of the builders, designers and architects are marketed as Dimension stones. The various rocks, which are quarried as dimension stones, include granite, marble, sandstone, limestone, slate, laterite and khondalite.

Granite:

The suitability of granites for utilization as dimension stones depends to a large extent on their physical, chemical and mineralogical properties. The dimension stones under the "Granite" category can be broadly divided into two types viz., acidic (composed of quartz, orthoclase, perthite, biotite, muscovite, garnet etc)

and basic rocks (composed dominantly of clinopyroxene and plagioclase).

Marble:

The term Marble is derived from latin word "Maarmor" which itself comes from Greek root, meaning a shining stone. It is the recrystallised limestone. Commercially, marble is crystalline rock composed of calcite, dolomite or serpentine, which can take polish.

Sand stone:-

Sand stone has been used in construction, rough slabs, tiles etc. The cementing material of these sedimentary rocks determines the degree of compaction, colour and thus ultimately the quality of these stones as dimension stones. The Vindhyan formations constitute an excellent storehouse of this category.

Lime stone :

The limestones, generally used as dimension stones, comprise dolomitic limestone which are usually hard, argillaceous and siliceous in nature. The state of Orissa, though a potential store house of limestone has yet no record of utilization of this material as dimension stone.

Slate :

The metamorphism of shales under pressure produce slates, which are characterized by presence of close set planes along which they can be easily split into sheets.

Laterite :

It is a porous, pitted and clay like rock with a hard limonitic protective crust containing a large quantity of iron in form of red and yellow ochre. In Orissa, these are used for building purpose as substitute of bricks in the districts of Cuttack, Nayagarh, Khurda, Puri and Ganjam.

Khondalite :

Khondalites are a typical constituent of the Eastern Ghats. It is quartz feldspathic garnetiferous sillimanite schist/gneiss. These have been used for construction of temples and are presently being used in the form of tiles for exterior decoration and also for sculptural purposes.

Occurrences :-

In Orissa, the Archeans which constitute about two-third of the landmass of the state host a variety of dimension stones like Granite, Khondalite etc. In particular, the following geological terrains are important.

- a) Chhotnagpur -Singhbhum- Bonai :- Granites and gneisses of many types, dolerite, anorthosite, gabbro etc.
- b) Eastern Ghats-Charnockite, khondalite, leptynite, anorthosite, pyroxene granulite, nepheline, syenite etc. (Sarangi, 1998).

TIN ORE

Introduction :-

Tin is the major ingredient of solder and tinplate. Generally it is not used in its pure form. Mostly it is used as either alloyed with another metal or coated upon another metal. Cassiterite (SnO_2) is the only mineral of commercial importance as a source of tin, which contain 78.6% of tin and 21.4% of oxygen. Usually it is dark brown or black in colour with an adamantine luster. Cassiterite is a high temperature product of magmatic crystallization. It has a specific gravity of 7. The most of the World's tin is produced from placer deposits and richest placers are found in stream deposits. In India tin occurrences are confined to Bastar region of Chhattisgarh State and Malkangiri District of Orissa.

Occurrences :-

- a) Malkangiri District is the main source/reservoir of tin ore in Orissa. Occurrence of tin (Cassiterites) was first located in Mundaguda-Salimi area of Malkangiri District by the State Directorate of Mining and Geology during 1974. The area surrounded by Bhimsen River in the west, Sarangpalli village in the east, Kolab river flowing westwards in the south, Lokti and Tulsidongar in the north.
- b) Confluence of Ong and Mahanadi :- Pegmatites and vein quartz emplaced in granitoid foliation contain tin values of up to 0.5%.
- c) Confluence of Tel and Mahanadi :- Pegmatites within the granite have gemstones along with tin, tungsten in dispersed manner .
- d) The area in between Amuda and Manmunda; Bamunda and Karunapalli of Boudh District are also bearing the pegmatites which contain tin (Sn) along with Nb, Ta and W (Mohapatra and Mishra, 1998).

GEM STONES**Introduction :-**

The stones having the qualities like natural origin, beauty, durability, uniqueness, rarity, hardness and chemical resistance are characterised as gemstones. Diamond because of high value is treated as an exclusive species of gemstone. The gemstones whose occurrence have been recorded in Orissa include emerald, aquamarine, heliodor, chrysoberyl, alexandrite, tourmaline, ruby, sapphire, cat's eye, zircon, topaz, moonstone, quartz, garnet etc. Properties and characteristics of few common gemstones are given in Table 2.

Occurrence :-

The gemstone occurrences of Orissa are localised in

1. Eastern Ghats Granulite belt.
2. High grade supra-crustal rocks.
3. Mafic and ultramafic complexes.
4. Alkali syenite.
5. Quaternary sediments and gravel beds.

The gemstones and their associated rocks and the location in the state are presented in the Tables 3, 4 (Mishra and Mohanty, 1998).

LIMESTONE AND DOLOMITE**Introduction :-**

Limestone is a calcareous sedimentary rock composed of mineral calcite (CaCO_3), which on calcination yields lime (CaO) for a wide range of industrial uses. In its purest form, limestone should contain 56% CaO and 44% CO_2 .

Dolomite is a double carbonate of calcium and magnesium containing 30.4% CaO, 21.7% MgO & 47.9% CO_2 in its purest form. Both limestone and dolomite also contain silica, alumina, iron oxides, alkalies, Phosphorous, Sulphur etc.

Occurrence :-

Orissa has vast resources of limestone occurring in three distinct geological settings, namely Gangpur group, Vindhya and Eastern Ghats, where as dolomite is mostly confined to Gangpur and Vindhyan Groups. These deposits are confined to following districts.

District	Areas
Sundargarh	Biramitrapur, Lanjiberna, Hatibari, Purnapani, Gatitangar, Gomardih.
Bargad	Dungri, Banjipali, Jampali.
Koraput	Umpavalli, Tummiguda (Sunki valley).
Malkangiri	Kottameta, Nandiveda, Uskalvagu (Rath and Rath, 1998).

GOLD

Introduction and Probable Occurrence:-

Based on the existing concepts of space-time relationship of various gold deposits all over the globe and more importantly on empirical geological criteria such as rock association, age, tectonic setting, depositional environment, geochemical association and abundances, the principal terrains for identification and delineation of gold targets are:

1. Badampahar -Gorumahisani belt. 2. Tomka-Daitari to further north-west upto south of Jamda-Koira valley, 3. Possible Archean greenstone in Bonai craton, 4. Bengpal Group, granitoids and the contact zone with Eastern Ghat granulite, and 5. Early Proterozoic successions of Gangpur / Singhbhum Group and basal Dhanjori (Mukherjee, 1998).

OTHER MINERALS

The other minerals and ores which occur in the state and some of which are being mined include pyrophyllite, quartz, quartzite, kyanite and steatite etc.

Pyrophyllite

Introduction :-

It is a hydrous aluminium silicate used mainly in refractories making. Pyrophyllite occurs in the form of quartz-pyrophyllite schist associated with granite and also quartz reef.

Occurrences :-

The occurrences of the state are associated with Singhbhum-Bonai granite. The major deposits are Anjor, Balabhadrapur, Nitigotha, Madrangajodi, Roduan, Rampakot, Dalimpur of Keonjhar District. Joshipur and Manada of Mayurbhanj and Lahunipada in Sundargarh District.

Kyanite, Sillimanite & Andalusite :-

Introduction: These are anhydrous aluminum silicate minerals. This group of minerals is believed to be products of anhydrous metamorphism of argillaceous sedimentary rocks.

Occurrences: Refractory grade kyanite confined to Panijia in Mayurbhanj District. Occurrence of quartz bearing kyanite are confined to Magarmuhan, Torodanali, Jhilli, Golagadia, Paliahara, Kamakhyanagar of Angul & Dhenkanal districts.

Soap Stone, Steatite and Talc :-

Introduction: These are soft hydrous magnesium silicate with chemical composition $3\text{MgO}_4\text{SiO}_2\text{H}_2\text{O}$.

Occurrence :-These deposits are confined to Mayurbhanj, Sambalpur, Sundargarh, Ganjam & Dhenkanal districts. Mayurbhanj district is contributing about 95% of the total production.

Quartz & Quartzite

Introduction: The use of quartz and quartzite depend upon its silica content. Quartzite and quartz are used in the manufacture of silicon refractories, as a flux in iron and steel and ferroalloy industries, abrasive industry and also for manufacture of silicon alloys, glass and sodium silicate.

Occurrences:-Generally these are found in almost all the districts of the state except in the coastal planes (Mohanty, 1998).

Conclusion:

Now we doubt that the continuing degradation of the natural environment by exploring above- mentioned minerals poses one of the greatest challenges to modern societies. In particular all mining activities create a burden on

the environment although paradoxically at the same time the revenues gained from these activities create the basis for our well-being. Major problems include global warming, loss of biodiversity, water and air pollution, releases of persistent organic pollutants and other toxic substances and land degradation. There is an intimate relationship between mine workers and people of near by surroundings and the potential exposure to toxic substances, pollutants and wastes. Air pollution, surface water pollution, ground water contamination, devegetation and defacing of landscape, subsidence of land, occupational health hazards etc. are the major impact of mining leading to various environmental damages. Mining operations may be categorized as either surface or underground. Surface mining may be broadly defined to encompass open pit, open cast, quarry, strip, dredging and placer (hydraulic) mining. Underground methods include pillar-and-stope, shrinkage stope, block caving and longwall mining. Most mining operations (whether surface or underground) share a number of common stages or activities, each of which have potentially adverse impacts on the natural environment, social and cultural conditions, or the health and safety of mine workers.

Expansion within the mining and metallurgical sector leads to the development and economic growth of our country. The products of the sector (including metallic and non-metallic minerals, construction materials) are not only essential for construction activities and many industrial processes, but are also often a valuable source of foreign exchange earnings. However, mining operations frequently involve a high degree of environmental disturbance, which can extend well beyond the extent of mineralized areas. The environmental impacts of a mining operation

commence with exploration activities, extend through extraction and processing of minerals, and may continue post- closure of the operation. The social and environmental issues associated with mining and mineral processing operations are both highly significant and complex to manage. The fixed location of the mineralized zone of interest imposes constraints on all aspects of mining developments including the method of mining, location of mine facilities, requirements for new infrastructure and services and the suitability of waste management or disposal methods. This in turn profoundly influences the environmental, social and health impacts of mining developments, as well as the economic viability of developing a given mineralized zone. The challenges with Environment Assessment of mining projects are twofold--- firstly, to ensure that environmental, social and health costs are afforded adequate consideration in determining the economic viability and acceptability of the project; and secondly to ensure that adequate mitigation or protection measures are incorporated into project design. This requires both effective environmental legislations and enforcement by regulatory institutions, and sound environmental management practices by private and public sector mine operators. In order to minimize the adverse impacts of mining it is desirable to adopt eco-friendly mining technology. Restoration of mined areas by re-vegetating them with appropriate plant species, stabilization of the mined lands, gradual restoration of flora, prevention of toxic drainage discharge and conforming to the standards of the air emissions are essential for minimizing environmental impacts of mining in such a state like Orissa having enormous mineral potential.

Table 1 :Specification of Beach Sand Minerals and their application (Siddiqui, 1998)

Mineral	Chemical composition	Specific gravity	Major applications
Ilmenite	FeO.TiO ₂	4.67	Manufacture of titanium dioxide, production of synthetic rutile and Ferro-titanium alloys.
Rutile	TiO ₂	4.1	Coating of welding electrodes, titanium dioxide pigment, production of titanium sponge and metal.
Zircon	ZrO ₂ SiO ₂	4.68	Foundries, ceramics and refractories, manufacture of Zirconium metals and chemicals.
Sillimanite	Al ₂ O ₃ SiO ₂	3.24	Manufacture of high temperature refractories.
Garnet	3RO.R ₂ O ₃ .3SiO ₂	4.68	Manufacture of abrasives, for polishing glass/ T.V tubes, wood for sand blasting and water filtration.
Monazite	Phosphate of the Rare Earths with variable amounts of thorium.	5.10	Production of rare earth compounds, Thorium, Uranium, Helium etc.

Table 2 : Properties and characteristics of some common gemstones (Mishra and Mohanty, 1998)

Name	Composition	Colour	Moh's hardness	Specific gravity	Refractive Index (RI)
Quartz					
Amethyst	Silica	Purple	7.0	2.65	1.56
Beryl					
Aquamarine	Beryllium, Aluminium, silicate	Blue green to light blue	7.5-8.0	2.63-3.80	1.58
Emerald	-do-	Green	7.5	2.63-3.80	1.58
Heliodor	-do-	Yellowish green	7.5	2.63-3.80	1.58
Corundum					
Ruby	Aluminium oxide	Rose to deep purplish red	9.0	3.95-4.10	1.78
Sapphire	-do-	Blue, Light Yellow	9.0	3.95-4.10	1.78
Diamond	Carbon	white, blue, white, pink yellow, brown, green	10.0	3.5	2.42

Iolite	Al, Mg silicate with Iron	Gray, light or dark blue, violet	7-7.5	2.53-2.65	2.54
Chrysoberyl					
Alexandrite	Beryllium aluminates	Green by day and red by artificial light	8.5	3.5-3.84	1.75
Cat's eye	-do-	Greenish to brownish	8.5	3.5-3.84	1.75
Feldspar					
Moonstone	Alkali aluminium silicate	White	6.0-6.5	2.77	1.52-1.54
Garnet	Complex silicate	Brown, black, yellow, green, ruby red, orange	6.5-7.5	3.15-4.30	1.79-1.98
Topaz	-do-	White, blue, green	8.0	3.4-3.6	1.62
Tourmaline	-do-	All including mixed	7.0-7.5	2.98-3.20	1.63
Zircon	Zirconium silicate	White, blue, brown, yellow, green	6.0-7.5	4.0-4.8	1.79-1.98

Table 3 : Gemstone and their associated rock (Mishra and Mohanty, 1998)

Name of the Gem Stone	Host Rocks
1. Ruby and sapphire.	a. Contact of pegmatite and ultramafic rocks. b. High grade pelitic (kyanite-sillimanite) schists c. Nepheline syenite d. Cordierite-sillimanite-garnet schists and Paragneisses.
2. Emerald and Aquamarine.	Contact of beryl bearing pegmatite with ultramafic rocks.
3. Alexandrite and Chrysoberyl cat's eye.	Pegmatites in Khondalite suite of rocks.
4. Rhodolite, almandine and uvarovite garnets; fibrolite cat's eye iolite.	High-grade pelitic schists.
5. Amethyst, topaz, aquamarine, heliodor, tourmaline, moonstone, labradorite, microcline.	Pegmatite.

**Table 4: Gemstones and their district wise location in Orissa, India
(Mishra and Mohanty, 1998)**

Location	Gem stone
Angul District	
Magarmuhan - Jhilli Nuagan	Quartz, Garnet
Sambalpur District	
Chabhati-Beldihi	Aquamarine, heliodor
Bagdhapa- Tabloi	Aquamarine, garnets
Meghpal-Ranchipada	Garnet, green tourmaline, aquamarine
Deogarh District	Hessonite
Jharsuguda District	Green tourmaline
Bolangir District	
Ghuchepali-Antarla	Emerald, topaz, heliodor and aquamarine
Ghumsar-Dehli	Chrysoberyl and Cat's eye
Muribahal- Tentelkhunti	Orange, brown and yellow colour zircons, topaz and amethyst
Saraibahal-Suklimuri	Green beryl, aquamarine, heliodor and amethyst.
Naktamunda-Siali	Rhodolite garnets.
Subarnapur District	
Badmal-Mursundi	Greenish blue to sea blue aquamarine.
Binika-Sonepur	Garnets, topaz, Cat's eye.
Boudh District	
Boudh-Ramgarh	Cat's eye, topaz, zircon, moonstone, agate, diamond.
Kantamal-Manmunda	Garnets, topaz, iolite, tourmaline and diamond.
Kalahandi District	
Jilingdhar-Hinjlibahal	Ruby.
Orhabahala-Urharanga	Iolite.
Ghatpara-Singiharan	Hessonite garnet and zircon.
Sirjapali-Tundla	Cat's eye.
Banjipadar-Sargiguda	Blue opaque corundum, apatite, aquamarine.
Nawapada District	
Sardhapur-Patialpada	Blue iolite and fibrolite.
Katamal-Babebir-Amera	Yellow sapphire.
Damjhar-Burhapara-Mantritarai	Almandine garnets, iolite.
Rayagada District	
Paikdakulguda-Hatamuniguda	Cat's eye.
Irkubadi-Tarhama	Sillimanite Cat's eye.
Karlaghati-Karanjurha	Chrysoberyl.
Phulbani District	
Bargochha	Tourmaline.
Belghar	Cat's eye.

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Reminiscences

An Encounter with Flood of 1980

Gopinath Mohanty

It was raining cats and dogs for several days. In that evening we were holding a farewell feast in Cuttack Tahsil Office in honour of Sri J.A.Khan, ex-Tahasildar, Cuttack. Sri Arakhit Mallick, OAS(I), the then ADM of undivided Cuttack district and Sri Goura Govind Das, SDO, Cuttack Sadar were also among the invitees. The ADM wanted to know if I had been drafted for flood duty. I said 'Yes' but further added that I was not in a position to move outside Cuttack due to my pressing personal circumstances; as my wife was in an advanced stage of pregnancy at that time. I had been transferred from Salepur Tahasil a fortnight back to join as Additional Land Acquisition Officer in Cuttack Collectorate. I had shifted my family from Salepur and we were staying in my in-law's house in the Cuttack town.

I was sad about this flood. My poor state Orissa has no respite from the ravages of natural calamities during the past decades. The economy of the State has been caught in a vicious cycle of cyclone, drought, flood and tornado, visiting this unfortunate land one after another almost every year as a matter of routine. The development of the State has been severely retarded on account of these natural calamities, which have been inflicting heavy tolls of precious lives and property time and again. Only a year back i.e., during 1979-80 the state has faced an acute drought situation that affected more than half of its total

area and inflicted crop loss valued at Rs.21,000 million. Out of 3,820 Gram Panchayats covering 50,854 villages in all the 13 districts of the State, as many as 26,239 villages under 2,609 Gram Panchayats have suffered crop loss exceeding 50 percent and were declared as 'drought affected area.' A comprehensive drought relief programme has been taken up and it is still in operation. Now when the state is just in the process of recovering from the serious losses caused by the drought situation, "Nature's Fury" in shape of flood has struck again.

It came with the heavy rains in Madhya Pradesh and the upper part of Hirakud reservoir. The first phase of flood occurred in the Mahanadi system following heavy rains in the upper and lower catchment areas of the river Mahanadi from 9th September 1980 causing breaches in the embankments of the Luna and Rajua, the branches of the River Mahanadi, it inundated low-lying areas in Puri and Cuttack districts.

The situation worsened further by the second phase of the flood which commenced with the depression in the Bay of Bengal on the 16th September. The cyclonic storm crossed the coastline of Orissa between Puri and Chhatrapur and proceeded along the basin of Rusikulya and Vansadhara and reached the Mahanadi catchment area by the 17th September. The frightening

feature of this depression was that it intensified after entering the landmass effecting extraordinarily heavy rains in the districts of Ganjam, Koraput, Phulbani and Balangir and the areas around Raipur in Madhya Pradesh (present Chhattisgarh). It led to unprecedented flood never witnessed before in the river Vansadhara from the 16th to the 18th of September and further aggravated the flood situation in the Mahanadi system from the 19th to the 24th September, 1980.

The cyclonic storm of the 16th September that brought about heavy down pours both in the upper and lower catchments of Hirakud reservoir caused the level of the reservoir to rise rapidly thereby substantially increasing the outflow. This led to unusually high flood in almost all the branches of river Mahanadi in the districts of Cuttack and Puri. The protective river embankments were breached at several places submerging vast areas of cropped land and marooning a large number of villages. The heavy rains also caused rivers and hill-streams in the districts of Kalahandi, Balangir, Balasore, Phulbani, Sambalpur and Dhenkanal to rise very high and wreck havoc in many areas in these districts.

Government had warned about the expected flood. The news was broadcasted through AIR and the district administration had made all prior arrangements to meet the challenge. district-level officers had been drafted for deployment in strategic locations to meet the eventualities prior to the incidence of flood. Every one was apprehensive about the impending danger.

Rains continued for over a week. Towards the evening of that fateful day its intensity was abated, but floodwaters came rushing in the Mahanadi and the Kathajodi Rivers. The situation

became alarming for the people of Cuttack town who could not sleep in that dreadful night. They were moving in groups. Local volunteers were assisting the district administration to stop seepage of water through river embankment constructed by Markat Keshari at the behest of legendary Baimundi, an illiterate farmer having profound foresight; that was more than 500 years back.

I was one among them. I had been moving with Collector and SDO during the whole night. Sri P.K. Hota, IAS was the Collector. He was young and dynamic. He was on his toes throughout the night, monitoring the efforts made by the Engineering Department and the local residents. There was general euphoria of togetherness and community's involvement. I felt, if such sentiment had not have surfaced, there would have been several breaches in the embankments wrecking havoc in Cuttack town. Thank God ! Cuttack town could be saved, but there were several breaches in Jagatsinghpur subdivision. As a result the floodwater started receding near Cuttack town. The first breach occurred at about 2 A.M. in the night.

I came back to my house at about 4 A.M. and took rest. The next day I went to the Collectorate by about 9 A.M. and found the Emergency Officer on his chair. The Collector was also in his chamber. I sneaked into his room to know what was going on. He was alone and looking at some papers. When I entered into his room he looked at me, thought for a moment and asked very courteously, if I could help him a little because, he was aware of my personal problem and had been kind enough to exempt me from flood duty. I answered, "Yes Sir". Then he said, "Army has already moved to Jagatsinghpur last night for undertaking relief and rescue operation. But they could not take a bamboo truck with them.

You can go to them in a jeep along-with the bamboo truck and then come back to Cuttack.”

Carrying out the order, I proceeded to Jagatsinghpur and reached the SDO's Office at 11.30 A.M. Sri B.K. Das, SDO was well known to me. Recently we were working in the same station, Salipur where he was holding the post of Consolidation Officer. After being promoted to Junior Class (I) rank, he came to Jagatsinghpur as the SDO about two months back. He was gem of a person, soft spoken and a fine gentleman. He was affectionate enough to treat me as his younger brother and I had reciprocated by paying him due respect. I was delighted to meet him and let him know that I had come with the bamboo truck.

I opened the door of his office chamber. He was sitting facing the door. He saw me and smiled briefly. He was happy and welcoming me in his usual way. But he was not alone. The room was overcrowded with people; about twentyfive of them, demanding for immediate rescue and relief measures in the flood hit areas. More and more people were coming in and no body was leaving. The atmosphere was tense and noisy. Every body was presenting his case forcefully, and the SDO was listening patiently. He was at his wits end.

Cutting across the commotion I made my way to him and informed him about the purpose of my visit. When I sought his permission to return, he requested me to stay with him for some time. I could not leave this gentleman alone in this tense situation that was going down from bad to worse with every passing moment. There was never ending flow of demanding visitors to his chamber. After sometime an angry man called Gunduri appeared in the scene. He was middle-aged, wearing a *khaki* half pant and holding a short *lathi* in his hand. He started shouting ‘Sir, we have got

a message that about one hundred fifty flood affected persons who were taking shelter in a nearby telephone exchange in Mandasahi, a G.P. headquarters, have been washed away. If this news is found to be true, then we will not spare anybody’. Then he struck his *lathi* on the floor with force.

Though SDO answered coolly that he would look into the matter it could not pacify the crowd. There erupted a mass yelling. The atmosphere was charged with tension and I thought there could be a clash between the administration and the irate mob at any time.

The SDO was desperate and helpless. I took a quick decision to come to his rescue. I had to act fast to handle the situation tactfully. I immediately ventured to go to the backside of the SDO, lifted the telephone receiver and asked the exchange to connect me to Mandasahi telephone exchange. The operator tried but informed me after some time that there was no response. I insisted that he should keep on trying till it was answered. Thank God, there came an answer after a long gap. A feeble sound informed that the ground floor of the telephone exchange building had already been flooded. There was knee-deep water on the first floor, but every body was safe and he implored for rescuing them.

This SOS message dampened the tension inside the room and everybody looked at me with interest. This pushed me to the center stage where I found myself acting and taking decisions in consultation with the SDO. The most important decision was to go for rescue operation alongwith the army who were sitting there idle since the last night. No order was communicated to them to move anywhere.

There were several breaches at different points and vast areas were inundated. The first breach that caused widespread havoc was near

Mandasahi. Local leaders were pressing hard for deployment of army in their respective areas.

But I decided that the army boat would go to the worst hit Mandasahi for rescue operation. I would be supervising it. We were ready by 4 P.M. to start the rescue operation.

When I came out and met the army people, I found them hungry. They had not taken breakfast or lunch, because nothing was practically available in the local market. I managed to buy some bread and banana. On the way to the breach site we took bread and banana. We had to cover about 15 km. to reach the site. I was stupefied when I saw the vast areas under inundation on one side of the river embankment and on the other side, vast stretches of green paddy fields. The army men jumped into action. Pulling out their boats from trucks they rushed to rescue villagers who had taken shelter on rooftops, trees or nearby hillocks.

It was a moving sight. Many people were there on the river embankment. Several families had come there previous night after getting warning about the flood. Interestingly, we were not first to reach the marooned people. Relief workers from a daily news paper were already there with relief materials. Some of them had started rescuing the marooned people. A young lady in her early twenties came and implored me to send the army boat to rescue her father who after leading his family to the safety on the embankment had returned to his house to fetch some food materials. He could not come back as by that time water level had increased. Nothing could be done. The whole area was submerged. There was no visible sign of the man or his village.

The dusk came followed by darkness. The unfortunate survivors were struggling to keep their body and soul together inside the marooned area. It was not possible to continue the operation in

night time. Army men wanted to bring back their boats, and I prevailed over them to keep those boats there as we were scheduled to start the rescue operation from early morning on the day following.

All of us returned to our camp at about 8 P.M. I found the SDO still glued to his chair, discussing with people. Then I came to the Inspection Bungalow and found Sri M.M. Mohanty, OAS (I), ADM, Cuttack who was getting ready to return to Cuttack. He was camping there since the previous night to help the SDO. He was going to apprise about the exact situation to the Collector. After getting refreshed I saw the SDO in his office and with his permission left for Cuttack by 9 P.M.

I reached the Cuttack Collectorate around 11 P.M. and found the Collector personally counting the rice bags stocked in the Collectorate. Seeing me, he collected all information about Jagatsingpur. At the same time, he asked me, how things could be made better there. I answered; 'Sir, Sri Das is a very good officer, but since he is new to the sub-division, it would be better, if some old officers who had the experience of working in the subdivision could be sent there to help Sri Das.' I also suggested two names i.e. Sri K.C. Patnaik OAS (I), working as Secretary, Greater Cuttack Improvement Trust and Sri Chaitanya Prusty, working as Under Secretary at Bhubaneswar.

He thought over it and then rang up his house to say that it would not be possible on his part to come for the dinner. He politely told me to go home for dinner, and asked if I could be available to accompany him to Jagatsinghpur that night. I agreed and then came to my in-law's house for dinner.

When I returned at about 12 P.M., I found the Collector sitting for his dinner there in the

Collectorate. In his company were Sri K.C. Patnaik and Sri P.K. Senapati, IPS, the then SP, Cuttack. We left the Collectorate at about 1 A.M. in the night and halted in Nayabazar. There the District Civil Supply Officer. Sri Ashutosh Das was supervising loading of relief rice on the trucks. After the loading was completed we left Nayabazar at about 2.30 A.M. in the night along with seven truckloads of rice. We reached Jagatsinghpur SDO Office at about 4.30 A.M. in the morning.

We were ready by 6.30 A.M. Late Basudev Mohapatra, the then Minister of Agriculture, who represented the Balikuda Assembly Constituency arrived there by 7.00 A.M. in the morning. We started distributing relief.

The matter went off smoothly. Suddenly some message was received about another imminent breach at some point of the embankment, as there was seepage. Since no local officer was available I was asked to proceed to the site, arrange sand bags to stop seepage. With the help of Executive Engineer. Irrigation and I left by 11.30 A.M. Reaching the spot I did whatever I could. Then I went to Machhagaon to see the conditions there. I was appalled to see the low lying land area inundated. The scene was awesome. It looked like a sea. I found a Revenue Rest shed there, went into it, brushed my teeth, took my bath and came out by 3.30 P.M. As there was nothing to do, I came back to Jagatsinghpur. Reaching there by 5 P.M., I found Collector and other officers taking their lunch in the Revenue I.B. I was hungry too, for going without food since morning. I sat down for lunch soon after they had finished their's.

In the evening Collector was busy in giving his last instructions, because tomorrow he would be going to Kendrapara, which was also badly affected by the flood. He called me by 8 P.M.

and requested me to stay back for some days to help the SDO. I then learnt that Sri K.C. Patnaik already had one stroke then and there. He too asked the SDO to manage the crisis with courage and dedication. He further added. "I am leaving Gopi to assist you. Whatever he says, you just okay it and everything will be fine." That night I had to return to Cuttack to fetch my luggage.

Next day I reached Jagatsinghpur by 10 A.M. I picked up the command of relief and rescue operations with the SDO in my side. I systematically arranged shift duty and introduced the feed back system. Since the calamity was widespread and devastating, the State Government acting upon Collector's recommendation deployed senior officers in the rank of Jr. Class-1 and Sr. Class-1 to take charge of different Block areas. One Sr. Class-1 officer was in charge of Biridi block. Sri K.K. Patnaik, Ex-SDO, Jagatsinghpur and Under Secretary of a Department was in charge of Balikuda block. Three senior officers were kept in charge of three worst affected blocks and all of them were reporting to the SDO. I was coordinating their activities and handling their affairs creditably.

Collector came again on regular visit after 3/4 days, went to the affected pockets in a motorcycle, assessed the magnitude of loss, reviewed the relief operation and expressed his satisfaction.

After about 4/5 days I went around the worst affected pockets in the company of a photographer to take photographs of devastation caused by the hungry flood. The picture was gloomier than what the media could capture. With scores of reporters hunting out every possible news story the disaster turned more into a media event than a real human tragedy.

This super flood of 1980 had badly affected a population of 2.9 million in 10 out of the 13

districts of the State. It inflicted heavy casualties. As per the official estimates, 82 precious human lives and 10,160 livestock costing Rs 19.00 lakhs were lost, 130,981 dwelling houses costing Rs.9.05 crores were damaged, 6,865 hectares of fertile farmland were sand-casted and valuable public infrastructure worth of about Rs. 65.23 crores was damaged. It was a nightmare.

On the seventh day of the outbreak of the flood, the Central Team visited the flood-hit areas. They first came to Kendrapara Sub-division and Jagatsinghpur came next in their itinerary. They arrived at my station just before the evening of 10.10.1980. No body was expecting them at that time but I had anticipated that it might happen. I was ready with a big and powerful flashlight. It was dark all around when the Central Team visited the spot. They were satisfied with what we did for bringing rescue and relief to the needy, battling nightmarish logistical obstacles. They left the Sub-divisional Headquarters about 8 P.M. in the evening.

Soon after the Team's departure Collector called the SDO and me. He told the SDO, "Mr. Das, You are back to your chair." He profusely thanked me for effective monitoring and management of the crisis and further told me. "Now you can go and join your family".

I was staying there in the house of Sri Jitendra Mohanty, my friend who was working as the Sub-Registrar of Salipur. His wife was a lecturer in the Jagatsinghpur College. They were happy to accommodate me in their house. I was practically working for more than 16 to 17 hours daily. Sri Das, the SDO was also working with little food and rest. I was told later that he suffered for more than three months after flood operations were over.

I immediately came to my friend's house, picked up my luggage and returned to Cuttack

by 11.30 P.M. My wife had already been admitted to SCB Medical College Hospital for delivery. I rushed to the hospital cabin allotted to my wife. But by the time she had been taken to the labour room. I felt tired and exhausted. Hard work and sleepless night had strain on me. It had gone beyond my endurance. I felt tired and exhausted. I felt, I could take it no more. I badly needed some rest for atleast a few minutes before going to the labour room to see her. She was also expecting me till the last moment. I could not just make it. I thought I could rest for a while in her bed in the hospital cabin, but immediately fell fast asleep. No body also disturbed me. When I woke up at about 2 A.M. in the night, I saw smiling faces around me. Then came the good news; I was blessed with another son. It was God's gift. Perhaps he has rewarded me for my hard work and selfless service for the suffering millions, I thought. I thanked God for his Kindness.

Afterwards my wife always chided me that I did not bother for her in her critical moment. She alleged that I took my profession as my first wife putting her in the second position.

It was a moment of reckoning. Stray thoughts crossed my mind. I knew, I was novice in the art of administration with only five years experience to my credit at that time. But by God's grace I found myself daring and taking prompt decisions in the moment of crisis and this was useful to me to handle the complex problem even though I was a stranger not only to the area but also to the people of Jagatsinghpur. Perhaps my "stranger value" helped me to take impartial decisions against so many odds and particularly in dealing with the clamouring crowds shouting and demanding action in their favour. I was determined to do all I could to manage the disaster and tide over the crisis.

Later, when I came across Mr. Hota, the then Collector, he remembered those fateful days

and recounted the reminiscences. I had seen him moving in the flood affected villages by moter bike when roads were damaged, telephone lines cut off and communication channels blocked making the relief works a Herculean task. His quick decisions in this emergency situation could save many precious lives and property. He is endowed with the gift of taking right decisions at the right moment. I know it was his dynamism that inspired me to jump into the eye of the storm and come out with flying colours.

For me it was a mission accomplished. But it was not the end of the road. The disaster had left a trail of devastation. After the immediate task of rescue and relief there would come the difficult phase of rehabilitation and reconstruction in order to enable the affected people to pick up threads of life afresh. They were to be brought back to their routine of old familiar life.

Disasters can rip away social moorings and worsen the prospects of a society's existence. It may act as a unifying force if the right amount of goodwill exists.

Those days have remained fresh in my sweet memories. We the government officers live with the memories of such small achievements. But it may look remarkable when viewed in the context of saving human life and wealth against heavy odds. Yet, looking beyond the immediate occurrence, there are some crucial lessons to be learnt.

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A luxury bus VALVO of OSTRC has started its service from Bhubaneswar to Rourkela on 28-4-2006.

Glimpses of "Performing Art" Heritage in Orissan Inscriptions

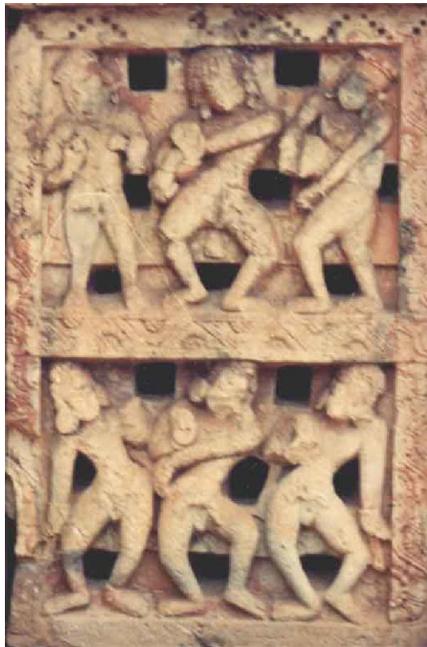
Dr. D.B.Mishra

The reference of "Performing Art" heritage in the vast corpus of earlier Orissan inscriptions, except the Hatigumpha inscription of Kharavela (1st Century B.C.), is almost absent. However, the Hatigumpha inscription provides us with a fairly good idea about the practice, nature and development of music, dance and dramaturgy. No other record of Orissa thereafter till the advent of the Somavamsis in mid-9th Century A.D. makes even a stray allusion to it. It were the inscriptions of the Imperial Gangas to a great extent and those of the Gajapatis to a reasonable extent shed welcome light on the advancement of the art. In fact, the inscriptions of the imperial Ganga and Gajapati kings (circa 11th-16th century AD.) contain profuse references to various strands of the art which if interpreted and dealt with in an in-depth manner, with the support of plastic art and literature, may bring out the attainment of our ancestors in that regard by tracing the evolution down the ages.

The Hatigumpha inscription.¹ One of the earliest lithic records of early Christian time

(assigned to 1st Century B.C.) refers to the arrangement of festivals (*usava*) and social congregations (*samaja*) along with performances of acrobatism (*dapa*), dance (*nata*) as well as

vocal (*gita*) and instrumental (*vadita*) in the capital city (*Nagari*) in third regnal year by the Emperor Kharavels, who himself was well-versed in the art of music (*Gandhava-Veda-Budha*). The capital city was described as playing, as it were, with the performances. The reference of the patronage of the Emperor and its popularity among people is amply corroborated by three contemporary panels of dance-scences of Khandagiri-Udayagiri. The most enjoyable of them is the one in the lower storey of Ranigumpha in which



the danceuse expresses the purport of the song by a posture (*mudra*) with her right hand while stretching her left hand which is adorned with armllets and bracelets. She has bent her right leg in a pose in which the fingers of the feet touch the ground. The beatific smile on her lips and the jubilantly expressive eyes, the two strands of hair-plaits on the sides of her back, the rhythmic ups

and downs of the necklace and the anklets on the legs lend a rare glamour to her deportment and performance. She is accompanied by four female figures- one playing on the flute (*venu*), another on a many stringed harp, the third a *mrdanga* and fourth a *dhakka*. The stage performance is, in deed, a unique piece of performing art. It was said to have been performed on a stage.

A similar scene of dance is carved in a cave of Aurangabad (Maharashtra). The daughter of Mara is found dancing in front of Buddha while four female musicians accompany her in various musical instruments. N.K. Sahu² is of the view that both the art of Aurangabad and Khandagiri-Udayagiri are contemporaneous and that the music of Kalinga had spread to the Deccan in the reign of the Satavahanas.

The second scene of dance, found in the upper storey of Ranigumpha, with two women dancers and three with musical instruments, is performed in an open-air theater, in contrast to the earlier panel which exhibits a special stage. The fact that it has been witnessed by the Empress and another royal female personage, probably the guest of honour of the occasion-exhibits the love and the patronage of the Emperor for dance and music.

The third scene of dance found in the Totua Gumph (No.2 of Khandagiri) represents a man playing on a vina (lute) while the girl dances to the rhythm of the music with her left palm upraised and right hand downwards in a dramatic pose.

Further, the reference 'Tauryatrika' (Music, Dance and Drama) Hatigumpha inscription speaks of the heritage of performing

arts since very early times anterior to Kharavela's reign. It may be pointed out in the context that we have come across four types of musical instruments, viz., Tata-Vadya (many stringed harp, harp played by plectrum and lute), Vitata-Vadya (mridanga, dhakka), Sisira-Vadya (venu or flute) and Ghana-Vadya (cymbals or Manjira). Further, in the musical concerts the role of the vocalists in setting the tune of the music for Svara (musical notes), Tala (time-measure) and pada (significant words) appears to be crucial. It may be pointed out that 'Gandharva Veda' has

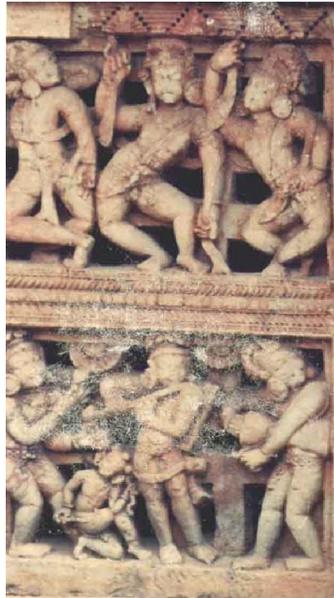
been defined by Bharata Muni³ (who has been variously assigned a time between 3rd-2nd Century B.C. to 3rd - 2nd Century A.D.) in his *Natya-Sastra*, the earliest available treatise on music and dramaturgy as the happy blending of Svara, Tala and Pada. Some of our present critics interpret that

Gandharva did not include dance in its fold as the latter is basically an imitative art in as much as it endeavours to convey to the spectator either singly or combined - form, an object, a situation, a feeling or a mood contained or depicted in a song

*which it follows, or independently when dance goes sans song. As such, it is at least partly a spatial art fundamentally different from music, in its pure form, is an art in time.*⁴

The reference of "Gandharva-Veda-budha-dapa-nata-gita-vadita" has many significant connotations. First of all, as pointed by Sri D.N. Patnaik,⁵

..... Odissi music, in its earliest form, was a type of music devoid of dance and was conforming to the ideals laid down in the



Bharata Natya Sastra, in case this Sastra was compiled at a time earlier than the said inscription. Considering the hoary antiquity of the Hatigumpha inscription one may be tempted to think that if the Natya Sastra was compiled in the 2nd Century A.D., or still later, as some scholars opine, the conception and definition of Gandharva was an outcome of the observation of Odissi music prevailing during Kharavela's Orissa. However, during the mediaeval period, particularly during the rule of the Ganga kings who came to Orissa from Southern India the music of Orissa seems to have comprised vocal music, instrumental music and dance too. The Nata-mandapas or the dancing halls constructed in almost every Orissa temple were meant for dance and music which used to go together in front of the temple deities.

Many of the scholars are of the opinion that contribution of Orissa to the Eastern Indian music, which was known as "Odra-Magadhi" in Bharata's Natya Sastra, can not be denied. They think that Odissi dance and song has been derived from it .

Secondly, that art as referred to in the inscription and (portrayed) on the rock-shelters of Khandagiri-Udayagiri are secular⁶ in nature in contrast to those at Bharhut, Sanchi, Mathura and Bodhgaya etc. which are religious in nature. The former are meant for the entertainment of the king and /or the people whereas the latter-as in the case of Ajatasatru and Prasenjit pillars of Bharhut - depicting the dances of Gandharvas and Apsaras have been shown on the occasion of worship of Buddha's relics. The spirit of dance and music which Kharavela instilled in the lives of the aboriginals became a part and parcel of their life-style, which continues as a precious artistic heritage even to-day among them in Orissa. H. Jimmerf⁷ has rightly observed.

They represent apparently a main current of the traditional higher art of the aboriginal civilization of the sub-continent of India.

For a long time after the Hatigumpha inscription, there is no such specific epigraphic reference to dance and music till the time of the Somavamsis in mid-9th century A.D. However. The dance scenes of Parasuramesvar and Kapilesvar of 7th century A.D. clearly indicate that dance and music were popular among masses. In contrast to the female dancers and musicians of Kharavela's time, we find three male figures performing dance in the upper part and four males playing on musical instrument below the panel - in both the temples. It shows that music and dance were gradually becoming popular among males. The instruments like Venu (flute), Sringa (horn), Karatala (Cymbals) and Vudvudika were some of the popular instruments. N.K. Sahu⁸ has observed that whereas the dance-scene of Parasuramesvara is a folk-form that of Kapilesvara exhibits the traits of Bharata-natyam. He has identified one of the dancers as exhibiting Padmakosa mudra in her right hand and Gajahasta in the left, the second as in the posture of making hair-do and the third with Samdamsa mudra in her right hand. Whereas in the Parasuramesvara Temple, one dancer is dancing with two pieces of scarf in his two hands, the second standing to his right has placed his left hand on the buttock and in his right hand he is hanging a kerchief and, the third standing to the left is taking a turn of his head towards the front while facing the opposite side of the audience.

Contemporary Nataraja images exhibit a rare aesthetic and spiritual expression, what may be defined as Ananda Tandava mudra in the terminology of Bharata Muni. Charming descriptions of public courtesans (dancing girls) occur in the "Mangalacharana" portion of the Somavamsi inscriptions (Cir. A.D. 850-1100)

from the earliest dated record till almost the last. The Gopalpur Charter⁹ dated first regnal year of the founder of the dynasty, Janamejaya I Mahabhavagupta, in the description of Suvarnapura - the capital metropolis - describes the place as one "where the best of public damsels dance rhythmically to the tune of the movement of their 'Kalasa' (small water jar with beautiful constricted neck) like breasts (Vara-Vara-Vilasini-kucha-kalasa). The description becomes more conventional (Varnaka) from his 6th regnal year (Kalibhana plates)¹⁰ onwards and, has been applied to other metropolises like Murasima and Arama or Arama-Kataka as follows :

The jingling sound of the anklets on the feet of the numerous charming courtesans frightened the flocks of pigeons (who) started flying with their fluttering noise (which) deafened the tenquarters (aneka-Vara-Vara-Vilasini-Jana-charana-nupura-rava trasta-paravata-svana-Vadhirita-dasa-diso.....)

It appears that the victor Somavamsi kings brought beautiful maidens as trophies of victory from the vanquished territories and kept them in gem-studded mansions (amala-mani-krtrima-sadana) for either performing art of dance and music or for prostitution to entertain the rich and the aristocratic people.¹¹

The institution which became famous as "Deva-dasi" (literally maid of the god or temple) in Orissa is unique in the realm of performing art. It epitomizes of dance and music - which have been first alluded in 1st century B.C. and continued in Orissa till almost 20th century A.D. They were a class of special maidens attached to the temple for regular performance of dance in Orissan temples. The first of its reference, as said earlier, is found in the Ramgarh inscription¹² of 1st century B.C., or A.D. which narrates the love episode of a young painter. Devadina and a 'Devadasi'

named Sutanu. The Ramgarh hill in Sarguja district (Chhatisgarh) contains two caves, namely, Yogimara and Sita Vangira. The former was used as a residence by a cave-actress (Lena Sobhika), probably Sutanu where the inscription is found as follows:

Sutanuka nama / Deva Dasi Kyi / Tam Kamayitha valuna seye/Devadine nama/ Lupadakhe

It is important for the cultural history of Kosala. However, a specific and significant reference of 'Devadasi' has been made in the Brahmesvara temple inscription¹³ of Kolavati Devi in the reign of Uddyotakesari Mahabhavagupta (Cir.A.D. 1040 - 65). The inscriptions of Meghesvara and Sobhanesvara of the Ganga reign also contain references of 'Devadasi'.

The Brahmesvara inscriptions (Verse 15) narrates :

By her (Kolavati Devi) were dedicated to Lord Siva some beautiful women, whose limbs were adorned with ornaments set in gems and thus appearing as the everlasting but playful lightning, and who are restless with the weight of loins and breasts, and whose eyes were fickle and extended up to the ears and who looked lovely like the pupils of the eyes of men.

In the Ratnagiri Charte¹⁴ of Somavamsi king Karna (Cir. A.D. 1098-1118), a donation of land was made in favour of Rani Karpurasri, the daughter of Mahari Mahunadevi. Mahari has been interpreted a 'songstress or a dancing girl or a Devadasi or harlot by A.M. Shastri. It is an Oriya equivalent for 'Devadasi'.

There are profuse references to the community of dancing girls of the temple-service in the Imperial Ganga and Gajapati records. They were variously called Sani, Sanivaru, Sanulu,

Langalu, Kumari, Gudusani etc. The temples became the nucleus for the growth of dance, song and music. A Madhukesvara temple inscription¹⁵ of Chodagangadeva reveals that he made arrangement for a service called 'Trikalinga Bhoga' with provisions of maintenance for dancers, musicians and vocalists. Besides, his Narendrasvara inscription¹⁶ and his general Vanapati's inscription of the Bhagavati temple of Dirghasi¹⁷ state the arrangement of dance, music and dance-hall. It may be pointed out that 'Nata-mandapa' (dance-hall) became an important additional feature of the Orissan temples from Ganga time onwards. Anangabhima II employed Devadasis for dance and music in Meghesvara and Sobhanesvara temple as known from the inscriptions of the respective temples. A Simhachalam inscription¹⁸ informs us that Narasimha I's general Aktai erected the Natyamandapa of the temple in Saka 1160 (1238 A.D.) and the king appointed one hundred of "Kumaris" to sing in the temple.¹⁹ Narasimha Bharati Sripada, the great Vaisnava saint and exponent of Madhava Mahavada arranged for 'Nama Samkrittana, at Simachalam with two flute-players and eight musicians as known from an inscription dated Saka 1281.²⁰ Whereas Govinda Jiyana also arranged for 'Nama-Samkirttana' according to the rules of Oriya Sampradaya in the temple in Saka 1312.²¹ Pandita Dasa, Narasimha II's minister appointed two female flute-players and ten singers in Srikurmam.²² Narasimha III's queen Gangadevi appointed a group of eighteen musicians as revealed from an inscription of Saka 1272.²³ Many more instances may be quoted from the Ganga inscriptions in this regard.

Sanivaru or Sanulu community of dancing girls (Nrutyangana) belonged to both Sudra caste as well as to respectable families whereas a Simachalam inscription refers to the former,²⁴

another inscription of Srikurmam refers to 30 daughters of some Nayaka family dedicated to the Lord.²⁵ The Panchadharla record²⁶ describes that the daughters of Narasimhadeva, the Chalukya ruler of Elamanchalli, by his Bhogastri (concubine) were made Devadasi and an inscription of Simachalam²⁷ states that daughter of Arjunadeva of Oddadi was dedicated as a temple servant. C.V. Ramachandra Rao²⁸ has observed:

In the medieval society, they were assigned a respectable place in the social order, and their profession did not carry any disapprobation with it. With all the disapprobation that it may earn from the puritan critics of the present day, the institution of dancing girls did the greatest service to the arts of dance and music by its single minded devotion to those arts.

The courtesans of the Later Imperial Gangas and the Suryavamsi Gajapatis were known as "Sampradaya-Mubhari" or "Lanjalu" (fully dedicated to temple service) and "Sanulu" (part-time employment).

It is interesting to note that there was a Telanga community of dancing girls in the Jagannatha temple of Puri. Gajapati Prataparudra who himself has been adorned with the title of "Sangita Sahitya Samlapa" has issued a command in an inscription dated 1499 A.D. that all the groups of dancers, including the Telanga girls should henceforth dance only with the chanting and Tala of the Gita-Govinda²⁹ (by Jayadeva). He has further ordered in an inscription of Anka 430 that music and dance of Gita-Govinda should continue in the temple from the evening rituals (Sandhya dhupa) till the 'Bada Singhara', so that other concert group, viz., 'Bada Sampradaya', 'Puruna Sampradaya' and 'Telanga Sampradaya' could learn the music and the dance forms of Gita-

Govinda. A stipulation that if any 'Parichha' would arrange any other music or dance (other than that of Gita-Govinda) he would sin against Lord Jagannatha - was appended in the inscription. The reference of a 'Bada Sampradaya' is also found in a Jagannath temple inscription of Govindadeva (A.D. 1534-46).³¹ Similarly, the reference to 'Natua Sampradaya' is found in a number of inscriptions.³² Very interesting information about composition of temple orchestra are gleaned from the Simachalam inscription (Saka 1272)³³ of Gangadevi, referred to earlier. The troupe or choir of 18 consisted of 8 dancers (patralu), 2 drummers (madatikatyelu), 1 vocalist (gayani) one woman each for the instruments viz., a flageolet (tukinamu), a conch-shell (sankhu), a Kettledrum (avarjamu), drum (bheri), a blow-pipe (mihvuri), Brahmamihvuri, a kind of trumpet (kahali); besides a pair of women with bronze cymbals (Kamsya talamu) who were not counted in the repertoire. Similarly, a repertory in a Srikurmam inscription³⁴ of a governor (Daksina Desadhikari) of Narasimha II, consisted of 30 dancing girls (sanulu), 1 choreographer (mattuva), 6 drummers (madylakandru), 1 kettledrum beater (avajakadu), 1 Karadakadu, 1 kahalakadu and a leader of the troupe (melunayakudu).

It appears that all and sundry were not admitted into the community of 'Sanulu' or 'Devadasi'. The inscriptions repeatedly speak about the beauty and the dancing-girls as 'Yosita sundarangi',³⁵ 'lavanyaguna sampanna'³⁶ and praised for their faces as resembling the moon (purnacandranana)³⁷ and for eyes as 'Vama vilocana'.³⁸ Very likely, before their entry into the dancing community they had to take lessons from eminent Gurus, as in present day, some of whom were attached to temples or royal courts, like Ranganatha Vaggeyakara who had been decorated with various titles, such as, 'Abhinava Bharatacarya' (a brand-new preceptor like the

illustrious Bharata, the composer of Natya Sastra), "Cappannam Beyakara (Versed in 56 ragas) and 'Todaramalla' (A honorific title, a badge) in the Simachalam temple inscription dated Saka 1343.³⁹ Further the inscriptions mention about 'nattuvass' or choreographers who were maintained by the donations made by the people to the temple treasury.⁴⁰

By the time of Kapilendra Gajapati, it may be pointed out in the context, that about 80 musical instruments had been in use as revealed by the Sarala Mahabharata of Orissa. The climax of musical attainment was attained in the reign of Prataparudra Gajapati who both patronized and practiced music in his reign. As pointed out earlier, like Samudragupta who took the title of Kaviraja, he took the epithet of 'Sangita-Sahitya-Samlapa'. Chandrika Devi, daughter of the Ganga emperor Anangabhimadeva has been described as an adept in dance and music in the Ananta Vasudeva temple inscription.⁴¹ The ministers, nobles and high officials vied with one another to attain personal excellence as well as in extending patronage to dance and music. Mention may be made of Narayana Senapati (Simachalam inscription, Saka 1213)⁴² who provided 5 nibandhas of money to 2 male singers and 4 female singers. The Brahmin minister of Odaddi was known as 'Sangita Ratnakara'.⁴³ Pratapavira Gangaraju, a feudatory of Gangas in Janturunadu has been described as a 'Sarigitajna'.⁴⁴ One Krisnadedva is decorated with the title "Sangitabodhi Chandra"⁴⁵ (the moon in the ocean of music). Narasimha VI's queen Uttamadevi's uncle Tammana is mentioned as "Talambudhih" (an ocean of musical-measure).⁴⁶

The foregoing discussion reveals that Performing Arts, as in present time, was very popular in ancient and mediaeval ages. It is unfortunate that no treatise of early times on music

and dance forms of Orissa has been available. However, references are available in such medieval literary works as 'Ekamra Purana', 'Svarnadri Mahodaya', 'Durgotsava Chandrika', 'Parimala Kavya, Dandi Ramayana, Sarala Mahabharata, Kavi Kalpadruma, Rasa Kalpadruma etc. However, the poses and the postures of the dancers, the musical instruments portrayed on the caves and temples, the references to various types of communities, the patronage of kings and royal personages and, the institution of Devadasi, go a long way to depose the attainment in the field.

The epigraphic references, corroborated by plastic art, suggest that present tradition of classical dance and music is the "outcome of continuous evolutions". Bharata Muni very likely standardized Indian dance and music on the basis of geo-musical significance into 4 types, viz., Avanti, Dakshinatyā, Pancali and (U) Odra-Magadhi. The last one, named after Orissa-Magadha or the Eastern Region has been classified into 32 Melas on the basis 'Ragas' on genus-species 47 like Dhanasri, Kokila, Asavari, Mahallara, Todi, Bhairavi etc. and 14 Talas like Adi, Jati, Eka, Jhampaka, Rupaka etc.⁴⁸ and 15 varieties of composition styles (Paddhati) Viz., Sri Gita Govinda, Divya Manusi Prabandha, Bhajana, Janana, Champu, Tribhanga, Vyanjani etc. set to Ragas and Talas. Oddisi is a variant of Indian classical music and has evolved from the Odra-Magadhi.

As regards dramaturgy⁴⁹ 'Anargha-Raghava Nataka' by Murari Mishra (8th/9th Century A.D.), the oldest available, was performed at Puri on the occasion of the Yatra of Sri Purusottama. Prabodha Chandrodaya by Krsna Mishra (mid-11th Century), 'Chandrakala' by Viswanatha Mahapatra, 'Parasurama Vijaya' by Kapilendradeva (1435-66); Gajapati

Prataparudra's 'Dasagriva-vadha' and 'Janaki-Pramoda': Dibakara Mishra's 'Parijata-harana', 'Veni-Samhara, 'Prabhavati'; "Sri Jagannatha Ballabha" by Ramanand Raya etc. were some of the significant compositions, and were probably played on stages or in open-air. In the context, Damodar Hota⁵⁰ has pertinently observed

All these dramas embellished with musical colour bespeak the continuity of the tradition of Udra form, of Classical Music in Orissa. "Sri Jagannatha Ballabha Nataka" by Raya Ramananda can be taken as a bright example to prove this fact; the songs we come across in this work, are in the form of 'Prabandhas' based on Raga and Tala'. The authors of later periods referred to this work are Krisna Dasa Badajena Mahapatra, Raghunatha Nanda, Gajapati Narayana Dev Harichandan etc. We are prompted by the above facts to conclude that 'Udra Paddhati' of 'Prabandha gana continued to flourish in Orissa till 19th century A.D. unabatedly.

In fine, it may be said that classical dance and music grew from early Christian time from the Cave-palace of Kharavela and continued down the ages till 16th/17th centuries A.D., particularly in such famous temples as Simamchalam, Srikurmam and Jagannatha with patronage of the royal and religious personages and loving participation of the people. The temples proved to be the veritable cradle of the dance and the music whereas open-ground and stages proved to be the theater of operation of the plays. These performing Arts grew luxuriantly in Orissa, contributed significantly to Indian classical forms and further flourished as one of the most advanced form and, earned name and renown not only in Orissa or India but also in abroad. The performing Arts of Orissa, with a long and hoary tradition of evolution, have proved to be a priceless artistic heritage of the country.

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Success Story

Karamula: A Village Where Tradition and Heritage Play Enterprise

Gurbir Singh

At a time when Generation X has grown almost old and its junior ilk- Gen Y is slowly taking over from it the joyous burden of carrying modernity further ahead, it is very pleasant and refreshing to set your foot in a village in Orissa where time seems to be really on a rearward journey though in a pleasant and enterprising way.

Karamula – an half hour's bus ride from Dhenkanal town takes you to this village of over three thousand people, situated calmly on the quiet bank of the perennial river Brahmani in the Gondia block of the district. The signal tower of the All India Radio Station at the nearby town Joranda stands majestically amidst the region's beautiful and ever-bestowing flora and fauna. Impressively likewise, the youth in Karamula can now serve themselves as role models of rural entrepreneurship for their counterparts in the rest of Orissa. Well, why not for the rest of India too! Many college and high school drop-outs, together with some graduates

of this village have successfully employed themselves by taking recourse to the traditional arts and tribal crafts which are fast dying everywhere in the state. Atleast they do not exist

for the educated youth who can hardly think of learning them to make a living out of them.

Pala – the traditional folk art performed in the open where a lead singer-cum-performer along with his fellow choir members narrate episodes from mythology both in song and action;

together with the antiquated, but very fascinating craft of tribal jewellery are now for many youth of this village a very successful way of self-employment. Perhaps it sounds like a bit snubbing for smart economists. But the nicest thing about the novel endeavour of these young people is that they are earning very handsomely too.

There are over dozens of *pala*-performing troupes in this village. Pleasantly four of these are



A young boy learning the craft from the old



Maguni Maharana proudly exhibiting his tribal jewelry products

mainly run by all-female members. Young, semi-educated and ambitious, these self-enterprising youths have become popular for their superb performance of *pala*. Perhaps being young, educated and smart help them steal a march over their typical,

stereotyped, old and illiterate counterparts. Each group consists of six artists and it gets paid a sum of a little over rupees one thousand for a single *pala* performance. Barring the rainy days, the groups claim to be receiving as many as ten calls for *pala* performance from different areas every month. One all female group has just been back home after a month's continuous performance in Sambalpur.

Ragunath Behera, an ex-serviceman and a *Pala*-performer himself, while frequently quoting facile *mantras* from scriptures, something which comes to him fluidly, says that this way the youth are doubly serving the society. Firstly by self-employing themselves without being a liability to the country's exchequer; secondly by preserving Orissa's rich cultural heritage for the next generation. Besides, he says, this act of bringing scriptures to common people is also an act of great virtue.

Great, but wait, for traditional art's help does not end here. There are some dozen Self-Help Groups separately formed by the young men and women artisans of the village which are dedicated to reviving and popularizing tribal jewellery in commercial markets. These artisans are not ordinary artisans. They are uncommon in the sense that most of them are young with school and college backgrounds and they are not expecting the government to provide them with jobs.

Meet Maguni Maharana, a young graduate who runs his own registered NGO, "Crafts Orissa" in his own village. He has learnt from his father their ancestral skill of tribal jewellery making. This jewellery is made of white metals, Dokra and brass. They range from earrings, necklaces, bracelets, anklets, rings and even *mangalsutras*. They are all exquisitely designed and they invariably retain the authenticity and originality of the typical tribal wear. And believe me, these jewellery are so good, cheap and exotic that people with some taste for change and tribular distinction will find them good enough for both casual and fashionable wear.

Young Maharana, together with some fifteen other SHGs in his village, gets the help of a Bhubaneswar based NGO which helps them get the raw materials from Calcutta. The supply order too is placed by this intermediary agency which markets these tribal ornaments in places like Delhi, Calcutta, Hyderabad, Pune and Madras. The good news is that these young artisans of a small village are also bringing in foreign currency as their products get marketed abroad. There are a lot of takers of these tribal ornaments among foreigners.

With more than eighty varieties of *mangalsutras*, two hundred types of necklaces and forty designs of earrings, just to count a few



A lady entrepreneur being her own model.

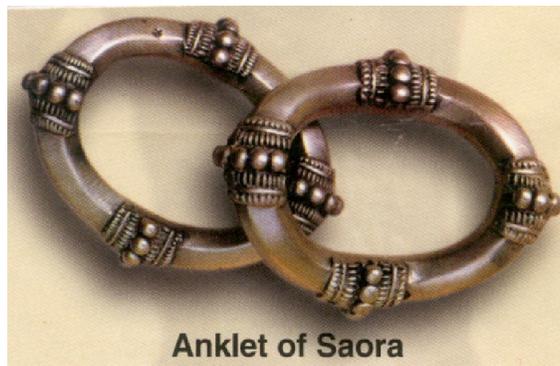
items, these tribal ornaments are definitely going to be any connoisseur's treat. And a sure inspiration for any fashion designer who has some respect for the ancient craft.

Tulsidas Sorabi, a tribal artisan from Nabarangpur has been here since last month. Three more months to go before he leaves with three other artisans of his village for home, but not before they have all learnt and mastered the craft of the intricate and exquisite designs of Dhenkanal's tribal jewelry. Beauty is that the local artisans who are now playing teachers to these outsiders had been trained by them last year back home on the making of jewellery worn by the tribal men and women in Koraput.

The synthesis of these two primitive but exquisite designs of tribal jewellery will surely bring in a new tale of successful marketing of the same in future. Innovative in its own sense, artistic and very exquisite, and yet authentically primitive, the tribal jewellery making surely stands to serve as a good business enterprise for these rural youth. But more than anything else, the charm of a youthful face gleaming with sure hope of making it on its own shows signs of change in the rural India. When everywhere else, youths from the rural area are rushing to the nearest towns and cities seeking employment, a mere attitudinal change among some youth of this village has given a new dimension to the rural entrepreneurship.

That the traditional art forms and our rich cultural heritage are playing a role in these self-employment endeavours in villages is beyond doubt a welcome news for economists and laymen alike.

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Anklet of Saora

Lord Jagannath : Symbol of Unity and Integration

Dr. Chitrasen Pasayat

The literary meaning of Jagannath (Jagat+Nath) is the Lord of the Universe. He is called Devahideva (Lord of Lords) and Rajadhiraj (King of Kings). He is also known as Purushottam (Purusa+uttama i.e. the supreme Purusa). Puri otherwise known as Jagannath Puri is the abode of the Lord of the Universe. Puri is also popularly known as Sri-kshetra, Sankha-kshetra, Purushottam-kshetra, Neelachala and Neeladri. In fact, Puri is synonymous with Lord Jagannath and vice versa. Popularly the word Jagannath has been used for Puri. In the ancient Hindu religious scriptures and *puranas* namely

Vishnu Purana, Agni Purana, Brahma Purana, Padma Purana, Naradiya Purana, Bhagavat Purana, Skanda Purana, Kapila Purana or Kapila Samhita, Tantra Jamala, Rudra Jamala, Kalika Purana, Bamadev Samhita, Neeladri Mahodaya and the like, one finds the references of this religious pitha. In the Sanskrit Ramayana and the *Mahabharata* though there are no clear and specific references to this pitha or deity, the word Jagannath has been found



mentioned in some places. For instance, Ramachandra had once advised Bibhisana to worship Jagannath. Some scholars opine that the *vedi* or *antarvedi* as referred to in the *Mahabharata* is nothing but the *ratnavedi* i.e. raised stone platform or pedestral on which the deities are seated in Puri temple. Jagannath is also known as *Daru-Brahma* or the prime soul enshrined in wood. Some scholars correlate this *Daru* with that of *Apurusham Daru* mentioned in the *Rig Veda* and hold the view that worship of Lord Jagannath started before the Christian era. Indrabhuti in his *Vajrayana* treatise

Gyanasidhi has mentioned the name of Jagannath. *Neeladri Mahodaya* also narrates in detail the ritual and custom of the deities in the Puri temple. The most famous Oriya work of Sarala Das belonged to 15th century is *Mahabharata* wherein the poet has narrated in detail the legendary origin of Lord Jagannath. Besides, there are references of Purushottam Jagannath and Puri in a number of inscriptions like Nagpur stone inscription of 1104 AD, Govindpur inscription of 1137 AD,

Lingaraj temple inscription of 1230-38 AD, Srikurma temple inscription of Bhanu Dev II of 1310 AD, Kapilas inscription of Narasimha Dev of 1238-64 AD, Neulapur inscription of Subhakar Dev of 780-800 AD, Satana, Madhya Pradesh inscription of 10th century AD, Nagari Copper Plate of King Anangabhima Dev III of 1230 AD, Baramdeo Temple inscription of 840-1088 AD, Simanchala temple inscription of 1319 AD, Nrushimha, Markandeswara and Pataleswara temple inscription at Puri of 1113 AD-1238 AD, Dasagova Copper plates of 1192 AD-1211 AD.

According to legends as depicted in some Puranas, Raja Indradyumna of Malab (central India) had built a huge temple for Lord Jagannath. It was 1000 cubits high. In course of time, the temple was collapsed. It was the first temple of Lord Jagannath. But historical evidence as to the temple by Raja Indradyumna is not available. Hence, Raja Indradyumna appears to be a legendary figure. Historically, it is believed that the present temple was built in the 12th century AD by King Ananta Burman Chodaganga Deva. Reportedly, he was the founder of the Ganga dynasty in Orissa. Chodaganga started construction of this huge temple but could not complete it during his life. Thereafter, it was completed during the time of his successor Ananga Bhima Deva III. According to the noted historian Sterling, Ananga Bhima Deva built the temple in 1196 AD. But scholar like Ferguson opines that the temple was built in 1098 AD. However, according to Hunter the construction of the temple began in 1174 AD and completed in 1198 AD. On the other hand, R.D. Banerjee holds the view that the temple was built by Chodaganga Deva at the close of the 11th century. Moreover, as per the Madalapanji, old chronicles of the temple written on palm leaves, Ananga Bhima Deva ordered for the construction of the present temple. A copper plate grant discovered

in Cuttack in 1949 attests the fact that Ananga Bhima Deva constructed the temple at Puri. Dr.S.N.Rajguru is of the opinion that an ancient temple of Lord Purushottam was built on the sea shore. After the destruction of the temple, the presiding deity was removed and was installed in a new temple built by Yajati-II in 10th century AD. The temple built by him is nothing but the present temple of Nrushimha in the bhitar bedha (inner circle) of the Shri Jagannath Temple, Puri. Subsequently, Chodaganga Deva built the present temple by the northern side of the Nrushimha temple. But during his life time, he could not complete the work and his descendant Ananga Bhima Deva III completed the construction work of the temple and also performed the glorious pratistha ceremony and the deities were installed in the new and huge temple sometimes in 1230 AD.

Shri Jagannath temple at Puri has four chambers or sections namely *Deula* or *Vimana* (sanctum sanctorum) where the deities are seated on the *ratnavedi*; *Mukhasala* (porch); *Nata Mandira* and *Bhoga Mandapa*. It is said that the *Deula* and the *Mukhasala* were built in the 12th century AD and the *Natamandapa* and *Bhogamandapa* were added subsequently during the reign of Raja Purushottam Deva (1461-1491 AD) and Raja Prataprudra Deva (1495-1532 AD) respectively. It may be noted that the *Natamandapa* is also known as *Jagamohana*. The presiding deities in the temple are Lord Jagannath, Lord Balabhadra and Goddess Subhadra. These three deities are popularly known as *Trimurti* (trinity). The trio with Sudarshana are seated on the *Ratnavedi* in the *Deula* or *Vimana* portion of the temple. The four idols are popularly known as *Chaturdhamurti*. Two other small idols namely Goddess Sridevi (Laxmi), Goddess Bhoodevi or Biswadhatri are seated on the *Ratnavedi* on the left and right side

of Lord Jagannath respectively. Another small replica of Lord Jagannath called Neelamadhaba is seated by the side of Lord Jagannath. In other words, there are seven idols found on the Ratnavedi. Except Sridevi and Bhoodevi, the other five idols are made of *neem* wood. Sridevi and Bhoodevi are metallic images of gold and silver respectively. It is also commonly believed that before installation of Lord Jagannath, Neelamadhaba was the only presiding deity of the temple.

According to the legend, Lord Nrusimha was being worshipped at *Neelagiri* (Puri) alongwith Neelamadhaba. As mentioned earlier, Lord Nrusimha is being worshipped in a separate temple adjacent to *Muktimandapa* / *Muktamandapa*. According to the legend, the image of Neelamadhaba was made of *Neelakanta mani* (emerald). However, the present image of the deity is made of *neem* wood. Legend further says that Lord Jagannath was originally worshipped by a *savara* raja (an aboriginal tribal chieftain) named Viswbasu. Having heard about the glory of the deity, Raja Indradyumna sent a Brahmin priest called Vidyapati to discover the exact location of the deity who was then secretly worshipped by Viswbasu inside the cave of a dense forest. Vidyapati tried his best, but could not locate the place of worship. Finally, he could manage to marry the Lalita, daughter of Viswbasu. At repeated request of Lalita, Viswbasu took his son-in-law blind-folded to a cave wherein Lord Neelamadhaba was being worshipped. Vidyapati was a very intelligent man. He dropped mustard seeds on the ground on his way.

After a few days, the seeds germinated which helped Vidyapati to locate the cave wherein the deity was being worshipped hiddenly. On hearing from Vidyapati subsequently, Raja Indradyumna immediately rushed to *Odra desa*

(Orissa) to have a *darshan* of the deity. The king was disappointed at the sudden disappearance of the deity. The deity was hidden in sand. Raja Indradyumna was determined not to return without having a *darshan* of the deity and observed fast onto death at *Neelagiri*. The deity was pleased with the king. Thereafter, the king performed a horse sacrifice and built a magnificent temple for the deity. Narada brought the Nrusimha *murti* (image) and it was installed inside the temple. During the sleep, the king had a vision of Lord Jagannath. An astral voice directed him to cut down the fragrant tree on the seashore and make idols out of it. Thereafter, Viswakarma appeared before the king in the guise of an old man and expressed his desire to make the idols and installed in the *garbha-griha* (sanctum sanctorum).

Some scholars believe that Neelamadhaba was originally a non-Aryan tribal deity. But, there is no denying the fact that the very name Neelamadhaba indicates a Sanskrit Aryan name. Some scholars believe that the deity belongs to Hindus pantheon and he was originally in the form of a *Sila* (stone) *Brahma* and afterwards became a *Daru* (wood) *Brahma*. In course of development, Neelamadhaba became Jagannath and was worshipped alone. Subsequently, Balabhadra, Subhadra and Sudarshana were incorporated consequent upon the resurgence of Saivism and Saktism. It is believed that there was a great resurgence of Saktism from the 7th century onwards. The image of Goddess Durga or Sakti was included by the side of Lord Jagannath in the temple. Durga or Sakti is also known as Bhadra or Mangala. It is believed that this Bhadra or Mangala came to be known as Subhadra (Srikrishna's sister). Lord Siva or Veerabhadra was transformed into Balabhadra (elder brother of Srikrishna) under the influence of Vaishnavism. It is also accepted that Jagannath was the only deity being worshipped as per the Tantrik

Buddhist rituals at one time. In course of time, under the inspiration and influence of Sankaracharya and with the active support of Raja Yajati Kesari, Balabhadra as Siva and Subhadra as Bhubaneswari were included to form the Triad. In other words, the three important streams of the Hindu spiritual cultural tradition namely Saivism, Saktism and Vaishnavism were accommodated in the Trid under the common umbrella of Vaishnavism in the Puri temple.

It is also believed that during the time of Somavamsi Raja Yajati in Orissa, attempts were made to bring together all the main deities worshipped in different parts of the then Orissa. Purushottam Jagannath of Kalinga and Kangoda (east Orissa), Baladeva or Nagaraj of Toshali (north Orissa) and goddess Stambheswari/ Khambeswari or Ekanamsa Subhadra of west Orissa were brought together and worshipped at Puri temple as the State deities of the greater Orissa or Trikalinga empire. In all probability, it was a political move for unification and integration of a larger area of the then Orissa. In this context, it would not be out of context to mention that the words Kaivalya, Purushottam and Natha indicate influence of Jainism on the Jagannath cult as opined by some scholars. According to this line of thought, the word Jagannath is derived from Jineswara. According to Jainism, Rishava is Jineswara. The car festival day of Jagannath i.e. *asadha sukla dwitiya* is observed as the birth day of Rishava. Originally, Jagannath was a tribal (*savara*) deity called Jaganta and under the influence of Jainism the word *nath* was perhaps suffixed to it. Thus, the deity became Jagannath. It is also accepted by some other scholars that the worship of Jagannath is of Buddhist origin. They hold the view that the three deities symbolize the *Triratna* of Buddhist tradition which refers to *Buddha*, *Dharma* and *Sangha*. Buddha has been addressed as Jagannath in the *Gyanasiddhi* a

treatise on *Vajrayana*. It is also widely believed that in the cavity of the wooden image of Jagannath a danta (tooth) of Buddha has been preserved. At the time of *Nabakalebara* ceremony of the deities, the sacred tooth of Buddha is transferred to a new image and the old images are buried in the koilibaikuntha situated in the bahara-bedha (outer circle) of the temple. The car festival of Lord Jagannath is a reproduction of that tooth festival of Lord Buddha. The name of Puri was *Dantapuri* and the temple of Lord Jagannath has been built on the ruins of a Buddhist *stupa*. However, Buddha and Jagannath have remained one and identical in Puri temple. The most celebrated ancient Oriya poets, popularly known as Panchasakhas namely Jagannath Das, Balaram Das, Achutananda Das, Yashovanta Das and Ananta Das belonging to 15th-16th centuries have described Lord Jagannath as Buddha in their writings. It would not be out of place to mention that on the wall of *Jagamohana* by the side of the *Garuda stambha* and also at the top of the *Singha dwara* (Lions gate) of the temple, one finds images of the ten *avatars* (incarnations) of Lord Vishnu. In the ninth place i.e. the place of Buddha, one finds the image of Jagannath. In view of the analysis made above, it may be surmised that Buddhism and Jainism have also been accepted as integral parts of Hinduism. As such, the people following these religions are not at all prohibited from entering into the Shri Jagannath temple at Puri.

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Poverty and Performance of Major Welfare Schemes in Gajapati District

*Prasant Sarangi
&
Satyabrata Pattanaik*

Orissa is endowed with rich natural resources in the form of vast mineral reserves, forests, fertile land, plentiful surfaces and ground water, long coastline, picturesque tourist potential, and many others. Beside all these convincing pictures, Orissa ranks very low among the Indian states in terms of per capita income, poor level of living, and is therefore regarded as one of the backward states. As per an estimate, among the fifteen major backward states of India, the position of Orissa particularly with regard to living conditions not so encouraging.

Millions of people are living in extreme poverty, constantly facing with the threat of uncertainty and inadequate food supplies. In this context, the government of India is continuously implementing a number of food security measures by its successive planning the public distribution system, food for work programme, targeted public distribution system and a dozen of related incentives which are all meant to feed millions of hungry stomach living in the country who even sleep without two square meals a day (Sarangi, 2004).

Orissa like India, is pre-eminently agricultural.¹ The most important economic unit is the villages.² Over the years, Orissa has

witnessed a trend decline in the incidence of poverty. Years of development have not changed its economic condition satisfactorily. Sahu (1997) estimated the ratio of people living below the poverty line in the state to be more than 60 percent during 1983-84. An earlier study by Mahendra Dev (1992) had revealed that in between 1961-62 to 1986-87, around 65 percent of rural population in Orissa were living below poverty line instead of the quoted figure of 48.3 percent as estimated by the Planning Commission. However the official figures of the rate of poverty at present is estimated to be 47.2 percent (Sarangi and Penthoi, 2005).

Objective and Methodology:

The basic objective of the present paper is to:

1. Analyse the general economic condition of the Gajapati district which is one of the poorest tribal concentrated districts of Orissa.
2. Analyse the quantum of poverty in the district based on income and occupation category, and,
3. Examine the performance of some major welfare schemes that are functioning in the district.

The study is based on secondary source of information that has been compiled and

collected from various Government surveys, reports, doctoral theses, scribes and books relevant to the present study. For examining the functioning and performances of the major welfare schemes in the district, data and facts related to different schemes are collected from concerned departments of the Gajapati district during May, 2004.

This paper is divided into three segments. Segment-1 briefly introduces geographic-demographic-economic conditions of the Gajapati district. Where as Segment-2 of the paper represents the condition of poverty in the district followed by examining the performances of the functioning of major welfare schemes in the district in Segment-3. Finally the paper ends with a general conclusion of the findings of the study.

Segment-I: Introduction to Gajapati:

The district of Gajapati, originally a part of Ganjam district is bordered by Ganjam in the north east, Kandhamal in the north, Rayagada in the west and Srikakulam district of Andhra Pradesh in the south presents a strange amalgam of the autochthonous Tribal, Telgu and Oriya cultures. History of the region, generally traced from the Mauran age reached a climax under the Raj families of Paralakhemundi in the late medieval and modern period giving a panoramic picture of rise and fall of successive royal dynasties, resistance and freedom movements against the torturous rule of the British Government, formation of the separate province of Orissa in 1936 etc. has been presented to the posterity. The rules of Paralakhemundi in particular and the people of Gajapati in general made remarkable

contribution to the history, culture, literature, art, economy and religion of Orissa. The district is having a total population of 5,18,448 persons (male being 2,55,288 and female being 2,63,160) living in 106 grama panchayats, one NAC and one municipality. Paralakhemundi is the district head quarter.

On the basis of occupational pattern of the district, it is found that, about 86.99 percent of its people are living in the pursuit of agriculture. The percentage of main workers to the total population is estimated at 42.01. Industrial worker constitute a very small proportion i.e. only 2.31 percent of the total main workers. Out of the total main workers in the district 50.2 percent are cultivators, 35.39 percent are agricultural labourers, only 8.73 percent are engaged in the category of trade and commerce, mining, household and other than household etc. and the rest 5.68 percent are engaged in other services category (table-1).

The district has a total of 122.81 thousand hectares as gross cropped area (2001-2002) with 82.40 and 40.41 thousand hectares for Kharif and Rabi crops respectively. 80 thousand hectares as net area (50 thousand as high, 19 thousand as medium and 11 thousand as low cultivable area) which is the second lowest in area next to Deogarh district (68 thousand hectares) in the state.

In respect of industrial sector, facts shows that, the net value added by the manufactures in the district is estimated as Rs.7.6 lakhs in the year 1996-97 and Rs.9 lakhs in the year 1997-98. The district is having only 51 numbers of small scale and 228 cottage industries (1998-99) employing only 382 and 456 persons respectively.

Table-I Occupational Pattern in Gajapati district

Sl. No.	Category of workers	No. of workers	% to total population
1.	Cultivators	95731	50.2
2.	Agricultural labourers	67481	35.39
3.	Livestock, forestry, fishery, hunting etc.	2672	1.40
4.	Mining,	13	0.007
5.	Household industries	2399	1.26
6.	Other than household industries	1995	1.05
7.	Construction	905	0.474
8.	Trade and commerce	7432	3.9
9.	Transport, storage, & communication.	1237	0.649
10.	Other services	10839	5.68
	Total population of main workers (total main workers)	190704	100
	Non-workers	33432	
	Total workers	224136	

Note: Computed from Fact Book on Manpower-V, DE & S, Bhubaneswar, Orissa.

The state highway is of 151 km. long with 66 km. long major district road, 4253 km. of grama panchayats road and 440 km of village road till 1998-99. The district is having one head post office, 18 numbers of sub-post offices, 127 numbers of branch offices with a total numbers of 146 post offices. It is having 50 km. of narrow gauge single lined railway line with seven railway stations.

Segment-2: Quantum of poverty in the district:

The Panchayati Raj department, Government of Orissa has estimated the quantum of rural families living below the poverty line in the state, based on different income group and also on occupation pattern. For the present purpose we have considered the figures of Gajapati district and a comparison is made with that of the figure of Orissa state below.

Rural poverty based on income groups :

The intensity of poor people is estimated on basis of different income groups. Table-2 shows distribution of rural families living below poverty line with an income constraint of Rs.10,000 (as per 1992 survey) of Panchayati Raj Department, Government of Orissa. On the basis of different income level, people are assigned with a name as destitute, very-very poor, very poor and poor (with concerned income limit of Rs.0-4000/-, Rs.4001-6000/-, Rs.6001- 8500/- and 8500-11000/- respectively. There are a total of 29,218 persons (in a percentage of 33.3 to total number of rural families) in the district as destitute. Similarly 31,063 persons (in 35.43 percent), 15,374 persons (in 17.53 percent) and 4,585 persons (in 5.23 percent) are found to be in very-very poor, very poor and poor category. Among the total rural families of 87,684 persons,

the above four categories alone constitute 80,240 families which is 91.51 percent to the total rural families of the district. Column-3 of the table

shows the rural poor structure of Orissa in each income category.

Table-2 Distribution of Rural Families Below Poverty Line of Rs.11,000 on the basis of different income groups in Gajapati as well as in Orissa (as per 1992 survey)

Description-of income category -	Region	
	Gajapati	Orissa
1	2	3
(i) Rs.0-4,000 (Destitute)	29218 (33.32)	1352179 (25.89)
(ii) Rs.4,001-6,000 (very-very poor)	31063 (35.43)	1567662 (30.01)
(iii) Rs.6,001-8,500 (very poor)	15374 (17.53)	821415 (15.55)
(iv) Rs.8,501-11,000 (poor)	4585 (5.23)	378178 (7.24)
Total (i+ii+iii+iv)	80240 (91.51)	4110434 (78.70)
Others	7444 (8.49)	1112690 (21.30)
Total number of Rural Families	87684 (100)	5223124 (100)

Note: Figures in parenthesis of column 2 and 3 indicate percentage of different income groups to total number of rural families.

Source: Panchayati Raj Department, Government of Orissa (computed)

Rural Poverty on basis of Occupation

The incidence of rural poverty in the district as well as in the state is derived on the basis of occupation pattern. Table-3 shows a clear-cut picture of number of rural families living below poverty line of Rs. 11,000/- on the basis of their occupation pattern in the district as well as in the state. From the table we find that, there are 7,631

persons in the category of small farmers, 36148 persons as marginal farmers and 25934 persons as agricultural labours family which is in percentage of 8.7, 41.23 and 29.58 respectively to the total number of rural families in the district. Column-3 of the table reveals the picture of Orissa in respect of each occupation category.

Table-3 Distribution of Rural Families Below Poverty Line of Rs.11,000 on the basis of Occupations in Gajapati district and in Orissa (as per 1992 survey)

Occupations	Region	
	Gajapati District	Orissa
1	2	3
Small Farmers	7631 (8.7)	660258 (12.64)
Marginal Farmers	36148 (41.23)	1786024 (34.19)
Agricultural Labourers	25934 (29.58)	1144438 (21.91)
Non-Agricultural Labourers	9488 (10.82)	360842 (6.91)

Rural Artisans.	679 (0.77)	107331 (2.05)
Others	360 (0.41)	51541 (0.99)
Grand Total Rural Families	87684 (100)	5223124 (100)

Note: Figures in parenthesis of column 2 and 3 indicate percentage of different income groups to total number of rural families.

Source: Panchayati Raj Department, Government of Orissa. Segment-3: Performance of major welfare schemes:

A number of welfare schemes both state sponsored or centrally sponsored or combined are implemented in the state from time to time in order to improve the living condition of the poor people of the state. Some of them are analysed below in respect of Gajapati district.

(i) Performance of ITDA:

Tribals constitute the major portion in the district. Out of the seven blocks, five of them - Gumma, Rayagada, R. Udayagiri, Mohana, and Nuagada are highly tribal populated. Hence the district of Gajapati comes under the preview of Integrated Tribal Development Agency (I.T.D.A.). Detailed information on various welfare activities promoted

by I.T.D.A. upto March- 2004 is derived in Table-4. From the table, we will find that, I.T.D.A. has helped the tribals in improving of their socio-economic condition by providing credit facility in seven main occupational categories. The agency so far assisted a total of 587 poor families in the year 2003-2004 by providing Rs.1,22,43,034 as loan amount out of its own fund with an subsidy of Rs.54,39,624. Sl.No.5 of the said table shows per family average subsidy released by ITDA under its various activity where as Sl. No.6 reveals structure or per family bank loan sanctioned for each, scheme, Similarly, Sl.No.7 shows average investment amount under each category in the district of Gajapati.

Table-4 Coverage under ITDA Gajapati (Mav-2004) (Bankable Schemes)

Sl. No.	Activity / Achievement	Land / package / plough /	Goatary	Diesel pump sets	Industrial service business	RTS (Group finance)	RiceMill (gullers)	Plantation	Total
1.	Total no. of families aritsted	153	126	53	208	30(Group)	12	5	587
2.	Total amount of loan sanctioned (in Rs.)	3060000	2520000	1060000	4160000	1103034	240000	100000	12243033
3.	Total amount of subsidy given by ITDA (in Rs.)	1436160	1149159	529955	1779350	375000	120000	90000	5439624
4.	Total loan sanctioned by the Bank (in Rs.)	1436160	1149159	529955	1779350	728034	120000	50000	3792658

5. Per family avg. subsidy released by ITDA (in Rs.)	9387	9120	9999	8554	12500	10000	10000
6. Per family back loan sanctioned	9387	9110	9999	8554	24268	10000	10000
7. Avg. investment per family (Rs)	18774	18240	19998	17109	36768	20000	20000

Note: Unit cost for each scheme is Rs.20000 except R.T.S.C finance, which is Rs.2,50,000.

Source: ITDA, Parlakhemundi, Gajapati.

(ii) Indira Awas Yojana:

The Indira Awas Yojana (IAY) was started in the year 1985-86 as a sub-plan of RLEGP. The basic objective of the scheme is to construct houses for the poorest people of scheduled caste/scheduled tribe communities and the free bonded labour (since 1993-94 the plan extended to all BPL families). During its long more than 20 years of operation, a number of modifications has been done from time to time and at present working as a full-fledged programme since 1996. Under this yojana, out of 2251 targeted houses in 2003-2004 a total of 1862 houses are so far constructed successfully whereas rest houses are under construction. A total amount of Rs.44.71/- lakh is received and also invested in the year 2003-2004 for upgradation of houses, under which a total of 431 houses are upgraded in the district. Beside these, Rs.22.670 lakhs has so far received (central assistance of Rs.17.025 lakhs and state share of Rs.5.67 lakh) whereas Rs.23.76 lakh has been utilized covering 89 beneficiaries under the grant for special assistance for flood in the district.

(iii) SGRY :

SGRY scheme is in operation in the district in two phases. Under SGRY-I a total amount of Rs.66S.36 lakh has so far utilized out of the sanction of Rs.684.74 lakh, creating a total of 10.30 lakh man-days in the district in the year

2003-2004, engaging in different activities. In Phase-II of SGRY, various construction works has been so far undertaken under which a total amount of Rs.542.27/- lakh has been utilized in various construction work such as roads, drainage, sewage etc. creating a total of 12.09 lakh man days in the district.

(iii) SGSY :

Swarnajayanti Gram Swarojgar Yojana (SGSY) is implemented on April 1, 1999 with an objective to stimulate rural mass by providing them financial and technical assistance. In the district of Gajapati a sum of Rs.102.66/- lakh has been so far sanctioned by covering 1469 swarogaries out of the targeted number of 1434 persons in the year 2003-2004 under the SGSY scheme.

(iv) PMGY :

Pradhan Mantri Gramodaya Yojana (PMGY) was implemented in the year 2000-2001 with an aim to meet five basic requirements like-primary education, health drinking water, housing and rural roads. Under the scheme a total amount of Rs.33.59/- lakh is sanctioned in the district out of which, a sum of Rs.33.19/- lakh is so far invested benefiting 104 numbers of homes.

Besides these other important schemes like Annapurna Anna Yojana, Antyodaya Anna Yojana, Mid-day Meal Scheme, Programmes for ICDS, Old Age Pension Schemes (NOAPS and

OAPS), disable pension schemes, Pradhanmantri Gram Sadak Yojana and many more programmes are in full-fledged progress in the district of Gajapati in a forward mood to cope with the requirements of poor masses.

Conclusion and Suggestions:

To conclude, Gajapati district is found to be one of the poorest districts in the state. The incidence of poverty is more in tribal concentrated regions of the district. From the occupation pattern and income categories, it is found that the proportion of rural families living below the poverty line is much higher in the district. In income category, particularly, more percentage of population are concentrated on very-very poor category, while in occupation structure, marginal farmers proportion is high in the district. The inter-district comparison in level of living indicates ranks the district in 21st place narrating in lower middle category. Again the performance of various welfare activities both self employment and wage employment programmes even through to some extent are working smoothly but not satisfactory which of course due to a number of reasons and difficulties in the process of operation.

In the light of above findings, it can be suggested that appropriate efforts should be made to reduce the incidence of poverty in the district though implementation of appropriate regional policies. To improve the living conditions of the people-particularly to the tribal mass, economic growth is necessary. As we have, when the economy grows, poverty diminishes faster than growth is stronger, slower when it is not. For this, the values of the development indicators like literacy rate, per capita income, infant revival rate, per capita food grain production, per capita net value added by the manufacture, etc. need to be improved through appropriate and adequate investment in the sectors like agriculture, industry

and tertiary sector (like health, transport and communication, education etc.). Hence an integrated approach in all these sectors is the need of the hour for all round development of the district. Again to reduce the higher concentration of rural poverty, adequate funds should be diverted to the rural development programmes by rectifying/ modifying the loopholes and problems that are associated in the presently functioning rural development programmes.

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Hon'ble Chief Minister Shri Naveen Patnaik paying tributes to late Biju Patnaik at Swargadwar, Puri on 17.4.2006. Shri Maheswar Mohanty, Hon'ble Speaker, Orissa Legislative Assembly and Shri Prasanna Kumar Patsani, M.P. are also present.

Changing Faces of Business

B. N. Biswal

Historical Development of Business

Historically business is as old as civilization. Archaeological records show that by 5000 BC merchants in the Mesopotamian valleys of the Tigris and Euphrates rivers knew a good deal about business techniques. Ancient India is famous for its rich trade and commerce. In Orissa too, the myths of "Sadhavo", "Balijatra" etc., reveal the flourished business.

Business is a form of activity pursued primarily with the objective of earning profit. It is an enterprise which makes, distributes or provides any article or service which other members of the community need and are able and willing to pay for it.

Part of the Society

Keith Davis and Robert Blomstorm have observed that 'business is a social institution performing a social mission and having a broad influence on the way people live and work together'. Every business enterprise is a part of the society. It operates within the society, and exists primarily to satisfy its needs. It has an inseparable position in the very social system.

Business, as a subject of formal study deserves attention and acquires importance in our society because the largest number of people remain engaged in this branch of human activity. But, despite its influence, adequate attention was

not given for pursuing business. It is because, in the past, business career was not socially approved to be honourable one and uneducated person and backward sections of the society practiced such activities.

Need for the Study

The age-old beliefs are changed now. The rapid growth of industries, development of commerce and management education, financial sector reforms, globalisation, etc., made the business career as one of the best choices in modern life. The objective of the present study is to analyse the problems and prospects of business enterprises in Nabarangpur town through a sample survey so that the students can have first hand information about the business enterprises. Moreover, the survey and the preparation of the report will be helpful to the students in their future higher studies.

About Nabarangpur Town

Nabarangpur is the headquarter of Nabarangpur district. It is one of the oldest municipalities in the state of Orissa, covering a geographical area of 8.26 Sq.kms. with 4847 residential houses. As per 1951 census, the population of the town was 7302, which increased to 10380 in 1961, 13739 in 1971, 23519 in 1991 and to 27975 in 2001. Females constitute 47.36 percent of the town. The literate persons number

is 18782 of which females are 8196. The literacy percentage of the town is 67.14 of which male literacy is 71.89 percent and female literacy is 61.87 percent.

Business is one of the main sources of livelihood of the people of the town. More than 50 percent of the main workers are engaged in trade and commerce, household industries, transport, manufacturing industries and other related services.

About the Sample

We have covered 157 business enterprises in our survey which belongs to 51 categories of business. The largest number of units covered belong to grocery shops (14) followed by gifts and stationery (11) and pan shops (11). The next business group in which a sizable number of units covered are cloth (10) and automobiles (8) followed by STD and Xerox (7) hardware (7) and shoe stores (6). Then comes books and stationery (5) and hotels (4). A few units of medical stores, rice mills, utensil stores, vegetable stores were also covered. Thus, the range of business enterprises covered in the survey is wide and touches almost all the types business carried on in the town.

Methodology of Data Collection

The data is collected through a questionnaire covering six aspects namely: (1) general information of the respondent, (2) source of finance, (3) source of motivation, (4) type of business, (5) satisfaction and (6) suggestion to the youngsters. Five groups have been formed with five students in each group and each group is guided by a teacher.

Requisites of Business

Business enterprises, big or small, old or new, primitive or modern, require coordination

of three factors of production, viz., land, labour and capital. These three factors constitute the edifice of business enterprises. Proper coordination of these three factors is the task of the entrepreneur.

Source of Finance

When a business entrepreneur seriously conceives the idea of setting up an enterprise, he investigates the commercial success of the idea. Once he is satisfied with the feasibility of the project the next immediate step is to decide the quantum of capital that would be needed and in what form to run the business. Finance is the lifeblood of business and needed at every stage of the business. The sources of finance are broadly divided into two categories -internal and external. Internal finance is arranged by the entrepreneur himself whereas external finance is obtained from financial institutions like banks, money lenders, friends or relatives.

In our survey, it is revealed that 71 respondents started their business with own capital accounting for 45.22 percent whereas 55 respondents constituting 35 percent obtained it from external sources like banks. Thirty one respondents arranged their capital from internal as well as external sources (19.75%)

Sources of Finance	No. of Business Enterprises	Percentage
Owned	71	45.22
Borrowed	55	35.03
Both	31	19.75

Labour

Availability of cheap, abundant and skilled labour is the second important factor responsible for successful business. The following table reveals the number of persons employed by the surveyed enterprises:

Persons employed by the Enterprises

No. of Workers	No. of Enterprises	Percentage
No workers	61	38.85
1 -3	69	43.95
4-6	14	08.92
7- 9	04	02.55
10 and above	09	05.73

The above table reveals that around 31 percent enterprises are working without any additional hand, around 44 percent enterprises employed workers between 1 and 3 and around 6 percent organizations employed persons more than 10. Most of the organizations expressed their dissatisfaction over the availability of skilled labour. Another important point they raised is the non-availability of accounting assistants with knowledge on VAT.

Accommodation

Proper accommodation is another significant criteria for success of a business enterprise. In our survey we came to know that the businessmen are facing acute problems in obtaining the accommodation. As there are no industrial estates, specific industrial areas, new businessmen find it difficult to arrange a proper accommodation for their enterprises. The following table explains the status of ownership of the shops :

Ownership of Premises

	No. of enterprises	Percentage
Rented	123	78.34
Owned	034	21.66

In our survey, most of the businessmen said that they are unable to expand their business because of lack of proper accommodation. New

businessmen are fearing to enter into the field for this problem. The local municipality is constructing stalls but the businessmen are complaining that they are allotted to the outsiders at high cost. A new entrepreneur is unable to afford these accommodations.

OTHER FACTORS**0 1. Reasons for opting business**

The popular Sanskrit Sloka "Baniyye Basati Laxmi" amply shows the reason for entering business sector. Maintenance of livelihood by earning profit is the driving force behind entry into business. Apart from this, there are other reasons for opting business which are revealed in the following table:

Reasons for choosing business line

Reason	No. of enterprises	Percentage
Livelihood	89	56.69
To earn more money	26	16.56
Time pass	10	06.37
Prestige	13	08.28
Ancestral	19	12.10

It is revealed in our survey that 56.69 percent of the entrepreneurs entered the field with the objective of earning livelihood. Around 17 percent opted it for earning more money whereas 12 percent started as it is ancestral. It is interesting to say that 6 percent opted it for time pass and around 8 percent chose this for prestige sake.

02. Source of Motivation

What motivates a businessman to enter into business is revealed in the previous table and now we are presenting the source of motivation or who motivated them in the following table:

Source	No. of business enterprises	Percentage
Self	118	75.17
Parents	35	22.29
Friends	2	01.27
Relatives	2	01.27

The above table says that self-confidence is the primary source of motivation for entering the business field. More than one third of the respondents said that they are self-determined and self-starting in nature. Around 22 percent of the respondents said that their parents encouraged them to choose this field.

03. Literacy Levels

There is a belief that only uneducated persons prefer business. The following table shows the literacy levels of the respondents:

Level of Educational Qualification	No. of Business Enterprises	Percentage
Illiterate	14	08.90
Up to 5th Class	11	07.05
Up to 10th Class	51	32.48
Up to Intermediate	22	14.00
Up to Degree	48	30.57
Diploma holders	04	02.55
Technical Degree holders	04	02.55
Post Graduates	03	01.90

The table revealed that business is no more an area suitable for uneducated persons. Nowadays, educated youngsters prefer business as a career. In our respondents around 31 percent of the respondents are graduates and 33 percent

are studied up to 10th class. Even technical degree holders and post graduates are there in the business line.

04. Age of the Businessmen

In our study we inquired about the age of the businessmen in the town and the following table reveals the present position :

Age	No. of Respondents	Percentage
Less than 20	04	02.55
21- 30	48	30.57
31- 40	56	35.67
41- 50	29	18.47
51- 60	14	08.92
61-70	05	03.18
70 & above	01	00.64

Young persons dominate the business field in Nabarangpur town. Most of our respondents are in the age group of 21 to 40. It is positive aspect that proves the preference of the youngsters.

05. Future Plan

Without ambition no project runs successfully for ever. To know whether business is a temporary career or dedicated line of livelihood opted by the respondents we have questioned respondents about their future plan and the following table gives the details:

Plan	No. of respondents	Percentage
Expansion	123	78.35
Switchover to other business	29	18.47
Closure of business	05	03.18

Most of the respondents are in favour of expansion of their business where as only three percent expressed their willingness to close their business.

Conclusion:

- ◆ Capital is one of the most important prerequisites to establish a business enterprise. Normally, the capital for a business venture comes from own sources, relatives and friends and term loans from banks. In recent years, institutional lending has increased rapidly everywhere but in Nabarangpur town it seems not adequate as the data revealed that only 55 percent respondents received term loans from banks. It may be due to lack of awareness about bank finance or the hindrances in obtaining the loans from these institutions.
- ◆ Availability of abundant, cheap and skilled labour is essential for business enterprises. Most of our respondents expressed their inability in the procurement of trained man power. People specifically pointed out that they are not getting accounts assistants who are well versed in VAT procedures.
- ◆ After capital and labour the third important factor of production is land. In Nabarangpur town it is one of the most difficult tasks for the traders to find out a suitable building for their business. The data revealed that 78.34 percent businessmen are doing business in rented premises whereas 21.66 percent possess owned one. Most of them opined that the Municipality authorities should construct more stalls and allot them in a simple, affordable and convenient method so that the local traders will get the benefit.
- ◆ The common belief that business is meant for the uneducated persons proved wrong

in our study, as majority of the respondents are well educated. Even post graduates are entering business field and quite satisfied with the field.

- ◆ Majority of the entrepreneurs expressed satisfaction on the business carried on by them. Only 3.18 percent of the respondents said that they are going to close the business in the near future.
- ◆ Even after running successful business enterprises, 35 percent of the respondents said that they will quit the business if proper employment is offered to them. This shows their inclination towards employment.
- ◆ Regarding competition majority of the respondents said that it is acute in the present scenario. They are very much cautious about their competitors and accordingly they are planning their expansion.
- ◆ When we asked the question on the present position of transport network in the locality most of the respondents expressed their dissatisfaction. They said that better communication facilities are necessary for further development of the town.
- ◆ Majority of the entrepreneurs said that honesty and hard work are the two basic qualities necessary for a successful business man.
- ◆ Regarding their advise to the youngsters, we received a mixed reaction. About 60 percent said that they welcome the youngsters to the business line whereas 40 percent advised the youngsters not to opt business as a career.

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Education of Tribal Children in Kandhamal District

Raghunath Rath

Education is a continuous process. It starts soon after the birth of a child and ends on death. A child starts learning as soon as he/she takes birth from his mother and gradually learns from his parents and the society around, as he/she gets older.

Education, is a modern word, which is derived from the Latin word 'educase', means to nourish, to cause to grow (Patel: 1991 : viii). Education also prevails in illiterate societies, where it is imparted orally and by mass behaviour. A member of primitive society learns to earn his livelihood, to do good works, to obey spiritual beings and also superstitions etc from the elders of the society and bind by its laws and regulations. These are the education for them.

We the modern people do mean "education as reading and writing. This is also true. By modern education a person can able to increase his knowledge and expand his vision and avail the fruits or development. Hence modern education can play the role of "Catalyst" in bringing sea changes in the sphere of social, political, economic fields. One of the important reasons for failure of development activities in the society by various developmental agendas is the prevalence of acute illiteracy and ignorance, combined with superstitions among the rural masses. Hence to ward off economic

backwardness, social deprivation spreading of education is regarded as one of the most effective and forward-looking instruments (Patel : 1991 :26).

While discussing growth of education in tribal dominated Kandhamal district and the declining trend in education we have to make a careful study in the grass root level. The district of Kandhamal, formally known as Phulbani is a centrally located district of Orissa, which is at a higher altitude of 1100 Mtrs. The district is mainly dominated by scheduled tribe and scheduled caste population. Scheduled tribe population includes tribes like Kandha, Kutia Kandha, Kandhgouda, Kol, and Soura etc. and scheduled castes include mainly *panas*. Taking the majority of the population as Kandhas the district has renamed as Kandhamal in 1994 instead of Phulbani.

As per Census figures of 2001, the total population of Kandhamal district is 6,48,201, out of which Scheduled Tribe population is 3,36,809 (51.98%) and Scheduled Caste population is 1,09,506(18.89%) of the total population. Almost all the people of the district reside in hilly forest areas frequently cut by streams and *nalas* without any proper communication facilities. So it can be easily ascertained that most of the people maintained very simple and miserable life style

amid poverty and illiteracy. The rural population of the district comes to 93.19% of the total population. Out of total geographical area of 7650 Sq kms, 5709.83 Sq kms or 78.18% covered by forest of the district. So the people are depending on forests to maintain their livelihood. Most of them are landless or marginal farmers hence comes under below poverty line.

When we go back to the history of education in Kandhamal district it is revealed that seeds of education first planted in Balliguda Sub-Division of the then undivided Ganjam district in 1851 by Captain Mac Viccar as per decision taken by Henry Potttianger, who was in charge of Education Department under Madras Presidency in 1845. Captain Mac Viccar opened three schools at different places of the sub-division. The places were Kurmingia, Udayagiri and Mahasinghi, but due to the prevalence of acute conservative mentality, non-cooperation from the nearby inhabitants, the initial steps for education was a failure. Another reason of failure of education is superstition among the Kandhas. Superstitions like "reading would make their eyes drop out of their sockets" etc. is also responsible for not spreading of education, so no remarkable progress could be achieved within next 10 years (Behera : 1984:76).

Another reason is that British Education Policy was responsible for failure of attempts made by Madras Government. The medium of instruction was in Oriya language and unqualified non-tribal teachers appointed from plains. Kandha students did not accept it due to superstitious beliefs and other socio economic reasons in G. Udayagiri area. No students went to schools for reading. Hence schools run in miserable conditions. So British Authorities tried to bring students forcibly by Police. Instead of forcible measures taken by Government no

remarkable progress could be achieved till 1854. Hence the pay of teachers was enhanced from Rs.15/- to Rs.25/-per month, which could reap some good result.

Instead of non-conducive attitude of Kandha inhabitants Government again set up four primary schools in 1855-56 in present G.Udayagiri Tahasil area and kept them under direct control of the Assistant Agent for the Meriah Agency, Russolkonda (present Bhanjanagara). However, due to constant efforts by the Government and Missionary agencies, good results could be noticed towards end of 1860 when the student strength reached up to 521. Noticeable student strength was marked in the schools at Sankarakhole, Purunagarh and Brahmanpad as like as plains schools and the teaching was satisfactory (Behera: 1984: 77).

In between, 1855 to 1880 many primary schools were set up in Kandhamal Sub-Division. At first stage schools were opened at Phulbani, Khajuripara, Titrapanga and Ratanga, which were upgraded to upper primary status in 1858. In due course of time the school at Ratanga was shifted to Bisipada and later it was converted in to Middle Vernacular School. As the administrative headquarters was transferred to Phulbani from Bisipada, the said school was replaced to Phulbani in 1904 and in 1916 it became M.E. school. In the year 1946 the said school had been upgraded as Higher English School, which is now known as A.J.O. High School. Angul District Gazetteer reveals that there were 12 upper primary schools in Kandhamal Sub-Division till 1908 with Kandha teachers. But the medium of education was in Oriya language. Hence to attract more Kandha students the then Sub-Divisional Officer Sir O.J. Allenbach directed to prepare school books written in Roman scripts to express in Kui language, the language spoken by Kandhas (Rath: 1993: 25).

Lower primary Schools were set up at Subarnagiri, Kotagarh, Tumudibandha, Belaghar, Mundigarh, Budaguda, Balliguda, Barakhama, Khamonkhole and Landagaon in 1889 and 1890 of Balliguda Sub-Division exclusively for ST and SC students. Government also permitted to set up schools by private management. So the Roman Catholic and the Baptist Missionaries also attempted to set up more schools to meet the requirement. Accordingly O.J. Millman, a Baptist Missionary set up a school in 1914 at Gudripadi near G.Udayagiri (Boal : 1963: 61).

As Government experienced, acute caste discrimination prevailing among the students as well as parents, the Govt. was forced to set up separate schools for ST and SC students. Statistical data reveals that there were 42 schools in 1936-37 and 46 schools in 1941-42 meant for ST students, only one school for SC students in 1941-42 in Kandhamal Sub-Division (Das: 1982: 151).

A High School was set up at Tikabali in the year 1939 and later shifted to G.Udayagiri in the year 1944, which is still functioning and known as Hubback High School.

Lord Dalhousie, the then Viceroy of British India appointed Mr. Charles Wood who was the Chairman of Board of Controll on 19th July 1853 to review the progress of education in India and to suggest way-out for its improvement and to frame new laws and regulations. Accordingly, he had submitted his report in the year 1854, which was known as Woods' Despatch. As such post of Director of Public Instructions was created in Bombay, Bengal and in Madras presidency exclusively to look after development of education. As suggested in Wood's Despatch, the medium of instruction should be in mother language.

Another Commission was also set up for reformation and development of education in the

year 1882, known as Hunter Commission. Lord Curzon organized an all India conference in the year 1901 at Simla to review the progress and to find out faults in education, which was the first conference in India in the history of education. The proceedings of the said conference were published in 1904, which was known as Curzon's Proclamation. That proclamation was an important document where emphasis was given regarding Syllabus, appointment of teachers and monetary assistance to schools and the importance of the provincial Governments to promote mass education. Administrative reformation law by Montague Chelmsford was published in the year 1919, where complete responsibility was laid down for education on provincial Governments. Hence Education Act of Madras Presidency was framed in 1920. Accordingly financial assistance was provided with to schools regularly and special responsibility was also given to District Boards and Local Boards. Again Hartog Commission was set up in 1929 where emphasis was given to promote mass education and to eradicate wastage and stagnation problem.

Christian Missionaries also took an important role for development of education in backward classes of this district. Schools have been set up at Mandasaru, Katingia and at some other places to educate the backward classes. Missionaries also created awareness among the tribals towards education.

Schools were also set up for ST and SC students by Tribal Welfare department of Government of Orissa after independence. The dream of Hon'ble Thakar Bappa the first residential school of Orissa of Tribal Welfare Department was opened at Nuagam of Kandhamal district in the year 1947. Later many schools were set up by welfare department in this district. There are 11 and 4 High Schools and 6 and 1 M.E. Schools from class I to VII for boys

and girls respectively exclusively for ST and SC students. For primary education there are 9 residential and 88 non-residential Sevashramas in the district under the management of Welfare Department in the year 2003-2004. In 2003-04 education year 3280 boys and 820 girls are reading staying in hostels of residential schools, while 6415 boys and 4415 girls are getting their education in non-residential schools managed by Welfare Department in the district (Giri Jhankar : 2004: 83).

Though British Authorities, in pre-independent period took steps to develop education, it was quite inadequate. After independence native Government attempted vigorously to educate all children within the age group of 6 to 14 years as per provision laid down

teams to find out faults and remedies for development of education from time to time, These also helped a lot to eliminate the lacuna and faults pointed out in those reports and to guide properly.

Instead of several attempts taken since pre-independence, it is a great regret that after 57, years of independence, India could not achieve her 100 % literacy in Orissa, the poverty stricken state yet attained 63.61% literacy till 2001. Tribal district of Orissa is far behind from the national and state literacy rate. So is the fate of Kandhamal also. Tribal literacy rate with total literacy rate from 1961 to 2001 as per census reports of Kandhamal is as follows.

Percentage of Literacy rate

Census Year	Total Population			Scheduled Tribe		
	Male	Female	Total	Male	Female	Total
1961	N.A.	N.A.	17.69	N.A.	N.A.	11.82
1971	N.A.	N.A.	19.79	N.A.	N.A.	12.37
1981	41.96	11.26	27.08	18.59	4.74	18.59
1991	54.68	19.82	37.03	38.32	9.21	27.49
2001	69.98	36.10	52.95	N.A.	N.A.	N.A.

(Source: District Statistical Hand Book, Kandhamal for the year 1997, 1999, 2001) .

in article 45 and 46 of the Indian Constitution. So time to time committees, commissions and working groups were set up by Government of India to suggest ways to attain the goal. Those committees, commissions and, working groups recommended their well-thought, valuable suggestions for all-round development of education including Tribal and Backward classes.

The Government of Orissa also organized workshops, seminars, survey and evaluation

The percentage of literacy of Kandhamal district could not compete with state average due to low-income level and backwardness of the people.

This district having no industry at all and for which the main source of income of the people is cultivation and collection of forest products, the literacy rate of tribal people is unsatisfactory. The above table shows that in five consecutive decades, the literacy rate of tribal has increased

by two and half times though the literacy rate of total population increased about four and half times. Percentage of tribal women literacy is alarming.

The Present scenario of education of Kandhamal district could be judged from the following tables.

Primary Education

Year	No. of Schools	Total Students	S.T. Students	No of Teachers			Students Teachers Ratio
				Male	Female	Total	
1996-97	1248	76816	38554	1984	546	2530	30.36
1997-98	1348	73863	40778	1943	602	2545	29.02
1998-99	1519	92048	47306	2714	844	3558	25.87
1999-00	1288	86545	46046	2058	637	2695	32.11
2000-01	1297	95163	53222	2069	642	2711	35.10

(Source: District Statistical Hand Book, Kandhamal for the year 1997, 1999, 2001)

The above table indicates that in comparison with 1996-97, student enrolment increased by 18347 students in 2000-2001. Only 48 more Schools and 81 more teachers were appointed within this period. Round about a primary school serves only 5.89 Sq kms and about 2 villages.

M.E. Education

Year	No. of Schools	Total Students	S.T. Students	No of Teachers			Students Teachers Ratio
				Male	Female	Total	
1996-97	212	25827	10614	758	176	934	27.65
1997-98	225	28150	9879	779	192	971	28.99
1998-99	244	16782	8905	515	167	682	24.60
1999-00	215	19036	8144	692	215	907	20.98
2000-01	217	22607	10195	705	224	929	24.33

(Source: District Statistical Hand Book, Kandhamal for the year 1997, 1999, 2001)

About 12 villages are served by one M.E. School and cover an area of 35.25 Sq kms. In comparison from 1996-97 to 2000-2001, student strength was decreased to 3220 and five posts of teachers also fell vacant in 2000-2001 then 1996-97. Five more schools were established within this period.

Secondary Education

Year	No. of Schools	Total Students	S.T. Students	No of Teachers			Students Teachers Ratio
				Male	Female	Total	
1996-97	76	15781	6585	591	148	739	21.35
1997-98	76	12216	5265	575	148	723	16.89
1998-99	82	14498	6208	602	151	753	19.25
1999-00	86	17317	7288	551	181	732	23.65
2000-01	88	18517	7873	567	166	733	25.26

(Source: District Statistical, Hand Book, Kandhamal for the year 1997, 1999, 2001)

In High School level, student enrollment increased with 2736 whereas six posts of teachers remained vacant in 2000-2001 then in 1996-97. In this period 12 more schools were opened. A High School serves about 29 villages and covers an area of 86.93 Sq kms.

College Education

Year	No. of Schools	Total Students	S.T. Students	No of Teachers			Students Teachers Ratio
				Male	Female	Total	
1996-97	11	4740	1060	161	33	194	24.43
1997-98	11	4892	1010	163	25	188	26.02
1998-99	11	4524	1066	163	25	188	24.06
1999-00	11	4757	1357	193	23	216	22.02
2000-01	11	4177	1228	189	26	215	19.42

(Source: District Statistical Hand Book, Kandhamal for the year 1997, 1999, 2001)

There is no increase of Colleges during 1996-97 to 2000-2001. Enrollment of 563 students were less in the year 2000-2001, but 21 posts of teachers were increased. A college serves about 229 villages and covers an area of 695.45 Sqkms.

During 2000-2001 in primary level 14668 more tribal students were enrolled than in 1996-97, but in M.E. level enrollment was less by 419 tribal students within this period. In High Schools,

1288 more tribal students and in college only 168 more tribal students were admitted during this period.

It is ascertained from the above discussion that tribal student enrollment in comparison to total student enrollment is 55.92% in primary level, 45.09% in M.E.level, 45.51% in High School level and 29.39% in College level in the year 2000-2001. It seems that a big portion of tribal students are not going to M.E. level from primary

level. Likewise most tribal students could not go for college education from high school level. This happens only for the socio-economic backwardness of tribals. Statistical figures are prepared basing on total district data. But the position is worst in the blocks like Kotagarh, Tumudibandha, Daringbadi and Phiringia. There is no college in Kotagarh and Khajuripada Blocks. The family status and environment of tribals of Kandhamal district does not permit their children for education. Hence about 1/5 of the students of primary level are enrolling in M.E. level and above classes. Though in the year 2000-2001 enrollment was 53222 in primary level, in College level only 1228 tribal students were enrolled. This shows that in each level of school education drop out among the tribal students are numerous. The following table and graph will indicate the decline trend of enrolment.

Enrolment of Students in various levels of Education

Year	Primary level	M.E. level	Secondary level	College level
1996-97	67816	25827	15781	4740
1997-98	73863	28150	12216	4892
1998-99	92048	16782	14498	4524
1999-00	86545	19036	17317	4757
2000-01	95163	22607	18517	4177

In my study I have already shown about the slow growth of education and educational institutions in Kandhamal District as well as the increasing trend in establishing primary schools. I have also seen that the educational institutions in primary level have increased resulting in increase in student's enrollment. The number of enrollment has decreased significantly in the later stages of higher education, which, in other hand speaks about the increasing drop out problem.

Though the establishment of primary schools by Government and private agencies is quite noticeable in recent years the problem of

drop out is on increasing trend which has been explained below in table and with the graphical representation.

**Increase in Dropout
(From primary to college)**

Year	Primary	College	Dropout
1996-97	76816	4740	72076
1997-98	73863	4892	68971
1998-99	92048	4524	87524
1999-00	86545	4757	81788
2000-01	95163	4177	90986

There are certain important reasons for the drop out problem in the district.

The first and most important reason is the prevailing economic backwardness. We know that majority of the people in the district are poor and who spend most of their times in doing small jobs and marginal farming, where children are also taking part. So financial difficulties create major hindrances for them for sending their children for studies.

Secondly, ignorance and superstitions play a major set back for spread of education in the district. People of the remote area are superstitious and addicted to blind beliefs. So they do not understand the value of education.

Thirdly, a vital reason for the drop out problem of tribal students is their prevailing cultural process and life style, which hardly creates conducive environment for spreading of education. Some festivals like Kedu-Laka or Buffalo Sacrifice of Kandhas lasts for seven days and Anaka Puja of Kutia Kandhas continues for about a month in different villages of the area. The parents of the tribal students do not allow them to attend the school during that period. There are no specific Government sanctioned holidays for

tribals of the state to be observed by the educational institution unlike other communities enjoy. Hence tribal students remain absent in the school during their festive occasions, when there is no holiday. For this reason tribal students are lagging behind in studies from their non-tribal counterparts.

Another point for the drop-out problem is health. The poverty of tribal people doesn't permit them to keep clean their home environment. They don't get nutritious food. So tribal children often fall ill. The parents could not treat them timely due to economic scarcity. So they suffer for a long period. During suffering the child remains absent from school and after recovering from illness he loses his appetite for study.

However there are few other reasons, which may also be responsible for drop-out problem of tribal students.

1. The medium of teaching i.e., Oriya language is a foreign language for the tribal children.
2. Non-tribal teachers are posted to schools located at tribal areas, who are not aware of tribal cultural values.
3. Absence of tribal cultural and regional materials in class books.
4. The school environment does not attract the tribal students.
5. Some schools are not having their own buildings.
6. Schools having single teacher.
7. Teachers in interior pockets neglecting in duties.
8. Irregular supply of mid-day meals.
9. Lack of communication facility.
10. Untimely supply of study materials.

There are many other minor reasons for drop out of tribal students. If this type of process will continue and slow progress of literacy rate will prevail then the very purpose of fundamental right to education as per 86th amendment of Constitution will be defeated.

The Constitution of India was introduced in 1950 and there was a pious aim to educate all children from the age group of 6 to 14 years by 1965. But it was failed. Government from time to time fixed a target year for achievement of 100% literacy. Again, the year 2000 was targeted to achieve the goal. It was also unsuccessful. About 40 years have already been elapsed since 1965, but the goal is not attained. We have to again wait for at least 150 years to get cent percent result if the progress of tribal education will continue at the present rate.

But it is a good sign that District Primary Education Project assisted by the D.F.I.D. has been launched in Kandhamal district since the year 2000. A survey was conducted in the year 2000 to identify children from age group of 6 to 14 by the D.P.E.P. It reveals that there are 1,21,563 (boys-64655 and girls-56908) children are coming within the category, out of which 30916 (boys-15024 and girls-15992) are not admitted in to schools. There are no schools in 906 villages till 2003 (Smaranika : 2003: 31). Steps are being taken to set up schools and E.G.S. centres in D.P.E.P. programme. Accordingly 57 primary schools and 549 E.G.S. centres in the said programme are set up till end of 2003. Sarba Sikhya Abhiyana has also been introduced in the district from 15.08.2003. This programme will continue till 2010 while D.P.E.P. programme will be ended by 2007 (Giri, Jhankara : 2004 : 92-93).

But we should bear in mind that the survey conducted previously is not the end of the goal.

Every year some children will attain the age of 6 and will be added to the previous survey. They should carefully be enumerated and should be taken in to account unless the very purpose of the above schemes will be defeated.

If D.P.E.P. and Sarba Sikhya Abhiyana will be worked out whole-heartedly by every concerned it could be hoped that cent percent achievement could be achieved by 2010 in the field of education in Kandhamal District.

To achieve the goal at a short span of time following recommendations may be adopted.

1. Study books must be prepared in tribal language up to upper primary level.
2. Teachers from the same tribe and from the nearby villages if possible from the same village should be appointed.
3. There must be a school in each village.
4. More M.E. schools should be opened in tribal areas.
5. Every school must be well-equipped with all study materials.
6. Tribal students must be supplied with study materials and dresses free of cost.
7. Pucca building must be provided to every school.
8. Teachers must be paid regularly with free accommodation facility in school campus.
9. Responsibility may be laid down to teachers for enrollment of all children from the age group of 6 to 14 years and not allow dropouts at any circumstances.
10. Each parent must be motivated to send their children above six years to school or teachers and parents may be legally bound to do this task.

11. All N.G.Os functioning in the district may be involved in the process to educate all children from 6 to 14 years.
12. Training at intervals to the Non-tribal teachers about the tribal culture and language should be provided.

These suggestions may be introduced in a war footing manner and all concerned from parents, teachers to Heads of the district must work whole-heartedly to achieve cent percent education to all children from 6 to 14 years within a limited span of time and bring a sea change in their society to bring the tribal in to the mainstream.

I may sum up with words of Swami Vivekananda-

The only service to be done for our lower classes is to give them education; to develop their lost individuality, give them ideas-that is the only help they require and then the rest must follow as the effect. Ours is to put the chemicals together, crystallization comes in the law of nature.... Now if the mountain cannot come to Mohammed, Mohammed must go to the mountain. If the poor boy cannot come to education, education must go to him.

This is true and has its relevance till the present day, which may be followed strictly.

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-
- Raghunath Rath lives at Revenue Colony, Balliguda, Kandhamal - 762103.



His Excellency the Governor of Orissa Shri Rameshwar Thakur after inaugurating the "Odisha Utsav" going around the stalls at New Delhi. Shri Raghuvansh Prasad Singh, Hon'ble Union Minister, Rural Development and Shri Debasis Nayak, Minister, Informaiton & Public Relations, Sports and Youth Services are also present.

Relevance of Folk Theatres in Modern Times

Indu Bhusan Kar

If we look to origin and evolution of folk theatre, we have to admit that this theatrical tradition is interlinked with human civilization. In the Vedic period, people had developed potential artistic qualities like songs, dance and many religious rituals to express their emotions, hope and aspirations. Bharat Muni, the first dramaturgist codified the art of dramaturgy in his famous treatise called 'Natyasastra'. In Orissa the historians and drama critics opine that "Arena Theatre" was prevalent in the days of Emperor Kharavela in 1st century A.D. Dhiren Das, a noted dramaturgist has deciphered the Hatigumpha inscriptions and categorically emphasized, that 'Ranigumpha' cave of Khandagiri was an arena theatre where people were staging plays from time immemorial in Orissa, the land of art and architecture. Many folk forms have been developed mainly out of celebrating religious and social ceremonies. Songs and dances are integral ingredients of these folk forms. Each folk form had its particular community, same language, area and way of life. We find some commonality in each form. Religious movements like Saivism, Hinduism, Jainism and Vaishnavism have shaped thematic contents of these folk forms. The musicality is one of the greatest characteristics of these folk dramas. The musical instruments developed indigenously are peculiar features of these folk plays. The instrument used in Daskathia are different from Lilas of Chhaus.

Lilas, Daskathia, Geetabhinaya of Baisnab Pani, Mughal-tamsa, Prallhad natak, Dandanatya, Ravanachhaya (puppet theatre), Desianata, Palas, Suanga and Chhau are considered to be the major forms which are still popular in rural areas on festival occasions. The royal patronage by Kings and Zamindars gave moral boosting and incentive to folk artists to develop folk theatre troupes, but after abolition of Kings and Zamindars, these professional folk theatre troupes started languishing and some of them are at the verge of extinction. Many talented artists are deserting troupes and migrating to cities for some other employments. There are instances where some of the theatrical folk forms are no longer in vogue. In special occasion sporadic efforts are made to stage folk play once in a year. As for example in north Balasore district to which I belong many Palas like Lalita-Pala, Karusana-lila which were being performed earlier are no longer staged frequently. Many troupes of Jaleswar, Kamarda, Bhogorai Deula, Baliapal and Chandaneswar of Balasore district have vanished into oblivion. Palas and Lilas are no longer in vogue due to impact of electronic media and deteriorating financial condition of traditional folk theatrical troupes. Research scholars have restored many manuscripts of these Palas and Lilas in these areas of north Balasore of Orissa.

Dr. Kailas Pattanaik, Dept. of Oriya of Viswa Bharati University undertook an in-depth study of folk form of Lalita Pala in Balasore district which has been published in 'Konark' (Oriya journal of Orissa Sahitya Academi Vol-97, p- 78, Yr-1995). Now time has come to make a complete survey of all such rural folk theatre troupes and identify causes of decay and decline of the professional theatre troupes. The same is the pitiable condition of folk theatre form of 'Mughal-tamsa' of Bhadrak, though it was once enjoyed and accepted by the people as the most thrilling and popular folk form.

Ideas and taste of the people are changing fast with march of the time. The popularization of radio, TV and VCR as source of entertainment has diminished the loyalty of the people towards the folk plays. Now aggressive consumerism has mesmerized the people's mind due to advent of electronic media. At this stage one may ask the question of utility and relevance of reviving the traditional multiple streams of folk plays when, cinema and TV are giving enough entertainment to the people. The folk drama has got twin purposes of both entertainment and education. Folk theatre has contributed immensely for creating social consciousness. As for example in Orissa the 'Geetnatya' of Baisnaba Pani played greater role spearheading patriotic fervour among the people during freedom-movement of India. Similarly other folk dramas like Prahallad natak, Danda, Palas have also enriched people's mind with religious virtues. But vulgarization of films, TV serials with overdose of sex and violence are polluting people's mind with main objective of giving sensuous pleasure. This new trend in the field of entertainment industry causes immense sociological hazards. On the other hand, the so-called absurd and experimental plays are creating boredom among the audience. After the Second World War the Epic plays of 'Bertold Brecht'

enriched modern drama with folk elements. Drama was treated by Brecht a great pulpit of awakening people's mind. Once Brecht declared "I wanted to take the principle that it was not just a matter of interpreting the world but of changing it, and apply that to the theatre". This Brechtian dramatic theory and practice gave new shape to epic form of theatre. Many new dramatists after Second World War were influenced by this Brechtian dramatic theory. The new experiments were made to blend the folk elements with modern innovation in order to attract greater audience. Having realizing the importance of the rich folk theatre Martin Esslin, a renowned drama critic's message on world theater day, on 27th March 1989, is pertinent irrespective of region, race and religion. In the words of Martin Esslin-"In an age where, the world is flooded by a deluge of cheap commercially motivated material on television, the live theatre, the guardian of traditions and individuality of cultures, threatened by this avalanche of homogenized triviality and become more vital to the continued richness and variety of human culture than ever before in the history of mankind" (Published in the 'Canplay' : a magazine of Canadian playwrights associations Vol-6, No2, April 1989).

Kapila Vatsyayan a great authority on performing art has analyzed various forms of Indian folk plays in her book 'Traditional Indian theatre Multiple streams. She has opined that there is great importance in reviving Indian folk plays as these plays have contemporary relevance. In her said book 'Traditional Indian theatre', she observed "The Yatra forms are an important branch of the parent tree of Indian literatures, languages and theatre forms. Its survivals appear to have thrown seeds, which have given modern Bengali theatre a new direction. Like the Bhavai and the Tamasa it has provided an Indian format to avant-garde theatre, possibly this renowned

interest in Yatra was conditioned by the advent of a new form of epic theatre from Europe. Be as it may, the European influence generated an interest in national traditions and this has been a return educational journey home-ward for the modern theatre of India" (Traditional Indian theatre-page 146, published by NBT, New Delhi, 1st edition 1980). So it is to be admitted that folk plays of India, have played a great role in shaping avant grade plays.

Let us have a review of impact of experiments of blending rich of folk element with modern Indian plays of three renowned playwrights viz; Vijoy Tendulkar, Habib Tanvir and Girish Karnad. Vijoy Tendulkar, a well-known dramatist wrote a Marathi play-'Ghasiram Kotwal'. When this play was staged, it charmed the audience, as proper blending of Marathi folk music, satire and chorus songs with thematic contents of the play gave rich entertainment to the audience with a dramatic message. This play was translated into Hindi and a repertory troupe travelled 'with this play to Europe to stage this play in European cities-like Berlin and London. This play could enthral the European audiences. 'Guardian', the widely circulated journal, praised that this Indian play could satisfy the twin parameters of good play-which is aesthetic pleasure with a forceful message. 'Guardian' the prestigious journal of England remarked that in comparing with the modern Indian play, the European play looks like a broken mirror. This high appraisal of success prompted other playwrights of India to make such experiments of blending folk element skillfully with modern themes. Habib Tanvir the renowned director and actor made in-depth study of Chhatisgarh music of Madhya Pradesh and dance and he used it in his play-'Charan Das chor.' Once when this play was played at Paris, the noted directors from London flew to Paris to witness this Indian avant

garde drama. The critic and the spectators were charmed and praised the experiment of Habib Tanvir. This is a classic example of relevance and impotence of folk plays, because in his play there was proper assimilation of elements-both the traditional and the modern. Girish Karnad, a Gyanapitha award winner and a celebrated actor dramatist, has also made similar experiment with folk element in his play 'Haybadan' which has become a popular play among the people.

It is now necessary to examine the impact of folk theatre on modern Oriya plays and to what extent playwright have been successful in assimilation of folk elements in avant-garde Oriya drama. Let us evaluate this trend of experimentation in Oriya modern drama.

In Orissa, Manoranjan Das, veteran playwright in his play 'Katha Ghoda' and 'Nandika Kesari', Bijoy Mishra's 'Jane raja thile', Ramesh Panigrahi's 'Mahanatak', Subodha Pattanaik's 'Yethu ante', Rati Mishra's 'Abatar', All these modern dramas have used Oriya folk elements and also certain forms of folk drama for enrichment of the dramatic tradition with a view to attract larger audience. In the words of Niladri Bhusan Harichandan, a dramatist "the playwrights have been successful in bringing plays nearer to the audience through this new style. He further said- "The avant garde or modernist Oriya drama of today is enriched with an assimilation of elements both traditional and the modern. The addition of the forms of enriched with an assimilation of elements both traditional and the modern. The addition of the forms of various Oriya folk dramas even to this combination marks it off as different from similar developments in other parts of India" (Aspect of Oriya drama, P-131). But some critics observe that this experiment is not successful but there are plays which have succeeded in this experiment and got

audience's clapping. I myself have taken audience's poll and came to conclusion that the majority and the spectators have liked Bijoy Mishra's "Jane raja thile", Subodha Pattanaik's 'Yethu ante' Rati Mishra's "Avatar". These modern Oriya plays have been quite successful because of the proper blending of the folk elements. I am of firm opinion the richness of Oriya folk forms should be preserved and documented. Patronage should be given to establish professional troupes in Orissa. The steps taken in this direction in other states like Bengal, Andhra, Karnatak are really praiseworthy. In Karnatak more than a dozen folk research institutions have been established by Government Department of culture. There the Govt. has taken measures to educate and develop new generation of artists. But in many states the development of folk theatre is neglected. It is pity that there are some ultra modernists in bureaucracy those who do not favour the preservation, documentation and promotion of folk theatre.

Now-a-days it has been accepted by scholars in performing art that there is great relevance in studying, knowing and preserving these treasure of our Indian folk theatres. Some

may argue that these are old, archaic, religious and rustic. They are to be rejected on the ground of modern secularism and they openly utter-"let them die, let folk artist perish". We have got VCR, films, enough entertainment in 24 hours channels. I think, this ultra modernist's negative attitude will cause immense harm to growth of humanistic culture for all-round development of human personality. So it is high time that we should not allow further vulgarization of Indian culture by inertness, indifference and indolence. We should not be swayed away by the lures of electronic media. We the art-loving Indians are now facing challenges of assault on our language, literature and culture due to westernized culture. Let us not waste time only in theoretical debate as to whether an art form is folk, traditional, classical and modern. Let us understand and diversify cultural tradition, which is to be reflected in the contemporary theatre.

Indu Bhusan Kar is the Chairman, Advanced Centre for Indological Studies, Bhubaneswar.



Hon'ble Chief Minister Shri Naveen Patnaik at the birth anniversary celebration of Maharaja Krushna Chandra Gajapati Narayan Dev at Jayadev Bhawan on 27.4.2006. Shri Surjya Narayan Patro, Minister, Energy, Tourism and Information Technology is also present.

AUCC Bank Laid to Produce Successful Entrepreneurs

Choudhury B.K. Das

The strategic intervention of AUCC Bank to promote Horticulture and pisciculture in Angul and Dhenkanal District has produced many successful entrepreneurs. "APCA Farm" of Nakchi, at Kishore Nagar Block of Angul District is the biggest "Lichi" orchard in private sector of the State and has been financed by AUCC Bank.

Smt. Sakuntala Sahu the owner of the farm has been emerged as one of the successful women entrepreneurs. She is not only earning approximately 7 lakh rupees annually but also living peacefully in the green environment. Angul UCC Bank has financed around 66 lakhs rupees to nine farmers under "National Horticulture Scheme".

Mr. Brajabandhu Sahu, a small farmer of village Turanga of Angul was often dreaming to compete with the industrial businessmen around him. Today his dream became true. Now he is the owner of the biggest hatchery centre of the State in private sector. Mr. Sahu is now the owner of the biggest hatchery and pisciculture centre of the State with the AUCC Bank finance of 35 lakh

rupees. The Bank has not only financed but also facilitated to raise to the occasion for self-sufficient and dignity. Mr. Sahu is supplying all types of fish seeds to the farmer of the State as well as outside the State. He also started pisciculture in Derjang Medium Irrigation Project by taking 5 years lease. AUCC Bank has laid him to become

the most successful entrepreneurs in pisciculture sector in the State.

Angul - Dhenkanal region has been emerged as one of the important growth centres due to economic intervention of AUCC Bank with 194 crores rupees in the last financial year in

Agriculture, Horticulture and Pisciculture etc. The successful Cooperative movement of AUCC Bank has been recognized and it has been selected as the best Central Co-operative Bank of the State.

AUCC Bank being selected as the best Central Cooperative Bank of Orissa by NABARD has been awarded by S.J. P. Chidambaram, Hon'ble Finance Minister, Govt.





of India on 13.9.2005, at New Delhi, by Sri Naveen Patnaik, Hon'ble Chief Minister, Orissa in State level "Krushak Samabesh" on 20.11.2005 organised by Orissa State Co-operative Bank and by Hon'ble Finance Minister Sri Prafulla Chandra Ghadei on 19.11.2005 on the occasion of celebration of 52nd All India Cooperative Week at the state level.

Besides, our Guneibil SCS under Dhenkanal District is adjudged as the best Service Cooperative Society in the State and is awarded with shield by Smt. Surama Padhy, Hon'ble Minister, Cooperation on 19.11.2005 at the state level function. AUCC Bank has promoted 4 nos

of Vegetable and Fruit Producer's Marketing Co-operatives for cost effective production and market linkages.

The Bank's intervention in the social sector by providing 3 crores 76 lakh rupees financial assistance to around twenty thousands women of around 18 hundred SHG groups and empowering 40 thousands women by mobilizing 136 lakh rupees deposit is widely discussed among the mass.

As parts of its social responsibility, the staff of the AUCC Bank and its successful entrepreneurs has undertaken various development activities at famous tourist spots viz. Deulajhari and Kapilash.

Mr. Suresh Kumar Vashishth, IAS Collector and District Magistrate and MIC of the Bank has stressed upon continuous and sustainable efforts of the Bank to promote successful entrepreneurs in Angul and Dhenkanal District.

Choudhury B.K. Das is the A.G.M, O.S.C.B.





Hitherto Unknown Stone Inscriptions of West Orissa

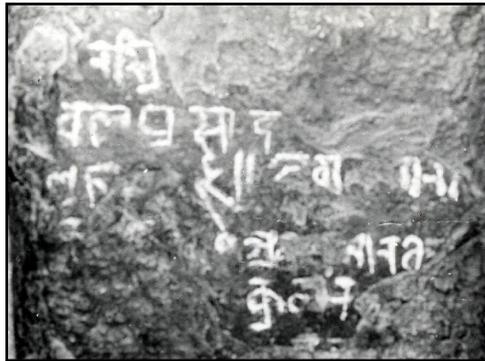


S.S. Panda

As evidenced from stone inscriptions, the Bhairava worship was prevalent in the upper Mahanadi valley of Orissa atleast from the 1st century A.D. The discovery of a two-lined inscription on the pedestal of a standing image of furious looking Batuka Bhairava at Junagad in the Kalahandi district by this scholar in April, 1983 throws new light on the cult of Bhairava. It is somewhat astounding that Pandit Satya Narayan Rajaguru has deciphered this inscription to be written in the *Pali Prakrit* in around 1st century A.D. On the broken pedestal of another Bhairava image of around six feet in height, found in the Banka Paik Pada of Junagad town, the last letter of an inscription 'Ra' is seen to be engraved. Such 'Ra' alphabet was used during the period from the 4th to 8th century A.D. Another short stone inscription of the 8th century A.D., found in the Dhavalesvara Siva temple at Mohangiri, also in the Kalahandi district, has been deciphered as *Vyuha Bhairava* by Pandit S.N. Rajaguru.¹

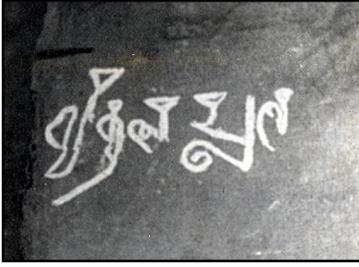
The image of Bhairava found in the back side of the Panchayat Samiti office at Junagad is

in the Batuka Bhairava form and is found to be stark naked, his *linga* and *kosa* seen to be hanging downwards, four-handed, holding a long *trisula* in his lower right hand, the bottom portion of it resting near his right foot. The eyes of this image is round, having an uncanny look with side-tusks coming out from both corners of his mouth. This figure has very long ears, flat nose and a big garland of skulls apart from a small necklace hanging round his neck. His *jatas* are forming a *mandala* in the shape of a flat *mukuta*. It is of the height of three feet and is carved on a square pedestal where the two-lined inscription in *Pali Prakrit* occurs.



*Patalesvara Temple Inscription
Budhikomna, Dist. Nuapada*

The learned epigraphist late Pandit Satya Narayan Rajaguru has rendered the reading of this inscription as "*Om Divyadhara* (1st line) *Jayapataraja Dhavasa* (2nd line)" in *Prakrit* language. He thinks the 2nd line to be read as "*Jayapatarajadhruvasya*" in *Sanskrit* language and place it in around 1st century A.D. palaeographically. Pandit Dr. Satya Narayan Rajaguru's personal correspondence with this writer dated 27th July, 1986 from



Amath Inscription, No.1, Kalahandi District

Paralakhemundi.²

A seal matrix has been unearthed from the Budhigad site, near Madanpur village of M. Rampur tahasil area of Kalahandi district. It is engraved on a diamond-shaped pendant made of red Jasper. It is a finely polished seal, bearing a floral motif in its proximal end. The legend in reverse is written in the mixed scripts of the 2nd century A.D. in the *Kharoshti* and *Brahmi* letters.³ Learned epigraphist B.N. Mukherjee, deciphering this two-lined inscription puts forth his views that it is written in *Prakrit* as "*Jana dhapeta*", the *Sanskrit* version of which is "*Yajna Sthapeyita*" (English Translation : Founder or Establisher of Sacrifices). Pradeep Mohanty and Baba Mishra, the discoverers of this seal matrix think that it belonged to a person who was probably a patron of Brahmanic sacrifices and as there is a perforation in the top-portion of this matrix it was in all probability used as a pendant in a string garland and was worn by the owner, who used it whenever required.

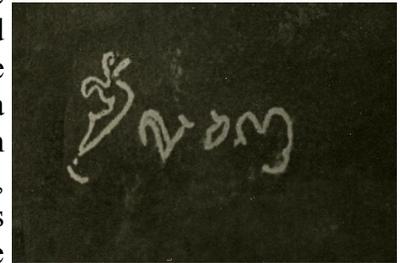
A four-handed Simhavahini Durga in archer's pose (*alidha* posture) in the Sanctum Sanctorium (*garbhagriha*) and one porch were discovered during excavation at Maraguda valley in Nuapada district.

Further excavations in the second fortnight of July, 1983 brought to light four residential rooms including a dormitory in the second tier and five residential rooms in the third tier of the Trisul mound, both to the north of the temple. These buildings have been taken by excavation director Dr. N.K. Sahu as the residences of the Acharyas.

One sword, semi-precious stones, one gold stylus, a red coloured stone seal bearing the name "*Dhimatiswara*" engraved on it in the box-headed *Brahmi* characters of the 5th century A.D. and one iron Yupa Stambha were discovered from the temple complex of the second tier during excavations. Dr. Sahu has considered the entire site to be places of worship as well as places of residence and general congregation. He further thinks this to be a Saiva monastery with leanings to Saivism.

The box-headed character of the *Brahmi* inscription found on the pedestal of the Simhavahini Durga image has been deciphered by Dr. Sahu as "*Maheswari Bhavadaa*" and of the fifth century A.D. palaeographically. Dr. Sahu has further ascribed the temple ruins of this place to the Nala rulers of Puskhari and the temple of goddess Durga to king Bhavadatta Varman. He has given the view that the Sarabhapuriya kings of the Amararyakula were followers of the Vaisnava faith. But the Nala kings of Puskhari except the last ruler Skanda Varman were great patrons of Saivism. Another learned epigraphist Pandit Satyanarayan Rajguru reads it as "*Maheswari Bhabeidam*", means "From This Grows Maheswari" and dates it to the 6th century A.D.⁴

In June 1991, a stone slab bearing an inscription was unearthed during excavation of a mound in the same Maraguda valley. This inscription has been deciphered as "*Guna Lopa Dve*" by the noted epigraphist late Dr. Satyanarayan Rajguru, which means "two Gunas are to be off." In the views of



Amath Inscription, No.2, Kalahandi District



Vaidyanath Inscription,
Sonapur District

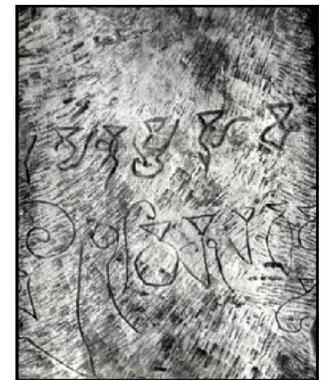
Dr. Rajaguru, "a man who may worship the goddess (Mahesvari) should abolish two *gunas* (qualities) out of three *gunas* (*Satva, Raja and Tama*). Those who possess *Satva-guna* should give up the other two *gunas*. Similarly those who has *Rajaguna* or *Tama-guna*, if he wishes power or strength for *Marana, Uccatana* etc., she (the goddess) should be worshipped by abolishing the other two *gunas* respectively. (*Vide Mahesvari Tantra*). Rajaguru further thinks that it is a *Sutra* of Tantric philosophy. *Mantra Mahodadhi* by Mahidhara may be referred in this matter.⁵

The Brahmanisation of the upper Mahanadi valley started right in the early centuries of the Christian era, but with a major thrust to Saivism and Saktism, as because this area was predominantly inhabited by the tribals. The inscribed Bhairava image of Junagad dated to the 1st century A.D. is a clear evidence of existence of such religious beliefs.

A red-coloured polished stone seal bearing a legend in the box-headed Brahmi characters consisting of four letters in the lower portion and above the inscription having the engraved motifs of three devices, i.e. a high-necked oblong pot with a sprout on the left (*kundi*), a curved stick (*danda*) and a beaded rosary (*aksamala* or *Rudraksamala*). While deciphering the inscription on the seal as '*Brahmanasya*', meaning "the seal belongs to Brahmana", learned scholar Chandra Shekhar

Gupta⁶ has dated it to the 5th century A.D. He further thinks that as this type of curved *danda*, *kundi*-type *kamandalu* and beaded rosary are depicted in the Saiva sculptures of Vakataka period found in the Vidarbha region, the seal motifs might have been influenced by the Vakataka art. This type of sprinkler pots of red polished ware have been found during excavation undertaken at Sirpur and Malhar in the adjacent Chhattisgarh region. The rosary is made of ten beads (nine normal and one Sumeru bead, which is slightly bigger in size and placed on the top right corner). The *kundi*-type water pot and rosary are shown as attributes in a number of icons of Siva. As Brahmana and Brahmani are epithets of Siva and his consort Durga (which was the Indian adoption of the goddess Mana and which subsequently merged in the image of Parvati), Gupta has therefore put forth his view that Brahmana was a Saivite and so is his seal. Gupta has brought to the attention of scholars a very interesting fact that, one of the gold coins (Aureus) of the Roman emperor Julius Caesar (31 B.C-14 A.D.) found in Chanda (Chandrapur) district of the Vidarbha region, bears three exactly similar devices, and most probably being inspired by the design of the Roman coin, Brahmana might have devised his seal, although the time gap between the Roman coin and this seal is more than 500 years (1st century B.C. to 5th century A.D.).

This seal was discovered in the Maraguda valley of Nuapada district during surface exploration and presented to the Sambalpur University museum. Brahmana might be an Acharya of the



Belkhandi Inscription



"Mahesvari Bhabeidam" Maraguda, Dist.- Nuapada

Saiva monestery in which another Saivacharya named Dhimatisvara was functioning to propagete Saivism in this region of anciant Daksina Kosala in the 5th century A.D.

An oval shaped stone seal found at Nehena village is in the private possession of Shri Jitamitra Singh Deo of Khariar. The seal bear three emblems in the upper half portion, i.e a crouching bull facing to the proper right side and in front of it two symbols, one trident and and a *danda*. In the lower half portion a legend in the box-headed *Brahmi* scripts of the 6th century A.D. has been inscribed, which reads "*Saivaramesvarasya*" (It belongs to Saiva Ramesvara). In all probabality the seal was used by a Saiva Acharya named Ramesvara.

A village named Aksarsila is situated on the left bank of river Brahmani at a distance of around 24 miles (38 kms) from Deogarh and around 15 miles (24 kms) from Bonaigarh on the old Bamra - Bonai road.⁷ There is a huge monolithic rocky elevation in a paddy field to the south-west of the village, which comes under the Barkot *Panchayat Samiti* area of Deogarh district at present. The reputed epigraphist Dr. Snigdha Tripathy has deciphered this inscription as "Sri Bicitra Bhusanaya" and has ascribed it to the last part of the 7th century A.D. or early part of the 8th century A.D. But at the present state of our knowledge it cannot be said definitely as to who Sri Bicitrabhusana was and why he inscribed his name on this monolithic rock.

A stone slab having a three-lined short inscription has been shifted from the

archaeological site of Belkhandi in Kalahandi district and at present kept in the Bhawanipatna Museum. It has been deciphered as (1st line) *Pratyanta Purusa*, (2nd line) *Sri Vikara deva*, (3rd line) *ha* by the epigraphist of Orissa State Museum Miss Bharati Pal. She is of the view that palaeographically the scripts of this inscription can be dated to circa 8th century A.D.

She has deciphered another short two-lined fragmentary inscription from Belkhandi, now in the Bhawanipatna Museum as (1st line) *tavadaksana* (2nd line) *Sri Canda* and dates it to the 9th century AD. It seems it to the 9th century A.D. Belkhandi site was already famous for the Saptamatrika temple and another temple dedicated to Uma Mahesvara, as evidenced from the archaeological finding.

In 1946-47, S.N. Rajaguru examined yet another broken stone inscription, found that Belkhandi by Kedar Nath Mahapatra during excavation and come to know from the reading of the said inscription that the locality was called "Gouraveni - Tata Visaya". From this he understands that the ancient name of the river Utei was Gouraveni.⁸

Two door jambs of a temple have been shifted from Amath village to the Kalahandi District Museum at Bhawani Patna. On both pillars, there are three short inscriptions, two on one of it and one on the other. Two short inscriptions, deeply executed on one of these Pillars have been deciphered by late Prof. D.C. Sircar, the internationally reputed epigraphist,



Sarsara Inscription, Sundargarh Dist.No.1



Sarsara Inscription, Sundargarh Dist.No.2

being requested by this scholar through correspondence. He has read the five lettered fragmentary inscription as "*Rdhya Kulamula*" and was of the view that this "*Rdhya*" can be taken as the remnant of an epithet of the personal name that follows. Another short inscription which is in cursive writing has been deciphered as "*Mulacanda*". He has assigned both these inscriptions to the 8th-9th century A.D. on palaeographical ground.⁹

A three-lined inscription is found inscribed on a huge stone beam, at present lying on the ground near the Siva temple at Deypur (Kalampur) in Kalahandi district. This inscription has been deciphered as (1st line)...*d Dharmmadhirasya* (2nd line)... *sa....bhumi (mi) - gra.....ca...* (3rd line)*sa (or na) (devayatana) parikrama*" by the learned epigraphist Dr.(Smt.) Snigdha Tripathy, who thinks that it is written in the nail-headed characters of the 8th-9th century A.D.

Two short inscriptions are found inscribed, on the beam of the pillars supporting the roof of the *Jagamohana* of the Kosalesvara temple at Baidyanath in Sonapur district and the other in the side of a carving of eight-petalled flower on a loose stone block. The first inscription reads '*Deviye (ta)*' and the second, "*Siddham Ranaka Sri (Dha) ndhokasya*" and palaeographically can be placed in the second half on the 9th or first half of the 10th century A.D.¹⁰ Although it is very difficult to identify Ranaka (Dha)ndhoka whose name occurs in the short inscription, it is apparent that he was a great devotee of the Lord and attained perfection or *Siddha*.¹¹

A *Panchayatana* temple complex was brought to limelight by this scholar in June, 1984. The main central temple is of *triratha* order and surrounded by four subsidiary temples of the *triratha* order. The small temple in the north-west side of the central shrine is having a short inscription on its southern outer wall. This three-lettered inscription has been deciphered as "*3 Bhaga*" by the eminent epigraphist Pandit Satyanarayan Rajaguru and from palaeographical point of view these script have been attributed to circa 9th century A.D. by Dr. S.N. Rajaguru.¹² The terminology "*3 Bhaga*" might be indicating "three architectural divisions" or "*tri-ratha*" design of this ancient temple, locally known as Kosalesvara temple.¹³

The *antarala* (portico) roof of a stone temple is found amidst temple ruins at Sarsara near Banei in Sundargarh district. The proper left edge of this roof slab is having an inscription in the 10th-11th century proto-*Nagari* characters. Another inscription is found inscribed on the pedestal of an image at the same site, which can be also dated to the same period palaeographically. Learned epigraphist Dr. Snigdha Tripathy¹⁴ has deciphered the inscription on the *antarala* roof-edge as "*Lahati (?) dara - Prakhara*." The pedestal inscription has been read by her as "*Pradipa dadhatt (?) bha Mahe*."

One five-lined inscription is found inscribed on the left side of the sanctum doorway of the Patalesvara temple at Budhikomna in Nuapada district. This inscription was damaged by the sculptors as they were trying to remove lime and plaster from this part of the doorway with the help of their chisels during restoration work done by the State Archaeology around 1979. The damage done is irreparable. Now only some twenty characters exist. (1st Line) *Rasri.....* (2nd Line) *Bala prasada....* (3rd Line).....*Na.....Dha 2 Ga.....II-II* (Stop

sign) (4th Line) *Na.....A.....Ratha* (5th Line)..... *Kulena*. This inscription has been placed palaeographically in the 10th-11th century A.D. by Pandit Satya Narayan Rajaguru, who has deciphered this inscription being requested by this scholar.¹⁵

A three-lined inscription in the proto-Oriya characters of the 16th century A.D. has been inscribed in the lower half of a rectangular memorial Hero Stone, which is at present kept in the Talbandh Para of Junagad town in Kalahandi district. It has been deciphered by learned epigraphist Dr. Snigdha Tripathy as (1st Line) *Sri Durga (or Duva) dasa gupta (?) chara* (2nd Line)..... *Je(ye)... devarika samastasa -* (3rd Line) *marpichi (se) - mrta senapati (?)*. As this figure is in profile in the fighting posture carrying a sword and a shield it seems that the "*Guptachara*" (spy) of a foreign country was killed, in whose memorial the Hero Stone was erected subsequently. The characters of the inscription exhibit the development of Oriya scripts in the 16th century A.D. and prove that Oriya scripts developed in this region of south-west Orissa, than under the occupation of the Nagavamsi kings of Kalahandi.

From a village named Dumerbahal one Hero Stone having a proto-Oriya inscription on the pedestal has been collected by the famous historian Mr. J.P. Singh Deo of Khariar and at present kept in the Khariar Museum. Being requested by this writer, the learned epigraphist Dr. Satya Narayan Rajaguru¹⁶ has deciphered it as *Da (Du) ra Rogare* (Probably the death of this hero occurred due to some incurable disease) and assign it palaeographically to the 16th century A.D.

Many long stone inscriptions of Western Orissa like the one on the monolithic rock (Lankesvari Pitha) in the rock bed of river

Mahanadi at Sonapur and the short inscription on the monolithic rock in the river bed of Mahanadi at Binka are yet to be deciphered, which may throw new light on the history of this region.

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The Literary Heritage of Sonepur

Dr. Pabitra Mohan Nayak

Sonepur lying nestled in a cosy bower surrounded by long lines of sky-blue, forest crowned cliffs forming pre-eminently the base of a triangular plot, washed by the perennial flow of the Mahanadi and river Tel is a veritable poet's paradise. In the words of Sir Richard Temple:

“A real variety to the scene was afforded whenever caught the golden colours of the eastern sky, the rapids made a merry noise as they hurried along. The effect of the rocks was doubled by the reflections of teak trees, laden with their yellow blossoms, hung over the margin of the stream. We were one day on horse-back, another day in boats, it was from the midstream that the best views presented themselves. When the river was winding through mountain gorges, the hill-sides widely parted, would allow the water to broaden itself into a small lake, the voyager issuing from it by the river passage, would turn a corner and find himself in a fresh lake, whence he might enter another and yet another - each lake differing from its neighbour.”

These lovely sights and sounds created the appropriate artistic atmosphere where poets, novelists, dramatists, painters, musicians, etc. of no mean merit flourished. Here at Sonepur.

The growth of literature at Sonepur can be traced to Charyapada, to Matsyendranath and Daripada of the Natha cult. They wrote esoteric poetry in language known as Sandhya bhasa. The local idioms they used are still in currency in this area. Lakshmikara, daughter-in-law of

Jalandharippa, Raja of Lanka (Sonepur), who was one of the exponents of the Natha cult was the propounder of Sahajayana Buddhism whose “Advayasiddhi” is the medieval form of Acharya Rajanish's modern method of Yogic practices from sex to salvation. The mystic poetry of the Natha cult which flourished from 8th to 11th century largely influenced the Panchasakha literature of Jagannath, Balarama, Yasowanta, Achuyta and Ananta. The Natha literature of Sonepur seems to have set the tone and temper of the literature the successive ages pursued.

Sasisena Kavya by Pratap Rai of the 17th Century is a milestone in Oriya literature. At a time when Oriya poetry was characterized by ornamental richness and figurative intricacies, here was a kavya marked by sweet simplicity and fluid beauty. And the author of this singular kavya was a son of this soil. There are enough internal evidences to show that the author belonged to Sonepur garjat. The kavya deals with the love, marriage and elopement of Ahimanikya, minister's son and Sasisena, daughter of the Raja of Amaravati near the present Chandikhol of Cuttack. It was here at Kamantapur (Sonepur) that the real drama of their love-life is enacted against the tantric background of this land of Sat Bahen. It was here that Ahimanikya, trapped by Jnanadei Maluni, one of the seven tantric sisters, was transformed into a sheep by day and a youth by night. The kavya end with the transformation of the sheep into Ahimanikya under royal orders and the reunion of the love-lorn lovers. Jnanadei

expresses her disdainful horror in her response to the king's command to bring the sheep. "What an idea", exclaims the cunning Jnanadei, "a sheep in the house of a gardener, a horse in house of a potter and a monkey in the house of a weaver ;"

The Chauhans who ruled Sonepur for about three hundred years kept up the tradition of the Somagupta kings whose copperplate charters carry lines of highly ornate poetry. In the Maranjmura copper plates of Yayati, Sonepur-on-Mahanadi has been depicted as a metropolitan city washed by the moon-lit, foam-crested, restless waves of the confluence sanctified by its holy water, decorated with rest-houses, resounding with the beaming, blooming lotus-faces of amorous women with anticing side-long glances.

During the reign of Niladhar Sing Deo (1841-91) there lived at Sonepur three great devotional poets namely, Chandramani Das, Bhima Bhoi and Bhubaneswar Panigrahi.

Chandramani Das was a siddha yogi whose samadhi pitha is visited by thousands of devotees all the year round. His best known work is Sudhasara Gita (1940) consisting, like the famous Bhagavat Gita, of 18 Cantos. It is based on the Pinda-Brahmanda tattwa of the Panchasakha school of poetry. But, while this intricate tattwa is made complicated by the Panchasakhas it is conveyed in simple, intelligible language by Chandramani Das. "Narada Gita" written in the form of a dialogue between Uddhava and Narada is Yogasastra turned Kavyasastra. These Yogas are quite different from those delineated in the Gita and yet this unpublished kavya closes with the beatific vision of anantasayi Vishnu which reminds us of the Viswarupa in the Gita.

"Bhavataraka" which is another unpublished but unparalleled work by this saint poet seems to have been influenced by Ram Das Dadhyata Bhakti. It comprises thirty cantos and is an episode on sin and salvation. From men to animals, from animals to reptiles-each one can

be saved by the grace of god. This is what we find from canto to canto. The most remarkable aspect of this voluminous kavya is the transcendental vision of God seen by a hunter through a strange bird in canto XVII. "No hands /No feet.. No beak/No colour, No shape/No nose, no ears... Its body filled the sky, the earth and the underworld. And he looked into his body and saw the bird." This immanent us of the poet's mystic English contemporary Wordsworth in "Tintern Abbey" -

A sense sublime
Of something far more
deeply interfused
Whose dwelling is the light
of setting suns
And the round ocean and the living air
And the blue sky and in the
mind of man

We see this cosmic vision again in Srikrishna Sudhamruta where the asta patavamsis seated on the Garuda witness Krishna's Gopa Lila far down in Maya Dwaraka and look back and yet find him behind them.

Chandramani Das wrote "Tandava Nruttya", "Bhsramana Gita" "Halia Gita", "Prabhati", "Balagopala Chautisa", "Gupta Gopibhasa", etc. some of which are yet to see the light of day. He was a Vaishnavite poet who loved bhajans and kirtans. And yet the god he worshipped was Rama and Krishna and Machha and Kachha and Narasimha - all rolled into one. And that one even is disembodied Brahman.

Bhima Bhoi began where Chandramani had left. His god was Mahima, the Sunya Brahma or the Void. Tribals are animists. They woship "rocks and stones and trees". And yet here was an unschooled tribal rebel who declared an unremitting, uncompromising battle against idolatry, against brahminical orthodoxy and royal authority. Setting up his ashram at Khaliapali near Sonepur with the patronage of Raja Niladhar Sing Deo, Bhim Bhoi became the Mahima Swamy of West Orissa whose monotheistic bhajans set to

the tune of the castanet ring in the raptured ears of his million devotees in West Bengal, Andhra, Bihar, Madhya Pradesh and Orissa. Bhima Bhoi was a prolific poet who, at once, dictated four bhajans to four scribes. Of his writings mention may be made of Srutinisedha Gita, Adi Anta Gita, Astaka Bihari Gita, Brahma Nirupana Gita, Bhajanamala, Chautisa Madhuchakra, Manu Sabha Mandala, Brahma Chalaka, Stutichintamani and "Mahima Vinod", a ponderous poetic itinerary of Mahima Swamy yet to be published. Besides, he has dictated numerous bhajans and chautisas which are still lying scattered here and there. In Brahma Nirupana Gita Bhima Bhoi defines Brahman as Purusa and Prakruti, light and darkness, knowledge and ignorance, master and slave, sea and sky, good and evil, death and immortality. But the magnum opus of Bhima Bhoi is his Stuti Chintamani which has no parallel in Oriya poetry. it elevates pure personal suffering to the height of a kavya like Wordsworth's "Prelude". Here in Orissa a wail of agony was, for the first time, considered subject matter for poetical composition in Bhima Bhoi's hands. We, therefore, sometimes strongly feel this unlettered genius of an unimportant Garjat of those days should have been, in all earnest, given the honour of inaugurating the modern age in Oriya poetry.

There was another neglected talent of Sonapur - Bhubaneswar Panigrahi- whose "Prema Tarangini" kavya can rival the best of Upendra Bhanja, "Kavi Samrat" of Oriya poetry. Born to an humble brahmin family of Gaurgaon, Bhubanear Panigrahi was a court-poet of Niladhar Sing Deo and a pundit of much learning. "Prematarangini" which means "a river of love" deals with the separation and union of Krishna and the Gopis in a language charged with passion and power. This is highly ornate, pictorial poetry, a long love-song composed to a wide variety of metres, decorated with figures of speech of alankaras like Utpreksha, Punarukti, Yamaka, Rupaka, Simhavalokana, Vyagragati, etc. and Chitravandhas like Samputavandha,

Padmavandha, Rathavandha, Gomutrachhanda, etc. scattered throughout with uncontrolled prodigality. the last four cantos are sometimes detached from the kavya and sung as morning hymns which, in their lucidity of expression, depth of feeling and melodic beauty, have hardly any parallel in Oriya poetry. Besides "Prematarangini" written in 30 cantos, kavyas like "Bhagavata Mahatmya", "Astapadi" and a few lyrics and chautisas based on the Krishna cult by Bhubaneswar Panigrahi are a precious treasure of Oriya poetry. In one of these songs, Krishna, on hearing Radhas grief-stricken separation, bursts into one of the most ornamental utterances.

Nira niraja nayanaru nivara
Varaja vasa khedajalu uddhara
Dharadharastana vinayavistara
Tara kesa mukha poti re.

Raja Niladhar was himself a poet, a painter, a composer, and a musician. The lyrics he wrote were simple, sweet and passionate and were largely influenced by the prevalent taste of Vaishnavite poetry.

Rajarsi Prataprudra Sing Deo (1891-1902), Niladhar's son and successor, was well-versed in Sanskrit literature and culture. He had composed several hymns in Sanskrit included in Stotratarangini (1893) comprising astakas, dasakas, dwadasakas on pattamaheswari, here is nityajnanananda sudhamvonidhirupa, an ocean of eternal wisdom and bliss. Somaesvari is Padmasina, trinayanayuta proditaditya kantih, a three-eyed goddess seated on a lotus and shining like the sun. Goddess Sureswari dazzles with white tulips trembling on the creeper of her fine frame, sphurat malli mala lalitanuvallari parisara, while the Mahanadi rushes on to lie on the large lap of the eastern sea, prachipayodhi vipulankaviharasila. Prataprudra's poet, Pt. Chintamani Nanda's Jagadisa Mahima Stavah is another solid contribution to the world of Sanskrit hymns.

If Prataprudra was a Sanskrit scholar, it is all but natural that the Oriya kavyas namely Chaturdasapadi (1918) attributed to him should

carry on them the distinct stamp of his Sanskrit scholarship. If Upendra Bhanja's Vaidehisha Vilasa and Dinakrushna Das' Rasa Kallola are written with the first letter of each line beginning with 'b' and 'k' respectively, Chandravati parinaya is composed in chakaradyaniyama (each line beginning with the alphabet-'Cha') which is rarer still in Oriya vocabulary. Based on an episode from the Mahabharata this kavya deals with the elopement and marriage of Chandravati, Duyodhana's daughter, with Shamva, Srikrishna's son. Like "Prematarangini", this is a pictorial, musical kavya composed to as many as twentytwo metres like Kalasa, Ramakeri, Rasakoila, Vasanta, Chakrakeli, Mangalagujjari, Shankarabharana, etc. The splendour of description, the opulence of alankaras, and the mellifluity of its music make it one of the milestones in the Riti Yuga Oriya poetry. Prataprudra's unpublished "Chaupadi Ratna" contains powerful lyrics on the Radha-Krishna love theme. The colophon verses of the originals of Chandravati Parinaya and Chaturdasapadi preserved at Gourgan in manuscript form bear the name of Bhubaneswar Panigrahi. Thus these kavyas attributed to Prataprudra were definitely written by Bhubaneswar which BM Sing Deo later published in the name of his father, Prataprudra. Bhubaneswar Panigrahi's son, Dwija Nilambar, too, has left behind him a few significant lyrics composed in medieval Vaisnavite mode. This rich tradition of poetry is fostered and sustained by the natural loveliness of Sonepur, its rivers and streams, its hills and forests, its fields and groves and, above all, by the Mahanadi flowing down loud on the stones and low on the sand, singing with Tennyson's brook, 'Men may come and men may go/ But I go on forever.'

The reign of Birmitrodaya Sing Deo witnessed the flowering of all branches of literature: poetry, novel, drama, biography, travelogue, translations, etc.

Birmitrodaya is said to have written Chandraprabha Kavya (1902), Astapadi (1926), and Anangarangini (1935). While Astapadi

resembles Prataprudra's Chaturdasapadi in content and form, Anangarangini and Chandraprabha Kavya which drew the admiring attention of poet Radhanath Ray show the poet's rare combination of tradition and modernity. Anangarangini deals with the imaginary story of love between Naravahana, Raja of Kausambi and Chandraprabha. Anangarangini deals with the imaginary story of love between Rasananda, Yuvaraj of Kanchanapura and Anangarangini, princes of Kamanagara, while Chandraprabha Kavya delineates the live and marriage, separation and union between Naravahana, Raja of Kausambi and Chandraprabha, daughter of the fairy king, Chitraketu. The visible approach of Anangarangini's youth depicted by the florist Kalavati in Ch.II and the description of the spring-garden in Ch.IV of Anangarangini, the elaborate depiction of the spring-forest, the sunset and sunrise in Chandraprabha Kavya justify them as jewels of Oriya poetry. While there is the unmistakable shadow of the ornamental poetry of the Riti Yuga on Anangarangini, Chandraprabha Kavya is a splendid specimen of simplicity in modern poetry. Its theme is ancient but its treatment brings it close to the poetry of Radhanath and Nandakishore. In St.267-9, Naravahana nostalgically reminisces :

The same scented breeze from the south
The same warm song of the cuckoo,
The same flowers, the same bees
White with pollen grains,
the same sweet air,
And yet since her departure
Something has happened to my heart.

Maharani Lady Parvati Devi and Yuvaraj Somabhusan have respectively left behind them two important kavyas namely, Syamantaka Mani (1928) and Gajendra Mokshana (1907). While Syamantaka Mani deals with the loss and restoration of the jewel Syamantaka, Gajendra Mokshana depicts the story of the salvation of an elephant crocodile from a Gajendra Mokshana

claim a special place in Oriya poetry for its moving simplicity spontaneity and spirituality.

Pt. Aditya Prasad Guru was primarily a Sanskrit scholar who attempted three kavyas in Oriya. Kutiravasini (1931), Kokila Sandesa and "Tarapurgarh" (MS). While Kokila Sandesa is written in the tradition of Duta Kavyas like Kalidasa's Meghaduttam and Dhoyi 'Kaaviraja's Pavanadutam, Kutiravasini, dedicated to Maharani Parvati Devi, is based on Canto VII of Devi Bhagavatam. It tells the story of Sukanya, daughter of Raja Saryati, and her god-conquering chastity.

Mayaraduta by Lakanath Misra resembles Guru's Kokila Sandesa. Both are Khanda Kavyas written on the same theme and in the same 'Kalyana Ahari' metre. But Misra's Haripriya (1922) can be classed with modern poetry. It tells the story of Haripriya's disappearance and discovery against the scenic, sylvan setting of Sonepur. The treatment of nature in this kavya carries it close to the best of Gangadhar Meher's nature poetry.

Harihar Panigrahi is a minor poet whose Agamani, Nirajana, Niti Saurabha, Asrudhara, Archana and Santwana Puspamalya claim him a place among Oriya poets. While the last three are elegiac effusions on the death of Birmirodaya Sing Deo, the first three relate the poet to nature and human nature. Though of shorter stature than his celebrated father Gopinath Panigrahi, Harihara will be remembered for his pan-Orissan sentiments expressed in Nirajana. In the midst of drowsy autumnal fertility and dreamy voluptuousness, in the midst of what Keats would have called, 'mellow fruitfulness', the poet finds Orissa condemned to starvation and slavery. Where is the trade across the seven seas? the poet asks ruefully. At a time when the Oriya language was under attack when poets like Gangadhar, Radhanath, Bichitranand,

Bichhandacharan were sweating and struggling to keep the banner of the Oriya language flying, here was a thin, little voice in a remote corner of Orissa lifting its lyric of patriotic protest.

Sonepur had a rich tradition of songs and music. Niladhar Sing used to compose songs and sing them to the accompaniment of musical instruments which he himself played. Birmirodaya sing Deo wrote half a dozen books containing hundreds of songs which continued the tradition of kavisurya Baladeva Rath and Gopalakrushna in Oriya Poetry. These songs contained in Sangita Ratnahara (1925), Sangita Vallari (1931), Krushna Premodaya Champukavyam O Sangita Sudhasagara (1933), Sangita Mitrodaya (1934) and Sangita Kusumanjali are largely based on the love between Radha and Krishna, and composed to a wide variety of metres like 'puravi', 'todi paraja', 'kedara gauri', 'bhatiari', 'kamodi', 'saari', 'malhara', 'panchama varadi', 'anandabhairavi', 'sankarabharana', etc. They are set even in Hindi, Urdu, Bengali, tunes. These songs, characterized by soft sentiments and lyrical intensity, combine in them the lucid simplicity of Elizabethan love-lyrics with the intellectual titillation of metaphysical secular songs. Birmirodaya's unpublished lyrics and chautisas and Malasri alongwith Swarnapura Bedha Parikrama (1899) and Lady Parvati Devi's Humva Gita (1929) come under this category of songs. Birmirodaya compiled and published two collections of Sanskrit hymns, namely, Stotrarangini (1893) and Suvarnamerusatakam (1927) to which Niladhar, Prataprudra and Birmirodaya have made significant contributions.

This tradition of poetry has come down to Kaibalya Charan Nayak whose "Nala Charita" written in Riti Yuga style and "Sakha Prasakha", a romantic effusion are yet to be traced. Marudhara (1961) and Sandhyatara (1969) contain around fifty devotional lyrics which show the poet's disenchantment and disillusionment with the world and his theocentric mindset. One of his longest poems in Sandhyatara is 'Chandli Chule' which takes the reader on a delightful trip round

the religious and historical places of Sonapur. Kaibalya Charan's MS "Mahapathara Yatri" contains a cluster of divine poems expressive of the poet's world-weariness and stoical surrender to divine dispensation. The last poem 'Mahapathara Yatri' which paints the pathetic picture of a dying man casting longing lingering looks behind closes with the emboldening sense of self-realization with which he "puts out to sea" in the hour of sunset and evening star.

Satyanarayan Bohidar was a poet with a difference. Author of 'Kosali Bhasakosh', his works namely Tik Chahnra (1975). Ghavghavo, Ghuvkudu etc. are written in Kosali or Sambalpuri language. The ease and facility with which Bohidar weaves the local idioms into the tapestry of his poetry is indeed amazing.

Of the other poetical works of Sonapur, mention may be made of the monumental "Buddha Purana" in several volumes by Nakula Nayak, "Papakshaya Mahatmya" by Dharmananda Meher, "Rama Lila" by Gandhar Vaisya, "Anutapa Tarangini" by Pt.A.P.Guru, Purana Kathasara by Parvati Devi, Ratnasimhasana Prasasti, by Damodar Sastri, Ratnasimhasanotsava by Gopinath Panigrahi and Kalika Purana by B.M. Sing Deo.

Historical Literature

Bijoy Chandra Mazumdar who was a poet and a historian wrote "Sonpur in the Sambalpur Tract" (1911) and Orissa in the Making (1925). Sri Ramchandra Mullick wrote "Samkhipta Kosala Itihas" (1931) and "Odisha Itihas" which are pure history. "Sonapur Itihas" by Pt.Aditya Prasad Guru and "Sonapur Chauhana Vansa Itihas" by Biswanath Rath, too, are prosaic attempts at pure history. But the works by Pt.Gopinath Panigrahi Vidyaratna like Upahara Puspanjali (1910). Kumara Janmotsava (1927), Ekadasi Udyapana (1928) constitute the poetical history of the Chauhan rulers of Sonapur. They set out to celebrate an occasion but end up as history. Gopinath Panigrahi's master-piece is a historical Sanskrit epic of the order of Gangadhar

Misra's famous Kosalanandakavyam (1929). "Swarnapurarajavansanucharitam" which the poet rightly calls the "Second Kosalananda". It is a poetic, historical record of the Chauhan Rajas of Sonapur beginning with Madangopal and ending with Birmirodaya.

Damodar Misra Sastri's 'Swarnapura Chauhana Kirttidarpana' is a historical kavya in Oriya serialized in Sambalpur Hiteisini. It traces the history of the Sonapur Chauhans in simple, lyrical poetry. Unfortunately this rare works has not been published in the form of a book.

Pt Aditya Prasad Guru's "Tarapurgarh" in Oriya, Syenagirih and Purascharana vamna Champuh in Sanskrit, too, are historical kavyas which trace the history and legends surrounding Sonapur.

Travel Literature

At a time when there was hardly any travelogue in Oriya literature, Sonapur created a host of travel literature. Some of them were written in the form of dialogic kavyas which lend credence and objectivity to history. Swarnapura Gunadarsha (1921) by Damodar Sastri is the historical geography of Sonapur in the form of a Champu Kavya gadyam hudyam ashesasavdanihitam padyam . Lokananda and Sadananda, fictitious merchants from Prayag, begin their tour of Sonapur State from the left bank of the Mahanadi, cross over the Panchara Pragana and visit the places of interest on the right bank till they enter the town. Maharudrayaina Kavyam (1920) like Biswanath Rath's Panigrahanapadapapah (1919) and Jagannath Mishra's Utasavatarangini Champuh (1910), is another historical kavya by Damodar Misra who decribes the journey of Maharaja Birmirodaya through the scenic Sonapur. His visit to Sambalpur and Benaras. His trip round the temples of Benaras, the performance of the Maharudra Yajna and his return journey are described with the fidelity and sincerity of a distinguished count - who draws in his first hand experience.

But on top of all is Gopinath Panigrahi's Brata Charita (1915) which is a remarkable travelogue in prose at a time when Oriya literature was quite poor in prose. The occasion in the thread ceremony of Somabhusan Sing Deo, Birmirodaya's son, but it sends the writer to different places of Orissa and beyond, which come out aggressively alive in Panigrahi's journal. While Part-I takes us round Puri, Sareikela, Boudh, Athgarh, Dhenkanal, Kasipur, Kuchinda, Calcutta etc, we are set on a guided tour round the temple town of Sonapur in Part-II. What Jagannath Misra Tarkatirtha, does in Utsavatarangini Champuh, Gopinath Panigrahi Vidyaratna does in Brata Charita. But, what is remarkable and delightful about Panigrahi is his sinewy prose and graphic visual descriptions which are the hall-marks of travel literature.

It is said that B.M.Sing Deo had written a book Bharata Bhramana, which confined an interesting account of his travels across the country, now unfortunately lost.

Biographical Literature

"Here in this country", wrote B.C.Mazumdar, "we cremate the body, we do not raise a monument". Yet he raised one in Chohan Rulers of Sonpur (1925) brief life-sketches of Niladhar, Prataprudra and Birmirodaya in pure panegyrics. B.C.Mazumdar was closely associated with the Sonapur Durbar. He had seen the Rajas within close range. Had he wished, he would have built solid biographies on the rulers, but he did not choose to do so. May be because, truth is dangerous and to sing the praise is less problematic and more profitable than to launch a perilous voyage on the discovery of the 'whole man'.

But unlike Chohan Rulers of Sonpur, Life of Rani Amulyamani Devi (1915) contains a full-fledged biography, even though here, too, we do not see anything shocking or revolting in the Rani. The Rani was, of course, on her own the true representative of Indian womanhood - an ardhgini to Rajarsi Prataprudra. The life of a

Rani is bound to be uneventful. But, Dasgupta discovers in Amulyamani more than a Rani. She is an ideal mother, a devoted wife and a fine specimen of Indian womanhood. The book deals with Amulyamani's early years in the Kalahandi palace, her married life, her children and grandchildren, her role as a wife and a mother and her last days.

It is said that Pt.Gopinath Panigrahi had attempted a book of biographies and called it "Satcharitra Samadara" which is lost to posterity.

Dramatic Literature

Sonapur had a rich tradition of dance and music and drama. Imagine a Yuvaraj freely mixing with the public and uninhibitedly acting his part with them on the stage. And this was possible at Sonapur in the second decade of the 20th century. The Yuvaraj was Somabhusan Sing Deo. His Sridama Daridrya Bhanjana (1920) is the only play available on Sridama's grinding poverty, his unflinching devotion to Lord Krishna, Lord Krishna's unshakable friendship with Sridama- all these are depicted in the drama. Bhagia Panda is a newly created character in this mythological play, which lends dramatic relief, through frolicking humour, to this otherwise serious play. The dialogues are written in Hindi, Hindi mixed with Oriya, Oriya mixed with Sambalpur. In the Foreword, B.M.Sing Deo refers to one-actor titled "Mayasavari" by Somabhusan which is not available.

Gopinath Panigrahi is said to have attempted some poetic plays, namely "Subhadra Parinaya", "Sachala Harana" and "Rukmini Harana" which have walked into oblivion.

Fictional Literature

It has already been said that Birmirodaya had a poetic talent, but his works on prose fiction like Bhagna Kankana (1920) and Nilakuntala (1927) are milestones in Oriya fiction. At a time when Oriya literature had only a handful of novels to show, it was here at Sonapur that these novels were written to enrich the literature of the State.

Bhagna Kankana is a historical novel based on the intrigue between Ajayagarh had Bishnugarh Raj families. The distinction of this novel lies in the Jaina background against which the quiet words of wisdom uttered by a little ignominious girl Johan in the gathering gloom of the evening. "Sorrow breeds sorrow. The compassion of Lord Mahabir removes sorrow and leads the soul through endless joy towards Nirvana. What is sorrow, prince?"

While Bhagna Kankana is a historical novel, Nilakuntala is a sociological fiction, which reflects the dwindling values of the rural society of those days. The centers of activity are Binodpur and Bishnupur and the merit of the novel lies in the seamless integration of the main plot with the under plot. Nilakuntala projects the picture of the contemporary society: the misguided youth, the village touts, the simple, unsuspecting, unsophisticated Savara society, the gossips in the river ghat, the evils of poverty and the benefits of education - all these are realistically portrayed in the novel. The justice dispensed is poetic. The denouncement is harden, it is too sudden to be credible. And yet this novel will live for the life it mirrors.

Translation

The appetite of Birmirodaya for Sanskrit classics was whetted by the pundits who surrounded him. They were Pt. Krupasindhu Mishra, Jyotisalankara, Pt. Ramachandra Padhi, Siddhanta Tilaka, Pt. Gobinda Rath, Jyotischandra, Pt. Gopinath Panigrahi, Vidyaratna, Pt. Kasinath Mishra, Kavyavinod, Pt. Damodar Misra, Sastri, Pt. Aditya Prasad Guru, Kavyatirtha, Pt. Chintamani Nanda, Vidyabhusana, Pt. Devaraj Misra, Sahityopadhyana, Pt. Brusabha Misra, Vidyalkara etc. Maharaja BM Sing Deo might have also received inspiration from Prataprudra and Amulyamani, his parents who were well-read and well-versed in Sanskrit literature. This made

him translate into Oriya great Sanskrit classics like Ratnavali (1894), Abhijnana Sakuntala Nataka (1898), Vikramorvasi (1910), Rutusamhara (1915), Naisadhiya, Charita (1921), Sisupala Vadha (1928), Dasa Kumara Charita (1928), Kalika Purana (1929), and Uttara Rama Charita Kavya (1930) Sing Deo acknowledges the help of Bhubaneswar Badpanda, Fakir Misra, Madhusudan Rao, Nilakantha Das, etc. without which the major works of Kalidas, Sriharsa, Bhavabhuti, Dandi, Magha, Markandeya would have remained Greek to the ordinary Oriya readers.

Under BM Sing Deo's patronage BC Mazumdar translated Gita Gobindam into Bengali. Lady Parvati Devi, it is said, had translated Bhaktikavyam and Pt. Gopinath Panigrahi, Malatimadhavam and Mruchhakatikam, but these invaluable translation have become extinct with the passage of time.

It may be mentioned here that great works like Gangadhar Misra's Kosalanandakavyam which is one of the three historical Sanskrit Mahakavyas of the country, Gopinath Tunga's Virasarvasvam which is the quintessence of twentyseven shastras of India, Niladri Mahodayah which is the only complete and comprehensive compendium on the 'Puja padhhati' of Lord Jagannath, Pt. Harihara Rath's Birmirodaya Mahabharata in three volumes, etc. would not have seen the light of day without the royal patronage of Sonapur. The Sonapur Chair of English at Revenshaw College and the Post-graduate Department of Calcutta University founded by Sonapur Durbar have immensely contributed to the cause of language and literature down the years.

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ORISSA : NEW FRONTIERS OF DEVELOPMENT

The glorious re-emergence of present Government in Orissa evoked new spirit and enthusiasm among the people. Backed by the overwhelming support of the people, the Government led by Sri Naveen Patnaik pursued hard to improve the socio-economic condition in the face of many challenges. The Government from the very beginning adopted the attitude of retrospection of policies and programmes undertaken during the first phase of its tenure and devised appropriate strategies to improve the quality of lives.

In accelerating the pace of development, the Government of Orissa clearly outlined its prime objective of human development. It concentrated on a meaningful and effective development framework and also identified the growth engines directing thereby all its policies and programmes to be anchored in a social context. It sincerely tried to reflect the development priorities of the target public where all its interventions are applied. The Government led by Sri Patnaik consistently endeavoured to encourage effective and efficient use of available resources for furthering the well-being of the people of Orissa.

The major initiatives launched to address issues of emergent nature basically hinges on principles of better financial discipline, optimum use of resources, creation of conducive climate for

investors, application of information technology in governance, creation of multiple livelihood opportunities for farmers, empowerment of women, devolution of powers to Panchayati Raj institutions, provision of quality health services, stress on primary education, stimulation of self employment opportunities through employment mission and

development of Schedule Tribes and Schedule Castes and vulnerable sections of the society. All these exercises were primarily targeted to trigger the process of development in its right perspectives. In revering the sentiment and perception of the people, the Government put in place pragmatic policies like Resettlement and Rehabilitation for affected families in the process of industrialization and other developmental efforts. Many of these initiatives have been regarded as exemplars for other parts of the country.



Indices of development have never been assessed in terms of quantitative achievements. Paradigm of governance has already experienced a shift for which many emerging disciplines have become the way of life. The concepts of good governance, transparency and accountability have become abiding factors with the implementation of path-breaking Right to Information Act. This far reaching law provides for independent information

commissions, proactive disclosures and reporting mechanisms having the potential to impact the process of governance in a profound and positive manner by empowering the citizen. During all these courses, the Government under the dynamic and vibrant leadership of Sri Naveen Patnaik have relentlessly tried to transform the scenario of the State into new frontiers of development.

Agriculture : Focus on Farm Mechanisation

- Priority accorded to Agriculture extension through application of high-end Crop Production Technologies, adoption of Integrated Nutrient Management and Pest Management practices.
- Farmers' training programmes, farmers' field school and demonstration conducted for macro-management of agriculture, ISOPOM, ICDP (cotton) for bringing advanced crop production technology and packages of practices to the farmers' doorsteps.
- 12.5 lakh grafts of various fruits, 10 lakh grafts of cashew and 2.5 lakh vegetable minikits supplied to farmers.
- To promote onion crops in the state, 300 quintals of quality onion seeds distributed to cover 7500 acres of land.
- Under National Horticulture Mission, 2625 demonstrations on rose, gladioli and marigold held to encourage floriculture. A target of 60,000 demonstrations set for the next year.
- To ensure minimum support price to farmers a target of 20 lakh MTs of rice set to be procured through Orissa State Civil Supplies Corporation Ltd., PACs, MARKFED & NAFED and millers under levy route.
- In developing micro-watersheds in drought prone areas, 2413 micro-watershed being



developed with a treatable area of 13 hectares.

Water Resources : Creating Maximum Irrigation Potential

- During 2005-06, six irrigation projects identified for completion with a targeted irrigation potential of 12685 hectares, of which four projects already completed.
- During 2005-06, Orissa Lift Irrigation Corporation (OLIC) completed 500 new LI Points under Biju Krushak Vikas Yojana and created an additional irrigation potential of 10,000 hectares.
- About 13,397 Pani Panchayats formed in the State by January 2006 covering an area of 10.40 lakh hectares. Out of these, 11,583 Pani Panchayats have taken over operation and maintenance of irrigation system covering an area of 7.81 lakh hectares.
- Master Plan for irrigation being formulated to bring minimum 35% of the cultivable area in each block under irrigation within a time frame of five years.



Steel & Mines : Harnessing Natural Resources

- Orissa in recent years has become a hotspot for steel and Aluminium firms of national and international repute.
- 43 MOUs signed with an investment of Rs. 1,37,000 crore for setting up steel plants in the state.
- POSCO, a South Korean steel giant, entered into an MOU with Govt. of Orissa to set up a steel plant having a production capacity of 12 MTPA with an investment of about US \$ 12 billion.
- The flagship Aditya Birla Group plans to setup a 1 MTPA Alumina refinery with smelter.
- Orissa Mining Corporation set itself a production target of 51.20 lakh tonnes of

minerals in 2005-06. This represents 33% increase over the previous year.

- ◉ Iron Ore production slated to touch 43 lakh tonnes in 2005-06, representing an increase of 40% over the previous year.
- ◉ Investigations to assess heavy minerals in beach sand along the Puri Coast, exploration for Gemstone in Bolangir and Bargarh, exploration for Bauxite in Koraput and Kandhamal, investigations for Tungsten and Graphite in Angul and Dhenkanal districts going on.
- ◉ Effective steps being taken up for enforcement of Orissa Mineral Act, 1989 to curb illegal mining activities and trading of ores and minerals.

Industries : Creating a Conducive Atmosphere for Investors

- ◉ To accelerate industrial development, employment opportunities and economic growth a single window clearance mechanism introduced by enacting Orissa Industries (facilitation) Act, 2004 ensuring time-bound clearance of investment proposals and rationalization of inspections.
- ◉ Orissa in recent years, has emerged a favourite destination for investors especially in mineral sector. Since 2003-04, 46 companies have already signed MOUs, of which 43 in steel sector with a capacity of 58.14 MTPA and investment of about Rs.1,37,156 crore and two in Aluminium sector with an investment of Rs.25,000 crore.
- ◉ 14 steel companies have started partial commercial production with an investment of Rs.10,750 crore creating direct employment opportunities for about 10,000 persons.
- ◉ Indian Oil Corporation all set to set up a Refinery and Petro-chemical Complex of 12 MTPA capacity at Paradeep with an investment of Rs.25,000 crore.
- ◉ Acknowledging development in technical education, a key element for employment generation, BPUT signed an MOU with IIT, Kharagpur to obtain assistance for facility

development and strengthening post-graduate and research programmes in various engineering and allied disciplines.

- ◉ In order to support massive investments, top priority accorded to improvement in infrastructural facilities. For creating quality infrastructure development in IT sector, an export promotion industrial park set up at Bhubaneswar.
- ◉ In promoting small and medium enterprises in the State, 2255 small industries were set up during 2005-06 with an investment of Rs.123.23 crores providing employment to approximately 10,308 persons.
- ◉ State Institute for Development of Arts and Crafts set up for superior design, product development and training. A strategy of cluster development adopted for developing different handicraft clusters.

Information Technology : Heading for a Knowledge Rich Society

- ◉ The State is making significant strides in Information Technology sector. MOUs signed with TCS and Wipro to set up Development Centers at Infocity in Bhubaneswar. Other companies like Hexaware Technologies & Mind Free Consulting are keen to invest in the state. All these companies are expected to directly employ about 5000 software professionals by 2007-08 besides creating substantial indirect employment.
- ◉ An e-procurement system initiated jointly by Government of Orissa, National Institute of Smart Governance (NISG) and National Informatics Centre (NIC) to bring in a transparent and efficient system of tendering and procurement.
- ◉ State Wide Area Network (SWAN), a core e-Governance infrastructure under implementation to connect the State Headquarters with all district headquarters, Sub-Division headquarters, block Headquarters with a 2 mbps dedicated line.
- ◉ The Oriya language pack under the programme "Technology Development for Indian languages" to enable Oriya Language computing completed.

- Project e-sishu aiming at creating a database of the 3 pillars of education namely children, teachers and school taken up by OPEPA and jointly being executed with OCAC. This would help achieving our goal of universalisation of primary education and ensuring that no child of the state left out of school.

Science & Technology : Opening New Vistas

- Gramsat Pilot Project being implemented in the State to provide satellite communication in remote areas. Under this project direct reception sets installed in the State capital, all districts, block headquarters and 1179 Grampanchayat Headquarters in KBK districts.
- Four schools in Koraput district now covered by EDUSAT Programme launched in October 1, 2005.
- Acknowledging the potential of Biotechnology, steps taken to set up a Bio-Technology park in Bhubaneswar.
- Target set to electrify 1000 remote villages through non-conventional energy sources.
- To facilitate fundamental research in mathematics, steps taken to establish an Institute of Mathematics as a center of excellence at Bhubaneswar.
- To inculcate scientific temper among children, the 13th National Childrens' Science Congress was organized at Bhubaneswar in December 2005. It was inaugurated by His Excellency, the President of India Dr. A.P.J. Abdul Kalam.



Tourism : Making Orissa a Preferred Destination

- Acknowledging the importance of Tourism promotion in economic growth of the State, Media Management Agencies and event

managers identified to take up publicity and promotion professionally.

- A new logo adopted to re-position and rebrand Orissa as a Vibrant Tourist Destination.
- Various strategic tourism projects such as Peace Park at Dhauli, infrastructure development in Buddhist circuit comprising Lalitgiri, Udayagiri, Ratnagiri & Langudi and tourism development at Pipili taken up.
- A Special Tourism area being developed between Puri and Chilika through IDCO for development of up-market tourism.
- For promotion and marketing, a slew of tourism fairs and festivals such as Sreekhetra Utsav at Puri, Ekamra Utsav at Bhubaneswar, Konark Festival at Konark being supported showcasing the tourism and cultural potential of the State.
- Orissa Tourism participated in Travel-Trade shows like Buddhist festival at Bangkok, Leisure Moscow at Moscow, WTM at London, PATA convention at Kualamlumpur, IATO at Kochi, TTF at Kolkata, Road show at Raipur etc.
- 373 guides trained to promote private sector participation in tourism sector.



Culture : Broadening Cultural Horizon

- Kalamandal, a multipurpose cultural complex to promote song, music, dance and drama under construction.
- Under Raja Rammohan Ray library foundation scheme, book assistance and storage provided to rural libraries and Gandhi Pathagaras.
- 'Sri Jagannathayan' a novel venture initiated for the propagation and popularization of Sri Jagannath culture in contemporary perception.

- 12th Finance Commission to provide Rs.50 crore for Heritage Conservation in the state.



- An Artists Welfare Fund formed to provide financial support to indigent and distressed artists.

ST & SC Development : Enriching the Quality of Tribal Life

- To improve the income of tribal households and productivity of their land "Orissa Tribal Empowerment and Livelihood Programme" (OTELP) launched with assistance from IFAD-DFID-WB, from October 2, 2004 with an outlay of Rs.430.73 crore covering 30 tribal blocks of seven southern districts.
- Control over 60 minor forest produce and NTFP which account for a substantial part of tribals' house-hold income transferred to Gram Panchayats.
- Restoration of alienated tribal land to its rightful owners.
- Regularisation of Pre-1980 forest habitations.
- Olichiki included in the 9th schedule of the constitution.
- Minor forest cases and minor criminal cases against tribals withdrawn.
- All-weather roads to tribal habitations of 500 population.
- Hamlets to be treated as habitations for rehabilitation packages.
- Price of kendu leaf bundles procured by the Forest Department increased to 21 paise from 16 paise and large number of new collection centers opened.
- Women self-help groups provided with loan linkages to augment tribals' family income.
- Tribal villages being electrified on priority basis.
- Tahasildars disposing of cases in camp courts in stead of revenue headquarters.
- Decision taken to provide house sites to all eligible homesteadless tribals.

- New initiatives taken to provide employment opportunities and create self-employment avenues for ST youths by skill upgradation training in ITIs and polytechnics.
- Employment rallies organized in tribal areas for recruitment of tribal youths in Defence services.
- Assistance also provided to 4158 SC families, 643 ST families and 26 liberated safai karmacharis through OSFDC.
- Assistance provided towards payment of monetary relief to 180 SC and 97 ST victims of atrocities under the SCs and STs (PoA) Act, 1989.

Women & Child Development : Empowering Women

- In improving health status of children, adolescent girls, pregnant women and lactating mothers, a holistic approach initiated in the state through Integrated Child Development Programme covering about 31 lakh persons.
- To improve nutritional status of malnourished children, a programme called 'Aame Bi Paribu' being implemented.
- A special intervention programme 'Kishori Shakti Yojana' designed for adolescent girls in the age group of 11 to 18 years, being implemented in all 326 ICDS projects of the state, aiming at correcting gender disadvantages and providing a supportive environment.
- About 51 lakh school children in 69,700 schools being provided cooked meals under Mid Day Meal programme everyday.
- To empower the women of the state about 1,76,000 Self Help Groups formed under Mission Shakti. Of this, about 1.6 lakh groups given advance credit to the tune of Rs.370 crore.
- Old Age Pension increased to Rs.200/- per month under State Old Age Pension Scheme covering about 6,75,000 persons.

Energy : A Pioneer in Power

- ⊙ Steps taken to provide access to all rural households during next five years.
- ⊙ Under Minimum Need Programme (MNP), 4696 villages, hamlets and dalit bastis programmed to be electrified. Of this, electrification of 2965 villages and hamlets completed by December 2005.
- ⊙ Being a surplus state in electricity production, surplus power to the tune of Rs.420 crore sold to Power Trading Corporation and National Vidyut Vyapar Nigam through GRIDCO during the 2005-06 by December 2005.
- ⊙ 7 projects with estimated cost of Rs.592 crore approved by Govt. of India for implementation of Accelerated Power Development and Reforms Programme (APDRP).
- ⊙ Highly efficient Orissa Power Generation Corporation (OPGC) paid a dividend of Rs.31.25 crore to the State Government during 2005-06 (Interim).

Panchayati Raj : Power to the People

- ⊙ Conforming to the mandate of 73rd amendment of the constitution, the process of devolution of powers to Panchayati Raj Institutions going on with transfer of various subjects of different departments to PRIs.
- ⊙ To provide atleast 100 days of guaranteed employment to rural people, National Rural Employment Guarantee Scheme (NREGS) launched in the State in 19 districts covering 205 blocks and 3672 GPs. This will guarantee unskilled employment to every household in 33527 villages covering 4078982 households.
- ⊙ 30501 Indira Awas constructed in 2005-06 by December.
- ⊙ Under Sampurna Grameen Rojgar Yojana 374 lakh mandays generated by utilizing 2 lakh MTs of foodgrains and cash of Rs.218 crore in 2005-06.
- ⊙ A special component of the SGRY, implemented in natural calamity affected

areas created 107 lakh mandays by utilizing about 60,000 MTs of rice.

- ⊙ Under Swarnajayanti Gram Swarajgar Yojana 33655 swarajgaries benefited by utilizing Rs.35.94 crore during 2005-06.
- ⊙ Steps under process to computerize 2742 Gram Panchayats having population more than 5000.
- ⊙ All 314 blocks and 30 DRDAs provided with V-sat connectivity.
- ⊙ New software tools PRIYA-SOFT and RURAL-SOFT developed for accounts and scheme monitoring.
- ⊙ State Institute of Rural Development (SIRD) conducted 96 training programmes for 5367 participants in 2005-06.

PGPA : Redressal of Grievances

- ⊙ During the year 2005-06, 9589 grievance petitions received and processed for redressal.
- ⊙ 26338 persons benefited through 21 'Janasampark Sibiras' organized in different districts.
- ⊙ One Pension Adalat (118th) conducted in which 288 cases disposed off.

Rural Development : Improving Quality of Rural Life

- ⊙ In according priority to rural connectivity in the state, 4067.15 kms of all-weather roads constructed under Pradhan Mantri Gram Sadak Yojana (PMGSY).
- ⊙ With the assistance of NABARD, 151 bridges and 368 kms of road completed.
- ⊙ Under Swajaldhara Yojana, 290 Drinking Water Projects completed. 8382 tube wells, 223 sanitary wells and 112 piped supply water project completed during 2005-06 by December.
- ⊙ Under Total Sanitation Programme 8.22 lakh individual households latrines and 7994 school toilets and 296 Anganwadi toilets constructed at a project cost of Rs.440 crore.

Food, Supplies & Consumer Welfare : Reaching out to Poor

- Under Antyodaya Anna Yojana, 35 kg rice per family per month being provided to about 10 lakh poorest of the poor families at highly subsidized price of Rs.3 per kg. An additional 2.63 lakh families going to be covered shortly under the scheme.
- Under Annapurna Scheme, 10 kg of rice per beneficiary per month being supplied free of cost to 64800 senior citizens.
- To protect the rights of consumers, one State Consumer Dispute Redressal Commission at Cuttack and 31 district Consumer Redressal Forums functioning in the State.
- With a corpus of Rs.1 crore a State Consumer Welfare Fund created for taking up consumer awareness programme.

Urban Development : Civic Amenities for Urban Life

- The Government committed to meet the increasing demand for better civic amenities and infrastructure facilities for a burgeoning urban population.
- About 660 million litres of drinking water supplied per day for nearly 4.5 million urban population in 103 local bodies.
- 16907 hand pumps set up in urban areas to cater to the needs of the weaker section.
- Three major water supply projects at Rourkela, Angul and Talcher nearing completion.
- A water supply project for Titilagarh commissioned.
- The living conditions of urban slum dwellers being improved under National Slum Development Programme (NSDP).



- Valmiki Ambedkar Awas Yojana being implemented to provide dwelling units to slum dwellers.
- Steps taken for a perspective plan for Cuttack-Bhubaneswar urban complex with the help of IIT-Kharagpur to promote planned growth of the twin cities and hinterland.
- Bhubaneswar and Puri selected under Jawaharlal Nehru National Urban Renewal Mission (JNNURM) for massive developmental projects in next seven years.
- With the help of the funds available under 12th Finance Commission Award the urban local bodies planning to take up scientific management of solid waste.

Health & Family Welfare : Quality Health Care for the Poor

- National Rural Health Mission (NRHM) launched in the state on 17th June, 2005 to provide effective healthcare to entire rural mass of the state.
- An innovative scheme ASHA, Accredited Social Health Activist launched to reach out all village Panchayats. ASHA will be the first point health contact in each village with a population of 1000 or more. So far 6861 numbers of ASHA identified in the state.
- Under NRHM two Community Health Centres in each district will be upgraded in the line of Indian Public Health Standards. An united fund of Rs.10,000/- will be allotted to each Health Sub-Centre of the state to implement the programme.
- To meet the shortfall of doctors in the state, 17 organisations given clearance for establishment of Medical and Dental Colleges in private sector. To promote medical colleges in western Orissa by private entrepreneurs, decision taken to provide 25 acres of land free of premium and Rs.10 crore in 3 years on reimbursement basis towards creation of infrastructure.
- One medical college with 100 seats and one Dental College with 60 seats made functional in 2005-06 in the private sector.

- MBBS seats of SCB Medical College, Cuttack increased from 107 to 150.

Co-operation : Credit Support to Farmers

- Short-term cooperative credit structure implemented to double agricultural credit in 3 years with 2003-04 as base year.
- Crop-loan investment registered an impressive 29% growth during 2004-05 and 34% in Kharif in 2004-05.
- About 24.25 lakh Kissan Credit Cards (KCC) issued to farmers, out of which 2.23 lakh KCCs issued during 2005-06 by the end of December 2005.
- KCC holders who repay for two consecutive years are issued with Kalinga Kissan Gold Cards (KKGCC). About 1.27 lakh KKGCCs issued, out of which 32000 card issued during 2005-06 by the end of December 2005.
- About 1.21 lakh Kalinga Kissan Silver Cards issued by December 2005.
- Under Crop Insurance Scheme, a total amount of Rs.15.04 crore disbursed to farmers for indemnity of crop loss during 2005-06 by the end of December 2005.
- Procurement target of 1,50,000 MTs of Paddy fixed for the year 2005-06 for collection through network of cooperatives. Of this about 1,00,000 MTs of paddy to be procured through Primary Agricultural Cooperative Society (PACS) and 50,000 MTs through State Cooperative Marketing Federation (MARKFED).

Forest & Environment : Promoting an Eco-friendly Environment

- Top priority accorded on programmes for providing livelihood support to forest fringe dwellers, increasing forest wealth and promotion of environmental awareness.
- 9549 Van Samrakshan Samities (VSS) involved in joint forest management of over 8431 sqkm of degraded forests.
- Protected Area Network of wildlife sanctuaries and National Parks cover 6611

sqkm land area and 20 km wide habitat of 1408 sqkm marine area in Gahirmatha Marine Sanctuary.

- Afforestation programme under different state and central plans implemented over an area of 19,090 hectares.
- Financial support provided for medicinal and herbal plantation in 1000 acres of private land with active promotion by state Medicinal Plant Board.
- Kenduleaf Trading generates 150 lakh mandays of employment every year.
- 9 lakh pluckers benefited from Kendu leaf collection during the season.
- Bamboo working, a potential employment generation activity, commenced timely in the current season in all districts having bamboo forests.
- Forest Department generated 55 lakh mandays of employment through its activities.
- Chilika Development Authority in partnership with various stakeholders working ceaselessly for eco-restoration of the lagoon.
- To control pollution effectively, ban on polythene of less than 20 microns imposed.

Revenue : Human Face of Intervention

- A Pragmatic Resettlement & Rehabilitation Policy put in place for a meaningful solution to the problems of displaced families. This is a pioneering policy of the State Government in comparison to other States.
- To facilitate the personal land holding records of the citizens, Land Pass Books being issued to each land holding families in the state with effect from 26th January, 2006 at a nominal fee of Rs.20/- with full exemption to BPL families. This Pass Book will also serve the purpose of certificate in respect of caste, income, legal heir, residence and identity.
- Under Basundhara scheme, land distributed to 14,588 homesteadless families, out of

which 7827 families belong to scheduled Tribes and 3234 families belong to scheduled castes. The scheme aims at providing land to 2,49,334 such families within three years from 2005-06 to 2007-08.



- ⊙ 157 tehsils of the state out of total 171, fully computerized.
- ⊙ During the year 2004-05 Government land to the extent of 5033 Acres distributed among 6,075 landless families which included 1053 SC and 2954 ST landless families. During the year 2005-06 by October, 2005, Government land to the extent of 1553 Acres distributed among 1592 landless families including 700 ST and 246 SC landless families.

Public Enterprises : Protecting Workers' Interest

- ⊙ To revive potentially viable loss making enterprises, a selective privatization and disinvestments policy adopted in 'non-core' sector.
- ⊙ A conscious policy for a model of privatization to secure the interest of workers and create opportunities for further jobs by catalyzing the dynamism of private sector adopted.
- ⊙ A set of 'core' enterprises identified to operate in the public domain.
- ⊙ State all set for Public Enterprises Reforms Programme with external assistance of 30 million pounds.

Finance : Inculcating Fiscal Discipline

- ⊙ A number of steps taken to correct the structural imbalances in the State Finances after an MOU signed with Department of Expenditure, Government of India and enactment of 'Orissa Fiscal Responsibility and Budget Management Act, 2005.'

- ⊙ States Own Tax to GSDP ratio increased from 4.4% in 1999-2000 to 7.2% in 2004-05.
- ⊙ Revenue Deficit reduced from about Rs.2574 crore in 1999-2000 to Rs.522 crore in 2004-05. This represents reduction of Revenue Deficit as a percentage of GSDP from 6.7% to 0.91%.
- ⊙ Fiscal Deficit reduced from Rs.3836 crore (9.7%) in 1999-2000 to Rs.1365 crore (2.37%) in 2004-05.

School & Mass Education : Grooming our Future Hope

- ⊙ Giving priority to universalization of elementary education, 70.18 lakh children enrolled in schools at elementary level.
- ⊙ Orissa Child Census - 2005 taken up for better planning and development of education and health of children.
- ⊙ Impressive performance shown by 'Sarba Sikhya Abhiyan' in the state at national level for utilization of funds.
- ⊙ About 3.17 crore text books supplied to 60,93,000 elementary students during 2005-06.
- ⊙ About 24.84 lakh girl students in government elementary schools supplied uniform free of cost through village education committees.
- ⊙ To develop and safeguard Oriya language and culture 'Oriya Bhasa Pratisthan' established.
- ⊙ A new programme called Education Satellite (EDUSAT) launched in the state from October - 2005 to support elementary and secondary education.

Higher Education : Setting Standards

- ⊙ A Uniform Academic Calendar framed for all degree colleges.
- ⊙ An increasing number of colleges being put under assessment of National Association and Accreditation Council (NAAC) to study the quality of education in colleges.

- Five Non-Government aided colleges declared as autonomous apart from the existing 18.
- Ravenshaw University Act, 2005 passed in Orissa Legislative Assembly.
- Establishment of a National Law University under active consideration.
- Admission in 15 different trades allowed in vocational institutions.
- Rs.35 crores allocated for developmental activities to be undertaken in different Universities during 2006-07.
- Uniform Dress Code introduced in all autonomous colleges from academic session 2005-06.

Commerce & Transport : Formulating a Pragmatic Port Policy

- A sum of Rs.404.87 crores collected as M.V. Tax against the target of Rs.400 crore upto March, 2006, with 101% achievement.
- Pension cells constituted for sanction of pension of retired S.T.S. employees and 2128 cases disposed by end of March, 2006.
- Gopalpur Port to be developed as an all weather port.
- L & T and TISCO taken up joint plan to construct a big international standard port at Dhamra.
- Three new trains introduced by Railways namely Sampark Kranti Express from Bhubaneswar to New Delhi, A New DMU Passenger train and another passenger train from Cuttack to Paradeep during the year 2005-06.
- Smart card based driving licenses and registration certificates to be issued in all RTO offices soon.
- 10 RTO offices and 7 checkgates alongwith State Transport Authority computerized.

Labour & Employment : Stimulating Employment Opportunities

- Full medical care extended to the industrial labourers and their family members through a network of ESI hospitals and dispensaries. Rs.1,02,66,000 approved for payment for the year 2005-06 towards reimbursement cost of treatment of ESI beneficiaries from Revolving Corpus Fund.
- Child labours employed in hazardous jobs released and admitted under National Child Labour Project Scheme for being imparted formal education and vocational training.
- 22 model carrier corners and 12 students information Bureaus in women colleges and girls high schools in tribal and backward districts opened for utilization by girl students.
- 18 Child Labour Projects functioning in 18 districts of the State. Till now, 33,843 child labours admitted in special schools run by National Child labour Projects and 64,885 child labours mainstreamed to formal schooling system.
- Minimum Wages payable to unskilled, semi-skilled, skilled and highly skilled categories of workers increased.
- Under the direct supervision of Chief Minister, State Employment Mission in association with Directorate of Technical Education and Training, launched vocational training programmes for both educated and semi-educated unemployed youth. 4225 candidates being trained for skilling and re-skilling in various market friendly courses.



Fishery & Animal Resources Development : Strengthening Rural Economy

- Following the objectives set out in "State Agriculture Policy" and by adopting new scientific technology, emphasis on milk, fish & meat production laid. 
- Total milk production per day touches 36 lakh litres, up by 3 lakh litres.
- All 30 districts of the state, covered by Orissa Milk Federation (OMFED) to promote dairy farming. OMFED increased its milk procurement substantially to 2.70 lakh litres per day.
- Under STEP programme, OMFED is running 'Women Diary Projects' in 17 districts.
- 837 women diary cooperative societies comprising 60,287 women formed in the State.
- Under RLTA, Rs.350 lakh released in the year 2005-06 for milk production and allied activities in KBK districts.
- OMFED aims at achieving milk production of 3.50 lakh litres per day and for creating self employment for 10,000 rural farmers during 2006-07.
- For scientific pisciculture in reservoirs, a 'State Reservoir Fishery Policy' approved.
- Under RLTA, 13 reservoirs having water spread area of 5709 hectares taken up for pisciculture development in KBK districts.
- During 2005-06, 101 reservoirs taken up under pisciculture through Fishermen Cooperative Societies and Self Help Groups.

Information & Public Relations : Improving People's Access to Information

- In order to promote transparency and accountability in the system of Governance,

the Right to Information Act, 2005 implemented effectively in the State from 12th October, 2005 with Information & Public Relations as the nodal department for implementation.

- For proactive disclosure required under the provisions of the Act, all the Government Departments making information available through the State Government websites.
- Orissa Information Commission constituted and started functioning.
- 'Oriya Film and Cultural Festival' organized successfully in Mumbai in January, 2006 as a part of inter-state cultural exchange programme.
- A developmental feature "Ama Katha - Odissa Katha" being telecast every Saturday through Doordarshan, Bhubaneswar.
- A multi-pronged strategy adopted to gather feedback on the implementation of developmental programmes.

Sports & Youth Services : Promoting Sports Talents

- To provide nutrient balanced diets to inmates of sports hostels, the monthly stipend per month per inmate increased from Rs.1200 to Rs.2250 from January 1, 2006.
- Toiletry allowances of Rs.100 per month introduced for girl inmates from January 7, 2006.
- An international standard swimming pool constructed inside Kalinga Stadium to promote the sport. Built at a cost of about Rs.2.72 crore, this will soon be converted into a composite Aqua-Sports Complex with construction of Diving Pool and Practice Pool. 
- Orissa delegates visited Port-Blair under

Inter-State Youth Exchange Programme from February 13 to March 7, 2006.

- The relaying work of Synthetic Astroturf in the field of sports Hostel, Panposh under progress.
- To develop and maintain Sports Infrastructure in the state, a sum of Rs.465.79 lakh allocated in State Budget for 2006-07.
- Biju Patnaik Sports & Bravery Award - 2006 conferred on eminent sports persons of the State including Shradhanjali Samantaray, presently captain of Indian women football team.
- All India Kalinga Cup Football Tournament revived.
- Proposal to set up a State Sports Academy for Hockey & Athletics inside Kalinga Stadium at an estimated cost of about Rs.20 crore approved in principle.
- 221 outstanding sports persons of the state received cash incentives for the year 2004-05 and 2005-06.

Home : Maintaining Law & Order

- Law and Order situation of the State during 2005-06 remained peaceful and communal harmony prevailed during the period.
- Modernisation of Orissa Police going on at a fast pace. An allocation of Rs.235.62 crore spent during the period 2000-2005.
- The State Forensic Science Laboratories being equipped with modern equipments.
- As a mark of commitment to make justice accessible to grassroots level, 17 Fast Track Court Buildings constructed during 2005.
- Modernisation of prison infrastructure and providing better healthcare to the inmates going on.
- To combat the menace of naxalism, appropriate strategies evolved.

Law : Justice for All

- Eight special Judge (vigilance) Courts to open in phases as a measure to provide justice to all.
- 446 Lok Adalats organized to dispose of about 91,000 cases.
- Legal Awareness camps being organized to create legal awareness among rural and tribal people.
- Sri Jagannath Temple Act amended with senior officials like Chief Administrator in the rank of Commissioner, given the charge to strengthen temple Administration.

Textile & Handlooms : Weaving Success

- Nearly 2.00 crores of Handloom fabrics by the primary cooperative societies and apex societies marketed through Direct Marketing in Exhibition at the National, State and District levels last year.



- A pilot project for building sustainable livelihood of weavers and sericulture farmers under World Bank assisted Orissa fund for Development Initiatives with a project cost of about Rs.5 crore started with effect from April 2006.
- To promote handloom products worldwide, the state participated for the first time in international marketing events like Gift Fair-Mumbai, IFTEX-Delhi and Heimtextil-frankfurt.
- Status of state TDCC granted to Orissa Cooperative Tassar & Silk Federation (serified) by Ministry of Tribal Affairs, Govt. of India.
- During 10th plan, sericulture sector provided employment to around 18,000 families with additional annual income of Rs.9000 per family. This includes 10,000 SC & ST farmers in Tassar, Eri and Mulberry cultivation.

Planning & Co-ordination : Evolving Sustainable Strategies

- A Revised Long Term Action Plan (RLTAP) formulated for the KBK districts namely, Koraput, Malkangiri, Nawarangpur, Rayagada, Balangir, Sonapur, Kalahandi and Nuapada with the core objectives of drought proofing, development saturation, poverty alleviation and improved quality of life of the people.
- Ganjam, Mayurbhanj, Gajapati, Keonjhar and Sundargarh districts included in Backward Districts Initiatives (BDI) of Rastriya Sam Vikas Yojana (RSVY).
- A special Rural Connectivity Programme for the KBK districts conceptualised.
- In evolving a poverty reduction strategy, a Poverty Task Force constituted.

General Administration : Accelerating Governance Initiatives

- A programme for improving Transparency and Accountability by making available required information to the citizens through the web, launched in the state involving nine Departments and nine districts on a pilot basis.



- Implementation of National e-Governance plan to enable delivery of citizen's services through one stop shop under implementation.
- Assistance to the tune of Rs. 1,83,22,966/- and Rs.2,08,34,763/- provided from the Chief Minister's Relief Fund in favour of 1885 and 2105 indigent applicants for treatment of major ailments during 2004-05 and 2005-06.

- A sum of Rs.4,30,000/- and Rs.23,30,000/- provided from Chief Ministers Relief Fund to the next of the kins of 43 and 233 victims killed in Heat wave during 2004-05 and 2005-06.
- Assistance to the tune of Rs.1 crore provided from CMRF for the relief and restoration of earth-quake hit Jammu & Kashmir during 2005-06.

Works : Strengthening Infrastructure

- Efforts on to improve physical connectivity in the state by construction, improvement, repair and maintenance of roads and bridges of State Highways, National Highways & Major District Roads.
- 8 Bridges and 221 kms of road completed during 2005-06 by December 2005.
- Government of India sanctioned Rs.43.5 crore during 2004-05 and Rs.17 crore for 2005-06 to take up 6 road projects and 2 industrial road projects with a total length of 100 km.
- With a view to provide quality road for upcoming industries in the state under Economic Importance Scheme, roads being improved with an estimated cost of Rs.210 crore in 3 years commencing from 2005-06.
- Target set to complete 22 bridges and improve 475 km of roads with an outlay of Rs.223 crore during 2006-07.



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EDITORIAL



Change is the spice of the civilisation. The subtle change begets many possibilities. Many changes have taken place during the last two years to improve the socio-economic condition of the people. In the fields of agriculture, water resources, women & child development, industries, steel & mines, ST, SC & Backward Classes development, education, information technology and other sectors there has been perceptible progress. The concept of good governance has already become the abiding principle. Transparency and accountability have set in. The perception of the people creates confidence in the system of governance. No doubt government's intervention facilitates the path for progress. But it is the people whose participatory role materialises the fruits of development to be experienced. Under a dynamic and visionary leadership of the Chief Minister of Orissa the trend of growth treads on. The feeling is quite comfortable. May it be investors, opinion makers or the people, every corner recognises the change. The May issue of Orissa Review attempts to project these changes in a succinct manner. We hope, it will be of interest to readers.

Narankar Sekhar Panda

Mineral Potential of Orissa State : A Kaleidoscopic Review

*Rakesh Kumar Satapathy
Shreerup Goswami*

Orissa, a major state of India has enormous mineral potential and is rich in mineral resources. Many of the minerals are known to be in abandon supply, while many are least known in this state. Orissa produces enormous minerals including non-metallic, metallic and fuel minerals. Orissa stood one of major producer of Chromite, Nickel, Iron, Manganese, Tin, Graphite, Bauxite, Lead and Zinc in India. Among the fuel minerals, coal of Ib-River and Talcher coalfields continues to play a dominant role among the domestic energy resources in this state. In terms of geographical distribution of mineral resources of India, about 10-14 % of mineral production comes from the state of Orissa. Let us discuss the mineral potential of the state one by one briefly.

BAUXITE ORE

Introduction

Bauxite is a heterogeneous ore of aluminium. It is derived from Khondalite and Charnockite consists of Gibbsite, Goethite and Kaolinite in varying proportion with some Garnet, Hematite, and Ilmenite as accessory minerals.

Although Bauxite is the main source of aluminium, it is the second abundant metal element in the earth's crust after silicon. Bauxite is mined for production of alumina by the Bayer's process.

Occurrences

The main Bauxite deposits of Orissa are associated with the Eastern Ghats Super Group of rocks and form the major component of the East Coast Bauxite (ECB) deposits. All the East Coast Bauxite cappings over Khondalite in Orissa sector e.g., Ballada, Maliparbat, Panchpatmali, Kodingamali, Karnapadikonda, Bapulimali, Sijimali, Lanjigarh etc. of Koraput and Kalahandi districts occur in a single planation surface (+900m above MSL).

Bauxite caps the Gandharmardan plateau over Khondalite on the Border of Bolangir-Sambalpur districts. It occurs at an elevation of 940-1000 above MSL.

Bauxite occurs in the Kandhamal hills overlying the Vindhyan shale at an elevation of 960m above MSL.

Small and isolated bauxite cappings occur over BIF (shale) formation at elevations of 610-671m above MSL around Kusumdihi in Sundargarh District.

Bauxite with intercalated laterite caps over metavolcanics on the flat-topped hill namely Dholkata Pahar and Kanjipani range of Keonjhar District. These areas range from 727 to 848m above MSL with intervening valleys around 600m above MSL.

All the hill ranges west of Nawana and east of Similipal Garh and Bakua of Similipal Complex (Mayurbhanj), laterites are observed around 1000m above MSL (Das and Mohanty, 1998).

COAL

Introduction:

Out of 57 Gondwana and 14 tertiary coalfields considered for the national inventory of coal, Orissa state has only two. They are Ib-River coalfield and Talcher Coalfield. Yet its share in the reserve so far established in the country amounts to 23.6%.

Occurrences:

The Ib-River Coalfield is named after a tributary of the Mahanadi. The coalfield is located in the southeastern part of Mahanadi Master Basin and occupies an area 1460 sq. km. The coalfield is bounded by latitudes 21°30' and 22°14'N and longitudes 83°32' and 84°10'E. It covers parts of Sundargarh, Jharsuguda and Sambalpur districts. It embraces the Hingir Sub-basin in the north and the Rampur Sub-basin in the south.

Coalfields	Latitude	Longitude	Districts	Basinal area in sq. Km.
Ib-River Coalfield	21°31' 22°14'	83°32' 84°10'	Jharsuguda, Sundargarh & Sambalpur	1460
Talcher Coalfield	20°50' 21°15'	84°09' 85°33'	Dhenkanal, Angul & Sambalpur	1813

The Talcher Coalfield constitutes the southeastern most member of the Lower Gondwana Mahanadi Master Basin and occupies an area of over 1813 sq km. The coalfield is bounded by latitudes 20°50' and 21°15' N and longitudes 84°09' and 85° 33' E. This basin mainly occupies the Brahmani River Valley. It covers parts of Dhenkanal and Angul districts along with a small portion of the adjoining Sambalpur District.

The major parts of the Talcher and Ib-River Coalfields are covered by the Talchir, Karharbari, Barakar, Barren Measures, Lower Kamthi (Raniganj) and Upper Kamthi sediments. Among them only Barakar, Karharbari and to some extent Lower Kamthi (Raniganj) sediments are coaliferous (Manjrekar et al, 1998).

CHINA CLAY

Introduction:

China clay is also a clay like material comprising mostly mineral Kaolinite ($Al_2O_3 \cdot 2SiO_2 \cdot 2H_2O$) where Al_2O_3 , SiO_2 and H_2O % are 39.5%, 46.56% and 13.94% respectively. It has a specific gravity of 2.6 and a fusion point of 1.785°C.

Kaolin deposits have been formed by decomposition of feldspathic granite. Kaolin occurs in form of pockets or lenses within the main mass of granite.

Occurrences:

China clay is found to occur in a long belt stretching from southern Singhbhum to

Mayurbhanj Granite belt. Badampahar-Joshipur, Karanjia- Ramchandrapur belt with a number of deposits on either side of NH-6 is the most important china clay producing area of the state.

Besides these, there are a few occurrences in Keonjhar, Sambalpur, Koraput, Sundargarh and Dhenkanal districts.

The important deposits in Mayurbhanj District are found near Joshipur, Dumuria, Jamba,

Kadodiha, Jamkeswar and Thakurmunda. The china clay found in Joshipur area of the Maurbhanj District is pale cream to yellow in colour (Mohanty, 1998).

CHROMITE

Introduction:-

Chromium is indispensable for industrial complexes including aerospace, steel and special alloys. Chromite is the only economic source of chromium. Chromite belongs to the spinel group and has the basic formula $R^{++}R_2^{+++}O_4$, where $R^{++} = Mg, Fe$ with traces of Mn and Ni and $R^{+++} = Cr, Al, Fe$ with traces of Ti and V. It has five major components viz., $MgO, FeO, Cr_2O_3, Al_2O_3$ and Fe_2O_3 , whose proportions are greatly controlled by the composition of the magma from which the primary silicates and chrome spinel crystallized. Pure chromite contains 67.9% by weight of Chromic Oxide (Cr_2O_3) or 46.5% by weight of Chromium.

Occurrence :- In Orissa chromites are confined to three areas.

(a) Boula-Nuasahi in Keonjhar district. The chromite deposits occur at and around Bidyadharpur barrage, Nuasahi and Agarpara.

(b) Sukinda in Jajpur district. The main deposits of Chromite and Nickel of Sukinda are present in the area Kamardah, Saruabil, Kaliapani, Kathpal, Maruabil, Bhintangar etc.

(c) Bhalukasuni in Balasore district. The main deposits of this area are Bhalukasuni village of Nilgiri Sub-division.

(d) In Similipal ultramafic complex of Mayurbhanj District, probable reserve of 27 million tonnes of laterite Nickel ore has been estimated by GSI (Sahoo, 1998).

NICKEL ORE

Annual consumption of nickel in the country is about 15000 tonnes and almost the entire quantity is met through imports. Hence Sukinda ultramafic complex, the only indigenous resources of Nickel ore of India, should be utilized.

The Sukinda ultramafic body is stratiform in nature and comprises inter-layered nickel and chrome rich rocks (dunite-peridotite and orthopyroxenite). The serpentinised dunite-peridotite members have been subjected to intense chemical weathering resulting in the formation of a nickel rich limonite cover. Thus the lateritic nickel ore is of secondary origin (Sahoo, 1998).

PLATINUM GROUP OF ELEMENTS

Platinum Group of Elements i.e. Platinum (Pt), Palladium (Pd), Rhodium (Rh), Ruthenium (Ru), Osmium (Os) and Iridium (Ir) are the rarest of precious metals in the earth's crust. In India, only a minor amount of Palladium is recovered as a byproduct from Singhbhum Copper belt, Jharkhand. Besides, no other Platinum Group Elements mine production is known in India.

Moreover, on the basis of geological criteria such as rock association, age, tectonic setting, depositional environment, geochemical association and abundances, the principal terrains for identification and delineation of Platinum targets are: 1. Baula-Nuasahi, Keonjhar District 2. Sukinda area, Jajpur District, 3. Singhbhum-Orissa Craton and 4. Amjori Hill, Keonjhar District (Mukherjee, 1998).

IRON ORE

Introduction:

Iron is a very important element comprising about 5% of the earth's crust. It is rarely found in native condition except in the meteorites and eruptive rocks in association with Cobalt and Nickel.

The source minerals from which iron is being extracted on commercial scale are only a few, like Hematite, Magnetite, Goethite, Siderite.

Occurrence:

The iron ore deposits of the state occur in five distinct zones.

- (a) Bonai (Sundargarh District) Kendujhar (Keonjhar District) Bett
- (b) Gandhamardhan of Keonjhar District.
- (c) Tomka- Daitari of Jajpur District.
- (d) Gorumahisani-Badampahar of Mayurbhanj District.
- (e) Hirapur of Nawarangpur District (Mohanty, 1998).

FIRECLAY

Introduction:-

The term fireclay has been commonly applied to refractory clays, which can withstand of 1500°C or higher temperature. It is basically Kaolinite.

On the basis of plasticity, fireclay is classified as plastic, semiplastic and non-plastic. An important parameter of fireclay in refractoriness expressed in terms of pyrometric cone equivalent (PCE).

Occurrence :-

In Orissa fireclay are confined to three geographical belts.

(a) *Talcher Coalfield in Dhenkanal and Angul :-*

In Talcher Coalfield, fireclay has been encountered in the following locations.

- * Jagannath Colliery
- * South Balanda Colliery
- * Near Kaniha Village
- * Near Ghantikhal Village

(b) *Ib-River Coalfield :-* The occurrences of this area have been recorded near Jurabaga, Darlipali, Rampur, Kuropal, Bariapahar, Khinda, Lukopali, Kulda, Siarmal etc.

(c) *Athgarh Basin :-* Clays of Talabasta area belongs to Athgarh formation of upper Gondwana of Cuttack district (Nanda and Bhol, 1998).

BASE METAL DEPOSITS

Introduction:-

Though Orissa is not a rich state in terms of the base metal ore deposits (Cu, Pb and Zn), it has three small deposits to its credit, at various stages of exploration and development.

Occurrences: -

There are three occurrences of base metal deposits in Orissa.

(a) *Adash Copper ore deposits :-* It belongs to Sambalpur district. The copper prospect (21°23'05"latitude 84°37'45") is situated at a distance of 120 km from Sambalpur Railway Station and can also be approached from Reamal on the Deogarh -Angul NH-6, 30km. Here Graphite is produced as co-product.

(b) *Kesarpur Copper deposits: -*The villages of Mayurbhanj like Kesarpur, Dudhiasal and Madansahi encompassing the copper ore deposit are located between latitudes 22°04' and longitude 22°07'. The chief minerals of the ore are pyrite, pyrhotite and chalcopyrite, with minor amount of Nickel and Molybdenum.

(c) *Sargipalli Lead ore deposits:-* Sargipalli deposit lies between the village Lokdega (22°02' : 83°55') and Bharatpur (22°03' : 83°56') in Sundargarh district. The common primary minerals of the deposits are galena, chalcopyrite and sphalerite (Patnaik et al, 1998).

GRAPHITE

Introduction:-

Natural graphite is an allotrope of elemental carbon, which crystallises in the hexagonal system. It is a soft and opaque black mineral with a metallic luster, greasy feel, hardness of 1 to 2 in *Moh's* scale, specific gravity of 2.09 to 2.93.

Occurrence :-

The major graphite zone of Orissa is coincident with the migmatized quartz- garnet - sillimanite - graphite schists of khondalite suite and its contact with medium -grained granite gneiss. The important graphite belts of the state are -

(a) Sargipali belt :-(21°00'-22°22':83°15'-83°40')

Sargipali belt contains more than 150 occurrences, which belongs to the deposits of Sargipali, Dangachancha, Darhamunda, Sapmuna, Rengali, Mohanilah, Raju-Nagphena etc of Bargarh, Bolangir and Kalahandi districts.

(b) Titilagarh belt: (20°06'-21°24' :83°00'-83°45')

Titilagarh belt contains more than 120 occurrences which belongs to the deposits of Titilagarh, Boroni, Malisira, Singjharan, Loitora of Bolangir and Kalahandi districts.

(c) Tumudibandh belt: (18°45'-20°00':83°00'-83°45')

Tumudibandh belt contains more than 50 occurrences, which belongs to the deposits of Tumudibandh, Lakhajorna, Palur, Raisil, Ambaguda of Phulbani, Rayagada and Gajapati districts.

(d) Dandatopa belt:-(20°37'-21°00' : 84°15'-84°45')

Dandatopa belt contains more than 22 occurrences, which belongs to the deposits of Dandatopa, Adeswar, Kamalpur, Akharkata and

Girida of Dhenkanal and Angul districts (Mishra et al, 1998).

MANGANESE ORE

Introduction:

It was recognised as an element in 1774 by Swedish chemist Scheele, whose fellow countryman, Ghan isolated the metal in the same year. The average crustal abundance of manganese is slightly less than 1% (950 PPM).

Manganese deposits are widespread in the world's land areas. The common primary minerals of Manganese deposits of Orissa are pyrolusite, Rhodonite, Manganite, Jacobsite and Psilomelane.

Occurrence:

Manganese ore deposits of Orissa occur in three distinct geological set-up

(a) *Bonai-Keonjhar* :- Bonai-Keonjhar belt constitutes the most important manganese ore producing region of the country.

(b) *South Orissa*:-The manganese ore deposits of south Orissa comprising parts of Rayagada, Kalahandi and Bolangir districts are associated with Khondalite suit of rocks belonging to the Eastern Ghats Super Group.

(c) *Ghorijhor area of Sundargarh District* - Manganese bearing gondite of Ghorijhor formation is the youngest horizon occurring in the core of Gangpur synclinerium and confined to the central part of the Gangpur group of meta-sedimentaries (Sarangi and Mohanty, 1998).

VANADIUM

Introduction :-

Vanadium is an important alloying element. Addition of small amount often less than 0.1% to steel and cast iron can significantly increase their

strength, toughness and ductility. In Orissa vanadium is confined to the by-product sludge of Alumina plants.

Magnetite associated with gabbro-anorthosite suite of rocks contain Vanadium and Titanium, occur at several locations in Mayurbhanj District. Vanadium bearing magnetites had also been recorded near Boula in Keonjhar district and Godasahi and Rangamatia in Balasore district. The Magnetite and Ilmenite form the bulk composition of the ore. The mineral Coulsonite $(\text{FeV})_3\text{O}_4$ is responsible for the vanadium content of the ore.

Occurrences :-

In Orissa Vanadium bearing magnetite is confined to five geographical belts.

- a) Rairangpur -Bisoi :-It includes deposits at Kumardubi, Betjharan, Amdabeda, Gargari, Kunjakocha, Bhangapahar, Hatichar.
- b) Bisoi -Joshiapur :-It includes deposits at Mayurbeka, Kesham, Dhulabeda, Sialnoi, Bariadihi, Kundabari.
- c) Baripada -Podadiha :-It includes deposits at Bahalda, Andipur, Chitrabania.
- d) Rangamatia (Betei) Godasahi :-Deposits at Rangamatia and Godasahi.
- e) Nausahi -Boula :-Deposits at Nausahi and Baula (Nayak and Das, 1998).

BEACH SAND MINERALS

Introduction :-

The term "Beach Sand Minerals" also called Heavy minerals is usually associated with a group of industrial minerals comprising mainly Ilmenite, Rutile, Zircon, Monazite, Garnet and Sillimanite. The major gangue mineral in the beach sand deposits is quartz. The specifications of these minerals are given in the Table 1.

Occurrence :-

The resources of beach sand mineral in India are confined to the states of Kerala, Tamilnadu, Orissa, Andhra Pradesh and Maharashtra. In Orissa, Atomic Minerals Division has explored a stretch of about 50 km from south of Mahanadi mouth to Orissa-Andhra Pradesh Border and identified a number of potential deposits ranging in grade from 5% to 30% heavy mineral. Ganjam coast is most important from the point of view of reserve and grade. The Indian Rare Earths Limited (IREL) leasehold extends for a length of 18 kms along Chhatrapur coast between Rusikulya River confluence in the NE and Gopalpur on the south-west. The different identified blocks of this deposit are Pedalaxmipuram- Ramayapatna, Ramayapatna-Markandi, Niladripur- Kantiagarh, NE of Kantiagarh, East of Jhatiapadar, SE of Arunpur (Siddiqui, 1998).

DIMENSION AND DECORATIVE STONES

Introduction :

Any natural stone irrespective of composition and origin, which can be cut, sized and shaped to suit the fancy and specification of the builders, designers and architects are marketed as Dimension stones. The various rocks, which are quarried as dimension stones, include granite, marble, sandstone, limestone, slate, laterite and khondalite.

Granite:

The suitability of granites for utilization as dimension stones depends to a large extent on their physical, chemical and mineralogical properties. The dimension stones under the "Granite" category can be broadly divided into two types viz., acidic (composed of quartz, orthoclase, perthite, biotite, muscovite, garnet etc)

and basic rocks (composed dominantly of clinopyroxene and plagioclase).

Marble:

The term Marble is derived from latin word "Maarmor" which itself comes from Greek root, meaning a shining stone. It is the recrystallised limestone. Commercially, marble is crystalline rock composed of calcite, dolomite or serpentine, which can take polish.

Sand stone:-

Sand stone has been used in construction, rough slabs, tiles etc. The cementing material of these sedimentary rocks determines the degree of compaction, colour and thus ultimately the quality of these stones as dimension stones. The Vindhyan formations constitute an excellent storehouse of this category.

Lime stone :

The limestones, generally used as dimension stones, comprise dolomitic limestone which are usually hard, argillaceous and siliceous in nature. The state of Orissa, though a potential store house of limestone has yet no record of utilization of this material as dimension stone.

Slate :

The metamorphism of shales under pressure produce slates, which are characterized by presence of close set planes along which they can be easily split into sheets.

Laterite :

It is a porous, pitted and clay like rock with a hard limonitic protective crust containing a large quantity of iron in form of red and yellow ochre. In Orissa, these are used for building purpose as substitute of bricks in the districts of Cuttack, Nayagarh, Khurda, Puri and Ganjam.

Khondalite :

Khondalites are a typical constituent of the Eastern Ghats. It is quartz feldspathic garnetiferous sillimanite schist/gneiss. These have been used for construction of temples and are presently being used in the form of tiles for exterior decoration and also for sculptural purposes.

Occurrences :-

In Orissa, the Archeans which constitute about two-third of the landmass of the state host a variety of dimension stones like Granite, Khondalite etc. In particular, the following geological terrains are important.

- a) Chhotnagpur -Singhbhum- Bonai :- Granites and gneisses of many types, dolerite, anorthosite, gabbro etc.
- b) Eastern Ghats-Charnockite, khondalite, leptynite, anorthosite, pyroxene granulite, nepheline, syenite etc. (Sarangi, 1998).

TIN ORE

Introduction :-

Tin is the major ingredient of solder and tinplate. Generally it is not used in its pure form. Mostly it is used as either alloyed with another metal or coated upon another metal. Cassiterite (SnO_2) is the only mineral of commercial importance as a source of tin, which contain 78.6% of tin and 21.4% of oxygen. Usually it is dark brown or black in colour with an adamantine luster. Cassiterite is a high temperature product of magmatic crystallization. It has a specific gravity of 7. The most of the World's tin is produced from placer deposits and richest placers are found in stream deposits. In India tin occurrences are confined to Bastar region of Chhattisgarh State and Malkangiri District of Orissa.

Occurrences :-

- a) Malkangiri District is the main source/reservoir of tin ore in Orissa. Occurrence of tin (Cassiterites) was first located in Mundaguda-Salimi area of Malkangiri District by the State Directorate of Mining and Geology during 1974. The area surrounded by Bhimsen River in the west, Sarangpalli village in the east, Kolab river flowing westwards in the south, Lokti and Tulsidongar in the north.
- b) Confluence of Ong and Mahanadi :- Pegmatites and vein quartz emplaced in granitoid foliation contain tin values of up to 0.5%.
- c) Confluence of Tel and Mahanadi :- Pegmatites within the granite have gemstones along with tin, tungsten in dispersed manner .
- d) The area in between Amuda and Manmunda; Bamunda and Karunapalli of Boudh District are also bearing the pegmatites which contain tin (Sn) along with Nb, Ta and W (Mohapatra and Mishra, 1998).

GEM STONES**Introduction :-**

The stones having the qualities like natural origin, beauty, durability, uniqueness, rarity, hardness and chemical resistance are characterised as gemstones. Diamond because of high value is treated as an exclusive species of gemstone. The gemstones whose occurrence have been recorded in Orissa include emerald, aquamarine, heliodor, chrysoberyl, alexandrite, tourmaline, ruby, sapphire, cat's eye, zircon, topaz, moonstone, quartz, garnet etc. Properties and characteristics of few common gemstones are given in Table 2.

Occurrence :-

The gemstone occurrences of Orissa are localised in

1. Eastern Ghats Granulite belt.
2. High grade supra-crustal rocks.
3. Mafic and ultramafic complexes.
4. Alkali syenite.
5. Quaternary sediments and gravel beds.

The gemstones and their associated rocks and the location in the state are presented in the Tables 3, 4 (Mishra and Mohanty, 1998).

LIMESTONE AND DOLOMITE**Introduction :-**

Limestone is a calcareous sedimentary rock composed of mineral calcite (CaCO_3), which on calcination yields lime (CaO) for a wide range of industrial uses. In its purest form, limestone should contain 56% CaO and 44% CO_2 .

Dolomite is a double carbonate of calcium and magnesium containing 30.4% CaO, 21.7% MgO & 47.9% CO_2 in its purest form. Both limestone and dolomite also contain silica, alumina, iron oxides, alkalies, Phosphorous, Sulphur etc.

Occurrence :-

Orissa has vast resources of limestone occurring in three distinct geological settings, namely Gangpur group, Vindhya and Eastern Ghats, where as dolomite is mostly confined to Gangpur and Vindhyan Groups. These deposits are confined to following districts.

District	Areas
Sundargarh	Biramitrapur, Lanjiberna, Hatibari, Purnapani, Gatitangar, Gomardih.
Bargad	Dungri, Banjipali, Jampali.
Koraput	Umpavalli, Tummiguda (Sunki valley).
Malkangiri	Kottameta, Nandiveda, Uskalvagu (Rath and Rath, 1998).

GOLD

Introduction and Probable Occurrence:-

Based on the existing concepts of space-time relationship of various gold deposits all over the globe and more importantly on empirical geological criteria such as rock association, age, tectonic setting, depositional environment, geochemical association and abundances, the principal terrains for identification and delineation of gold targets are:

1. Badampahar -Gorumahisani belt. 2. Tomka-Daitari to further north-west upto south of Jamda-Koira valley, 3. Possible Archean greenstone in Bonai craton, 4. Bengpal Group, granitoids and the contact zone with Eastern Ghat granulite, and 5. Early Proterozoic successions of Gangpur / Singhbhum Group and basal Dhanjori (Mukherjee, 1998).

OTHER MINERALS

The other minerals and ores which occur in the state and some of which are being mined include pyrophyllite, quartz, quartzite, kyanite and steatite etc.

Pyrophyllite

Introduction :-

It is a hydrous aluminium silicate used mainly in refractories making. Pyrophyllite occurs in the form of quartz-pyrophyllite schist associated with granite and also quartz reef.

Occurrences :-

The occurrences of the state are associated with Singhbhum-Bonai granite. The major deposits are Anjor, Balabhadrapur, Nitigotha, Madrangajodi, Roduan, Rampakot, Dalimpur of Keonjhar District. Joshipur and Manada of Mayurbhanj and Lahunipada in Sundargarh District.

Kyanite, Sillimanite & Andalusite :-

Introduction: These are anhydrous aluminum silicate minerals. This group of minerals is believed to be products of anhydrous metamorphism of argillaceous sedimentary rocks.

Occurrences: Refractory grade kyanite confined to Panijia in Mayurbhanj District. Occurrence of quartz bearing kyanite are confined to Magarmuhan, Torodanali, Jhilli, Golagadia, Paliahara, Kamakhyanagar of Angul & Dhenkanal districts.

Soap Stone, Steatite and Talc :-

Introduction: These are soft hydrous magnesium silicate with chemical composition $3\text{MgO}_4\text{SiO}_2\text{H}_2\text{O}$.

Occurrence :-These deposits are confined to Mayurbhanj, Sambalpur, Sundargarh, Ganjam & Dhenkanal districts. Mayurbhanj district is contributing about 95% of the total production.

Quartz & Quartzite

Introduction: The use of quartz and quartzite depend upon its silica content. Quartzite and quartz are used in the manufacture of silicon refractories, as a flux in iron and steel and ferroalloy industries, abrasive industry and also for manufacture of silicon alloys, glass and sodium silicate.

Occurrences:-Generally these are found in almost all the districts of the state except in the coastal planes (Mohanty, 1998).

Conclusion:

Now we doubt that the continuing degradation of the natural environment by exploring above- mentioned minerals poses one of the greatest challenges to modern societies. In particular all mining activities create a burden on

the environment although paradoxically at the same time the revenues gained from these activities create the basis for our well-being. Major problems include global warming, loss of biodiversity, water and air pollution, releases of persistent organic pollutants and other toxic substances and land degradation. There is an intimate relationship between mine workers and people of near by surroundings and the potential exposure to toxic substances, pollutants and wastes. Air pollution, surface water pollution, ground water contamination, devegetation and defacing of landscape, subsidence of land, occupational health hazards etc. are the major impact of mining leading to various environmental damages. Mining operations may be categorized as either surface or underground. Surface mining may be broadly defined to encompass open pit, open cast, quarry, strip, dredging and placer (hydraulic) mining. Underground methods include pillar-and-stope, shrinkage stope, block caving and longwall mining. Most mining operations (whether surface or underground) share a number of common stages or activities, each of which have potentially adverse impacts on the natural environment, social and cultural conditions, or the health and safety of mine workers.

Expansion within the mining and metallurgical sector leads to the development and economic growth of our country. The products of the sector (including metallic and non-metallic minerals, construction materials) are not only essential for construction activities and many industrial processes, but are also often a valuable source of foreign exchange earnings. However, mining operations frequently involve a high degree of environmental disturbance, which can extend well beyond the extent of mineralized areas. The environmental impacts of a mining operation

commence with exploration activities, extend through extraction and processing of minerals, and may continue post- closure of the operation. The social and environmental issues associated with mining and mineral processing operations are both highly significant and complex to manage. The fixed location of the mineralized zone of interest imposes constraints on all aspects of mining developments including the method of mining, location of mine facilities, requirements for new infrastructure and services and the suitability of waste management or disposal methods. This in turn profoundly influences the environmental, social and health impacts of mining developments, as well as the economic viability of developing a given mineralized zone. The challenges with Environment Assessment of mining projects are twofold--- firstly, to ensure that environmental, social and health costs are afforded adequate consideration in determining the economic viability and acceptability of the project; and secondly to ensure that adequate mitigation or protection measures are incorporated into project design. This requires both effective environmental legislations and enforcement by regulatory institutions, and sound environmental management practices by private and public sector mine operators. In order to minimize the adverse impacts of mining it is desirable to adopt eco-friendly mining technology. Restoration of mined areas by re-vegetating them with appropriate plant species, stabilization of the mined lands, gradual restoration of flora, prevention of toxic drainage discharge and conforming to the standards of the air emissions are essential for minimizing environmental impacts of mining in such a state like Orissa having enormous mineral potential.

Table 1 :Specification of Beach Sand Minerals and their application (Siddiqui, 1998)

Mineral	Chemical composition	Specific gravity	Major applications
Ilmenite	FeO.TiO ₂	4.67	Manufacture of titanium dioxide, production of synthetic rutile and Ferro-titanium alloys.
Rutile	TiO ₂	4.1	Coating of welding electrodes, titanium dioxide pigment, production of titanium sponge and metal.
Zircon	ZrO ₂ SiO ₂	4.68	Foundries, ceramics and refractories, manufacture of Zirconium metals and chemicals.
Sillimanite	Al ₂ O ₃ SiO ₂	3.24	Manufacture of high temperature refractories.
Garnet	3RO.R ₂ O ₃ .3SiO ₂	4.68	Manufacture of abrasives, for polishing glass/ T.V tubes, wood for sand blasting and water filtration.
Monazite	Phosphate of the Rare Earths with variable amounts of thorium.	5.10	Production of rare earth compounds, Thorium, Uranium, Helium etc.

Table 2 : Properties and characteristics of some common gemstones (Mishra and Mohanty, 1998)

Name	Composition	Colour	Moh's hardness	Specific gravity	Refractive Index (RI)
Quartz					
Amethyst	Silica	Purple	7.0	2.65	1.56
Beryl					
Aquamarine	Beryllium, Aluminium, silicate	Blue green to light blue	7.5-8.0	2.63-3.80	1.58
Emerald	-do-	Green	7.5	2.63-3.80	1.58
Heliodor	-do-	Yellowish green	7.5	2.63-3.80	1.58
Corundum					
Ruby	Aluminium oxide	Rose to deep purplish red	9.0	3.95-4.10	1.78
Sapphire	-do-	Blue, Light Yellow	9.0	3.95-4.10	1.78
Diamond	Carbon	white, blue, white, pink yellow, brown, green	10.0	3.5	2.42

Iolite	Al, Mg silicate with Iron	Gray, light or dark blue, violet	7-7.5	2.53-2.65	2.54
Chrysoberyl					
Alexandrite	Beryllium aluminates	Green by day and red by artificial light	8.5	3.5-3.84	1.75
Cat's eye	-do-	Greenish to brownish	8.5	3.5-3.84	1.75
Feldspar					
Moonstone	Alkali aluminium silicate	White	6.0-6.5	2.77	1.52-1.54
Garnet	Complex silicate	Brown, black, yellow, green, ruby red, orange	6.5-7.5	3.15-4.30	1.79-1.98
Topaz	-do-	White, blue, green	8.0	3.4-3.6	1.62
Tourmaline	-do-	All including mixed	7.0-7.5	2.98-3.20	1.63
Zircon	Zirconium silicate	White, blue, brown, yellow, green	6.0-7.5	4.0-4.8	1.79-1.98

Table 3 : Gemstone and their associated rock (Mishra and Mohanty, 1998)

Name of the Gem Stone	Host Rocks
1. Ruby and sapphire.	a. Contact of pegmatite and ultramafic rocks. b. High grade pelitic (kyanite-sillimanite) schists c. Nepheline syenite d. Cordierite-sillimanite-garnet schists and Paragneisses.
2. Emerald and Aquamarine.	Contact of beryl bearing pegmatite with ultramafic rocks.
3. Alexandrite and Chrysoberyl cat's eye.	Pegmatites in Khondalite suite of rocks.
4. Rhodolite, almandine and uvarovite garnets; fibrolite cat's eye iolite.	High-grade pelitic schists.
5. Amethyst, topaz, aquamarine, heliodor, tourmaline, moonstone, labradorite, microcline.	Pegmatite.

**Table 4: Gemstones and their district wise location in Orissa, India
(Mishra and Mohanty, 1998)**

Location	Gem stone
Angul District	
Magarmuhan - Jhilli Nuagan	Quartz, Garnet
Sambalpur District	
Chabhati-Beldihi	Aquamarine, heliodor
Bagdhapa- Tabloi	Aquamarine, garnets
Meghpal-Ranchipada	Garnet, green tourmaline, aquamarine
Deogarh District	Hessonite
Jharsuguda District	Green tourmaline
Bolangir District	
Ghuchepali-Antarla	Emerald, topaz, heliodor and aquamarine
Ghumsar-Dehli	Chrysoberyl and Cat's eye
Muribahal- Tentelkhunti	Orange, brown and yellow colour zircons, topaz and amethyst
Saraibahal-Suklimuri	Green beryl, aquamarine, heliodor and amethyst.
Naktamunda-Siali	Rhodolite garnets.
Subarnapur District	
Badmal-Mursundi	Greenish blue to sea blue aquamarine.
Binika-Sonepur	Garnets, topaz, Cat's eye.
Boudh District	
Boudh-Ramgarh	Cat's eye, topaz, zircon, moonstone, agate, diamond.
Kantamal-Manmunda	Garnets, topaz, iolite, tourmaline and diamond.
Kalahandi District	
Jilingdhar-Hinjlibahal	Ruby.
Orhabahala-Urharanga	Iolite.
Ghatpara-Singiharan	Hessonite garnet and zircon.
Sirjapali-Tundla	Cat's eye.
Banjipadar-Sargiguda	Blue opaque corundum, apatite, aquamarine.
Nawapada District	
Sardhapur-Patlapada	Blue iolite and fibrolite.
Katamal-Babebir-Amera	Yellow sapphire.
Damjhar-Burhapara-Mantritarai	Almandine garnets, iolite.
Rayagada District	
Paikdakulguda-Hatamuniguda	Cat's eye.
Irkubadi-Tarhama	Sillimanite Cat's eye.
Karlaghati-Karanjurha	Chrysoberyl.
Phulbani District	
Bargochha	Tourmaline.
Belghar	Cat's eye.

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Reminiscences

An Encounter with Flood of 1980

Gopinath Mohanty

It was raining cats and dogs for several days. In that evening we were holding a farewell feast in Cuttack Tahsil Office in honour of Sri J.A.Khan, ex-Tahasildar, Cuttack. Sri Arakhit Mallick, OAS(I), the then ADM of undivided Cuttack district and Sri Goura Govind Das, SDO, Cuttack Sadar were also among the invitees. The ADM wanted to know if I had been drafted for flood duty. I said 'Yes' but further added that I was not in a position to move outside Cuttack due to my pressing personal circumstances; as my wife was in an advanced stage of pregnancy at that time. I had been transferred from Salepur Tahasil a fortnight back to join as Additional Land Acquisition Officer in Cuttack Collectorate. I had shifted my family from Salepur and we were staying in my in-law's house in the Cuttack town.

I was sad about this flood. My poor state Orissa has no respite from the ravages of natural calamities during the past decades. The economy of the State has been caught in a vicious cycle of cyclone, drought, flood and tornado, visiting this unfortunate land one after another almost every year as a matter of routine. The development of the State has been severely retarded on account of these natural calamities, which have been inflicting heavy tolls of precious lives and property time and again. Only a year back i.e., during 1979-80 the state has faced an acute drought situation that affected more than half of its total

area and inflicted crop loss valued at Rs.21,000 million. Out of 3,820 Gram Panchayats covering 50,854 villages in all the 13 districts of the State, as many as 26,239 villages under 2,609 Gram Panchayats have suffered crop loss exceeding 50 percent and were declared as 'drought affected area.' A comprehensive drought relief programme has been taken up and it is still in operation. Now when the state is just in the process of recovering from the serious losses caused by the drought situation, "Nature's Fury" in shape of flood has struck again.

It came with the heavy rains in Madhya Pradesh and the upper part of Hirakud reservoir. The first phase of flood occurred in the Mahanadi system following heavy rains in the upper and lower catchment areas of the river Mahanadi from 9th September 1980 causing breaches in the embankments of the Luna and Rajua, the branches of the River Mahanadi, it inundated low-lying areas in Puri and Cuttack districts.

The situation worsened further by the second phase of the flood which commenced with the depression in the Bay of Bengal on the 16th September. The cyclonic storm crossed the coastline of Orissa between Puri and Chhatrapur and proceeded along the basin of Rusikulya and Vansadhara and reached the Mahanadi catchment area by the 17th September. The frightening

feature of this depression was that it intensified after entering the landmass effecting extraordinarily heavy rains in the districts of Ganjam, Koraput, Phulbani and Balangir and the areas around Raipur in Madhya Pradesh (present Chhattisgarh). It led to unprecedented flood never witnessed before in the river Vansadhara from the 16th to the 18th of September and further aggravated the flood situation in the Mahanadi system from the 19th to the 24th September, 1980.

The cyclonic storm of the 16th September that brought about heavy down pours both in the upper and lower catchments of Hirakud reservoir caused the level of the reservoir to rise rapidly thereby substantially increasing the outflow. This led to unusually high flood in almost all the branches of river Mahanadi in the districts of Cuttack and Puri. The protective river embankments were breached at several places submerging vast areas of cropped land and marooning a large number of villages. The heavy rains also caused rivers and hill-streams in the districts of Kalahandi, Balangir, Balasore, Phulbani, Sambalpur and Dhenkanal to rise very high and wreck havoc in many areas in these districts.

Government had warned about the expected flood. The news was broadcasted through AIR and the district administration had made all prior arrangements to meet the challenge. district-level officers had been drafted for deployment in strategic locations to meet the eventualities prior to the incidence of flood. Every one was apprehensive about the impending danger.

Rains continued for over a week. Towards the evening of that fateful day its intensity was abated, but floodwaters came rushing in the Mahanadi and the Kathajodi Rivers. The situation

became alarming for the people of Cuttack town who could not sleep in that dreadful night. They were moving in groups. Local volunteers were assisting the district administration to stop seepage of water through river embankment constructed by Markat Keshari at the behest of legendary Baimundi, an illiterate farmer having profound foresight; that was more than 500 years back.

I was one among them. I had been moving with Collector and SDO during the whole night. Sri P.K. Hota, IAS was the Collector. He was young and dynamic. He was on his toes throughout the night, monitoring the efforts made by the Engineering Department and the local residents. There was general euphoria of togetherness and community's involvement. I felt, if such sentiment had not have surfaced, there would have been several breaches in the embankments wrecking havoc in Cuttack town. Thank God ! Cuttack town could be saved, but there were several breaches in Jagatsinghpur subdivision. As a result the floodwater started receding near Cuttack town. The first breach occurred at about 2 A.M. in the night.

I came back to my house at about 4 A.M. and took rest. The next day I went to the Collectorate by about 9 A.M. and found the Emergency Officer on his chair. The Collector was also in his chamber. I sneaked into his room to know what was going on. He was alone and looking at some papers. When I entered into his room he looked at me, thought for a moment and asked very courteously, if I could help him a little because, he was aware of my personal problem and had been kind enough to exempt me from flood duty. I answered, "Yes Sir". Then he said, "Army has already moved to Jagatsinghpur last night for undertaking relief and rescue operation. But they could not take a bamboo truck with them.

You can go to them in a jeep along-with the bamboo truck and then come back to Cuttack.”

Carrying out the order, I proceeded to Jagatsinghpur and reached the SDO's Office at 11.30 A.M. Sri B.K. Das, SDO was well known to me. Recently we were working in the same station, Salipur where he was holding the post of Consolidation Officer. After being promoted to Junior Class (I) rank, he came to Jagatsinghpur as the SDO about two months back. He was gem of a person, soft spoken and a fine gentleman. He was affectionate enough to treat me as his younger brother and I had reciprocated by paying him due respect. I was delighted to meet him and let him know that I had come with the bamboo truck.

I opened the door of his office chamber. He was sitting facing the door. He saw me and smiled briefly. He was happy and welcoming me in his usual way. But he was not alone. The room was overcrowded with people; about twentyfive of them, demanding for immediate rescue and relief measures in the flood hit areas. More and more people were coming in and no body was leaving. The atmosphere was tense and noisy. Every body was presenting his case forcefully, and the SDO was listening patiently. He was at his wits end.

Cutting across the commotion I made my way to him and informed him about the purpose of my visit. When I sought his permission to return, he requested me to stay with him for some time. I could not leave this gentleman alone in this tense situation that was going down from bad to worse with every passing moment. There was never ending flow of demanding visitors to his chamber. After sometime an angry man called Gunduri appeared in the scene. He was middle-aged, wearing a *khaki* half pant and holding a short *lathi* in his hand. He started shouting ‘Sir, we have got

a message that about one hundred fifty flood affected persons who were taking shelter in a nearby telephone exchange in Mandasahi, a G.P. headquarters, have been washed away. If this news is found to be true, then we will not spare anybody’. Then he struck his *lathi* on the floor with force.

Though SDO answered coolly that he would look into the matter it could not pacify the crowd. There erupted a mass yelling. The atmosphere was charged with tension and I thought there could be a clash between the administration and the irate mob at any time.

The SDO was desperate and helpless. I took a quick decision to come to his rescue. I had to act fast to handle the situation tactfully. I immediately ventured to go to the backside of the SDO, lifted the telephone receiver and asked the exchange to connect me to Mandasahi telephone exchange. The operator tried but informed me after some time that there was no response. I insisted that he should keep on trying till it was answered. Thank God, there came an answer after a long gap. A feeble sound informed that the ground floor of the telephone exchange building had already been flooded. There was knee-deep water on the first floor, but every body was safe and he implored for rescuing them.

This SOS message dampened the tension inside the room and everybody looked at me with interest. This pushed me to the center stage where I found myself acting and taking decisions in consultation with the SDO. The most important decision was to go for rescue operation alongwith the army who were sitting there idle since the last night. No order was communicated to them to move anywhere.

There were several breaches at different points and vast areas were inundated. The first breach that caused widespread havoc was near

Mandasahi. Local leaders were pressing hard for deployment of army in their respective areas.

But I decided that the army boat would go to the worst hit Mandasahi for rescue operation. I would be supervising it. We were ready by 4 P.M. to start the rescue operation.

When I came out and met the army people, I found them hungry. They had not taken breakfast or lunch, because nothing was practically available in the local market. I managed to buy some bread and banana. On the way to the breach site we took bread and banana. We had to cover about 15 km. to reach the site. I was stupefied when I saw the vast areas under inundation on one side of the river embankment and on the other side, vast stretches of green paddy fields. The army men jumped into action. Pulling out their boats from trucks they rushed to rescue villagers who had taken shelter on rooftops, trees or nearby hillocks.

It was a moving sight. Many people were there on the river embankment. Several families had come there previous night after getting warning about the flood. Interestingly, we were not first to reach the marooned people. Relief workers from a daily news paper were already there with relief materials. Some of them had started rescuing the marooned people. A young lady in her early twenties came and implored me to send the army boat to rescue her father who after leading his family to the safety on the embankment had returned to his house to fetch some food materials. He could not come back as by that time water level had increased. Nothing could be done. The whole area was submerged. There was no visible sign of the man or his village.

The dusk came followed by darkness. The unfortunate survivors were struggling to keep their body and soul together inside the marooned area. It was not possible to continue the operation in

night time. Army men wanted to bring back their boats, and I prevailed over them to keep those boats there as we were scheduled to start the rescue operation from early morning on the day following.

All of us returned to our camp at about 8 P.M. I found the SDO still glued to his chair, discussing with people. Then I came to the Inspection Bungalow and found Sri M.M. Mohanty, OAS (I), ADM, Cuttack who was getting ready to return to Cuttack. He was camping there since the previous night to help the SDO. He was going to apprise about the exact situation to the Collector. After getting refreshed I saw the SDO in his office and with his permission left for Cuttack by 9 P.M.

I reached the Cuttack Collectorate around 11 P.M. and found the Collector personally counting the rice bags stocked in the Collectorate. Seeing me, he collected all information about Jagatsingpur. At the same time, he asked me, how things could be made better there. I answered; 'Sir, Sri Das is a very good officer, but since he is new to the sub-division, it would be better, if some old officers who had the experience of working in the subdivision could be sent there to help Sri Das.' I also suggested two names i.e. Sri K.C. Patnaik OAS (I), working as Secretary, Greater Cuttack Improvement Trust and Sri Chaitanya Prusty, working as Under Secretary at Bhubaneswar.

He thought over it and then rang up his house to say that it would not be possible on his part to come for the dinner. He politely told me to go home for dinner, and asked if I could be available to accompany him to Jagatsinghpur that night. I agreed and then came to my in-law's house for dinner.

When I returned at about 12 P.M., I found the Collector sitting for his dinner there in the

Collectorate. In his company were Sri K.C. Patnaik and Sri P.K. Senapati, IPS, the then SP, Cuttack. We left the Collectorate at about 1 A.M. in the night and halted in Nayabazar. There the District Civil Supply Officer, Sri Ashutosh Das was supervising loading of relief rice on the trucks. After the loading was completed we left Nayabazar at about 2.30 A.M. in the night along with seven truckloads of rice. We reached Jagatsinghpur SDO Office at about 4.30 A.M. in the morning.

We were ready by 6.30 A.M. Late Basudev Mohapatra, the then Minister of Agriculture, who represented the Balikuda Assembly Constituency arrived there by 7.00 A.M. in the morning. We started distributing relief.

The matter went off smoothly. Suddenly some message was received about another imminent breach at some point of the embankment, as there was seepage. Since no local officer was available I was asked to proceed to the site, arrange sand bags to stop seepage. With the help of Executive Engineer, Irrigation and I left by 11.30 A.M. Reaching the spot I did whatever I could. Then I went to Machhagaon to see the conditions there. I was appalled to see the low lying land area inundated. The scene was awesome. It looked like a sea. I found a Revenue Rest shed there, went into it, brushed my teeth, took my bath and came out by 3.30 P.M. As there was nothing to do, I came back to Jagatsinghpur. Reaching there by 5 P.M., I found Collector and other officers taking their lunch in the Revenue I.B. I was hungry too, for going without food since morning. I sat down for lunch soon after they had finished their's.

In the evening Collector was busy in giving his last instructions, because tomorrow he would be going to Kendrapara, which was also badly affected by the flood. He called me by 8 P.M.

and requested me to stay back for some days to help the SDO. I then learnt that Sri K.C. Patnaik already had one stroke then and there. He too asked the SDO to manage the crisis with courage and dedication. He further added. "I am leaving Gopi to assist you. Whatever he says, you just okay it and everything will be fine." That night I had to return to Cuttack to fetch my luggage.

Next day I reached Jagatsinghpur by 10 A.M. I picked up the command of relief and rescue operations with the SDO in my side. I systematically arranged shift duty and introduced the feed back system. Since the calamity was widespread and devastating, the State Government acting upon Collector's recommendation deployed senior officers in the rank of Jr. Class-1 and Sr. Class-1 to take charge of different Block areas. One Sr. Class-1 officer was in charge of Biridi block. Sri K.K. Patnaik, Ex-SDO, Jagatsinghpur and Under Secretary of a Department was in charge of Balikuda block. Three senior officers were kept in charge of three worst affected blocks and all of them were reporting to the SDO. I was coordinating their activities and handling their affairs creditably.

Collector came again on regular visit after 3/4 days, went to the affected pockets in a motorcycle, assessed the magnitude of loss, reviewed the relief operation and expressed his satisfaction.

After about 4/5 days I went around the worst affected pockets in the company of a photographer to take photographs of devastation caused by the hungry flood. The picture was gloomier than what the media could capture. With scores of reporters hunting out every possible news story the disaster turned more into a media event than a real human tragedy.

This super flood of 1980 had badly affected a population of 2.9 million in 10 out of the 13

districts of the State. It inflicted heavy casualties. As per the official estimates, 82 precious human lives and 10,160 livestock costing Rs 19.00 lakhs were lost, 130,981 dwelling houses costing Rs.9.05 crores were damaged, 6,865 hectares of fertile farmland were sand-casted and valuable public infrastructure worth of about Rs. 65.23 crores was damaged. It was a nightmare.

On the seventh day of the outbreak of the flood, the Central Team visited the flood-hit areas. They first came to Kendrapara Sub-division and Jagatsinghpur came next in their itinerary. They arrived at my station just before the evening of 10.10.1980. No body was expecting them at that time but I had anticipated that it might happen. I was ready with a big and powerful flashlight. It was dark all around when the Central Team visited the spot. They were satisfied with what we did for bringing rescue and relief to the needy, battling nightmarish logistical obstacles. They left the Sub-divisional Headquarters about 8 P.M. in the evening.

Soon after the Team's departure Collector called the SDO and me. He told the SDO, "Mr. Das, You are back to your chair." He profusely thanked me for effective monitoring and management of the crisis and further told me. "Now you can go and join your family".

I was staying there in the house of Sri Jitendra Mohanty, my friend who was working as the Sub-Registrar of Salipur. His wife was a lecturer in the Jagatsinghpur College. They were happy to accommodate me in their house. I was practically working for more than 16 to 17 hours daily. Sri Das, the SDO was also working with little food and rest. I was told later that he suffered for more than three months after flood operations were over.

I immediately came to my friend's house, picked up my luggage and returned to Cuttack

by 11.30 P.M. My wife had already been admitted to SCB Medical College Hospital for delivery. I rushed to the hospital cabin allotted to my wife. But by the time she had been taken to the labour room. I felt tired and exhausted. Hard work and sleepless night had strain on me. It had gone beyond my endurance. I felt tired and exhausted. I felt, I could take it no more. I badly needed some rest for atleast a few minutes before going to the labour room to see her. She was also expecting me till the last moment. I could not just make it. I thought I could rest for a while in her bed in the hospital cabin, but immediately fell fast asleep. No body also disturbed me. When I woke up at about 2 A.M. in the night, I saw smiling faces around me. Then came the good news; I was blessed with another son. It was God's gift. Perhaps he has rewarded me for my hard work and selfless service for the suffering millions, I thought. I thanked God for his Kindness.

Afterwards my wife always chided me that I did not bother for her in her critical moment. She alleged that I took my profession as my first wife putting her in the second position.

It was a moment of reckoning. Stray thoughts crossed my mind. I knew, I was novice in the art of administration with only five years experience to my credit at that time. But by God's grace I found myself daring and taking prompt decisions in the moment of crisis and this was useful to me to handle the complex problem even though I was a stranger not only to the area but also to the people of Jagatsinghpur. Perhaps my "stranger value" helped me to take impartial decisions against so many odds and particularly in dealing with the clamouring crowds shouting and demanding action in their favour. I was determined to do all I could to manage the disaster and tide over the crisis.

Later, when I came across Mr. Hota, the then Collector, he remembered those fateful days

and recounted the reminiscences. I had seen him moving in the flood affected villages by moter bike when roads were damaged, telephone lines cut off and communication channels blocked making the relief works a Herculean task. His quick decisions in this emergency situation could save many precious lives and property. He is endowed with the gift of taking right decisions at the right moment. I know it was his dynamism that inspired me to jump into the eye of the storm and come out with flying colours.

For me it was a mission accomplished. But it was not the end of the road. The disaster had left a trail of devastation. After the immediate task of rescue and relief there would come the difficult phase of rehabilitation and reconstruction in order to enable the affected people to pick up threads of life afresh. They were to be brought back to their routine of old familiar life.

Disasters can rip away social moorings and worsen the prospects of a society's existence. It may act as a unifying force if the right amount of goodwill exists.

Those days have remained fresh in my sweet memories. We the government officers live with the memories of such small achievements. But it may look remarkable when viewed in the context of saving human life and wealth against heavy odds. Yet, looking beyond the immediate occurrence, there are some crucial lessons to be learnt.

Gopinath Mohanty lives at 4R-2/1, Unit-III, Bhubaneswar.



A luxury bus VALVO of OSTRC has started its service from Bhubaneswar to Rourkela on 28-4-2006.

Glimpses of "Performing Art" Heritage in Orissan Inscriptions

Dr. D.B.Mishra

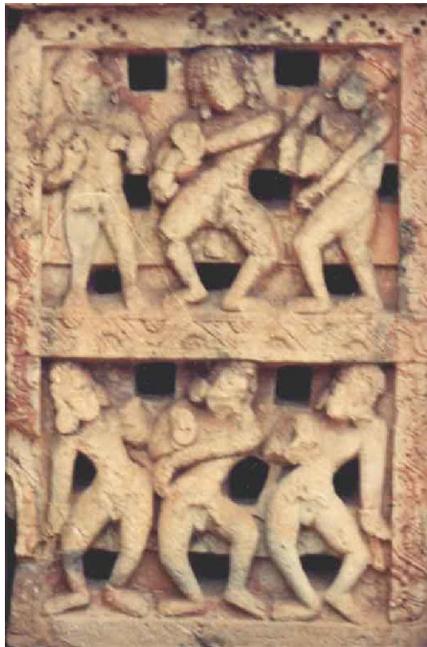
The reference of "Performing Art" heritage in the vast corpus of earlier Orissan inscriptions, except the Hatigumpha inscription of Kharavela (1st Century B.C.), is almost absent. However, the Hatigumpha inscription provides us with a fairly good idea about the practice, nature and development of music, dance and dramaturgy. No other record of Orissa thereafter till the advent of the Somavamsis in mid-9th Century A.D. makes even a stray allusion to it. It were the inscriptions of the Imperial Gangas to a great extent and those of the Gajapatis to a reasonable extent shed welcome light on the advancement of the art. In fact, the inscriptions of the imperial Ganga and Gajapati kings (circa 11th-16th century AD.) contain profuse references to various strands of the art which if interpreted and dealt with in an in-depth manner, with the support of plastic art and literature, may bring out the attainment of our ancestors in that regard by tracing the evolution down the ages.

The Hatigumpha inscription.¹ One of the earliest lithic records of early Christian time

(assigned to 1st Century B.C.) refers to the arrangement of festivals (*usava*) and social congregations (*samaja*) along with performances of acrobaticism (*dapa*), dance (*nata*) as well as

vocal (*gita*) and instrumental (*vadita*) in the capital city (*Nagari*) in third regnal year by the Emperor Kharavela, who himself was well-versed in the art of music (*Gandhava-Veda-Budha*). The capital city was described as playing, as it were, with the performances.

The reference of the patronage of the Emperor and its popularity among people is amply corroborated by three contemporary panels of dance-scenes of Khandagiri-Udayagiri. The most enjoyable of them is the one in the lower storey of Ranigumpha in which



the danceuse expresses the purport of the song by a posture (*mudra*) with her right hand while stretching her left hand which is adorned with armllets and bracelets. She has bent her right leg in a pose in which the fingers of the feet touch the ground. The beatific smile on her lips and the jubilantly expressive eyes, the two strands of hair-plaits on the sides of her back, the rhythmic ups

and downs of the necklace and the anklets on the legs lend a rare glamour to her deportment and performance. She is accompanied by four female figures- one playing on the flute (*venu*), another on a many stringed harp, the third a *mrdanga* and fourth a *dhakka*. The stage performance is, in deed, a unique piece of performing art. It was said to have been performed on a stage.

A similar scene of dance is carved in a cave of Aurangabad (Maharashtra). The daughter of Mara is found dancing in front of Buddha while four female musicians accompany her in various musical instruments. N.K. Sahu² is of the view that both the art of Aurangabad and Khandagiri-Udayagiri are contemporaneous and that the music of Kalinga had spread to the Deccan in the reign of the Satavahanas.

The second scene of dance, found in the upper storey of Ranigumpha, with two women dancers and three with musical instruments, is performed in an open-air theater, in contrast to the earlier panel which exhibits a special stage. The fact that it has been witnessed by the Empress and another royal female personage, probably the guest of honour of the occasion-exhibits the love and the patronage of the Emperor for dance and music.

The third scene of dance found in the Totua Gumph (No.2 of Khandagiri) represents a man playing on a vina (lute) while the girl dances to the rhythm of the music with her left palm upraised and right hand downwards in a dramatic pose.

Further, the reference 'Tauryatrika' (Music, Dance and Drama) Hatigumpha inscription speaks of the heritage of performing

arts since very early times anterior to Kharavela's reign. It may be pointed out in the context that we have come across four types of musical instruments, viz., Tata-Vadya (many stringed harp, harp played by plectrum and lute), Vitata-Vadya (mridanga, dhakka), Sisira-Vadya (venu or flute) and Ghana-Vadya (cymbals or Manjira). Further, in the musical concerts the role of the vocalists in setting the tune of the music for Svara (musical notes), Tala (time-measure) and pada (significant words) appears to be crucial. It may be pointed out that 'Gandharva Veda' has

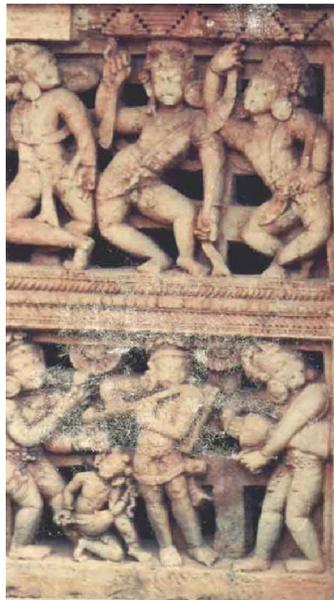
been defined by Bharata Muni³ (who has been variously assigned a time between 3rd-2nd Century B.C. to 3rd - 2nd Century A.D.) in his *Natya-Sastra*, the earliest available treatise on music and dramaturgy as the happy blending of Svara, Tala and Pada. Some of our present critics interpret that

Gandharva did not include dance in its fold as the latter is basically an imitative art in as much as it endeavours to convey to the spectator either singly or combined - form, an object, a situation, a feeling or a mood contained or depicted in a song

*which it follows, or independently when dance goes sans song. As such, it is at least partly a spatial art fundamentally different from music, in its pure form, is an art in time.*⁴

The reference of "Gandharva-Veda-budha-dapa-nata-gita-vadita" has many significant connotations. First of all, as pointed by Sri D.N. Patnaik,⁵

..... Odissi music, in its earliest form, was a type of music devoid of dance and was conforming to the ideals laid down in the



Bharata Natya Sastra, in case this Sastra was compiled at a time earlier than the said inscription. Considering the hoary antiquity of the Hatigumpha inscription one may be tempted to think that if the Natya Sastra was compiled in the 2nd Century A.D., or still later, as some scholars opine, the conception and definition of Gandharva was an outcome of the observation of Odissi music prevailing during Kharavela's Orissa. However, during the mediaeval period, particularly during the rule of the Ganga kings who came to Orissa from Southern India the music of Orissa seems to have comprised vocal music, instrumental music and dance too. The Nata-mandapas or the dancing halls constructed in almost every Orissa temple were meant for dance and music which used to go together in front of the temple deities.

Many of the scholars are of the opinion that contribution of Orissa to the Eastern Indian music, which was known as "Odra-Magadhi" in Bharata's Natya Sastra, can not be denied. They think that Odissi dance and song has been derived from it .

Secondly, that art as referred to in the inscription and (portrayed) on the rock-shelters of Khandagiri-Udayagiri are secular⁶ in nature in contrast to those at Bharhut, Sanchi, Mathura and Bodhgaya etc. which are religious in nature. The former are meant for the entertainment of the king and /or the people whereas the latter-as in the case of Ajatasatru and Prasenjit pillars of Bharhut - depicting the dances of Gandharvas and Apsaras have been shown on the occasion of worship of Buddha's relics. The spirit of dance and music which Kharavela instilled in the lives of the aboriginals became a part and parcel of their life-style, which continues as a precious artistic heritage even to-day among them in Orissa. H. Jimmerf⁷ has rightly observed.

They represent apparently a main current of the traditional higher art of the aboriginal civilization of the sub-continent of India.

For a long time after the Hatigumpha inscription, there is no such specific epigraphic reference to dance and music till the time of the Somavamsis in mid-9th century A.D. However. The dance scenes of Parasuramesvar and Kapilesvar of 7th century A.D. clearly indicate that dance and music were popular among masses. In contrast to the female dancers and musicians of Kharavela's time, we find three male figures performing dance in the upper part and four males playing on musical instrument below the panel - in both the temples. It shows that music and dance were gradually becoming popular among males. The instruments like Venu (flute), Sringa (horn), Karatala (Cymbals) and Vudvudika were some of the popular instruments. N.K. Sahu⁸ has observed that whereas the dance-scene of Parasuramesvara is a folk-form that of Kapilesvara exhibits the traits of Bharata-natyam. He has identified one of the dancers as exhibiting Padmakosa mudra in her right hand and Gajahasta in the left, the second as in the posture of making hair-do and the third with Samdamsa mudra in her right hand. Whereas in the Parasuramesvara Temple, one dancer is dancing with two pieces of scarf in his two hands, the second standing to his right has placed his left hand on the buttock and in his right hand he is hanging a kerchief and, the third standing to the left is taking a turn of his head towards the front while facing the opposite side of the audience.

Contemporary Nataraja images exhibit a rare aesthetic and spiritual expression, what may be defined as Ananda Tandava mudra in the terminology of Bharata Muni. Charming descriptions of public courtesans (dancing girls) occur in the "Mangalacharana" portion of the Somavamsi inscriptions (Cir. A.D. 850-1100)

from the earliest dated record till almost the last. The Gopalpur Charter⁹ dated first regnal year of the founder of the dynasty, Janamejaya I Mahabhavagupta, in the description of Suvarnapura - the capital metropolis - describes the place as one "where the best of public damsels dance rhythmically to the tune of the movement of their 'Kalasa' (small water jar with beautiful constricted neck) like breasts (Vara-Vara-Vilasini-kucha-kalasa). The description becomes more conventional (Varnaka) from his 6th regnal year (Kalibhana plates)¹⁰ onwards and, has been applied to other metropolises like Murasima and Arama or Arama-Kataka as follows :

The jingling sound of the anklets on the feet of the numerous charming courtesans frightened the flocks of pigeons (who) started flying with their fluttering noise (which) deafened the tenquarters (aneka-Vara-Vara-Vilasini-Jana-charana-nupura-rava trasta-paravata-svana-Vadhirita-dasa-diso.....)

It appears that the victor Somavamsi kings brought beautiful maidens as trophies of victory from the vanquished territories and kept them in gem-studded mansions (amala-mani-krtrima-sadana) for either performing art of dance and music or for prostitution to entertain the rich and the aristocratic people.¹¹

The institution which became famous as "Deva-dasi" (literally maid of the god or temple) in Orissa is unique in the realm of performing art. It epitomizes of dance and music - which have been first alluded in 1st century B.C. and continued in Orissa till almost 20th century A.D. They were a class of special maidens attached to the temple for regular performance of dance in Orissan temples. The first of its reference, as said earlier, is found in the Ramgarh inscription¹² of 1st century B.C., or A.D. which narrates the love episode of a young painter. Devadina and a 'Devadasi'

named Sutanu. The Ramgarh hill in Sarguja district (Chhatisgarh) contains two caves, namely, Yogimara and Sita Vangira. The former was used as a residence by a cave-actress (Lena Sobhika), probably Sutanu where the inscription is found as follows:

Sutanuka nama / Deva Dasi Kyi / Tam Kamayitha valuna seye/Devadine nama/ Lupadakhe

It is important for the cultural history of Kosala. However, a specific and significant reference of 'Devadasi' has been made in the Brahmesvara temple inscription¹³ of Kolavati Devi in the reign of Uddyotakesari Mahabhavagupta (Cir.A.D. 1040 - 65). The inscriptions of Meghesvara and Sobhanesvara of the Ganga reign also contain references of 'Devadasi'.

The Brahmesvara inscriptions (Verse 15) narrates :

By her (Kolavati Devi) were dedicated to Lord Siva some beautiful women, whose limbs were adorned with ornaments set in gems and thus appearing as the everlasting but playful lightning, and who are restless with the weight of loins and breasts, and whose eyes were fickle and extended up to the ears and who looked lovely like the pupils of the eyes of men.

In the Ratnagiri Charte¹⁴ of Somavamsi king Karna (Cir. A.D. 1098-1118), a donation of land was made in favour of Rani Karpurasri, the daughter of Mahari Mahunadevi. Mahari has been interpreted a 'songstress or a dancing girl or a Devadasi or harlot by A.M. Shastri. It is an Oriya equivalent for 'Devadasi'.

There are profuse references to the community of dancing girls of the temple-service in the Imperial Ganga and Gajapati records. They were variously called Sani, Sanivaru, Sanulu,

Langalu, Kumari, Gudusani etc. The temples became the nucleus for the growth of dance, song and music. A Madhukesvara temple inscription¹⁵ of Chodagangadeva reveals that he made arrangement for a service called 'Trikalinga Bhoga' with provisions of maintenance for dancers, musicians and vocalists. Besides, his Narendrasvara inscription¹⁶ and his general Vanapati's inscription of the Bhagavati temple of Dirghasi¹⁷ state the arrangement of dance, music and dance-hall. It may be pointed out that 'Nata-mandapa' (dance-hall) became an important additional feature of the Orissan temples from Ganga time onwards. Anangabhima II employed Devadasis for dance and music in Meghesvara and Sobhanesvara temple as known from the inscriptions of the respective temples. A Simhachalam inscription¹⁸ informs us that Narasimha I's general Aktai erected the Natyamandapa of the temple in Saka 1160 (1238 A.D.) and the king appointed one hundred of "Kumaris" to sing in the temple.¹⁹ Narasimha Bharati Sripada, the great Vaisnava saint and exponent of Madhava Mahavada arranged for 'Nama Samkrittana, at Simachalam with two flute-players and eight musicians as known from an inscription dated Saka 1281.²⁰ Whereas Govinda Jiyana also arranged for 'Nama-Samkirttana' according to the rules of Oriya Sampradaya in the temple in Saka 1312.²¹ Pandita Dasa, Narasimha II's minister appointed two female flute-players and ten singers in Srikurmam.²² Narasimha III's queen Gangadevi appointed a group of eighteen musicians as revealed from an inscription of Saka 1272.²³ Many more instances may be quoted from the Ganga inscriptions in this regard.

Sanivaru or Sanulu community of dancing girls (Nrutyangana) belonged to both Sudra caste as well as to respectable families whereas a Simachalam inscription refers to the former,²⁴

another inscription of Srikurmam refers to 30 daughters of some Nayaka family dedicated to the Lord.²⁵ The Panchadharla record²⁶ describes that the daughters of Narasimhadeva, the Chalukya ruler of Elamanchalli, by his Bhogastri (concubine) were made Devadasi and an inscription of Simachalam²⁷ states that daughter of Arjunadeva of Oddadi was dedicated as a temple servant. C.V. Ramachandra Rao²⁸ has observed:

In the medieval society, they were assigned a respectable place in the social order, and their profession did not carry any disapprobation with it. With all the disapprobation that it may earn from the puritan critics of the present day, the institution of dancing girls did the greatest service to the arts of dance and music by its single minded devotion to those arts.

The courtesans of the Later Imperial Gangas and the Suryavamsi Gajapatis were known as "Sampradaya-Mubhari" or "Lanjalu" (fully dedicated to temple service) and "Sanulu" (part-time employment).

It is interesting to note that there was a Telanga community of dancing girls in the Jagannatha temple of Puri. Gajapati Prataparudra who himself has been adorned with the title of "Sangita Sahitya Samlapa" has issued a command in an inscription dated 1499 A.D. that all the groups of dancers, including the Telanga girls should henceforth dance only with the chanting and Tala of the Gita-Govinda²⁹ (by Jayadeva). He has further ordered in an inscription of Anka 430 that music and dance of Gita-Govinda should continue in the temple from the evening rituals (Sandhya dhupa) till the 'Bada Singhara', so that other concert group, viz., 'Bada Sampradaya', 'Puruna Sampradaya' and 'Telanga Sampradaya' could learn the music and the dance forms of Gita-

Govinda. A stipulation that if any 'Parichha' would arrange any other music or dance (other than that of Gita-Govinda) he would sin against Lord Jagannatha - was appended in the inscription. The reference of a 'Bada Sampradaya' is also found in a Jagannath temple inscription of Govindadeva (A.D. 1534-46).³¹ Similarly, the reference to 'Natua Sampradaya' is found in a number of inscriptions.³² Very interesting information about composition of temple orchestra are gleaned from the Simachalam inscription (Saka 1272)³³ of Gangadevi, referred to earlier. The troupe or choir of 18 consisted of 8 dancers (patralu), 2 drummers (madatikatyelu), 1 vocalist (gayani) one woman each for the instruments viz., a flageolet (tukinamu), a conch-shell (sankhu), a Kettledrum (avarjamu), drum (bheri), a blow-pipe (mihvuri), Brahmamihvuri, a kind of trumpet (kahali); besides a pair of women with bronze cymbals (Kamsya talamu) who were not counted in the repertoire. Similarly, a repertory in a Srikurmam inscription³⁴ of a governor (Daksina Desadhikari) of Narasimha II, consisted of 30 dancing girls (sanulu), 1 choreographer (mattuva), 6 drummers (madylakandru), 1 kettledrum beater (avajakadu), 1 Karadakadu, 1 kahalakadu and a leader of the troupe (melunayakudu).

It appears that all and sundry were not admitted into the community of 'Sanulu' or 'Devadasi'. The inscriptions repeatedly speak about the beauty and the dancing-girls as 'Yosita sundarangi',³⁵ 'lavanyaguna sampanna'³⁶ and praised for their faces as resembling the moon (purnacandranana)³⁷ and for eyes as 'Vama vilocana'.³⁸ Very likely, before their entry into the dancing community they had to take lessons from eminent Gurus, as in present day, some of whom were attached to temples or royal courts, like Ranganatha Vaggeyakara who had been decorated with various titles, such as, 'Abhinava Bharatacarya' (a brand-new preceptor like the

illustrious Bharata, the composer of Natya Sastra), "Cappannam Beyakara (Versed in 56 ragas) and 'Todaramalla' (A honorific title, a badge) in the Simachalam temple inscription dated Saka 1343.³⁹ Further the inscriptions mention about 'nattuvass' or choreographers who were maintained by the donations made by the people to the temple treasury.⁴⁰

By the time of Kapilendra Gajapati, it may be pointed out in the context, that about 80 musical instruments had been in use as revealed by the Sarala Mahabharata of Orissa. The climax of musical attainment was attained in the reign of Prataparudra Gajapati who both patronized and practiced music in his reign. As pointed out earlier, like Samudragupta who took the title of Kaviraja, he took the epithet of 'Sangita-Sahitya-Samlapa'. Chandrika Devi, daughter of the Ganga emperor Anangabhimadeva has been described as an adept in dance and music in the Ananta Vasudeva temple inscription.⁴¹ The ministers, nobles and high officials vied with one another to attain personal excellence as well as in extending patronage to dance and music. Mention may be made of Narayana Senapati (Simachalam inscription, Saka 1213)⁴² who provided 5 nibandhas of money to 2 male singers and 4 female singers. The Brahmin minister of Odaddi was known as 'Sangita Ratnakara'.⁴³ Pratapavira Gangaraju, a feudatory of Gangas in Janturunadu has been described as a 'Sarigitajna'.⁴⁴ One Krisnadedva is decorated with the title "Sangitabodhi Chandra"⁴⁵ (the moon in the ocean of music). Narasimha VI's queen Uttamadevi's uncle Tammana is mentioned as "Talambudhih" (an ocean of musical-measure).⁴⁶

The foregoing discussion reveals that Performing Arts, as in present time, was very popular in ancient and mediaeval ages. It is unfortunate that no treatise of early times on music

and dance forms of Orissa has been available. However, references are available in such medieval literary works as 'Ekamra Purana', 'Svarnadri Mahodaya', 'Durgotsava Chandrika', 'Parimala Kavya, Dandi Ramayana, Sarala Mahabharata, Kavi Kalpadruma, Rasa Kalpadruma etc. However, the poses and the postures of the dancers, the musical instruments portrayed on the caves and temples, the references to various types of communities, the patronage of kings and royal personages and, the institution of Devadasi, go a long way to depose the attainment in the field.

The epigraphic references, corroborated by plastic art, suggest that present tradition of classical dance and music is the "outcome of continuous evolutions". Bharata Muni very likely standardized Indian dance and music on the basis of geo-musical significance into 4 types, viz., Avanti, Dakshinatyā, Pancali and (U) Odra-Magadhi. The last one, named after Orissa-Magadha or the Eastern Region has been classified into 32 Melas on the basis 'Ragas' on genus-species 47 like Dhanasri, Kokila, Asavari, Mahallara, Todi, Bhairavi etc. and 14 Talas like Adi, Jati, Eka, Jhampaka, Rupaka etc.⁴⁸ and 15 varieties of composition styles (Paddhati) Viz., Sri Gita Govinda, Divya Manusi Prabandha, Bhajana, Janana, Champu, Tribhanga, Vyanjani etc. set to Ragas and Talas. Oddisi is a variant of Indian classical music and has evolved from the Odra-Magadhi.

As regards dramaturgy⁴⁹ 'Anargha-Raghava Nataka' by Murari Mishra (8th/9th Century A.D.), the oldest available, was performed at Puri on the occasion of the Yatra of Sri Purusottama. Prabodha Chandrodaya by Krsna Mishra (mid-11th Century), 'Chandrakala' by Viswanatha Mahapatra, 'Parasurama Vijaya' by Kapilendradeva (1435-66); Gajapati

Prataparudra's 'Dasagriva-vadha' and 'Janaki-Pramoda': Dibakara Mishra's 'Parijata-harana', 'Veni-Samhara, 'Prabhavati'; "Sri Jagannatha Ballabha" by Ramanand Raya etc. were some of the significant compositions, and were probably played on stages or in open-air. In the context, Damodar Hota⁵⁰ has pertinently observed

All these dramas embellished with musical colour bespeak the continuity of the tradition of Udra form, of Classical Music in Orissa. "Sri Jagannatha Ballabha Nataka" by Raya Ramananda can be taken as a bright example to prove this fact; the songs we come across in this work, are in the form of 'Prabandhas' based on Raga and Tala'. The authors of later periods referred to this work are Krisna Dasa Badajena Mahapatra, Raghunatha Nanda, Gajapati Narayana Dev Harichandan etc. We are prompted by the above facts to conclude that 'Udra Paddhati' of 'Prabandha gana continued to flourish in Orissa till 19th century A.D. unabatedly.

In fine, it may be said that classical dance and music grew from early Christian time from the Cave-palace of Kharavela and continued down the ages till 16th/17th centuries A.D., particularly in such famous temples as Simamchalam, Srikurmam and Jagannatha with patronage of the royal and religious personages and loving participation of the people. The temples proved to be the veritable cradle of the dance and the music whereas open-ground and stages proved to be the theater of operation of the plays. These performing Arts grew luxuriantly in Orissa, contributed significantly to Indian classical forms and further flourished as one of the most advanced form and, earned name and renown not only in Orissa or India but also in abroad. The performing Arts of Orissa, with a long and hoary tradition of evolution, have proved to be a priceless artistic heritage of the country.

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Success Story

Karamula: A Village Where Tradition and Heritage Play Enterprise

Gurbir Singh

At a time when Generation X has grown almost old and its junior ilk- Gen Y is slowly taking over from it the joyous burden of carrying modernity further ahead, it is very pleasant and refreshing to set your foot in a village in Orissa where time seems to be really on a rearward journey though in a pleasant and enterprising way.

Karamula – an half hour's bus ride from Dhenkanal town takes you to this village of over three thousand people, situated calmly on the quiet bank of the perennial river Brahmani in the Gondia block of the district. The signal tower of the All India Radio Station at the nearby town Joranda stands majestically amidst the region's beautiful and ever-bestowing flora and fauna. Impressively likewise, the youth in Karamula can now serve themselves as role models of rural entrepreneurship for their counterparts in the rest of Orissa. Well, why not for the rest of India too! Many college and high school drop-outs, together with some graduates

of this village have successfully employed themselves by taking recourse to the traditional arts and tribal crafts which are fast dying everywhere in the state. Atleast they do not exist

for the educated youth who can hardly think of learning them to make a living out of them.

Pala – the traditional folk art performed in the open where a lead singer-cum-performer along with his fellow choir members narrate episodes from mythology both in song and action;

together with the antiquated, but very fascinating craft of tribal jewellery are now for many youth of this village a very successful way of self-employment. Perhaps it sounds like a bit snubbing for smart economists. But the nicest thing about the novel endeavour of these young people is that they are earning very handsomely too.

There are over dozens of *pala*-performing troupes in this village. Pleasantly four of these are



A young boy learning the craft from the old



Maguni Maharana proudly exhibiting his tribal jewelry products

mainly run by all-female members. Young, semi-educated and ambitious, these self-enterprising youths have become popular for their superb performance of *pala*. Perhaps being young, educated and smart help them steal a march over their typical, stereotyped, old and illiterate counterparts. Each group consists of six artists and it gets paid a sum of a little over rupees one thousand for a single *pala* performance. Barring the rainy days, the groups claim to be receiving as many as ten calls for *pala* performance from different areas every month. One all female group has just been back home after a month's continuous performance in Sambalpur.

Ragunath Behera, an ex-serviceman and a *Pala*-performer himself, while frequently quoting facile *mantras* from scriptures, something which comes to him fluidly, says that this way the youth are doubly serving the society. Firstly by self-employing themselves without being a liability to the country's exchequer; secondly by preserving Orissa's rich cultural heritage for the next generation. Besides, he says, this act of bringing scriptures to common people is also an act of great virtue.

Great, but wait, for traditional art's help does not end here. There are some dozen Self-Help Groups separately formed by the young men and women artisans of the village which are dedicated to reviving and popularizing tribal jewellery in commercial markets. These artisans are not ordinary artisans. They are uncommon in the sense that most of them are young with school and college backgrounds and they are not expecting the government to provide them with jobs.

Meet Maguni Maharana, a young graduate who runs his own registered NGO, "Crafts Orissa" in his own village. He has learnt from his father their ancestral skill of tribal jewellery making. This jewellery is made of white metals, Dokra and brass. They range from earrings, necklaces, bracelets, anklets, rings and even *mangalsutras*. They are all exquisitely designed and they invariably retain the authenticity and originality of the typical tribal wear. And believe me, these jewellery are so good, cheap and exotic that people with some taste for change and tribular distinction will find them good enough for both casual and fashionable wear.

Young Maharana, together with some fifteen other SHGs in his village, gets the help of a Bhubaneswar based NGO which helps them get the raw materials from Calcutta. The supply order too is placed by this intermediary agency which markets these tribal ornaments in places like Delhi, Calcutta, Hyderabad, Pune and Madras. The good news is that these young artisans of a small village are also bringing in foreign currency as their products get marketed abroad. There are a lot of takers of these tribal ornaments among foreigners.

With more than eighty varieties of *mangalsutras*, two hundred types of necklaces and forty designs of earrings, just to count a few



A lady entrepreneur being her own model.

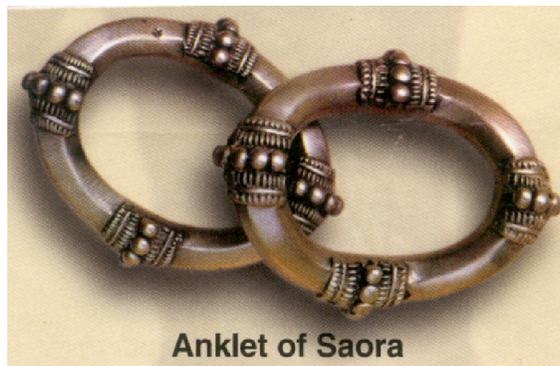
items, these tribal ornaments are definitely going to be any connoisseur's treat. And a sure inspiration for any fashion designer who has some respect for the ancient craft.

Tulsidas Sorabi, a tribal artisan from Nabarangpur has been here since last month. Three more months to go before he leaves with three other artisans of his village for home, but not before they have all learnt and mastered the craft of the intricate and exquisite designs of Dhenkanal's tribal jewelry. Beauty is that the local artisans who are now playing teachers to these outsiders had been trained by them last year back home on the making of jewellery worn by the tribal men and women in Koraput.

The synthesis of these two primitive but exquisite designs of tribal jewellery will surely bring in a new tale of successful marketing of the same in future. Innovative in its own sense, artistic and very exquisite, and yet authentically primitive, the tribal jewellery making surely stands to serve as a good business enterprise for these rural youth. But more than anything else, the charm of a youthful face gleaming with sure hope of making it on its own shows signs of change in the rural India. When everywhere else, youths from the rural area are rushing to the nearest towns and cities seeking employment, a mere attitudinal change among some youth of this village has given a new dimension to the rural entrepreneurship.

That the traditional art forms and our rich cultural heritage are playing a role in these self-employment endeavours in villages is beyond doubt a welcome news for economists and laymen alike.

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Lord Jagannath : Symbol of Unity and Integration

Dr. Chitrasen Pasayat

The literary meaning of Jagannath (Jagat+Nath) is the Lord of the Universe. He is called Devahideva (Lord of Lords) and Rajadhiraj (King of Kings). He is also known as Purushottam (Purusa+uttama i.e. the supreme Purusa). Puri otherwise known as Jagannath Puri is the abode of the Lord of the Universe. Puri is also popularly known as Sri-kshetra, Sankha-kshetra, Purushottam-kshetra, Neelachala and Neeladri. In fact, Puri is synonymous with Lord Jagannath and vice versa. Popularly the word Jagannath has been used for Puri. In the ancient Hindu religious scriptures and *puranas* namely

Vishnu Purana, Agni Purana, Brahma Purana, Padma Purana, Naradiya Purana, Bhagavat Purana, Skanda Purana, Kapila Purana or Kapila Samhita, Tantra Jamala, Rudra Jamala, Kalika Purana, Bamadev Samhita, Neeladri Mahodaya and the like, one finds the references of this religious pitha. In the Sanskrit Ramayana and the *Mahabharata* though there are no clear and specific references to this pitha or deity, the word Jagannath has been found



mentioned in some places. For instance, Ramachandra had once advised Bibhisana to worship Jagannath. Some scholars opine that the *vedi* or *antarvedi* as referred to in the *Mahabharata* is nothing but the *ratnavedi* i.e. raised stone platform or pedestral on which the deities are seated in Puri temple. Jagannath is also known as *Daru-Brahma* or the prime soul enshrined in wood. Some scholars correlate this *Daru* with that of *Apurusham Daru* mentioned in the *Rig Veda* and hold the view that worship of Lord Jagannath started before the Christian era. Indrabhuti in his *Vajrayana* treatise

Gyanasidhi has mentioned the name of Jagannath. *Neeladri Mahodaya* also narrates in detail the ritual and custom of the deities in the Puri temple. The most famous Oriya work of Sarala Das belonged to 15th century is *Mahabharata* wherein the poet has narrated in detail the legendary origin of Lord Jagannath. Besides, there are references of Purushottam Jagannath and Puri in a number of inscriptions like Nagpur stone inscription of 1104 AD, Govindpur inscription of 1137 AD,

Lingaraj temple inscription of 1230-38 AD, Srikurma temple inscription of Bhanu Dev II of 1310 AD, Kapilas inscription of Narasimha Dev of 1238-64 AD, Neulapur inscription of Subhakar Dev of 780-800 AD, Satana, Madhya Pradesh inscription of 10th century AD, Nagari Copper Plate of King Anangabhima Dev III of 1230 AD, Baramdeo Temple inscription of 840-1088 AD, Simanchala temple inscription of 1319 AD, Nrushimha, Markandeswara and Pataleswara temple inscription at Puri of 1113 AD-1238 AD, Dasagova Copper plates of 1192 AD-1211 AD.

According to legends as depicted in some Puranas, Raja Indradyumna of Malab (central India) had built a huge temple for Lord Jagannath. It was 1000 cubits high. In course of time, the temple was collapsed. It was the first temple of Lord Jagannath. But historical evidence as to the temple by Raja Indradyumna is not available. Hence, Raja Indradyumna appears to be a legendary figure. Historically, it is believed that the present temple was built in the 12th century AD by King Ananta Burman Chodaganga Deva. Reportedly, he was the founder of the Ganga dynasty in Orissa. Chodaganga started construction of this huge temple but could not complete it during his life. Thereafter, it was completed during the time of his successor Ananga Bhima Deva III. According to the noted historian Sterling, Ananga Bhima Deva built the temple in 1196 AD. But scholar like Ferguson opines that the temple was built in 1098 AD. However, according to Hunter the construction of the temple began in 1174 AD and completed in 1198 AD. On the other hand, R.D. Banerjee holds the view that the temple was built by Chodaganga Deva at the close of the 11th century. Moreover, as per the Madalapanji, old chronicles of the temple written on palm leaves, Ananga Bhima Deva ordered for the construction of the present temple. A copper plate grant discovered

in Cuttack in 1949 attests the fact that Ananga Bhima Deva constructed the temple at Puri. Dr.S.N.Rajguru is of the opinion that an ancient temple of Lord Purushottam was built on the sea shore. After the destruction of the temple, the presiding deity was removed and was installed in a new temple built by Yajati-II in 10th century AD. The temple built by him is nothing but the present temple of Nrushimha in the bhitarabedha (inner circle) of the Shri Jagannath Temple, Puri. Subsequently, Chodaganga Deva built the present temple by the northern side of the Nrushimha temple. But during his life time, he could not complete the work and his descendant Ananga Bhima Deva III completed the construction work of the temple and also performed the glorious pratistha ceremony and the deities were installed in the new and huge temple sometimes in 1230 AD.

Shri Jagannath temple at Puri has four chambers or sections namely *Deula* or *Vimana* (sanctum sanctorum) where the deities are seated on the *ratnavedi*; *Mukhasala* (porch); *Nata Mandira* and *Bhoga Mandapa*. It is said that the *Deula* and the *Mukhasala* were built in the 12th century AD and the *Natamandapa* and *Bhogamandapa* were added subsequently during the reign of Raja Purushottam Deva (1461-1491 AD) and Raja Prataprudra Deva (1495-1532 AD) respectively. It may be noted that the *Natamandapa* is also known as *Jagamohana*. The presiding deities in the temple are Lord Jagannath, Lord Balabhadra and Goddess Subhadra. These three deities are popularly known as *Trimurti* (trinity). The trio with Sudarshana are seated on the *Ratnavedi* in the *Deula* or *Vimana* portion of the temple. The four idols are popularly known as *Chaturdhamurti*. Two other small idols namely Goddess Sridevi (Laxmi), Goddess Bhoodevi or Biswadhatri are seated on the *Ratnavedi* on the left and right side

of Lord Jagannath respectively. Another small replica of Lord Jagannath called Neelamadhaba is seated by the side of Lord Jagannath. In other words, there are seven idols found on the Ratnavedi. Except Sridevi and Bhoodevi, the other five idols are made of *neem* wood. Sridevi and Bhoodevi are metallic images of gold and silver respectively. It is also commonly believed that before installation of Lord Jagannath, Neelamadhaba was the only presiding deity of the temple.

According to the legend, Lord Nrusimha was being worshipped at *Neelagiri* (Puri) alongwith Neelamadhaba. As mentioned earlier, Lord Nrusimha is being worshipped in a separate temple adjacent to *Muktimandapa / Muktamandapa*. According to the legend, the image of Neelamadhaba was made of *Neelakanta mani* (emerald). However, the present image of the deity is made of *neem* wood. Legend further says that Lord Jagannath was originally worshipped by a *savara* raja (an aboriginal tribal chieftain) named Viswbasu. Having heard about the glory of the deity, Raja Indradyumna sent a Brahmin priest called Vidyapati to discover the exact location of the deity who was then secretly worshipped by Viswbasu inside the cave of a dense forest. Vidyapati tried his best, but could not locate the place of worship. Finally, he could manage to marry the Lalita, daughter of Viswbasu. At repeated request of Lalita, Viswbasu took his son-in-law blind-folded to a cave wherein Lord Neelamadhaba was being worshipped. Vidyapati was a very intelligent man. He dropped mustard seeds on the ground on his way.

After a few days, the seeds germinated which helped Vidyapati to locate the cave wherein the deity was being worshipped hiddenly. On hearing from Vidyapati subsequently, Raja Indradyumna immediately rushed to *Odra desa*

(Orissa) to have a *darshan* of the deity. The king was disappointed at the sudden disappearance of the deity. The deity was hidden in sand. Raja Indradyumna was determined not to return without having a *darshan* of the deity and observed fast onto death at *Neelagiri*. The deity was pleased with the king. Thereafter, the king performed a horse sacrifice and built a magnificent temple for the deity. Narada brought the Nrusimha *murti* (image) and it was installed inside the temple. During the sleep, the king had a vision of Lord Jagannath. An astral voice directed him to cut down the fragrant tree on the seashore and make idols out of it. Thereafter, Viswakarma appeared before the king in the guise of an old man and expressed his desire to make the idols and installed in the *garbha-griha* (sanctum sanctorum).

Some scholars believe that Neelamadhaba was originally a non-Aryan tribal deity. But, there is no denying the fact that the very name Neelamadhaba indicates a Sanskrit Aryan name. Some scholars believe that the deity belongs to Hindus pantheon and he was originally in the form of a *Sila* (stone) *Brahma* and afterwards became a *Daru* (wood) *Brahma*. In course of development, Neelamadhaba became Jagannath and was worshipped alone. Subsequently, Balabhadra, Subhadra and Sudarshana were incorporated consequent upon the resurgence of Saivism and Saktism. It is believed that there was a great resurgence of Saktism from the 7th century onwards. The image of Goddess Durga or Sakti was included by the side of Lord Jagannath in the temple. Durga or Sakti is also known as Bhadra or Mangala. It is believed that this Bhadra or Mangala came to be known as Subhadra (Srikrishna's sister). Lord Siva or Veerabhadra was transformed into Balabhadra (elder brother of Srikrishna) under the influence of Vaishnavism. It is also accepted that Jagannath was the only deity being worshipped as per the Tantrik

Buddhist rituals at one time. In course of time, under the inspiration and influence of Sankaracharya and with the active support of Raja Yajati Kesari, Balabhadra as Siva and Subhadra as Bhubaneswari were included to form the Triad. In other words, the three important streams of the Hindu spiritual cultural tradition namely Saivism, Saktism and Vaishnavism were accommodated in the Trid under the common umbrella of Vaishnavism in the Puri temple.

It is also believed that during the time of Somavamsi Raja Yajati in Orissa, attempts were made to bring together all the main deities worshipped in different parts of the then Orissa. Purushottam Jagannath of Kalinga and Kangoda (east Orissa), Baladeva or Nagaraj of Toshali (north Orissa) and goddess Stambheswari/ Khambeswari or Ekanamsa Subhadra of west Orissa were brought together and worshipped at Puri temple as the State deities of the greater Orissa or Trikalinga empire. In all probability, it was a political move for unification and integration of a larger area of the then Orissa. In this context, it would not be out of context to mention that the words Kaivalya, Purushottam and Natha indicate influence of Jainism on the Jagannath cult as opined by some scholars. According to this line of thought, the word Jagannath is derived from Jineswara. According to Jainism, Rishava is Jineswara. The car festival day of Jagannath i.e. *asadha sukla dwitiya* is observed as the birth day of Rishava. Originally, Jagannath was a tribal (*savara*) deity called Jaganta and under the influence of Jainism the word *nath* was perhaps suffixed to it. Thus, the deity became Jagannath. It is also accepted by some other scholars that the worship of Jagannath is of Buddhist origin. They hold the view that the three deities symbolize the *Triratna* of Buddhist tradition which refers to *Buddha*, *Dharma* and *Sangha*. Buddha has been addressed as Jagannath in the *Gyanasiddhi* a

treatise on *Vajrayana*. It is also widely believed that in the cavity of the wooden image of Jagannath a danta (tooth) of Buddha has been preserved. At the time of *Nabakalebara* ceremony of the deities, the sacred tooth of Buddha is transferred to a new image and the old images are buried in the koilibaikuntha situated in the bahara-bedha (outer circle) of the temple. The car festival of Lord Jagannath is a reproduction of that tooth festival of Lord Buddha. The name of Puri was *Dantapuri* and the temple of Lord Jagannath has been built on the ruins of a Buddhist *stupa*. However, Buddha and Jagannath have remained one and identical in Puri temple. The most celebrated ancient Oriya poets, popularly known as Panchasakhas namely Jagannath Das, Balaram Das, Achutananda Das, Yashovanta Das and Ananta Das belonging to 15th-16th centuries have described Lord Jagannath as Buddha in their writings. It would not be out of place to mention that on the wall of *Jagamohana* by the side of the *Garuda stambha* and also at the top of the *Singha dwara* (Lions gate) of the temple, one finds images of the ten *avatars* (incarnations) of Lord Vishnu. In the ninth place i.e. the place of Buddha, one finds the image of Jagannath. In view of the analysis made above, it may be surmised that Buddhism and Jainism have also been accepted as integral parts of Hinduism. As such, the people following these religions are not at all prohibited from entering into the Shri Jagannath temple at Puri.

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Poverty and Performance of Major Welfare Schemes in Gajapati District

*Prasant Sarangi
&
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Orissa is endowed with rich natural resources in the form of vast mineral reserves, forests, fertile land, plentiful surfaces and ground water, long coastline, picturesque tourist potential, and many others. Beside all these convincing pictures, Orissa ranks very low among the Indian states in terms of per capita income, poor level of living, and is therefore regarded as one of the backward states. As per an estimate, among the fifteen major backward states of India, the position of Orissa particularly with regard to living conditions not so encouraging.

Millions of people are living in extreme poverty, constantly facing with the threat of uncertainty and inadequate food supplies. In this context, the government of India is continuously implementing a number of food security measures by its successive planning the public distribution system, food for work programme, targeted public distribution system and a dozen of related incentives which are all meant to feed millions of hungry stomach living in the country who even sleep without two square meals a day (Sarangi, 2004).

Orissa like India, is pre-eminently agricultural.¹ The most important economic unit is the villages.² Over the years, Orissa has

witnessed a trend decline in the incidence of poverty. Years of development have not changed its economic condition satisfactorily. Sahu (1997) estimated the ratio of people living below the poverty line in the state to be more than 60 percent during 1983-84. An earlier study by Mahendra Dev (1992) had revealed that in between 1961-62 to 1986-87, around 65 percent of rural population in Orissa were living below poverty line instead of the quoted figure of 48.3 percent as estimated by the Planning Commission. However the official figures of the rate of poverty at present is estimated to be 47.2 percent (Sarangi and Penthoi, 2005).

Objective and Methodology:

The basic objective of the present paper is to:

1. Analyse the general economic condition of the Gajapati district which is one of the poorest tribal concentrated districts of Orissa.
2. Analyse the quantum of poverty in the district based on income and occupation category, and,
3. Examine the performance of some major welfare schemes that are functioning in the district.

The study is based on secondary source of information that has been compiled and

collected from various Government surveys, reports, doctoral theses, scribes and books relevant to the present study. For examining the functioning and performances of the major welfare schemes in the district, data and facts related to different schemes are collected from concerned departments of the Gajapati district during May, 2004.

This paper is divided into three segments. Segment-1 briefly introduces geographic-demographic-economic conditions of the Gajapati district. Where as Segment-2 of the paper represents the condition of poverty in the district followed by examining the performances of the functioning of major welfare schemes in the district in Segment-3. Finally the paper ends with a general conclusion of the findings of the study.

Segment-I: Introduction to Gajapati:

The district of Gajapati, originally a part of Ganjam district is bordered by Ganjam in the north east, Kandhamal in the north, Rayagada in the west and Srikakulam district of Andhra Pradesh in the south presents a strange amalgam of the autochthonous Tribal, Telgu and Oriya cultures. History of the region, generally traced from the Mauran age reached a climax under the Raj families of Paralakhemundi in the late medieval and modern period giving a panoramic picture of rise and fall of successive royal dynasties, resistance and freedom movements against the torturous rule of the British Government, formation of the separate province of Orissa in 1936 etc. has been presented to the posterity. The rules of Paralakhemundi in particular and the people of Gajapati in general made remarkable

contribution to the history, culture, literature, art, economy and religion of Orissa. The district is having a total population of 5,18,448 persons (male being 2,55,288 and female being 2,63,160) living in 106 grama panchayats, one NAC and one municipality. Paralakhemundi is the district head quarter.

On the basis of occupational pattern of the district, it is found that, about 86.99 percent of its people are living in the pursuit of agriculture. The percentage of main workers to the total population is estimated at 42.01. Industrial worker constitute a very small proportion i.e. only 2.31 percent of the total main workers. Out of the total main workers in the district 50.2 percent are cultivators, 35.39 percent are agricultural labourers, only 8.73 percent are engaged in the category of trade and commerce, mining, household and other than household etc. and the rest 5.68 percent are engaged in other services category (table-1).

The district has a total of 122.81 thousand hectares as gross cropped area (2001-2002) with 82.40 and 40.41 thousand hectares for Kharif and Rabi crops respectively. 80 thousand hectares as net area (50 thousand as high, 19 thousand as medium and 11 thousand as low cultivable area) which is the second lowest in area next to Deogarh district (68 thousand hectares) in the state.

In respect of industrial sector, facts shows that, the net value added by the manufactures in the district is estimated as Rs.7.6 lakhs in the year 1996-97 and Rs.9 lakhs in the year 1997-98. The district is having only 51 numbers of small scale and 228 cottage industries (1998-99) employing only 382 and 456 persons respectively.

Table-I Occupational Pattern in Gajapati district

Sl. No.	Category of workers	No. of workers	% to total population
1.	Cultivators	95731	50.2
2.	Agricultural labourers	67481	35.39
3.	Livestock, forestry, fishery, hunting etc.	2672	1.40
4.	Mining,	13	0.007
5.	Household industries	2399	1.26
6.	Other than household industries	1995	1.05
7.	Construction	905	0.474
8.	Trade and commerce	7432	3.9
9.	Transport, storage, & communication.	1237	0.649
10.	Other services	10839	5.68
	Total population of main workers (total main workers)	190704	100
	Non-workers	33432	
	Total workers	224136	

Note: Computed from Fact Book on Manpower-V, DE & S, Bhubaneswar, Orissa.

The state highway is of 151 km. long with 66 km. long major district road, 4253 km. of grama panchayats road and 440 km of village road till 1998-99. The district is having one head post office, 18 numbers of sub-post offices, 127 numbers of branch offices with a total numbers of 146 post offices. It is having 50 km. of narrow gauge single lined railway line with seven railway stations.

Segment-2: Quantum of poverty in the district:

The Panchayati Raj department, Government of Orissa has estimated the quantum of rural families living below the poverty line in the state, based on different income group and also on occupation pattern. For the present purpose we have considered the figures of Gajapati district and a comparison is made with that of the figure of Orissa state below.

Rural poverty based on income groups :

The intensity of poor people is estimated on basis of different income groups. Table-2 shows distribution of rural families living below poverty line with an income constraint of Rs.10,000 (as per 1992 survey) of Panchayati Raj Department, Government of Orissa. On the basis of different income level, people are assigned with a name as destitute, very-very poor, very poor and poor (with concerned income limit of Rs.0-4000/-, Rs.4001-6000/-, Rs.6001- 8500/- and 8500-11000/- respectively. There are a total of 29,218 persons (in a percentage of 33.3 to total number of rural families) in the district as destitute. Similarly 31,063 persons (in 35.43 percent), 15,374 persons (in 17.53 percent) and 4,585 persons (in 5.23 percent) are found to be in very-very poor, very poor and poor category. Among the total rural families of 87,684 persons,

the above four categories alone constitute 80,240 families which is 91.51 percent to the total rural families of the district. Column-3 of the table

shows the rural poor structure of Orissa in each income category.

Table-2 Distribution of Rural Families Below Poverty Line of Rs.11,000 on the basis of different income groups in Gajapati as well as in Orissa (as per 1992 survey)

Description-of income category -	Region	
	Gajapati	Orissa
1	2	3
(i) Rs.0-4,000 (Destitute)	29218 (33.32)	1352179 (25.89)
(ii) Rs.4,001-6,000 (very-very poor)	31063 (35.43)	1567662 (30.01)
(iii) Rs.6,001-8,500 (very poor)	15374 (17.53)	821415 (15.55)
(iv) Rs.8,501-11,000 (poor)	4585 (5.23)	378178 (7.24)
Total (i+ii+iii+iv)	80240 (91.51)	4110434 (78.70)
Others	7444 (8.49)	1112690 (21.30)
Total number of Rural Families	87684 (100)	5223124 (100)

Note: Figures in parenthesis of column 2 and 3 indicate percentage of different income groups to total number of rural families.

Source: Panchayati Raj Department, Government of Orissa (computed)

Rural Poverty on basis of Occupation

The incidence of rural poverty in the district as well as in the state is derived on the basis of occupation pattern. Table-3 shows a clear-cut picture of number of rural families living below poverty line of Rs. 11,000/- on the basis of their occupation pattern in the district as well as in the state. From the table we find that, there are 7,631

persons in the category of small farmers, 36148 persons as marginal farmers and 25934 persons as agricultural labours family which is in percentage of 8.7, 41.23 and 29.58 respectively to the total number of rural families in the district. Column-3 of the table reveals the picture of Orissa in respect of each occupation category.

Table-3 Distribution of Rural Families Below Poverty Line of Rs.11,000 on the basis of Occupations in Gajapati district and in Orissa (as per 1992 survey)

Occupations	Region	
	Gajapati District	Orissa
1	2	3
Small Farmers	7631 (8.7)	660258 (12.64)
Marginal Farmers	36148 (41.23)	1786024 (34.19)
Agricultural Labourers	25934 (29.58)	1144438 (21.91)
Non-Agricultural Labourers	9488 (10.82)	360842 (6.91)

Rural Artisans.	679 (0.77)	107331 (2.05)
Others	360 (0.41)	51541 (0.99)
Grand Total Rural Families	87684 (100)	5223124 (100)

Note: Figures in parenthesis of column 2 and 3 indicate percentage of different income groups to total number of rural families.

Source: Panchayati Raj Department, Government of Orissa. Segment-3: Performance of major welfare schemes:

A number of welfare schemes both state sponsored or centrally sponsored or combined are implemented in the state from time to time in order to improve the living condition of the poor people of the state. Some of them are analysed below in respect of Gajapati district.

(i) Performance of ITDA:

Tribals constitute the major portion in the district. Out of the seven blocks, five of them - Gumma, Rayagada, R. Udayagiri, Mohana, and Nuagada are highly tribal populated. Hence the district of Gajapati comes under the preview of Integrated Tribal Development Agency (I.T.D.A.). Detailed information on various welfare activities promoted

by I.T.D.A. upto March- 2004 is derived in Table-4. From the table, we will find that, I.T.D.A. has helped the tribals in improving of their socio-economic condition by providing credit facility in seven main occupational categories. The agency so far assisted a total of 587 poor families in the year 2003-2004 by providing Rs.1,22,43,034 as loan amount out of its own fund with an subsidy of Rs.54,39,624. Sl.No.5 of the said table shows per family average subsidy released by ITDA under its various activity where as Sl. No.6 reveals structure or per family bank loan sanctioned for each, scheme, Similarly, Sl.No.7 shows average investment amount under each category in the district of Gajapati.

Table-4 Coverage under ITDA Gajapati (Mav-2004) (Bankable Schemes)

Sl. No.	Activity / Achievement	Land / package / plough /	Goatary	Diesel pump sets	Industrial service business	RTS (Group finance)	RiceMill (gullers)	Plantation	Total
1.	Total no. of families aritsted	153	126	53	208	30(Group)	12	5	587
2.	Total amount of loan sanctioned (in Rs.)	3060000	2520000	1060000	4160000	1103034	240000	100000	12243033
3.	Total amount of subsidy given by ITDA (in Rs.)	1436160	1149159	529955	1779350	375000	120000	90000	5439624
4.	Total loan sanctioned by the Bank (in Rs.)	1436160	1149159	529955	1779350	728034	120000	50000	3792658

5. Per family avg. subsidy released by ITDA (in Rs.)	9387	9120	9999	8554	12500	10000	10000
6. Per family back loan sanctioned	9387	9110	9999	8554	24268	10000	10000
7. Avg. investment per family (Rs)	18774	18240	19998	17109	36768	20000	20000

Note: Unit cost for each scheme is Rs.20000 except R.T.S.C finance, which is Rs.2,50,000.

Source: ITDA, Parlakhemundi, Gajapati.

(ii) Indira Awas Yojana:

The Indira Awas Yojana (IAY) was started in the year 1985-86 as a sub-plan of RLEGP. The basic objective of the scheme is to construct houses for the poorest people of scheduled caste/scheduled tribe communities and the free bonded labour (since 1993-94 the plan extended to all BPL families). During its long more than 20 years of operation, a number of modifications has been done from time to time and at present working as a full-fledged programme since 1996. Under this yojana, out of 2251 targeted houses in 2003-2004 a total of 1862 houses are so far constructed successfully whereas rest houses are under construction. A total amount of Rs.44.71/- lakh is received and also invested in the year 2003-2004 for upgradation of houses, under which a total of 431 houses are upgraded in the district. Beside these, Rs.22.670 lakhs has so far received (central assistance of Rs.17.025 lakhs and state share of Rs.5.67 lakh) whereas Rs.23.76 lakh has been utilized covering 89 beneficiaries under the grant for special assistance for flood in the district.

(iii) SGRY :

SGRY scheme is in operation in the district in two phases. Under SGRY-I a total amount of Rs.66S.36 lakh has so far utilized out of the sanction of Rs.684.74 lakh, creating a total of 10.30 lakh man-days in the district in the year

2003-2004, engaging in different activities. In Phase-II of SGRY, various construction works has been so far undertaken under which a total amount of Rs.542.27/- lakh has been utilized in various construction work such as roads, drainage, sewage etc. creating a total of 12.09 lakh man days in the district.

(iii) SGSY :

Swarnajayanti Gram Swarojgar Yojana (SGSY) is implemented on April 1, 1999 with an objective to stimulate rural mass by providing them financial and technical assistance. In the district of Gajapati a sum of Rs.102.66/- lakh has been so far sanctioned by covering 1469 swarogaries out of the targeted number of 1434 persons in the year 2003-2004 under the SGSY scheme.

(iv) PMGY :

Pradhan Mantri Gramodaya Yojana (PMGY) was implemented in the year 2000-2001 with an aim to meet five basic requirements like-primary education, health drinking water, housing and rural roads. Under the scheme a total amount of Rs.33.59/- lakh is sanctioned in the district out of which, a sum of Rs.33.19/- lakh is so far invested benefiting 104 numbers of homes.

Besides these other important schemes like Annapurna Anna Yojana, Antyodaya Anna Yojana, Mid-day Meal Scheme, Programmes for ICDS, Old Age Pension Schemes (NOAPS and

OAPS), disable pension schemes, Pradhanmantri Gram Sadak Yojana and many more programmes are in full-fledged progress in the district of Gajapati in a forward mood to cope with the requirements of poor masses.

Conclusion and Suggestions:

To conclude, Gajapati district is found to be one of the poorest districts in the state. The incidence of poverty is more in tribal concentrated regions of the district. From the occupation pattern and income categories, it is found that the proportion of rural families living below the poverty line is much higher in the district. In income category, particularly, more percentage of population are concentrated on very-very poor category, while in occupation structure, marginal farmers proportion is high in the district. The inter-district comparison in level of living indicates ranks the district in 21st place narrating in lower middle category. Again the performance of various welfare activities both self employment and wage employment programmes even through to some extent are working smoothly but not satisfactory which of course due to a number of reasons and difficulties in the process of operation.

In the light of above findings, it can be suggested that appropriate efforts should be made to reduce the incidence of poverty in the district though implementation of appropriate regional policies. To improve the living conditions of the people-particularly to the tribal mass, economic growth is necessary. As we have, when the economy grows, poverty diminishes faster than growth is stronger, slower when it is not. For this, the values of the development indicators like literacy rate, per capita income, infant revival rate, per capita food grain production, per capita net value added by the manufacture, etc. need to be improved through appropriate and adequate investment in the sectors like agriculture, industry

and tertiary sector (like health, transport and communication, education etc.). Hence an integrated approach in all these sectors is the need of the hour for all round development of the district. Again to reduce the higher concentration of rural poverty, adequate funds should be diverted to the rural development programmes by rectifying/ modifying the loopholes and problems that are associated in the presently functioning rural development programmes.

Notes:

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Hon'ble Chief Minister Shri Naveen Patnaik paying tributes to late Biju Patnaik at Swargadwar, Puri on 17.4.2006. Shri Maheswar Mohanty, Hon'ble Speaker, Orissa Legislative Assembly and Shri Prasanna Kumar Patsani, M.P. are also present.

Changing Faces of Business

B. N. Biswal

Historical Development of Business

Historically business is as old as civilization. Archaeological records show that by 5000 BC merchants in the Mesopotamian valleys of the Tigris and Euphrates rivers knew a good deal about business techniques. Ancient India is famous for its rich trade and commerce. In Orissa too, the myths of "Sadhavo", "Balijatra" etc., reveal the flourished business.

Business is a form of activity pursued primarily with the objective of earning profit. It is an enterprise which makes, distributes or provides any article or service which other members of the community need and are able and willing to pay for it.

Part of the Society

Keith Davis and Robert Blomstorm have observed that 'business is a social institution performing a social mission and having a broad influence on the way people live and work together'. Every business enterprise is a part of the society. It operates within the society, and exists primarily to satisfy its needs. It has an inseparable position in the very social system.

Business, as a subject of formal study deserves attention and acquires importance in our society because the largest number of people remain engaged in this branch of human activity. But, despite its influence, adequate attention was

not given for pursuing business. It is because, in the past, business career was not socially approved to be honourable one and uneducated person and backward sections of the society practiced such activities.

Need for the Study

The age-old beliefs are changed now. The rapid growth of industries, development of commerce and management education, financial sector reforms, globalisation, etc., made the business career as one of the best choices in modern life. The objective of the present study is to analyse the problems and prospects of business enterprises in Nabarangpur town through a sample survey so that the students can have first hand information about the business enterprises. Moreover, the survey and the preparation of the report will be helpful to the students in their future higher studies.

About Nabarangpur Town

Nabarangpur is the headquarter of Nabarangpur district. It is one of the oldest municipalities in the state of Orissa, covering a geographical area of 8.26 Sq.kms. with 4847 residential houses. As per 1951 census, the population of the town was 7302, which increased to 10380 in 1961, 13739 in 1971, 23519 in 1991 and to 27975 in 2001. Females constitute 47.36 percent of the town. The literate persons number

is 18782 of which females are 8196. The literacy percentage of the town is 67.14 of which male literacy is 71.89 percent and female literacy is 61.87 percent.

Business is one of the main sources of livelihood of the people of the town. More than 50 percent of the main workers are engaged in trade and commerce, household industries, transport, manufacturing industries and other related services.

About the Sample

We have covered 157 business enterprises in our survey which belongs to 51 categories of business. The largest number of units covered belong to grocery shops (14) followed by gifts and stationery (11) and pan shops (11). The next business group in which a sizable number of units covered are cloth (10) and automobiles (8) followed by STD and Xerox (7) hardware (7) and shoe stores (6). Then comes books and stationery (5) and hotels (4). A few units of medical stores, rice mills, utensil stores, vegetable stores were also covered. Thus, the range of business enterprises covered in the survey is wide and touches almost all the types business carried on in the town.

Methodology of Data Collection

The data is collected through a questionnaire covering six aspects namely: (1) general information of the respondent, (2) source of finance, (3) source of motivation, (4) type of business, (5) satisfaction and (6) suggestion to the youngsters. Five groups have been formed with five students in each group and each group is guided by a teacher.

Requisites of Business

Business enterprises, big or small, old or new, primitive or modern, require coordination

of three factors of production, viz., land, labour and capital. These three factors constitute the edifice of business enterprises. Proper coordination of these three factors is the task of the entrepreneur.

Source of Finance

When a business entrepreneur seriously conceives the idea of setting up an enterprise, he investigates the commercial success of the idea. Once he is satisfied with the feasibility of the project the next immediate step is to decide the quantum of capital that would be needed and in what form to run the business. Finance is the lifeblood of business and needed at every stage of the business. The sources of finance are broadly divided into two categories -internal and external. Internal finance is arranged by the entrepreneur himself whereas external finance is obtained from financial institutions like banks, money lenders, friends or relatives.

In our survey, it is revealed that 71 respondents started their business with own capital accounting for 45.22 percent whereas 55 respondents constituting 35 percent obtained it from external sources like banks. Thirty one respondents arranged their capital from internal as well as external sources (19.75%)

Sources of Finance	No. of Business Enterprises	Percentage
Owned	71	45.22
Borrowed	55	35.03
Both	31	19.75

Labour

Availability of cheap, abundant and skilled labour is the second important factor responsible for successful business. The following table reveals the number of persons employed by the surveyed enterprises:

Persons employed by the Enterprises

No. of Workers	No. of Enterprises	Percentage
No workers	61	38.85
1 -3	69	43.95
4-6	14	08.92
7- 9	04	02.55
10 and above	09	05.73

The above table reveals that around 31 percent enterprises are working without any additional hand, around 44 percent enterprises employed workers between 1 and 3 and around 6 percent organizations employed persons more than 10. Most of the organizations expressed their dissatisfaction over the availability of skilled labour. Another important point they raised is the non-availability of accounting assistants with knowledge on VAT.

Accommodation

Proper accommodation is another significant criteria for success of a business enterprise. In our survey we came to know that the businessmen are facing acute problems in obtaining the accommodation. As there are no industrial estates, specific industrial areas, new businessmen find it difficult to arrange a proper accommodation for their enterprises. The following table explains the status of ownership of the shops :

Ownership of Premises

	No. of enterprises	Percentage
Rented	123	78.34
Owned	034	21.66

In our survey, most of the businessmen said that they are unable to expand their business because of lack of proper accommodation. New

businessmen are fearing to enter into the field for this problem. The local municipality is constructing stalls but the businessmen are complaining that they are allotted to the outsiders at high cost. A new entrepreneur is unable to afford these accommodations.

OTHER FACTORS**0 1. Reasons for opting business**

The popular Sanskrit Sloka "Banijye Basati Laxmi" amply shows the reason for entering business sector. Maintenance of livelihood by earning profit is the driving force behind entry into business. Apart from this, there are other reasons for opting business which are revealed in the following table:

Reasons for choosing business line

Reason	No. of enterprises	Percentage
Livelihood	89	56.69
To earn more money	26	16.56
Time pass	10	06.37
Prestige	13	08.28
Ancestral	19	12.10

It is revealed in our survey that 56.69 percent of the entrepreneurs entered the field with the objective of earning livelihood. Around 17 percent opted it for earning more money whereas 12 percent started as it is ancestral. It is interesting to say that 6 percent opted it for time pass and around 8 percent chose this for prestige sake.

02. Source of Motivation

What motivates a businessman to enter into business is revealed in the previous table and now we are presenting the source of motivation or who motivated them in the following table:

Source	No. of business enterprises	Percentage
Self	118	75.17
Parents	35	22.29
Friends	2	01.27
Relatives	2	01.27

The above table says that self-confidence is the primary source of motivation for entering the business field. More than one third of the respondents said that they are self-determined and self-starting in nature. Around 22 percent of the respondents said that their parents encouraged them to choose this field.

03. Literacy Levels

There is a belief that only uneducated persons prefer business. The following table shows the literacy levels of the respondents:

Level of Educational Qualification	No. of Business Enterprises	Percentage
Illiterate	14	08.90
Up to 5th Class	11	07.05
Up to 10th Class	51	32.48
Up to Intermediate	22	14.00
Up to Degree	48	30.57
Diploma holders	04	02.55
Technical Degree holders	04	02.55
Post Graduates	03	01.90

The table revealed that business is no more an area suitable for uneducated persons. Nowadays, educated youngsters prefer business as a career. In our respondents around 31 percent of the respondents are graduates and 33 percent

are studied up to 10th class. Even technical degree holders and post graduates are there in the business line.

04. Age of the Businessmen

In our study we inquired about the age of the businessmen in the town and the following table reveals the present position :

Age	No. of Respondents	Percentage
Less than 20	04	02.55
21- 30	48	30.57
31- 40	56	35.67
41- 50	29	18.47
51- 60	14	08.92
61-70	05	03.18
70 & above	01	00.64

Young persons dominate the business field in Nabarangpur town. Most of our respondents are in the age group of 21 to 40. It is positive aspect that proves the preference of the youngsters.

05. Future Plan

Without ambition no project runs successfully for ever. To know whether business is a temporary career or dedicated line of livelihood opted by the respondents we have questioned respondents about their future plan and the following table gives the details:

Plan	No. of respondents	Percentage
Expansion	123	78.35
Switchover to other business	29	18.47
Closure of business	05	03.18

Most of the respondents are in favour of expansion of their business where as only three percent expressed their willingness to close their business.

Conclusion:

- ◆ Capital is one of the most important prerequisites to establish a business enterprise. Normally, the capital for a business venture comes from own sources, relatives and friends and term loans from banks. In recent years, institutional lending has increased rapidly everywhere but in Nabarangpur town it seems not adequate as the data revealed that only 55 percent respondents received term loans from banks. It may be due to lack of awareness about bank finance or the hindrances in obtaining the loans from these institutions.
- ◆ Availability of abundant, cheap and skilled labour is essential for business enterprises. Most of our respondents expressed their inability in the procurement of trained man power. People specifically pointed out that they are not getting accounts assistants who are well versed in VAT procedures.
- ◆ After capital and labour the third important factor of production is land. In Nabarangpur town it is one of the most difficult tasks for the traders to find out a suitable building for their business. The data revealed that 78.34 percent businessmen are doing business in rented premises whereas 21.66 percent possess owned one. Most of them opined that the Municipality authorities should construct more stalls and allot them in a simple, affordable and convenient method so that the local traders will get the benefit.
- ◆ The common belief that business is meant for the uneducated persons proved wrong

in our study, as majority of the respondents are well educated. Even post graduates are entering business field and quite satisfied with the field.

- ◆ Majority of the entrepreneurs expressed satisfaction on the business carried on by them. Only 3.18 percent of the respondents said that they are going to close the business in the near future.
- ◆ Even after running successful business enterprises, 35 percent of the respondents said that they will quit the business if proper employment is offered to them. This shows their inclination towards employment.
- ◆ Regarding competition majority of the respondents said that it is acute in the present scenario. They are very much cautious about their competitors and accordingly they are planning their expansion.
- ◆ When we asked the question on the present position of transport network in the locality most of the respondents expressed their dissatisfaction. They said that better communication facilities are necessary for further development of the town.
- ◆ Majority of the entrepreneurs said that honesty and hard work are the two basic qualities necessary for a successful business man.
- ◆ Regarding their advise to the youngsters, we received a mixed reaction. About 60 percent said that they welcome the youngsters to the business line whereas 40 percent advised the youngsters not to opt business as a career.

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Education of Tribal Children in Kandhamal District

Raghunath Rath

Education is a continuous process. It starts soon after the birth of a child and ends on death. A child starts learning as soon as he/she takes birth from his mother and gradually learns from his parents and the society around, as he/she gets older.

Education, is a modern word, which is derived from the Latin word 'educase', means to nourish, to cause to grow (Patel: 1991 : viii). Education also prevails in illiterate societies, where it is imparted orally and by mass behaviour. A member of primitive society learns to earn his livelihood, to do good works, to obey spiritual beings and also superstitions etc from the elders of the society and bind by its laws and regulations. These are the education for them.

We the modern people do mean "education as reading and writing. This is also true. By modern education a person can able to increase his knowledge and expand his vision and avail the fruits or development. Hence modern education can play the role of "Catalyst" in bringing sea changes in the sphere of social, political, economic fields. One of the important reasons for failure of development activities in the society by various developmental agendas is the prevalence of acute illiteracy and ignorance, combined with superstitions among the rural masses. Hence to ward off economic

backwardness, social deprivation spreading of education is regarded as one of the most effective and forward-looking instruments (Patel : 1991 :26).

While discussing growth of education in tribal dominated Kandhamal district and the declining trend in education we have to make a careful study in the grass root level. The district of Kandhamal, formally known as Phulbani is a centrally located district of Orissa, which is at a higher altitude of 1100 Mtrs. The district is mainly dominated by scheduled tribe and scheduled caste population. Scheduled tribe population includes tribes like Kandha, Kutia Kandha, Kandhgouda, Kol, and Soura etc. and scheduled castes include mainly *panas*. Taking the majority of the population as Kandhas the district has renamed as Kandhamal in 1994 instead of Phulbani.

As per Census figures of 2001, the total population of Kandhamal district is 6,48,201, out of which Scheduled Tribe population is 3,36,809 (51.98%) and Scheduled Caste population is 1,09,506(18.89%) of the total population. Almost all the people of the district reside in hilly forest areas frequently cut by streams and *nalas* without any proper communication facilities. So it can be easily ascertained that most of the people maintained very simple and miserable life style

amid poverty and illiteracy. The rural population of the district comes to 93.19% of the total population. Out of total geographical area of 7650 Sq kms, 5709.83 Sq kms or 78.18% covered by forest of the district. So the people are depending on forests to maintain their livelihood. Most of them are landless or marginal farmers hence comes under below poverty line.

When we go back to the history of education in Kandhamal district it is revealed that seeds of education first planted in Balliguda Sub-Division of the then undivided Ganjam district in 1851 by Captain Mac Viccar as per decision taken by Henry Potttianger, who was in charge of Education Department under Madras Presidency in 1845. Captain Mac Viccar opened three schools at different places of the sub-division. The places were Kurmingia, Udayagiri and Mahasinghi, but due to the prevalence of acute conservative mentality, non-cooperation from the nearby inhabitants, the initial steps for education was a failure. Another reason of failure of education is superstition among the Kandhas. Superstitions like "reading would make their eyes drop out of their sockets" etc. is also responsible for not spreading of education, so no remarkable progress could be achieved within next 10 years (Behera : 1984:76).

Another reason is that British Education Policy was responsible for failure of attempts made by Madras Government. The medium of instruction was in Oriya language and unqualified non-tribal teachers appointed from plains. Kandha students did not accept it due to superstitious beliefs and other socio economic reasons in G. Udayagiri area. No students went to schools for reading. Hence schools run in miserable conditions. So British Authorities tried to bring students forcibly by Police. Instead of forcible measures taken by Government no

remarkable progress could be achieved till 1854. Hence the pay of teachers was enhanced from Rs.15/- to Rs.25/-per month, which could reap some good result.

Instead of non-conducive attitude of Kandha inhabitants Government again set up four primary schools in 1855-56 in present G.Udayagiri Tahasil area and kept them under direct control of the Assistant Agent for the Meriah Agency, Russolkonda (present Bhanjanagara). However, due to constant efforts by the Government and Missionary agencies, good results could be noticed towards end of 1860 when the student strength reached up to 521. Noticeable student strength was marked in the schools at Sankarakhole, Purunagarh and Brahmanpad as like as plains schools and the teaching was satisfactory (Behera: 1984: 77).

In between, 1855 to 1880 many primary schools were set up in Kandhamal Sub-Division. At first stage schools were opened at Phulbani, Khajuripara, Titrapanga and Ratanga, which were upgraded to upper primary status in 1858. In due course of time the school at Ratanga was shifted to Bisipada and later it was converted in to Middle Vernacular School. As the administrative headquarters was transferred to Phulbani from Bisipada, the said school was replaced to Phulbani in 1904 and in 1916 it became M.E. school. In the year 1946 the said school had been upgraded as Higher English School, which is now known as A.J.O. High School. Angul District Gazetteer reveals that there were 12 upper primary schools in Kandhamal Sub-Division till 1908 with Kandha teachers. But the medium of education was in Oriya language. Hence to attract more Kandha students the then Sub-Divisional Officer Sir O.J. Allenbach directed to prepare school books written in Roman scripts to express in Kui language, the language spoken by Kandhas (Rath: 1993: 25).

Lower primary Schools were set up at Subarnagiri, Kotagarh, Tumudibandha, Belaghar, Mundigarh, Budaguda, Balliguda, Barakhama, Khamonkhole and Landagaon in 1889 and 1890 of Balliguda Sub-Division exclusively for ST and SC students. Government also permitted to set up schools by private management. So the Roman Catholic and the Baptist Missionaries also attempted to set up more schools to meet the requirement. Accordingly O.J. Millman, a Baptist Missionary set up a school in 1914 at Gudripadi near G.Udayagiri (Boal : 1963: 61).

As Government experienced, acute caste discrimination prevailing among the students as well as parents, the Govt. was forced to set up separate schools for ST and SC students. Statistical data reveals that there were 42 schools in 1936-37 and 46 schools in 1941-42 meant for ST students, only one school for SC students in 1941-42 in Kandhamal Sub-Division (Das: 1982: 151).

A High School was set up at Tikabali in the year 1939 and later shifted to G.Udayagiri in the year 1944, which is still functioning and known as Hubback High School.

Lord Dalhousie, the then Viceroy of British India appointed Mr. Charles Wood who was the Chairman of Board of Controll on 19th July 1853 to review the progress of education in India and to suggest way-out for its improvement and to frame new laws and regulations. Accordingly, he had submitted his report in the year 1854, which was known as Woods' Despatch. As such post of Director of Public Instructions was created in Bombay, Bengal and in Madras presidency exclusively to look after development of education. As suggested in Wood's Despatch, the medium of instruction should be in mother language.

Another Commission was also set up for reformation and development of education in the

year 1882, known as Hunter Commission. Lord Curzon organized an all India conference in the year 1901 at Simla to review the progress and to find out faults in education, which was the first conference in India in the history of education. The proceedings of the said conference were published in 1904, which was known as Curzon's Proclamation. That proclamation was an important document where emphasis was given regarding Syllabus, appointment of teachers and monetary assistance to schools and the importance of the provincial Governments to promote mass education. Administrative reformation law by Montague Chelmsford was published in the year 1919, where complete responsibility was laid down for education on provincial Governments. Hence Education Act of Madras Presidency was framed in 1920. Accordingly financial assistance was provided with to schools regularly and special responsibility was also given to District Boards and Local Boards. Again Hartog Commission was set up in 1929 where emphasis was given to promote mass education and to eradicate wastage and stagnation problem.

Christian Missionaries also took an important role for development of education in backward classes of this district. Schools have been set up at Mandasaru, Katingia and at some other places to educate the backward classes. Missionaries also created awareness among the tribals towards education.

Schools were also set up for ST and SC students by Tribal Welfare department of Government of Orissa after independence. The dream of Hon'ble Thakar Bappa the first residential school of Orissa of Tribal Welfare Department was opened at Nuagam of Kandhamal district in the year 1947. Later many schools were set up by welfare department in this district. There are 11 and 4 High Schools and 6 and 1 M.E. Schools from class I to VII for boys

and girls respectively exclusively for ST and SC students. For primary education there are 9 residential and 88 non-residential Sevashramas in the district under the management of Welfare Department in the year 2003-2004. In 2003-04 education year 3280 boys and 820 girls are reading staying in hostels of residential schools, while 6415 boys and 4415 girls are getting their education in non-residential schools managed by Welfare Department in the district (Giri Jhankar : 2004: 83).

Though British Authorities, in pre-independent period took steps to develop education, it was quite inadequate. After independence native Government attempted vigorously to educate all children within the age group of 6 to 14 years as per provision laid down

teams to find out faults and remedies for development of education from time to time, These also helped a lot to eliminate the lacuna and faults pointed out in those reports and to guide properly.

Instead of several attempts taken since pre-independence, it is a great regret that after 57, years of independence, India could not achieve her 100 % literacy in Orissa, the poverty stricken state yet attained 63.61% literacy till 2001. Tribal district of Orissa is far behind from the national and state literacy rate. So is the fate of Kandhamal also. Tribal literacy rate with total literacy rate from 1961 to 2001 as per census reports of Kandhamal is as follows.

Percentage of Literacy rate

Census Year	Total Population			Scheduled Tribe		
	Male	Female	Total	Male	Female	Total
1961	N.A.	N.A.	17.69	N.A.	N.A.	11.82
1971	N.A.	N.A.	19.79	N.A.	N.A.	12.37
1981	41.96	11.26	27.08	18.59	4.74	18.59
1991	54.68	19.82	37.03	38.32	9.21	27.49
2001	69.98	36.10	52.95	N.A.	N.A.	N.A.

(Source: District Statistical Hand Book, Kandhamal for the year 1997, 1999, 2001) .

in article 45 and 46 of the Indian Constitution. So time to time committees, commissions and working groups were set up by Government of India to suggest ways to attain the goal. Those committees, commissions and, working groups recommended their well-thought, valuable suggestions for all-round development of education including Tribal and Backward classes.

The Government of Orissa also organized workshops, seminars, survey and evaluation

The percentage of literacy of Kandhamal district could not compete with state average due to low-income level and backwardness of the people.

This district having no industry at all and for which the main source of income of the people is cultivation and collection of forest products, the literacy rate of tribal people is unsatisfactory. The above table shows that in five consecutive decades, the literacy rate of tribal has increased

by two and half times though the literacy rate of total population increased about four and half times. Percentage of tribal women literacy is alarming.

The Present scenario of education of Kandhamal district could be judged from the following tables.

Primary Education

Year	No. of Schools	Total Students	S.T. Students	No of Teachers			Students Teachers Ratio
				Male	Female	Total	
1996-97	1248	76816	38554	1984	546	2530	30.36
1997-98	1348	73863	40778	1943	602	2545	29.02
1998-99	1519	92048	47306	2714	844	3558	25.87
1999-00	1288	86545	46046	2058	637	2695	32.11
2000-01	1297	95163	53222	2069	642	2711	35.10

(Source: District Statistical Hand Book, Kandhamal for the year 1997, 1999, 2001)

The above table indicates that in comparison with 1996-97, student enrolment increased by 18347 students in 2000-2001. Only 48 more Schools and 81 more teachers were appointed within this period. Round about a primary school serves only 5.89 Sq kms and about 2 villages.

M.E. Education

Year	No. of Schools	Total Students	S.T. Students	No of Teachers			Students Teachers Ratio
				Male	Female	Total	
1996-97	212	25827	10614	758	176	934	27.65
1997-98	225	28150	9879	779	192	971	28.99
1998-99	244	16782	8905	515	167	682	24.60
1999-00	215	19036	8144	692	215	907	20.98
2000-01	217	22607	10195	705	224	929	24.33

(Source: District Statistical Hand Book, Kandhamal for the year 1997, 1999, 2001)

About 12 villages are served by one M.E. School and cover an area of 35.25 Sq kms. In comparison from 1996-97 to 2000-2001, student strength was decreased to 3220 and five posts of teachers also fell vacant in 2000-2001 then 1996-97. Five more schools were established within this period.

Secondary Education

Year	No. of Schools	Total Students	S.T. Students	No of Teachers			Students Teachers Ratio
				Male	Female	Total	
1996-97	76	15781	6585	591	148	739	21.35
1997-98	76	12216	5265	575	148	723	16.89
1998-99	82	14498	6208	602	151	753	19.25
1999-00	86	17317	7288	551	181	732	23.65
2000-01	88	18517	7873	567	166	733	25.26

(Source: District Statistical, Hand Book, Kandhamal for the year 1997, 1999, 2001)

In High School level, student enrollment increased with 2736 whereas six posts of teachers remained vacant in 2000-2001 then in 1996-97. In this period 12 more schools were opened. A High School serves about 29 villages and covers an area of 86.93 Sq kms.

College Education

Year	No. of Schools	Total Students	S.T. Students	No of Teachers			Students Teachers Ratio
				Male	Female	Total	
1996-97	11	4740	1060	161	33	194	24.43
1997-98	11	4892	1010	163	25	188	26.02
1998-99	11	4524	1066	163	25	188	24.06
1999-00	11	4757	1357	193	23	216	22.02
2000-01	11	4177	1228	189	26	215	19.42

(Source: District Statistical Hand Book, Kandhamal for the year 1997, 1999, 2001)

There is no increase of Colleges during 1996-97 to 2000-2001. Enrollment of 563 students were less in the year 2000-2001, but 21 posts of teachers were increased. A college serves about 229 villages and covers an area of 695.45 Sqkms.

During 2000-2001 in primary level 14668 more tribal students were enrolled than in 1996-97, but in M.E. level enrollment was less by 419 tribal students within this period. In High Schools,

1288 more tribal students and in college only 168 more tribal students were admitted during this period.

It is ascertained from the above discussion that tribal student enrollment in comparison to total student enrollment is 55.92% in primary level, 45.09% in M.E.level, 45.51% in High School level and 29.39% in College level in the year 2000-2001. It seems that a big portion of tribal students are not going to M.E. level from primary

level. Likewise most tribal students could not go for college education from high school level. This happens only for the socio-economic backwardness of tribals. Statistical figures are prepared basing on total district data. But the position is worst in the blocks like Kotagarh, Tumudibandha, Daringbadi and Phiringia. There is no college in Kotagarh and Khajuripada Blocks. The family status and environment of tribals of Kandhamal district does not permit their children for education. Hence about 1/5 of the students of primary level are enrolling in M.E. level and above classes. Though in the year 2000-2001 enrollment was 53222 in primary level, in College level only 1228 tribal students were enrolled. This shows that in each level of school education drop out among the tribal students are numerous. The following table and graph will indicate the decline trend of enrolment.

Enrolment of Students in various levels of Education

Year	Primary level	M.E. level	Secondary level	College level
1996-97	67816	25827	15781	4740
1997-98	73863	28150	12216	4892
1998-99	92048	16782	14498	4524
1999-00	86545	19036	17317	4757
2000-01	95163	22607	18517	4177

In my study I have already shown about the slow growth of education and educational institutions in Kandhamal District as well as the increasing trend in establishing primary schools. I have also seen that the educational institutions in primary level have increased resulting in increase in student's enrollment. The number of enrollment has decreased significantly in the later stages of higher education, which, in other hand speaks about the increasing drop out problem.

Though the establishment of primary schools by Government and private agencies is quite noticeable in recent years the problem of

drop out is on increasing trend which has been explained below in table and with the graphical representation.

**Increase in Dropout
(From primary to college)**

Year	Primary	College	Dropout
1996-97	76816	4740	72076
1997-98	73863	4892	68971
1998-99	92048	4524	87524
1999-00	86545	4757	81788
2000-01	95163	4177	90986

There are certain important reasons for the drop out problem in the district.

The first and most important reason is the prevailing economic backwardness. We know that majority of the people in the district are poor and who spend most of their times in doing small jobs and marginal farming, where children are also taking part. So financial difficulties create major hindrances for them for sending their children for studies.

Secondly, ignorance and superstitions play a major set back for spread of education in the district. People of the remote area are superstitious and addicted to blind beliefs. So they do not understand the value of education.

Thirdly, a vital reason for the drop out problem of tribal students is their prevailing cultural process and life style, which hardly creates conducive environment for spreading of education. Some festivals like Kedu-Laka or Buffalo Sacrifice of Kandhas lasts for seven days and Anaka Puja of Kutia Kandhas continues for about a month in different villages of the area. The parents of the tribal students do not allow them to attend the school during that period. There are no specific Government sanctioned holidays for

tribals of the state to be observed by the educational institution unlike other communities enjoy. Hence tribal students remain absent in the school during their festive occasions, when there is no holiday. For this reason tribal students are lagging behind in studies from their non-tribal counterparts.

Another point for the drop-out problem is health. The poverty of tribal people doesn't permit them to keep clean their home environment. They don't get nutritious food. So tribal children often fall ill. The parents could not treat them timely due to economic scarcity. So they suffer for a long period. During suffering the child remains absent from school and after recovering from illness he loses his appetite for study.

However there are few other reasons, which may also be responsible for drop-out problem of tribal students.

1. The medium of teaching i.e., Oriya language is a foreign language for the tribal children.
2. Non-tribal teachers are posted to schools located at tribal areas, who are not aware of tribal cultural values.
3. Absence of tribal cultural and regional materials in class books.
4. The school environment does not attract the tribal students.
5. Some schools are not having their own buildings.
6. Schools having single teacher.
7. Teachers in interior pockets neglecting in duties.
8. Irregular supply of mid-day meals.
9. Lack of communication facility.
10. Untimely supply of study materials.

There are many other minor reasons for drop out of tribal students. If this type of process will continue and slow progress of literacy rate will prevail then the very purpose of fundamental right to education as per 86th amendment of Constitution will be defeated.

The Constitution of India was introduced in 1950 and there was a pious aim to educate all children from the age group of 6 to 14 years by 1965. But it was failed. Government from time to time fixed a target year for achievement of 100% literacy. Again, the year 2000 was targeted to achieve the goal. It was also unsuccessful. About 40 years have already been elapsed since 1965, but the goal is not attained. We have to again wait for at least 150 years to get cent percent result if the progress of tribal education will continue at the present rate.

But it is a good sign that District Primary Education Project assisted by the D.F.I.D. has been launched in Kandhamal district since the year 2000. A survey was conducted in the year 2000 to identify children from age group of 6 to 14 by the D.P.E.P. It reveals that there are 1,21,563 (boys-64655 and girls-56908) children are coming within the category, out of which 30916 (boys-15024 and girls-15992) are not admitted in to schools. There are no schools in 906 villages till 2003 (Smaranika : 2003: 31). Steps are being taken to set up schools and E.G.S. centres in D.P.E.P. programme. Accordingly 57 primary schools and 549 E.G.S. centres in the said programme are set up till end of 2003. Sarba Sikhya Abhiyana has also been introduced in the district from 15.08.2003. This programme will continue till 2010 while D.P.E.P. programme will be ended by 2007 (Giri, Jhankara : 2004 : 92-93).

But we should bear in mind that the survey conducted previously is not the end of the goal.

Every year some children will attain the age of 6 and will be added to the previous survey. They should carefully be enumerated and should be taken in to account unless the very purpose of the above schemes will be defeated.

If D.P.E.P. and Sarba Sikhya Abhiyana will be worked out whole-heartedly by every concerned it could be hoped that cent percent achievement could be achieved by 2010 in the field of education in Kandhamal District.

To achieve the goal at a short span of time following recommendations may be adopted.

1. Study books must be prepared in tribal language up to upper primary level.
2. Teachers from the same tribe and from the nearby villages if possible from the same village should be appointed.
3. There must be a school in each village.
4. More M.E. schools should be opened in tribal areas.
5. Every school must be well-equipped with all study materials.
6. Tribal students must be supplied with study materials and dresses free of cost.
7. Pucca building must be provided to every school.
8. Teachers must be paid regularly with free accommodation facility in school campus.
9. Responsibility may be laid down to teachers for enrollment of all children from the age group of 6 to 14 years and not allow dropouts at any circumstances.
10. Each parent must be motivated to send their children above six years to school or teachers and parents may be legally bound to do this task.

11. All N.G.Os functioning in the district may be involved in the process to educate all children from 6 to 14 years.
12. Training at intervals to the Non-tribal teachers about the tribal culture and language should be provided.

These suggestions may be introduced in a war footing manner and all concerned from parents, teachers to Heads of the district must work whole-heartedly to achieve cent percent education to all children from 6 to 14 years within a limited span of time and bring a sea change in their society to bring the tribal in to the mainstream.

I may sum up with words of Swami Vivekananda-

The only service to be done for our lower classes is to give them education; to develop their lost individuality, give them ideas-that is the only help they require and then the rest must follow as the effect. Ours is to put the chemicals together, crystallization comes in the law of nature.... Now if the mountain cannot come to Mohammed, Mohammed must go to the mountain. If the poor boy cannot come to education, education must go to him.

This is true and has its relevance till the present day, which may be followed strictly.

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-
- Raghunath Rath lives at Revenue Colony, Balliguda, Kandhamal - 762103.



His Excellency the Governor of Orissa Shri Rameshwar Thakur after inaugurating the "Odisha Utsav" going around the stalls at New Delhi. Shri Raghuvansh Prasad Singh, Hon'ble Union Minister, Rural Development and Shri Debasis Nayak, Minister, Informaiton & Public Relations, Sports and Youth Services are also present.

Relevance of Folk Theatres in Modern Times

Indu Bhusan Kar

If we look to origin and evolution of folk theatre, we have to admit that this theatrical tradition is interlinked with human civilization. In the Vedic period, people had developed potential artistic qualities like songs, dance and many religious rituals to express their emotions, hope and aspirations. Bharat Muni, the first dramaturgist codified the art of dramaturgy in his famous treatise called 'Natyasastra'. In Orissa the historians and drama critics opine that "Arena Theatre" was prevalent in the days of Emperor Kharavela in 1st century A.D. Dhiren Das, a noted dramaturgist has deciphered the Hatigumpha inscriptions and categorically emphasized, that 'Ranigumpha' cave of Khandagiri was an arena theatre where people were staging plays from time immemorial in Orissa, the land of art and architecture. Many folk forms have been developed mainly out of celebrating religious and social ceremonies. Songs and dances are integral ingredients of these folk forms. Each folk form had its particular community, same language, area and way of life. We find some commonality in each form. Religious movements like Saivism, Hinduism, Jainism and Vaishnavism have shaped thematic contents of these folk forms. The musicality is one of the greatest characteristics of these folk dramas. The musical instruments developed indigenously are peculiar features of these folk plays. The instrument used in Daskathia are different from Lilas of Chhaus.

Lilas, Daskathia, Geetabhinaya of Baisnab Pani, Mughal-tamsa, Prallhad natak, Dandanatya, Ravanachhaya (puppet theatre), Desianata, Palas, Suanga and Chhau are considered to be the major forms which are still popular in rural areas on festival occasions. The royal patronage by Kings and Zamindars gave moral boosting and incentive to folk artists to develop folk theatre troupes, but after abolition of Kings and Zamindars, these professional folk theatre troupes started languishing and some of them are at the verge of extinction. Many talented artists are deserting troupes and migrating to cities for some other employments. There are instances where some of the theatrical folk forms are no longer in vogue. In special occasion sporadic efforts are made to stage folk play once in a year. As for example in north Balasore district to which I belong many Palas like Lalita-Pala, Karusana-lila which were being performed earlier are no longer staged frequently. Many troupes of Jaleswar, Kamarda, Bhogorai Deula, Baliapal and Chandaneswar of Balasore district have vanished into oblivion. Palas and Lilas are no longer in vogue due to impact of electronic media and deteriorating financial condition of traditional folk theatrical troupes. Research scholars have restored many manuscripts of these Palas and Lilas in these areas of north Balasore of Orissa.

Dr. Kailas Pattanaik, Dept. of Oriya of Viswa Bharati University undertook an in-depth study of folk form of Lalita Pala in Balasore district which has been published in 'Konark' (Oriya journal of Orissa Sahitya Academi Vol-97, p- 78, Yr-1995). Now time has come to make a complete survey of all such rural folk theatre troupes and identify causes of decay and decline of the professional theatre troupes. The same is the pitiable condition of folk theatre form of 'Mughal-tamsa' of Bhadrak, though it was once enjoyed and accepted by the people as the most thrilling and popular folk form.

Ideas and taste of the people are changing fast with march of the time. The popularization of radio, TV and VCR as source of entertainment has diminished the loyalty of the people towards the folk plays. Now aggressive consumerism has mesmerized the people's mind due to advent of electronic media. At this stage one may ask the question of utility and relevance of reviving the traditional multiple streams of folk plays when, cinema and TV are giving enough entertainment to the people. The folk drama has got twin purposes of both entertainment and education. Folk theatre has contributed immensely for creating social consciousness. As for example in Orissa the 'Geetinatya' of Baisnaba Pani played greater role spearheading patriotic fervour among the people during freedom-movement of India. Similarly other folk dramas like Prahallad natak, Danda, Palas have also enriched people's mind with religious virtues. But vulgarization of films, TV serials with overdose of sex and violence are polluting people's mind with main objective of giving sensuous pleasure. This new trend in the field of entertainment industry causes immense sociological hazards. On the other hand, the so-called absurd and experimental plays are creating boredom among the audience. After the Second World War the Epic plays of 'Bertold Brecht'

enriched modern drama with folk elements. Drama was treated by Brecht a great pulpit of awakening people's mind. Once Brecht declared "I wanted to take the principle that it was not just a matter of interpreting the world but of changing it, and apply that to the theatre". This Brechtian dramatic theory and practice gave new shape to epic form of theatre. Many new dramatists after Second World War were influenced by this Brechtian dramatic theory. The new experiments were made to blend the folk elements with modern innovation in order to attract greater audience. Having realizing the importance of the rich folk theatre Martin Esslin, a renowned drama critic's message on world theater day, on 27th March 1989, is pertinent irrespective of region, race and religion. In the words of Martin Esslin-"In an age where, the world is flooded by a deluge of cheap commercially motivated material on television, the live theatre, the guardian of traditions and individuality of cultures, threatened by this avalanche of homogenized triviality and become more vital to the continued richness and variety of human culture than ever before in the history of mankind" (Published in the 'Canplay' : a magazine of Canadian playwrights associations Vol-6, No2, April 1989).

Kapila Vatsyayan a great authority on performing art has analyzed various forms of Indian folk plays in her book 'Traditional Indian theatre Multiple streams. She has opined that there is great importance in reviving Indian folk plays as these plays have contemporary relevance. In her said book 'Traditional Indian theatre', she observed "The Yatra forms are an important branch of the parent tree of Indian literatures, languages and theatre forms. Its survivals appear to have thrown seeds, which have given modern Bengali theatre a new direction. Like the Bhavai and the Tamasa it has provided an Indian format to avant-garde theatre, possibly this renowned

interest in Yatra was conditioned by the advent of a new form of epic theatre from Europe. Be as it may, the European influence generated an interest in national traditions and this has been a return educational journey home-ward for the modern theatre of India" (Traditional Indian theatre-page 146, published by NBT, New Delhi, 1st edition 1980). So it is to be admitted that folk plays of India, have played a great role in shaping avant grade plays.

Let us have a review of impact of experiments of blending rich of folk element with modern Indian plays of three renowned playwrights viz; Vijoy Tendulkar, Habib Tanvir and Girish Karnad. Vijoy Tendulkar, a well-known dramatist wrote a Marathi play-'Ghasiram Kotwal'. When this play was staged, it charmed the audience, as proper blending of Marathi folk music, satire and chorus songs with thematic contents of the play gave rich entertainment to the audience with a dramatic message. This play was translated into Hindi and a repertory troupe travelled 'with this play to Europe to stage this play in European cities-like Berlin and London. This play could enthral the European audiences. 'Guardian', the widely circulated journal, praised that this Indian play could satisfy the twin parameters of good play-which is aesthetic pleasure with a forceful message. 'Guardian' the prestigious journal of England remarked that in comparing with the modern Indian play, the European play looks like a broken mirror. This high appraisal of success prompted other playwrights of India to make such experiments of blending folk element skillfully with modern themes. Habib Tanvir the renowned director and actor made in-depth study of Chhatisgarh music of Madhya Pradesh and dance and he used it in his play-'Charan Das chor.' Once when this play was played at Paris, the noted directors from London flew to Paris to witness this Indian avant

garde drama. The critic and the spectators were charmed and praised the experiment of Habib Tanvir. This is a classic example of relevance and impotence of folk plays, because in his play there was proper assimilation of elements-both the traditional and the modern. Girish Karnad, a Gyanapitha award winner and a celebrated actor dramatist, has also made similar experiment with folk element in his play 'Haybadan' which has become a popular play among the people.

It is now necessary to examine the impact of folk theatre on modern Oriya plays and to what extent playwright have been successful in assimilation of folk elements in avant-garde Oriya drama. Let us evaluate this trend of experimentation in Oriya modern drama.

In Orissa, Manoranjan Das, veteran playwright in his play 'Katha Ghoda' and 'Nandika Kesari', Bijoy Mishra's 'Jane raja thile', Ramesh Panigrahi's 'Mahanatak', Subodha Pattanaik's 'Yethu ante', Rati Mishra's 'Abatar', All these modern dramas have used Oriya folk elements and also certain forms of folk drama for enrichment of the dramatic tradition with a view to attract larger audience. In the words of Niladri Bhusan Harichandan, a dramatist "the playwrights have been successful in bringing plays nearer to the audience through this new style. He further said- "The avant garde or modernist Oriya drama of today is enriched with an assimilation of elements both traditional and the modern. The addition of the forms of enriched with an assimilation of elements both traditional and the modern. The addition of the forms of various Oriya folk dramas even to this combination marks it off as different from similar developments in other parts of India" (Aspect of Oriya drama, P-131). But some critics observe that this experiment is not successful but there are plays which have succeeded in this experiment and got

audience's clapping. I myself have taken audience's poll and came to conclusion that the majority and the spectators have liked Bijoy Mishra's "Jane raja thile", Subodha Pattanaik's 'Yethu ante' Rati Mishra's "Avatar". These modern Oriya plays have been quite successful because of the proper blending of the folk elements. I am of firm opinion the richness of Oriya folk forms should be preserved and documented. Patronage should be given to establish professional troupes in Orissa. The steps taken in this direction in other states like Bengal, Andhra, Karnatak are really praiseworthy. In Karnatak more than a dozen folk research institutions have been established by Government Department of culture. There the Govt. has taken measures to educate and develop new generation of artists. But in many states the development of folk theatre is neglected. It is pity that there are some ultra modernists in bureaucracy those who do not favour the preservation, documentation and promotion of folk theatre.

Now-a-days it has been accepted by scholars in performing art that there is great relevance in studying, knowing and preserving these treasure of our Indian folk theatres. Some

may argue that these are old, archaic, religious and rustic. They are to be rejected on the ground of modern secularism and they openly utter-"let them die, let folk artist perish". We have got VCR, films, enough entertainment in 24 hours channels. I think, this ultra modernist's negative attitude will cause immense harm to growth of humanistic culture for all-round development of human personality. So it is high time that we should not allow further vulgarization of Indian culture by inertness, indifference and indolence. We should not be swayed away by the lures of electronic media. We the art-loving Indians are now facing challenges of assault on our language, literature and culture due to westernized culture. Let us not waste time only in theoretical debate as to whether an art form is folk, traditional, classical and modern. Let us understand and diversify cultural tradition, which is to be reflected in the contemporary theatre.

Indu Bhusan Kar is the Chairman, Advanced Centre for Indological Studies, Bhubaneswar.



Hon'ble Chief Minister Shri Naveen Patnaik at the birth anniversary celebration of Maharaja Krushna Chandra Gajapati Narayan Dev at Jayadev Bhawan on 27.4.2006. Shri Surjya Narayan Patro, Minister, Energy, Tourism and Information Technology is also present.

AUCC Bank Laid to Produce Successful Entrepreneurs

Choudhury B.K. Das

The strategic intervention of AUCC Bank to promote Horticulture and pisciculture in Angul and Dhenkanal District has produced many successful entrepreneurs."APCA Farm" of Nakchi, at Kishore Nagar Block of Angul District is the biggest "Lichi" orchard in private sector of the State and has been financed by AUCC Bank.

Smt. Sakuntala Sahu the owner of the farm has been emerged as one of the successful women entrepreneurs. She is not only earning approximately 7 lakh rupees annually but also living peacefully in the green environment. Angul UCC Bank has financed around 66 lakhs rupees to nine farmers under "National Horticulture Scheme".

Mr. Brajabandhu Sahu, a small farmer of village Turanga of Angul was often dreaming to compete with the industrial businessmen around him. Today his dream became true. Now he is the owner of the biggest hatchery centre of the State in private sector. Mr. Sahu is now the owner of the biggest hatchery and pisciculture centre of the State with the AUCC Bank finance of 35 lakh

rupees. The Bank has not only financed but also facilitated to raise to the occasion for self-sufficient and dignity. Mr. Sahu is supplying all types of fish seeds to the farmer of the State as well as outside the State. He also started pisciculture in Derjang Medium Irrigation Project by taking 5 years lease. AUCC Bank has laid him to become

the most successful entrepreneurs in pisciculture sector in the State.

Angul - Dhenkanal region has been emerged as one of the important growth centres due to economic intervention of AUCC Bank with 194 crores rupees in the last financial year in

Agriculture, Horticulture and Pisciculture etc. The successful Cooperative movement of AUCC Bank has been recognized and it has been selected as the best Central Co-operative Bank of the State.

AUCC Bank being selected as the best Central Cooperative Bank of Orissa by NABARD has been awarded by S.J. P. Chidambaram, Hon'ble Finance Minister, Govt.





of India on 13.9.2005, at New Delhi, by Sri Naveen Patnaik, Hon'ble Chief Minister, Orissa in State level "Krushak Samabesh" on 20.11.2005 organised by Orissa State Co-operative Bank and by Hon'ble Finance Minister Sri Prafulla Chandra Ghadei on 19.11.2005 on the occasion of celebration of 52nd All India Cooperative Week at the state level.

Besides, our Guneibil SCS under Dhenkanal District is adjudged as the best Service Cooperative Society in the State and is awarded with shield by Smt. Surama Padhy, Hon'ble Minister, Cooperation on 19.11.2005 at the state level function. AUCC Bank has promoted 4 nos

of Vegetable and Fruit Producer's Marketing Co-operatives for cost effective production and market linkages.

The Bank's intervention in the social sector by providing 3 crores 76 lakh rupees financial assistance to around twenty thousands women of around 18 hundred SHG groups and empowering 40 thousands women by mobilizing 136 lakh rupees deposit is widely discussed among the mass.

As parts of its social responsibility, the staff of the AUCC Bank and its successful entrepreneurs has undertaken various development activities at famous tourist spots viz. Deulajhari and Kapilash.

Mr. Suresh Kumar Vashishth, IAS Collector and District Magistrate and MIC of the Bank has stressed upon continuous and sustainable efforts of the Bank to promote successful entrepreneurs in Angul and Dhenkanal District.

Choudhury B.K. Das is the A.G.M, O.S.C.B.





Hitherto Unknown Stone Inscriptions of West Orissa

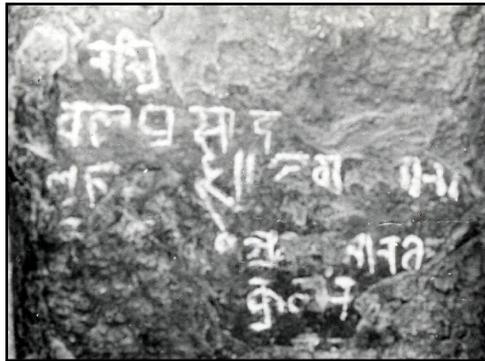


S.S. Panda

As evidenced from stone inscriptions, the Bhairava worship was prevalent in the upper Mahanadi valley of Orissa atleast from the 1st century A.D. The discovery of a two-lined inscription on the pedestal of a standing image of furious looking Batuka Bhairava at Junagad in the Kalahandi district by this scholar in April, 1983 throws new light on the cult of Bhairava. It is somewhat astounding that Pandit Satya Narayan Rajaguru has deciphered this inscription to be written in the *Pali Prakrit* in around 1st century A.D. On the broken pedestal of another Bhairava image of around six feet in height, found in the Banka Paik Pada of Junagad town, the last letter of an inscription 'Ra' is seen to be engraved. Such 'Ra' alphabet was used during the period from the 4th to 8th century A.D. Another short stone inscription of the 8th century A.D., found in the Dhavalesvara Siva temple at Mohangiri, also in the Kalahandi district, has been deciphered as *Vyuha Bhairava* by Pandit S.N. Rajaguru.¹

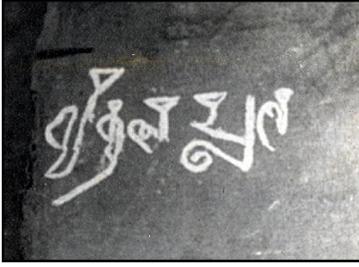
The image of Bhairava found in the back side of the Panchayat Samiti office at Junagad is

in the Batuka Bhairava form and is found to be stark naked, his *linga* and *kosa* seen to be hanging downwards, four-handed, holding a long *trisula* in his lower right hand, the bottom portion of it resting near his right foot. The eyes of this image is round, having an uncanny look with side-tusks coming out from both corners of his mouth. This figure has very long ears, flat nose and a big garland of skulls apart from a small necklace hanging round his neck. His *jatas* are forming a *mandala* in the shape of a flat *mukuta*. It is of the height of three feet and is carved on a square pedestal where the two-lined inscription in *Pali Prakrit* occurs.



*Patalesvara Temple Inscription
Budhikomna, Dist. Nuapada*

The learned epigraphist late Pandit Satya Narayan Rajaguru has rendered the reading of this inscription as "*Om Divyadhara* (1st line) *Jayapataraja Dhavasa* (2nd line)" in *Prakrit* language. He thinks the 2nd line to be read as "*Jayapatarajadhruvasya*" in *Sanskrit* language and place it in around 1st century A.D. palaeographically. Pandit Dr. Satya Narayan Rajaguru's personal correspondence with this writer dated 27th July, 1986 from



Amath Inscription, No.1, Kalahandi District

Paralakhemundi.²

A seal matrix has been unearthed from the Budhigad site, near Madanpur village of M. R a m p u r

tahasil area of Kalahandi district. It is engraved on a diamond-shaped pendant made of red Jasper. It is a finely polished seal, bearing a floral motif in its proximal end. The legend in reverse is written in the mixed scripts of the 2nd century A.D. in the *Kharoshti* and *Brahmi* letters.³ Learned epigraphist B.N. Mukherjee, deciphering this two-lined inscription puts forth his views that it is written in *Prakrit* as "*Jana dhapeta*", the *Sanskrit* version of which is "*Yajna Sthapeyita*" (English Translation : Founder or Establisher of Sacrifices). Pradeep Mohanty and Baba Mishra, the discoverers of this seal matrix think that it belonged to a person who was probably a patron of Brahmanic sacrifices and as there is a perforation in the top-portion of this matrix it was in all probability used as a pendant in a string garland and was worn by the owner, who used it whenever required.

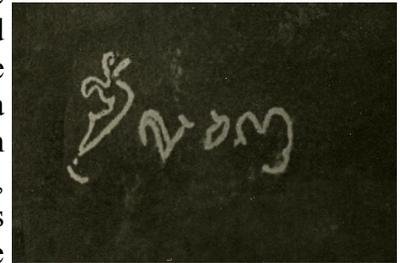
A four-handed Simhavahini Durga in archer's pose (*alidha* posture) in the Sanctum Sanctorium (*garbhagriha*) and one porch were discovered during excavation at Maraguda valley in Nuapada district.

Further excavations in the second fortnight of July, 1983 brought to light four residential rooms including a dormitory in the second tier and five residential rooms in the third tier of the Trisul mound, both to the north of the temple. These buildings have been taken by excavation director Dr. N.K. Sahu as the residences of the Acharyas.

One sword, semi-precious stones, one gold stylus, a red coloured stone seal bearing the name "*Dhimatiswara*" engraved on it in the box-headed *Brahmi* characters of the 5th century A.D. and one iron Yupa Stambha were discovered from the temple complex of the second tier during excavations. Dr. Sahu has considered the entire site to be places of worship as well as places of residence and general congregation. He further thinks this to be a Saiva monastery with leanings to Saivism.

The box-headed character of the *Brahmi* inscription found on the pedestal of the Simhavahini Durga image has been deciphered by Dr. Sahu as "*Maheswari Bhavadaa*" and of the fifth century A.D. palaeographically. Dr. Sahu has further ascribed the temple ruins of this place to the Nala rulers of Puskhari and the temple of goddess Durga to king Bhavadatta Varman. He has given the view that the Sarabhapuriya kings of the Amararyakula were followers of the Vaisnava faith. But the Nala kings of Puskhari except the last ruler Skanda Varman were great patrons of Saivism. Another learned epigraphist Pandit Satyanarayan Rajguru reads it as "*Maheswari Bhabeidam*", means "From This Grows Maheswari" and dates it to the 6th century A.D.⁴

In June 1991, a stone slab bearing an inscription was unearthed during excavation of a mound in the same Maraguda valley. This inscription has been deciphered as "*Guna Lopa Dve*" by the noted epigraphist late Dr. Satyanarayan Rajguru, which means "two Gunas are to be off." In the views of



Amath Inscription, No.2, Kalahandi District



Vaidyanath Inscription,
Sonapur District

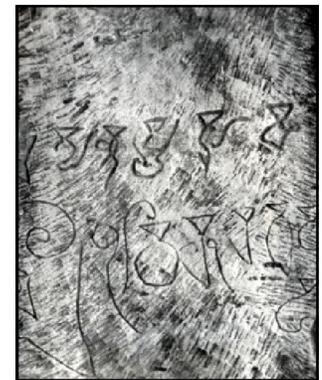
Dr. Rajaguru, "a man who may worship the goddess (Mahesvari) should abolish two *gunas* (qualities) out of three *gunas* (*Satva*, *Raja* and *Tama*). Those who possess *Satva-guna* should give up the other two *gunas*. Similarly those who has *Rajaguna* or *Tama-guna*, if he wishes power or strength for *Marana*, *Uccatana* etc., she (the goddess) should be worshipped by abolishing the other two *gunas* respectively. (Vide *Mahesvari Tantra*). Rajaguru further thinks that it is a *Sutra* of Tantric philosophy. *Mantra Mahodadhi* by Mahidhara may be referred in this matter.⁵

The Brahmanisation of the upper Mahanadi valley started right in the early centuries of the Christian era, but with a major thrust to Saivism and Saktism, as because this area was predominantly inhabited by the tribals. The inscribed Bhairava image of Junagad dated to the 1st century A.D. is a clear evidence of existence of such religious beliefs.

A red-coloured polished stone seal bearing a legend in the box-headed Brahmi characters consisting of four letters in the lower portion and above the inscription having the engraved motifs of three devices, i.e. a high-necked oblong pot with a sprout on the left (*kundi*), a curved stick (*danda*) and a beaded rosary (*aksamala* or *Rudraksamala*). While deciphering the inscription on the seal as '*Brahmanasya*', meaning "the seal belongs to Brahmana", learned scholar Chandra Shekhar

Gupta⁶ has dated it to the 5th century A.D. He further thinks that as this type of curved *danda*, *kundi*-type *kamandalu* and beaded rosary are depicted in the Saiva sculptures of Vakataka period found in the Vidarbha region, the seal motifs might have been influenced by the Vakataka art. This type of sprinkler pots of red polished ware have been found during excavation undertaken at Sirpur and Malhar in the adjacent Chhattisgarh region. The rosary is made of ten beads (nine normal and one Sumeru bead, which is slightly bigger in size and placed on the top right corner). The *kundi*-type water pot and rosary are shown as attributes in a number of icons of Siva. As Brahmana and Brahmani are epithets of Siva and his consort Durga (which was the Indian adoption of the goddess Mana and which subsequently merged in the image of Parvati), Gupta has therefore put forth his view that Brahmana was a Saivite and so is his seal. Gupta has brought to the attention of scholars a very interesting fact that, one of the gold coins (Aureus) of the Roman emperor Julius Caesar (31 B.C-14 A.D.) found in Chanda (Chandrapur) district of the Vidarbha region, bears three exactly similar devices, and most probably being inspired by the design of the Roman coin, Brahmana might have devised his seal, although the time gap between the Roman coin and this seal is more than 500 years (1st century B.C. to 5th century A.D.).

This seal was discovered in the Maraguda valley of Nuapada district during surface exploration and presented to the Sambalpur University museum. Brahmana might be an Acharya of the



Belkhandi Inscription



"Mahesvari Bhabeidam" Maraguda, Dist.- Nuapada

Saiva monestery in which another Saivacharya named Dhimatisvara was functioning to propagete Saivism in this region of anciant Daksina Kosala in the 5th century A.D.

An oval shaped stone seal found at Nehena village is in the private possession of Shri Jitamitra Singh Deo of Khariar. The seal bear three emblems in the upper half portion, i.e a crouching bull facing to the proper right side and in front of it two symbols, one trident and and a *danda*. In the lower half portion a legend in the box-headed *Brahmi* scripts of the 6th century A.D. has been inscribed, which reads "*Saivaramesvarasya*" (It belongs to Saiva Ramesvara). In all probabality the seal was used by a Saiva Acharya named Ramesvara.

A village named Aksarsila is situated on the left bank of river Brahmani at a distance of around 24 miles (38 kms) from Deogarh and around 15 miles (24 kms) from Bonaigarh on the old Bamra - Bonai road.⁷ There is a huge monolithic rocky elevation in a paddy field to the south-west of the village, which comes under the Barkot *Panchayat Samiti* area of Deogarh district at present. The reputed epigraphist Dr. Snigdha Tripathy has deciphered this inscription as "Sri Bicitra Bhusanaya" and has ascribed it to the last part of the 7th century A.D. or early part of the 8th century A.D. But at the present state of our knowledge it cannot be said definitely as to who Sri Bicitrabhusana was and why he inscribed his name on this monolithic rock.

A stone slab having a three-lined short inscription has been shifted from the

archaeological site of Belkhandi in Kalahandi district and at present kept in the Bhawanipatna Museum. It has been deciphered as (1st line) *Pratyanta Purusa*, (2nd line) *Sri Vikara deva*, (3rd line) *ha* by the epigraphist of Orissa State Museum Miss Bharati Pal. She is of the view that palaeographically the scripts of this inscription can be dated to circa 8th century A.D.

She has deciphered another short two-lined fragmentary inscription from Belkhandi, now in the Bhawanipatna Museum as (1st line) *tavadaksana* (2nd line) *Sri Canda* and dates it to the 9th century AD. It seems it to the 9th century A.D. Belkhandi site was already famous for the Saptamatrika temple and another temple dedicated to Uma Mahesvara, as evidenced from the archaeological finding.

In 1946-47, S.N. Rajaguru examined yet another broken stone inscription, found that Belkhandi by Kedar Nath Mahapatra during excavation and come to know from the reading of the said inscription that the locality was called "Gouraveni - Tata Visaya". From this he understands that the ancient name of the river Utei was Gouraveni.⁸

Two door jambs of a temple have been shifted from Amath village to the Kalahandi District Museum at Bhawani Patna. On both pillars, there are three short inscriptions, two on one of it and one on the other. Two short inscriptions, deeply executed on one of these Pillars have been deciphered by late Prof. D.C. Sircar, the internationally reputed epigraphist,



Sarsara Inscription, Sundargarh Dist.No.1



Sarsara Inscription, Sundargarh Dist.No.2

being requested by this scholar through correspondence. He has read the five lettered fragmentary inscription as "*Rdhya Kulamula*" and was of the view that this "*Rdhya*" can be taken as the remnant of an epithet of the personal name that follows. Another short inscription which is in cursive writing has been deciphered as "*Mulacanda*". He has assigned both these inscriptions to the 8th-9th century A.D. on palaeographical ground.⁹

A three-lined inscription is found inscribed on a huge stone beam, at present lying on the ground near the Siva temple at Deypur (Kalampur) in Kalahandi district. This inscription has been deciphered as (1st line)...*d Dharmmadhirasya* (2nd line)... *sa....bhumi (mi) - gra.....ca...* (3rd line)*sa (or na) (devayatana) parikrama*" by the learned epigraphist Dr.(Smt.) Snigdha Tripathy, who thinks that it is written in the nail-headed characters of the 8th-9th century A.D.

Two short inscriptions are found inscribed, on the beam of the pillars supporting the roof of the *Jagamohana* of the Kosalesvara temple at Baidyanath in Sonapur district and the other in the side of a carving of eight-petalled flower on a loose stone block. The first inscription reads '*Deviye (ta)*' and the second, "*Siddham Ranaka Sri (Dha) ndhokasya*" and palaeographically can be placed in the second half on the 9th or first half of the 10th century A.D.¹⁰ Although it is very difficult to identify Ranaka (Dha)ndhoka whose name occurs in the short inscription, it is apparent that he was a great devotee of the Lord and attained perfection or *Siddha*.¹¹

A *Panchayatana* temple complex was brought to limelight by this scholar in June, 1984. The main central temple is of *triratha* order and surrounded by four subsidiary temples of the *triratha* order. The small temple in the north-west side of the central shrine is having a short inscription on its southern outer wall. This three-lettered inscription has been deciphered as "*3 Bhaga*" by the eminent epigraphist Pandit Satyanarayan Rajaguru and from palaeographical point of view these script have been attributed to circa 9th century A.D. by Dr. S.N. Rajaguru.¹² The terminology "*3 Bhaga*" might be indicating "three architectural divisions" or "*tri-ratha*" design of this ancient temple, locally known as Kosalesvara temple.¹³

The *antarala* (portico) roof of a stone temple is found amidst temple ruins at Sarsara near Banei in Sundargarh district. The proper left edge of this roof slab is having an inscription in the 10th-11th century proto-*Nagari* characters. Another inscription is found inscribed on the pedestal of an image at the same site, which can be also dated to the same period palaeographically. Learned epigraphist Dr. Snigdha Tripathy¹⁴ has deciphered the inscription on the *antarala* roof-edge as "*Lahati (?) dara - Prakhara*." The pedestal inscription has been read by her as "*Pradipa dadhatt (?) bha Mahe*."

One five-lined inscription is found inscribed on the left side of the sanctum doorway of the Patalesvara temple at Budhikomna in Nuapada district. This inscription was damaged by the sculptors as they were trying to remove lime and plaster from this part of the doorway with the help of their chisels during restoration work done by the State Archaeology around 1979. The damage done is irreparable. Now only some twenty characters exist. (1st Line) *Rasri.....* (2nd Line) *Bala prasada....* (3rd Line).....*Na.....Dha 2 Ga.....* II-II (Stop

sign) (4th Line) *Na.....A.....Ratha* (5th Line)..... *Kulena*. This inscription has been placed palaeographically in the 10th-11th century A.D. by Pandit Satya Narayan Rajaguru, who has deciphered this inscription being requested by this scholar.¹⁵

A three-lined inscription in the proto-Oriya characters of the 16th century A.D. has been inscribed in the lower half of a rectangular memorial Hero Stone, which is at present kept in the Talbandh Para of Junagad town in Kalahandi district. It has been deciphered by learned epigraphist Dr. Snigdha Tripathy as (1st Line) *Sri Durga (or Duva) dasa gupta (?) chara* (2nd Line)..... *Je(ye)... devarika samastasa -* (3rd Line) *marpichi (se) - mrta senapati (?)*. As this figure is in profile in the fighting posture carrying a sword and a shield it seems that the "*Guptachara*" (spy) of a foreign country was killed, in whose memorial the Hero Stone was erected subsequently. The characters of the inscription exhibit the development of Oriya scripts in the 16th century A.D. and prove that Oriya scripts developed in this region of south-west Orissa, than under the occupation of the Nagavamsi kings of Kalahandi.

From a village named Dumerbahal one Hero Stone having a proto-Oriya inscription on the pedestal has been collected by the famous historian Mr. J.P. Singh Deo of Khariar and at present kept in the Khariar Museum. Being requested by this writer, the learned epigraphist Dr. Satya Narayan Rajaguru¹⁶ has deciphered it as *Da (Du) ra Rogare* (Probably the death of this hero occurred due to some incurable disease) and assign it palaeographically to the 16th century A.D.

Many long stone inscriptions of Western Orissa like the one on the monolithic rock (Lankesvari Pitha) in the rock bed of river

Mahanadi at Sonapur and the short inscription on the monolithic rock in the river bed of Mahanadi at Binka are yet to be deciphered, which may throw new light on the history of this region.

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The Literary Heritage of Sonepur

Dr. Pabitra Mohan Nayak

Sonepur lying nestled in a cosy bower surrounded by long lines of sky-blue, forest crowned cliffs forming pre-eminently the base of a triangular plot, washed by the perennial flow of the Mahanadi and river Tel is a veritable poet's paradise. In the words of Sir Richard Temple:

“A real variety to the scene was afforded whenever caught the golden colours of the eastern sky, the rapids made a merry noise as they hurried along. The effect of the rocks was doubled by the reflections of teak trees, laden with their yellow blossoms, hung over the margin of the stream. We were one day on horse-back, another day in boats, it was from the midstream that the best views presented themselves. When the river was winding through mountain gorges, the hill-sides widely parted, would allow the water to broaden itself into a small lake, the voyager issuing from it by the river passage, would turn a corner and find himself in a fresh lake, whence he might enter another and yet another - each lake differing from its neighbour.”

These lovely sights and sounds created the appropriate artistic atmosphere where poets, novelists, dramatists, painters, musicians, etc. of no mean merit flourished. Here at Sonepur.

The growth of literature at Sonepur can be traced to Charyapada, to Matsyendranath and Daripada of the Natha cult. They wrote esoteric poetry in language known as Sandhya bhasa. The local idioms they used are still in currency in this area. Lakshmikara, daughter-in-law of

Jalandharippa, Raja of Lanka (Sonepur), who was one of the exponents of the Natha cult was the propounder of Sahajayana Buddhism whose “Advayasiddhi” is the medieval form of Acharya Rajanish's modern method of Yogic practices from sex to salvation. The mystic poetry of the Natha cult which flourished from 8th to 11th century largely influenced the Panchasakha literature of Jagannath, Balarama, Yasowanta, Achuyta and Ananta. The Natha literature of Sonepur seems to have set the tone and temper of the literature the successive ages pursued.

Sasisena Kavya by Pratap Rai of the 17th Century is a milestone in Oriya literature. At a time when Oriya poetry was characterized by ornamental richness and figurative intricacies, here was a kavya marked by sweet simplicity and fluid beauty. And the author of this singular kavya was a son of this soil. There are enough internal evidences to show that the author belonged to Sonepur garjat. The kavya deals with the love, marriage and elopement of Ahimanikya, minister's son and Sasisena, daughter of the Raja of Amaravati near the present Chandikhol of Cuttack. It was here at Kamantapur (Sonepur) that the real drama of their love-life is enacted against the tantric background of this land of Sat Bahen. It was here that Ahimanikya, trapped by Jnanadei Maluni, one of the seven tantric sisters, was transformed into a sheep by day and a youth by night. The kavya end with the transformation of the sheep into Ahimanikya under royal orders and the reunion of the love-lorn lovers. Jnanadei

expresses her disdainful horror in her response to the king's command to bring the sheep. "What an idea", exclaims the cunning Jnanadei, "a sheep in the house of a gardener, a horse in house of a potter and a monkey in the house of a weaver ;"

The Chauhans who ruled Sonepur for about three hundred years kept up the tradition of the Somagupta kings whose copperplate charters carry lines of highly ornate poetry. In the Maranjmura copper plates of Yayati, Sonepur-on-Mahanadi has been depicted as a metropolitan city washed by the moon-lit, foam-crested, restless waves of the confluence sanctified by its holy water, decorated with rest-houses, resounding with the beaming, blooming lotus-faces of amorous women with anticing side-long glances.

During the reign of Niladhar Sing Deo (1841-91) there lived at Sonepur three great devotional poets namely, Chandramani Das, Bhima Bhoi and Bhubaneswar Panigrahi.

Chandramani Das was a siddha yogi whose samadhi pitha is visited by thousands of devotees all the year round. His best known work is Sudhasara Gita (1940) consisting, like the famous Bhagavat Gita, of 18 Cantos. It is based on the Pinda-Brahmanda tattwa of the Panchasakha school of poetry. But, while this intricate tattwa is made complicated by the Panchasakhas it is conveyed in simple, intelligible language by Chandramani Das. "Narada Gita" written in the form of a dialogue between Uddhava and Narada is Yogasastra turned Kavyasastra. These Yogas are quite different from those delineated in the Gita and yet this unpublished kavya closes with the beatific vision of anantasayi Vishnu which reminds us of the Viswarupa in the Gita.

"Bhavataraka" which is another unpublished but unparalleled work by this saint poet seems to have been influenced by Ram Das Dadhyata Bhakti. It comprises thirty cantos and is an episode on sin and salvation. From men to animals, from animals to reptiles-each one can

be saved by the grace of god. This is what we find from canto to canto. The most remarkable aspect of this voluminous kavya is the transcendental vision of God seen by a hunter through a strange bird in canto XVII. "No hands /No feet.. No beak/No colour, No shape/No nose, no ears... Its body filled the sky, the earth and the underworld. And he looked into his body and saw the bird." This immanent us of the poet's mystic English contemporary Wordsworth in "Tintern Abbey" -

A sense sublime
Of something far more
deeply interfused
Whose dwelling is the light
of setting suns
And the round ocean and the living air
And the blue sky and in the
mind of man

We see this cosmic vision again in Srikrishna Sudhamruta where the asta patavamsis seated on the Garuda witness Krishna's Gopa Lila far down in Maya Dwaraka and look back and yet find him behind them.

Chandramani Das wrote "Tandava Nruttya", "Bhsramana Gita" "Halia Gita", "Prabhati", "Balagopala Chautisa", "Gupta Gopibhasa", etc. some of which are yet to see the light of day. He was a Vaishnavite poet who loved bhajans and kirtans. And yet the god he worshipped was Rama and Krishna and Machha and Kachha and Narasimha - all rolled into one. And that one even is disembodied Brahman.

Bhima Bhoi began where Chandramani had left. His god was Mahima, the Sunya Brahma or the Void. Tribals are animists. They woship "rocks and stones and trees". And yet here was an unschooled tribal rebel who declared an unremitting, uncompromising battle against idolatry, against brahminical orthodoxy and royal authority. Setting up his ashram at Khaliapali near Sonepur with the patronage of Raja Niladhar Sing Deo, Bhim Bhoi became the Mahima Swamy of West Orissa whose monotheistic bhajans set to

the tune of the castanet ring in the raptured ears of his million devotees in West Bengal, Andhra, Bihar, Madhya Pradesh and Orissa. Bhima Bhoi was a prolific poet who, at once, dictated four bhajans to four scribes. Of his writings mention may be made of Srutinisedha Gita, Adi Anta Gita, Astaka Bihari Gita, Brahma Nirupana Gita, Bhajanamala, Chautisa Madhuchakra, Manu Sabha Mandala, Brahma Chalaka, Stutichintamani and "Mahima Vinod", a ponderous poetic itinerary of Mahima Swamy yet to be published. Besides, he has dictated numerous bhajans and chautisas which are still lying scattered here and there. In Brahma Nirupana Gita Bhima Bhoi defines Brahman as Purusa and Prakruti, light and darkness, knowledge and ignorance, master and slave, sea and sky, good and evil, death and immortality. But the magnum opus of Bhima Bhoi is his Stuti Chintamani which has no parallel in Oriya poetry. it elevates pure personal suffering to the height of a kavya like Wordsworth's "Prelude". Here in Orissa a wail of agony was, for the first time, considered subject matter for poetical composition in Bhima Bhoi's hands. We, therefore, sometimes strongly feel this unlettered genius of an unimportant Garjat of those days should have been, in all earnest, given the honour of inaugurating the modern age in Oriya poetry.

There was another neglected talent of Sonapur - Bhubaneswar Panigrahi- whose "Prema Tarangini" kavya can rival the best of Upendra Bhanja, "Kavi Samrat" of Oriya poetry. Born to an humble brahmin family of Gaurgaon, Bhubanear Panigrahi was a court-poet of Niladhar Sing Deo and a pundit of much learning. "Prematarangini" which means "a river of love" deals with the separation and union of Krishna and the Gopis in a language charged with passion and power. This is highly ornate, pictorial poetry, a long love-song composed to a wide variety of metres, decorated with figures of speech of alankaras like Utpreksha, Punarukti, Yamaka, Rupaka, Simhavalokana, Vyagragati, etc. and Chitravandhas like Samputavandha,

Padmavandha, Rathavandha, Gomutrachhanda, etc. scattered throughout with uncontrolled prodigality. the last four cantos are sometimes detached from the kavya and sung as morning hymns which, in their lucidity of expression, depth of feeling and melodic beauty, have hardly any parallel in Oriya poetry. Besides "Prematarangini" written in 30 cantos, kavyas like "Bhagavata Mahatmya", "Astapadi" and a few lyrics and chautisas based on the Krishna cult by Bhubaneswar Panigrahi are a precious treasure of Oriya poetry. In one of these songs, Krishna, on hearing Radhas grief-stricken separation, bursts into one of the most ornamental utterances.

Nira niraja nayanaru nivara
Varaja vasa khedajalu uddhara
Dharadharastana vinayavistara
Tara kesa mukha poti re.

Raja Niladhar was himself a poet, a painter, a composer, and a musician. The lyrics he wrote were simple, sweet and passionate and were largely influenced by the prevalent taste of Vaishnavite poetry.

Rajarsi Prataprudra Sing Deo (1891-1902), Niladhar's son and successor, was well-versed in Sanskrit literature and culture. He had composed several hymns in Sanskrit included in Stotratarangini (1893) comprising astakas, dasakas, dwadasakas on pattamaheswari, here is nityajnanananda sudhamvonidhirupa, an ocean of eternal wisdom and bliss. Somaesvari is Padmasina, trinayanayuta proditaditya kantih, a three-eyed goddess seated on a lotus and shining like the sun. Goddess Sureswari dazzles with white tulips trembling on the creeper of her fine frame, sphurat malli mala lalitanuvallari parisara, while the Mahanadi rushes on to lie on the large lap of the eastern sea, prachipayodhi vipulankaviharasila. Prataprudra's poet, Pt. Chintamani Nanda's Jagadisa Mahima Stavah is another solid contribution to the world of Sanskrit hymns.

If Prataprudra was a Sanskrit scholar, it is all but natural that the Oriya kavyas namely Chaturdasapadi (1918) attributed to him should

carry on them the distinct stamp of his Sanskrit scholarship. If Upendra Bhanja's Vaidehisha Vilasa and Dinakrushna Das' Rasa Kallola are written with the first letter of each line beginning with 'b' and 'k' respectively, Chandravati parinaya is composed in chakaradyaniyama (each line beginning with the alphabet-'Cha') which is rarer still in Oriya vocabulary. Based on an episode from the Mahabharata this kavya deals with the elopement and marriage of Chandravati, Duyodhana's daughter, with Shamva, Srikrishna's son. Like "Prematarangini", this is a pictorial, musical kavya composed to as many as twentytwo metres like Kalasa, Ramakeri, Rasakoila, Vasanta, Chakrakeli, Mangalagujari, Shankarabharana, etc. The splendour of description, the opulence of alankaras, and the mellifluity of its music make it one of the milestones in the Riti Yuga Oriya poetry. Prataprudra's unpublished "Chaupadi Ratna" contains powerful lyrics on the Radha-Krishna love theme. The colophon verses of the originals of Chandravati Parinaya and Chaturdasapadi preserved at Gourgan in manuscript form bear the name of Bhubaneswar Panigrahi. Thus these kavyas attributed to Prataprudra were definitely written by Bhubaneswar which BM Sing Deo later published in the name of his father, Prataprudra. Bhubaneswar Panigrahi's son, Dwija Nilambar, too, has left behind him a few significant lyrics composed in medieval Vaisnavite mode. This rich tradition of poetry is fostered and sustained by the natural loveliness of Sonepur, its rivers and streams, its hills and forests, its fields and groves and, above all, by the Mahanadi flowing down loud on the stones and low on the sand, singing with Tennyson's brook, 'Men may come and men may go/ But I go on forever.'

The reign of Birmitrodaya Sing Deo witnessed the flowering of all branches of literature: poetry, novel, drama, biography, travelogue, translations, etc.

Birmitrodaya is said to have written Chandraprabha Kavya (1902), Astapadi (1926), and Anangarangini (1935). While Astapadi

resembles Prataprudra's Chaturdasapadi in content and form, Anangarangini and Chandraprabha Kavya which drew the admiring attention of poet Radhanath Ray show the poet's rare combination of tradition and modernity. Anangarangini deals with the imaginary story of love between Naravahana, Raja of Kausambi and Chandraprabha. Anangarangini deals with the imaginary story of love between Rasananda, Yuvaraj of Kanchanapura and Anangarangini, princes of Kamanagara, while Chandraprabha Kavya delineates the live and marriage, separation and union between Naravahana, Raja of Kausambi and Chandraprabha, daughter of the fairy king, Chitraketu. The visible approach of Anangarangini's youth depicted by the florist Kalavati in Ch.II and the description of the spring-garden in Ch.IV of Anangarangini, the elaborate depiction of the spring-forest, the sunset and sunrise in Chandraprabha Kavya justify them as jewels of Oriya poetry. While there is the unmistakable shadow of the ornamental poetry of the Riti Yuga on Anangarangini, Chandraprabha Kavya is a splendid specimen of simplicity in modern poetry. Its theme is ancient but its treatment brings it close to the poetry of Radhanath and Nandakishore. In St.267-9, Naravahana nostalgically reminisces :

The same scented breeze from the south
The same warm song of the cuckoo,
The same flowers, the same bees
White with pollen grains,
the same sweet air,
And yet since her departure
Something has happened to my heart.

Maharani Lady Parvati Devi and Yuvaraj Somabhusan have respectively left behind them two important kavyas namely, Syamantaka Mani (1928) and Gajendra Mokshana (1907). While Syamantaka Mani deals with the loss and restoration of the jewel Syamantaka, Gajendra Mokshana depicts the story of the salvation of an elephant crocodile from a Gajendra Mokshana

claim a special place in Oriya poetry for its moving simplicity spontaneity and spirituality.

Pt. Aditya Prasad Guru was primarily a Sanskrit scholar who attempted three kavyas in Oriya. Kutiravasini (1931), Kokila Sandesa and "Tarapurgarh" (MS). While Kokila Sandesa is written in the tradition of Duta Kavyas like Kalidasa's Meghaduttam and Dhoyi 'Kaaviraja's Pavanadutam, Kutiravasini, dedicated to Maharani Parvati Devi, is based on Canto VII of Devi Bhagavatam. It tells the story of Sukanya, daughter of Raja Saryati, and her god-conquering chastity.

Mayaraduta by Lakanath Misra resembles Guru's Kokila Sandesa. Both are Khanda Kavyas written on the same theme and in the same 'Kalyana Ahari' metre. But Misra's Haripriya (1922) can be classed with modern poetry. It tells the story of Haripriya's disappearance and discovery against the scenic, sylvan setting of Sonepur. The treatment of nature in this kavya carries it close to the best of Gangadhar Meher's nature poetry.

Harihar Panigrahi is a minor poet whose Agamani, Nirajana, Niti Saurabha, Asrudhara, Archana and Santwana Puspamalya claim him a place among Oriya poets. While the last three are elegiac effusions on the death of Birmirodaya Sing Deo, the first three relate the poet to nature and human nature. Though of shorter stature than his celebrated father Gopinath Panigrahi, Harihara will be remembered for his pan-Orissan sentiments expressed in Nirajana. In the midst of drowsy autumnal fertility and dreamy voluptuousness, in the midst of what Keats would have called, 'mellow fruitfulness', the poet finds Orissa condemned to starvation and slavery. Where is the trade across the seven seas? the poet asks ruefully. At a time when the Oriya language was under attack when poets like Gangadhar, Radhanath, Bichitranand,

Bichhandacharan were sweating and struggling to keep the banner of the Oriya language flying, here was a thin, little voice in a remote corner of Orissa lifting its lyric of patriotic protest.

Sonepur had a rich tradition of songs and music. Niladhar Sing used to compose songs and sing them to the accompaniment of musical instruments which he himself played. Birmirodaya sing Deo wrote half a dozen books containing hundreds of songs which continued the tradition of kavisurya Baladeva Rath and Gopalakrushna in Oriya Poetry. These songs contained in Sangita Ratnahara (1925), Sangita Vallari (1931), Krushna Premodaya Champukavyam O Sangita Sudhasagara (1933), Sangita Mitrodaya (1934) and Sangita Kusumanjali are largely based on the love between Radha and Krishna, and composed to a wide variety of metres like 'puravi', 'todi paraja', 'kedara gauri', 'bhatiari', 'kamodi', 'saari', 'malhara', 'panchama varadi', 'anandabhairavi', 'sankarabharana', etc. They are set even in Hindi, Urdu, Bengali, tunes. These songs, characterized by soft sentiments and lyrical intensity, combine in them the lucid simplicity of Elizabethan love-lyrics with the intellectual titillation of metaphysical secular songs. Birmirodaya's unpublished lyrics and chautisas and Malasri alongwith Swarnapura Bedha Parikrama (1899) and Lady Parvati Devi's Humva Gita (1929) come under this category of songs. Birmirodaya compiled and published two collections of Sanskrit hymns, namely, Stotrarangini (1893) and Suvarnamerusatakam (1927) to which Niladhar, Prataprudra and Birmirodaya have made significant contributions.

This tradition of poetry has come down to Kaibalya Charan Nayak whose "Nala Charita" written in Riti Yuga style and "Sakha Prasakha", a romantic effusion are yet to be traced. Marudhara (1961) and Sandhyatara (1969) contain around fifty devotional lyrics which show the poet's disenchantment and disillusionment with the world and his theocentric mindset. One of his longest poems in Sandhyatara is 'Chandli Chule' which takes the reader on a delightful trip round

the religious and historical places of Sonapur. Kaibalya Charan's MS "Mahapathara Yatri" contains a cluster of divine poems expressive of the poet's world-weariness and stoical surrender to divine dispensation. The last poem 'Mahapathara Yatri' which paints the pathetic picture of a dying man casting longing lingering looks behind closes with the emboldening sense of self-realization with which he "puts out to sea" in the hour of sunset and evening star.

Satyanarayan Bohidar was a poet with a difference. Author of 'Kosali Bhasakosh', his works namely Tik Chahnra (1975). Ghavghavo, Ghuvkudu etc. are written in Kosali or Sambalpuri language. The ease and facility with which Bohidar weaves the local idioms into the tapestry of his poetry is indeed amazing.

Of the other poetical works of Sonapur, mention may be made of the monumental "Buddha Purana" in several volumes by Nakula Nayak, "Papakshaya Mahatmya" by Dharmananda Meher, "Rama Lila" by Gandhar Vaisya, "Anutapa Tarangini" by Pt.A.P.Guru, Purana Kathasara by Parvati Devi, Ratnasimhasana Prasasti, by Damodar Sastri, Ratnasimhasanotsava by Gopinath Panigrahi and Kalika Purana by B.M. Sing Deo.

Historical Literature

Bijoy Chandra Mazumdar who was a poet and a historian wrote "Sonpur in the Sambalpur Tract" (1911) and Orissa in the Making (1925). Sri Ramchandra Mullick wrote "Samkhipta Kosala Itihas" (1931) and "Odisha Itihas" which are pure history. "Sonapur Itihas" by Pt.Aditya Prasad Guru and "Sonapur Chauhana Vansa Itihas" by Biswanath Rath, too, are prosaic attempts at pure history. But the works by Pt.Gopinath Panigrahi Vidyaratna like Upahara Puspanjali (1910). Kumara Janmotsava (1927), Ekadasi Udyapana (1928) constitute the poetical history of the Chauhan rulers of Sonapur. They set out to celebrate an occasion but end up as history. Gopinath Panigrahi's master-piece is a historical Sanskrit epic of the order of Gangadhar

Misra's famous Kosalanandakavyam (1929). "Swarnapurarajavansanucharitam" which the poet rightly calls the "Second Kosalananda". It is a poetic, historical record of the Chauhan Rajas of Sonapur beginning with Madangopal and ending with Birmirodaya.

Damodar Misra Sastri's 'Swarnapura Chauhana Kirttidarpana' is a historical kavya in Oriya serialized in Sambalpur Hiteisini. It traces the history of the Sonapur Chauhans in simple, lyrical poetry. Unfortunately this rare works has not been published in the form of a book.

Pt Aditya Prasad Guru's "Tarapurgarh" in Oriya, Syenagirih and Purascharana vamna Champuh in Sanskrit, too, are historical kavyas which trace the history and legends surrounding Sonapur.

Travel Literature

At a time when there was hardly any travelogue in Oriya literature, Sonapur created a host of travel literature. Some of them were written in the form of dialogic kavyas which lend credence and objectivity to history. Swarnapura Gunadarsha (1921) by Damodar Sastri is the historical geography of Sonapur in the form of a Champu Kavya gadyam hudyam ashesasavdanihitam padyam . Lokananda and Sadananda, fictitious merchants from Prayag, begin their tour of Sonapur State from the left bank of the Mahanadi, cross over the Panchara Pragana and visit the places of interest on the right bank till they enter the town. Maharudrayaina Kavyam (1920) like Biswanath Rath's Panigrahanapadapapah (1919) and Jagannath Mishra's Utasavatarangini Champuh (1910), is another historical kavya by Damodar Misra who decribes the journey of Maharaja Birmirodaya through the scenic Sonapur. His visit to Sambalpur and Benaras. His trip round the temples of Benaras, the performance of the Maharudra Yajna and his return journey are described with the fidelity and sincerity of a distinguished count - who draws in his first hand experience.

But on top of all is Gopinath Panigrahi's Brata Charita (1915) which is a remarkable travelogue in prose at a time when Oriya literature was quite poor in prose. The occasion in the thread ceremony of Somabhusan Sing Deo, Birmitrodaya's son, but it sends the writer to different places of Orissa and beyond, which come out aggressively alive in Panigrahi's journal. While Part-I takes us round Puri, Sareikela, Boudh, Athgarh, Dhenkanal, Kasipur, Kuchinda, Calcutta etc, we are set on a guided tour round the temple town of Sonapur in Part-II. What Jagannath Misra Tarkatirtha, does in Utsavatarangini Champuh, Gopinath Panigrahi Vidyaratna does in Brata Charita. But, what is remarkable and delightful about Panigrahi is his sinewy prose and graphic visual descriptions which are the hall-marks of travel literature.

It is said that B.M.Sing Deo had written a book Bharata Bhramana, which confined an interesting account of his travels across the country, now unfortunately lost.

Biographical Literature

"Here in this country", wrote B.C.Mazumdar, "we cremate the body, we do not raise a monument". Yet he raised one in Chohan Rulers of Sonpur (1925) brief life-sketches of Niladhar, Prataprudra and Birmitrodaya in pure panegyrics. B.C.Mazumdar was closely associated with the Sonapur Durbar. He had seen the Rajas within close range. Had he wished, he would have built solid biographies on the rulers, but he did not choose to do so. May be because, truth is dangerous and to sing the praise is less problematic and more profitable than to launch a perilous voyage on the discovery of the 'whole man'.

But unlike Chohan Rulers of Sonpur, Life of Rani Amulyamani Devi (1915) contains a full-fledged biography, even though here, too, we do not see anything shocking or revolting in the Rani. The Rani was, of course, on her own the true representative of Indian womanhood - an ardhgini to Rajarsi Prataprudra. The life of a

Rani is bound to be uneventful. But, Dasgupta discovers in Amulyamani more than a Rani. She is an ideal mother, a devoted wife and a fine specimen of Indian womanhood. The book deals with Amulyamani's early years in the Kalahandi palace, her married life, her children and grandchildren, her role as a wife and a mother and her last days.

It is said that Pt.Gopinath Panigrahi had attempted a book of biographies and called it "Satcharitra Samadara" which is lost to posterity.

Dramatic Literature

Sonapur had a rich tradition of dance and music and drama. Imagine a Yuvaraj freely mixing with the public and uninhibitedly acting his part with them on the stage. And this was possible at Sonapur in the second decade of the 20th century. The Yuvaraj was Somabhusan Sing Deo. His Sridama Daridrya Bhanjana (1920) is the only play available on Sridama's grinding poverty, his unflinching devotion to Lord Krishna, Lord Krishna's unshakable friendship with Sridama- all these are depicted in the drama. Bhagia Panda is a newly created character in this mythological play, which lends dramatic relief, through frolicking humour, to this otherwise serious play. The dialogues are written in Hindi, Hindi mixed with Oriya, Oriya mixed with Sambalpur. In the Foreword, B.M.Sing Deo refers to one-actor titled "Mayasavari" by Somabhusan which is not available.

Gopinath Panigrahi is said to have attempted some poetic plays, namely "Subhadra Parinaya", "Sachala Harana" and "Rukmini Harana" which have walked into oblivion.

Fictional Literature

It has already been said that Birmitrodaya had a poetic talent, but his works on prose fiction like Bhagna Kankana (1920) and Nilakuntala (1927) are milestones in Oriya fiction. At a time when Oriya literature had only a handful of novels to show, it was here at Sonapur that these novels were written to enrich the literature of the State.

Bhagna Kankana is a historical novel based on the intrigue between Ajayagarh had Bishnugarh Raj families. The distinction of this novel lies in the Jaina background against which the quiet words of wisdom uttered by a little ignominious girl Johan in the gathering gloom of the evening. "Sorrow breeds sorrow. The compassion of Lord Mahabir removes sorrow and leads the soul through endless joy towards Nirvana. What is sorrow, prince?"

While Bhagna Kankana is a historical novel, Nilakuntala is a sociological fiction, which reflects the dwindling values of the rural society of those days. The centers of activity are Binodpur and Bishnupur and the merit of the novel lies in the seamless integration of the main plot with the under plot. Nilakuntala projects the picture of the contemporary society: the misguided youth, the village touts, the simple, unsuspecting, unsophisticated Savara society, the gossips in the river ghat, the evils of poverty and the benefits of education - all these are realistically portrayed in the novel. The justice dispensed is poetic. The denouncement is harden, it is too sudden to be credible. And yet this novel will live for the life it mirrors.

Translation

The appetite of Birmirodaya for Sanskrit classics was whetted by the pundits who surrounded him. They were Pt. Krupasindhu Mishra, Jyotisalankara, Pt. Ramachandra Padhi, Siddhanta Tilaka, Pt. Gobinda Rath, Jyotischandra, Pt. Gopinath Panigrahi, Vidyaratna, Pt. Kasinath Mishra, Kavyavinod, Pt. Damodar Misra, Sastri, Pt. Aditya Prasad Guru, Kavyatirtha, Pt. Chintamani Nanda, Vidyabhusana, Pt. Devaraj Misra, Sahityopadhyana, Pt. Brusabha Misra, Vidyalkara etc. Maharaja BM Sing Deo might have also received inspiration from Prataprudra and Amulyamani, his parents who were well-read and well-versed in Sanskrit literature. This made

him translate into Oriya great Sanskrit classics like Ratnavali (1894), Abhijnana Sakuntala Nataka (1898), Vikramorvasi (1910), Rutusamhara (1915), Naisadhiya, Charita (1921), Sisupala Vadha (1928), Dasa Kumara Charita (1928), Kalika Purana (1929), and Uttara Rama Charita Kavya (1930) Sing Deo acknowledges the help of Bhubaneswar Badpanda, Fakir Misra, Madhusudan Rao, Nilakantha Das, etc. without which the major works of Kalidas, Sriharsa, Bhavabhuti, Dandi, Magha, Markandeya would have remained Greek to the ordinary Oriya readers.

Under BM Sing Deo's patronage BC Mazumdar translated Gita Gobindam into Bengali. Lady Parvati Devi, it is said, had translated Bhaktikavyam and Pt. Gopinath Panigrahi, Malatimadhavam and Mruchhakatikam, but these invaluable translation have become extinct with the passage of time.

It may be mentioned here that great works like Gangadhar Misra's Kosalanandakavyam which is one of the three historical Sanskrit Mahakavyas of the country, Gopinath Tunga's Virasarvasvam which is the quintessence of twentyseven shastras of India, Niladri Mahodayah which is the only complete and comprehensive compendium on the 'Puja padhhati' of Lord Jagannath, Pt. Harihara Rath's Birmirodaya Mahabharata in three volumes, etc. would not have seen the light of day without the royal patronage of Sonapur. The Sonapur Chair of English at Revenshaw College and the Post-graduate Department of Calcutta University founded by Sonapur Durbar have immensely contributed to the cause of language and literature down the years.

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ORISSA : NEW FRONTIERS OF DEVELOPMENT

The glorious re-emergence of present Government in Orissa evoked new spirit and enthusiasm among the people. Backed by the overwhelming support of the people, the Government led by Sri Naveen Patnaik pursued hard to improve the socio-economic condition in the face of many challenges. The Government from the very beginning adopted the attitude of retrospection of policies and programmes undertaken during the first phase of its tenure and devised appropriate strategies to improve the quality of lives.

In accelerating the pace of development, the Government of Orissa clearly outlined its prime objective of human development. It concentrated on a meaningful and effective development framework and also identified the growth engines directing thereby all its policies and programmes to be anchored in a social context. It sincerely tried to reflect the development priorities of the target public where all its interventions are applied. The Government led by Sri Patnaik consistently endeavoured to encourage effective and efficient use of available resources for furthering the well-being of the people of Orissa.

The major initiatives launched to address issues of emergent nature basically hinges on principles of better financial discipline, optimum use of resources, creation of conducive climate for

investors, application of information technology in governance, creation of multiple livelihood opportunities for farmers, empowerment of women, devolution of powers to Panchayati Raj institutions, provision of quality health services, stress on primary education, stimulation of self employment opportunities through employment mission and

development of Schedule Tribes and Schedule Castes and vulnerable sections of the society. All these exercises were primarily targeted to trigger the process of development in its right perspectives. In revering the sentiment and perception of the people, the Government put in place pragmatic policies like Resettlement and Rehabilitation for affected families in the process of industrialization and other developmental efforts. Many of these initiatives have been regarded as exemplars for other parts of the country.



Indices of development have never been assessed in terms of quantitative achievements. Paradigm of governance has already experienced a shift for which many emerging disciplines have become the way of life. The concepts of good governance, transparency and accountability have become abiding factors with the implementation of path-breaking Right to Information Act. This far reaching law provides for independent information

commissions, proactive disclosures and reporting mechanisms having the potential to impact the process of governance in a profound and positive manner by empowering the citizen. During all these courses, the Government under the dynamic and vibrant leadership of Sri Naveen Patnaik have relentlessly tried to transform the scenario of the State into new frontiers of development.

Agriculture : Focus on Farm Mechanisation

- Priority accorded to Agriculture extension through application of high-end Crop Production Technologies, adoption of Integrated Nutrient Management and Pest Management practices.
- Farmers' training programmes, farmers' field school and demonstration conducted for macro-management of agriculture, ISOPOM, ICDP (cotton) for bringing advanced crop production technology and packages of practices to the farmers' doorsteps.
- 12.5 lakh grafts of various fruits, 10 lakh grafts of cashew and 2.5 lakh vegetable minikits supplied to farmers.
- To promote onion crops in the state, 300 quintals of quality onion seeds distributed to cover 7500 acres of land.
- Under National Horticulture Mission, 2625 demonstrations on rose, gladioli and marigold held to encourage floriculture. A target of 60,000 demonstrations set for the next year.
- To ensure minimum support price to farmers a target of 20 lakh MTs of rice set to be procured through Orissa State Civil Supplies Corporation Ltd., PACs, MARKFED & NAFED and millers under levy route.
- In developing micro-watersheds in drought prone areas, 2413 micro-watershed being



developed with a treatable area of 13 hectares.

Water Resources : Creating Maximum Irrigation Potential

- During 2005-06, six irrigation projects identified for completion with a targeted irrigation potential of 12685 hectares, of which four projects already completed.
- During 2005-06, Orissa Lift Irrigation Corporation (OLIC) completed 500 new LI Points under Biju Krushak Vikas Yojana and created an additional irrigation potential of 10,000 hectares.
- About 13,397 Pani Panchayats formed in the State by January 2006 covering an area of 10.40 lakh hectares. Out of these, 11,583 Pani Panchayats have taken over operation and maintenance of irrigation system covering an area of 7.81 lakh hectares.
- Master Plan for irrigation being formulated to bring minimum 35% of the cultivable area in each block under irrigation within a time frame of five years.



Steel & Mines : Harnessing Natural Resources

- Orissa in recent years has become a hotspot for steel and Aluminium firms of national and international repute.
- 43 MOUs signed with an investment of Rs. 1,37,000 crore for setting up steel plants in the state.
- POSCO, a South Korean steel giant, entered into an MOU with Govt. of Orissa to set up a steel plant having a production capacity of 12 MTPA with an investment of about US \$ 12 billion.
- The flagship Aditya Birla Group plans to setup a 1 MTPA Alumina refinery with smelter.
- Orissa Mining Corporation set itself a production target of 51.20 lakh tonnes of

minerals in 2005-06. This represents 33% increase over the previous year.

- ⊙ Iron Ore production slated to touch 43 lakh tonnes in 2005-06, representing an increase of 40% over the previous year.
- ⊙ Investigations to assess heavy minerals in beach sand along the Puri Coast, exploration for Gemstone in Bolangir and Bargarh, exploration for Bauxite in Koraput and Kandhamal, investigations for Tungsten and Graphite in Angul and Dhenkanal districts going on.
- ⊙ Effective steps being taken up for enforcement of Orissa Mineral Act, 1989 to curb illegal mining activities and trading of ores and minerals.

Industries : Creating a Conducive Atmosphere for Investors

- ⊙ To accelerate industrial development, employment opportunities and economic growth a single window clearance mechanism introduced by enacting Orissa Industries (facilitation) Act, 2004 ensuring time-bound clearance of investment proposals and rationalization of inspections.
- ⊙ Orissa in recent years, has emerged a favourite destination for investors especially in mineral sector. Since 2003-04, 46 companies have already signed MOUs, of which 43 in steel sector with a capacity of 58.14 MTPA and investment of about Rs.1,37,156 crore and two in Aluminium sector with an investment of Rs.25,000 crore.
- ⊙ 14 steel companies have started partial commercial production with an investment of Rs.10,750 crore creating direct employment opportunities for about 10,000 persons.
- ⊙ Indian Oil Corporation all set to set up a Refinery and Petro-chemical Complex of 12 MTPA capacity at Paradeep with an investment of Rs.25,000 crore.
- ⊙ Acknowledging development in technical education, a key element for employment generation, BPUT signed an MOU with IIT, Kharagpur to obtain assistance for facility

development and strengthening post-graduate and research programmes in various engineering and allied disciplines.

- ⊙ In order to support massive investments, top priority accorded to improvement in infrastructural facilities. For creating quality infrastructure development in IT sector, an export promotion industrial park set up at Bhubaneswar.
- ⊙ In promoting small and medium enterprises in the State, 2255 small industries were set up during 2005-06 with an investment of Rs.123.23 crores providing employment to approximately 10,308 persons.
- ⊙ State Institute for Development of Arts and Crafts set up for superior design, product development and training. A strategy of cluster development adopted for developing different handicraft clusters.

Information Technology : Heading for a Knowledge Rich Society

- ⊙ The State is making significant strides in Information Technology sector. MOUs signed with TCS and Wipro to set up Development Centers at Infocity in Bhubaneswar. Other companies like Hexaware Technologies & Mind Free Consulting are keen to invest in the state. All these companies are expected to directly employ about 5000 software professionals by 2007-08 besides creating substantial indirect employment.
- ⊙ An e-procurement system initiated jointly by Government of Orissa, National Institute of Smart Governance (NISG) and National Informatics Centre (NIC) to bring in a transparent and efficient system of tendering and procurement.
- ⊙ State Wide Area Network (SWAN), a core e-Governance infrastructure under implementation to connect the State Headquarters with all district headquarters, Sub-Division headquarters, block Headquarters with a 2 mbps dedicated line.
- ⊙ The Oriya language pack under the programme "Technology Development for Indian languages" to enable Oriya Language computing completed.

- Project e-sishu aiming at creating a database of the 3 pillars of education namely children, teachers and school taken up by OPEPA and jointly being executed with OCAC. This would help achieving our goal of universalisation of primary education and ensuring that no child of the state left out of school.

Science & Technology : Opening New Vistas

- Gramsat Pilot Project being implemented in the State to provide satellite communication in remote areas. Under this project direct reception sets installed in the State capital, all districts, block headquarters and 1179 Grampanchayat Headquarters in KBK districts.
- Four schools in Koraput district now covered by EDUSAT Programme launched in October 1, 2005.
- Acknowledging the potential of Biotechnology, steps taken to set up a Bio-Technology park in Bhubaneswar.
- Target set to electrify 1000 remote villages through non-conventional energy sources.
- To facilitate fundamental research in mathematics, steps taken to establish an Institute of Mathematics as a center of excellence at Bhubaneswar.
- To inculcate scientific temper among children, the 13th National Childrens' Science Congress was organized at Bhubaneswar in December 2005. It was inaugurated by His Excellency, the President of India Dr. A.P.J. Abdul Kalam.



Tourism : Making Orissa a Preferred Destination

- Acknowledging the importance of Tourism promotion in economic growth of the State, Media Management Agencies and event

managers identified to take up publicity and promotion professionally.

- A new logo adopted to re-position and rebrand Orissa as a Vibrant Tourist Destination.
- Various strategic tourism projects such as Peace Park at Dhauli, infrastructure development in Buddhist circuit comprising Lalitgiri, Udayagiri, Ratnagiri & Langudi and tourism development at Pipili taken up.
- A Special Tourism area being developed between Puri and Chilika through IDCO for development of up-market tourism.
- For promotion and marketing, a slew of tourism fairs and festivals such as Sreekhetra Utsav at Puri, Ekamra Utsav at Bhubaneswar, Konark Festival at Konark being supported showcasing the tourism and cultural potential of the State.
- Orissa Tourism participated in Travel-Trade shows like Buddhist festival at Bangkok, Leisure Moscow at Moscow, WTM at London, PATA convention at Kualamlumpur, IATO at Kochi, TTF at Kolkata, Road show at Raipur etc.
- 373 guides trained to promote private sector participation in tourism sector.



Culture : Broadening Cultural Horizon

- Kalamandal, a multipurpose cultural complex to promote song, music, dance and drama under construction.
- Under Raja Rammohan Ray library foundation scheme, book assistance and storage provided to rural libraries and Gandhi Pathagaras.
- 'Sri Jagannathayan' a novel venture initiated for the propagation and popularization of Sri Jagannath culture in contemporary perception.

- 12th Finance Commission to provide Rs.50 crore for Heritage Conservation in the state.



- An Artists Welfare Fund formed to provide financial support to indigent and distressed artists.

ST & SC Development : Enriching the Quality of Tribal Life

- To improve the income of tribal households and productivity of their land "Orissa Tribal Empowerment and Livelihood Programme" (OTELP) launched with assistance from IFAD-DFID-WB, from October 2, 2004 with an outlay of Rs.430.73 crore covering 30 tribal blocks of seven southern districts.
- Control over 60 minor forest produce and NTFP which account for a substantial part of tribals' house-hold income transferred to Gram Panchayats.
- Restoration of alienated tribal land to its rightful owners.
- Regularisation of Pre-1980 forest habitations.
- Olichiki included in the 9th schedule of the constitution.
- Minor forest cases and minor criminal cases against tribals withdrawn.
- All-weather roads to tribal habitations of 500 population.
- Hamlets to be treated as habitations for rehabilitation packages.
- Price of kendu leaf bundles procured by the Forest Department increased to 21 paise from 16 paise and large number of new collection centers opened.
- Women self-help groups provided with loan linkages to augment tribals' family income.
- Tribal villages being electrified on priority basis.
- Tahasildars disposing of cases in camp courts in stead of revenue headquarters.
- Decision taken to provide house sites to all eligible homesteadless tribals.

- New initiatives taken to provide employment opportunities and create self-employment avenues for ST youths by skill upgradation training in ITIs and polytechnics.
- Employment rallies organized in tribal areas for recruitment of tribal youths in Defence services.
- Assistance also provided to 4158 SC families, 643 ST families and 26 liberated safai karmacharis through OSFDC.
- Assistance provided towards payment of monetary relief to 180 SC and 97 ST victims of atrocities under the SCs and STs (PoA) Act, 1989.

Women & Child Development : Empowering Women

- In improving health status of children, adolescent girls, pregnant women and lactating mothers, a holistic approach initiated in the state through Integrated Child Development Programme covering about 31 lakh persons.
- To improve nutritional status of malnourished children, a programme called 'Aame Bi Paribu' being implemented.
- A special intervention programme 'Kishori Shakti Yojana' designed for adolescent girls in the age group of 11 to 18 years, being implemented in all 326 ICDS projects of the state, aiming at correcting gender disadvantages and providing a supportive environment.
- About 51 lakh school children in 69,700 schools being provided cooked meals under Mid Day Meal programme everyday.
- To empower the women of the state about 1,76,000 Self Help Groups formed under Mission Shakti. Of this, about 1.6 lakh groups given advance credit to the tune of Rs.370 crore.
- Old Age Pension increased to Rs.200/- per month under State Old Age Pension Scheme covering about 6,75,000 persons.

Energy : A Pioneer in Power

- ⊙ Steps taken to provide access to all rural households during next five years.
- ⊙ Under Minimum Need Programme (MNP), 4696 villages, hamlets and dalit bastis programmed to be electrified. Of this, electrification of 2965 villages and hamlets completed by December 2005.
- ⊙ Being a surplus state in electricity production, surplus power to the tune of Rs.420 crore sold to Power Trading Corporation and National Vidyut Vyapar Nigam through GRIDCO during the 2005-06 by December 2005.
- ⊙ 7 projects with estimated cost of Rs.592 crore approved by Govt. of India for implementation of Accelerated Power Development and Reforms Programme (APDRP).
- ⊙ Highly efficient Orissa Power Generation Corporation (OPGC) paid a dividend of Rs.31.25 crore to the State Government during 2005-06 (Interim).

Panchayati Raj : Power to the People

- ⊙ Conforming to the mandate of 73rd amendment of the constitution, the process of devolution of powers to Panchayati Raj Institutions going on with transfer of various subjects of different departments to PRIs.
- ⊙ To provide atleast 100 days of guaranteed employment to rural people, National Rural Employment Guarantee Scheme (NREGS) launched in the State in 19 districts covering 205 blocks and 3672 GPs. This will guarantee unskilled employment to every household in 33527 villages covering 4078982 households.
- ⊙ 30501 Indira Awas constructed in 2005-06 by December.
- ⊙ Under Sampurna Grameen Rojgar Yojana 374 lakh mandays generated by utilizing 2 lakh MTs of foodgrains and cash of Rs.218 crore in 2005-06.
- ⊙ A special component of the SGRY, implemented in natural calamity affected

areas created 107 lakh mandays by utilizing about 60,000 MTs of rice.

- ⊙ Under Swarnajayanti Gram Swarajgar Yojana 33655 swarajgaries benefited by utilizing Rs.35.94 crore during 2005-06.
- ⊙ Steps under process to computerize 2742 Gram Panchayats having population more than 5000.
- ⊙ All 314 blocks and 30 DRDAs provided with V-sat connectivity.
- ⊙ New software tools PRIYA-SOFT and RURAL-SOFT developed for accounts and scheme monitoring.
- ⊙ State Institute of Rural Development (SIRD) conducted 96 training programmes for 5367 participants in 2005-06.

PGPA : Redressal of Grievances

- ⊙ During the year 2005-06, 9589 grievance petitions received and processed for redressal.
- ⊙ 26338 persons benefited through 21 'Janasampark Sibiras' organized in different districts.
- ⊙ One Pension Adalat (118th) conducted in which 288 cases disposed off.

Rural Development : Improving Quality of Rural Life

- ⊙ In according priority to rural connectivity in the state, 4067.15 kms of all-weather roads constructed under Pradhan Mantri Gram Sadak Yojana (PMGSY).
- ⊙ With the assistance of NABARD, 151 bridges and 368 kms of road completed.
- ⊙ Under Swajaldhara Yojana, 290 Drinking Water Projects completed. 8382 tube wells, 223 sanitary wells and 112 piped supply water project completed during 2005-06 by December.
- ⊙ Under Total Sanitation Programme 8.22 lakh individual households latrines and 7994 school toilets and 296 Anganwadi toilets constructed at a project cost of Rs.440 crore.

Food, Supplies & Consumer Welfare : Reaching out to Poor

- Under Antyodaya Anna Yojana, 35 kg rice per family per month being provided to about 10 lakh poorest of the poor families at highly subsidized price of Rs.3 per kg. An additional 2.63 lakh families going to be covered shortly under the scheme.
- Under Annapurna Scheme, 10 kg of rice per beneficiary per month being supplied free of cost to 64800 senior citizens.
- To protect the rights of consumers, one State Consumer Dispute Redressal Commission at Cuttack and 31 district Consumer Redressal Forums functioning in the State.
- With a corpus of Rs.1 crore a State Consumer Welfare Fund created for taking up consumer awareness programme.

Urban Development : Civic Amenities for Urban Life

- The Government committed to meet the increasing demand for better civic amenities and infrastructure facilities for a burgeoning urban population.
- About 660 million litres of drinking water supplied per day for nearly 4.5 million urban population in 103 local bodies.
- 16907 hand pumps set up in urban areas to cater to the needs of the weaker section.
- Three major water supply projects at Rourkela, Angul and Talcher nearing completion.
- A water supply project for Titilagarh commissioned.
- The living conditions of urban slum dwellers being improved under National Slum Development Programme (NSDP).



- Valmiki Ambedkar Awas Yojana being implemented to provide dwelling units to slum dwellers.
- Steps taken for a perspective plan for Cuttack-Bhubaneswar urban complex with the help of IIT-Kharagpur to promote planned growth of the twin cities and hinterland.
- Bhubaneswar and Puri selected under Jawaharlal Nehru National Urban Renewal Mission (JNNURM) for massive developmental projects in next seven years.
- With the help of the funds available under 12th Finance Commission Award the urban local bodies planning to take up scientific management of solid waste.

Health & Family Welfare : Quality Health Care for the Poor

- National Rural Health Mission (NRHM) launched in the state on 17th June, 2005 to provide effective healthcare to entire rural mass of the state.
- An innovative scheme ASHA, Accredited Social Health Activist launched to reach out all village Panchayats. ASHA will be the first point health contact in each village with a population of 1000 or more. So far 6861 numbers of ASHA identified in the state.
- Under NRHM two Community Health Centres in each district will be upgraded in the line of Indian Public Health Standards. An united fund of Rs.10,000/- will be allotted to each Health Sub-Centre of the state to implement the programme.
- To meet the shortfall of doctors in the state, 17 organisations given clearance for establishment of Medical and Dental Colleges in private sector. To promote medical colleges in western Orissa by private entrepreneurs, decision taken to provide 25 acres of land free of premium and Rs.10 crore in 3 years on reimbursement basis towards creation of infrastructure.
- One medical college with 100 seats and one Dental College with 60 seats made functional in 2005-06 in the private sector.

- MBBS seats of SCB Medical College, Cuttack increased from 107 to 150.

Co-operation : Credit Support to Farmers

- Short-term cooperative credit structure implemented to double agricultural credit in 3 years with 2003-04 as base year.
- Crop-loan investment registered an impressive 29% growth during 2004-05 and 34% in Kharif in 2004-05.
- About 24.25 lakh Kissan Credit Cards (KCC) issued to farmers, out of which 2.23 lakh KCCs issued during 2005-06 by the end of December 2005.
- KCC holders who repay for two consecutive years are issued with Kalinga Kissan Gold Cards (KKGCC). About 1.27 lakh KKGCCs issued, out of which 32000 card issued during 2005-06 by the end of December 2005.
- About 1.21 lakh Kalinga Kissan Silver Cards issued by December 2005.
- Under Crop Insurance Scheme, a total amount of Rs.15.04 crore disbursed to farmers for indemnity of crop loss during 2005-06 by the end of December 2005.
- Procurement target of 1,50,000 MTs of Paddy fixed for the year 2005-06 for collection through network of cooperatives. Of this about 1,00,000 MTs of paddy to be procured through Primary Agricultural Cooperative Society (PACS) and 50,000 MTs through State Cooperative Marketing Federation (MARKFED).

Forest & Environment : Promoting an Eco-friendly Environment

- Top priority accorded on programmes for providing livelihood support to forest fringe dwellers, increasing forest wealth and promotion of environmental awareness.
- 9549 Van Samrakshan Samities (VSS) involved in joint forest management of over 8431 sqkm of degraded forests.
- Protected Area Network of wildlife sanctuaries and National Parks cover 6611

sqkm land area and 20 km wide habitat of 1408 sqkm marine area in Gahirmatha Marine Sanctuary.

- Afforestation programme under different state and central plans implemented over an area of 19,090 hectares.
- Financial support provided for medicinal and herbal plantation in 1000 acres of private land with active promotion by state Medicinal Plant Board.
- Kenduleaf Trading generates 150 lakh mandays of employment every year.
- 9 lakh pluckers benefited from Kendu leaf collection during the season.
- Bamboo working, a potential employment generation activity, commenced timely in the current season in all districts having bamboo forests.
- Forest Department generated 55 lakh mandays of employment through its activities.
- Chilika Development Authority in partnership with various stakeholders working ceaselessly for eco-restoration of the lagoon.
- To control pollution effectively, ban on polythene of less than 20 microns imposed.

Revenue : Human Face of Intervention

- A Pragmatic Resettlement & Rehabilitation Policy put in place for a meaningful solution to the problems of displaced families. This is a pioneering policy of the State Government in comparison to other States.
- To facilitate the personal land holding records of the citizens, Land Pass Books being issued to each land holding families in the state with effect from 26th January, 2006 at a nominal fee of Rs.20/- with full exemption to BPL families. This Pass Book will also serve the purpose of certificate in respect of caste, income, legal heir, residence and identity.
- Under Basundhara scheme, land distributed to 14,588 homesteadless families, out of

which 7827 families belong to scheduled Tribes and 3234 families belong to scheduled castes. The scheme aims at providing land to 2,49,334 such families within three years from 2005-06 to 2007-08.



- ⊙ 157 tehsils of the state out of total 171, fully computerized.
- ⊙ During the year 2004-05 Government land to the extent of 5033 Acres distributed among 6,075 landless families which included 1053 SC and 2954 ST landless families. During the year 2005-06 by October, 2005, Government land to the extent of 1553 Acres distributed among 1592 landless families including 700 ST and 246 SC landless families.

Public Enterprises : Protecting Workers' Interest

- ⊙ To revive potentially viable loss making enterprises, a selective privatization and disinvestments policy adopted in 'non-core' sector.
- ⊙ A conscious policy for a model of privatization to secure the interest of workers and create opportunities for further jobs by catalyzing the dynamism of private sector adopted.
- ⊙ A set of 'core' enterprises identified to operate in the public domain.
- ⊙ State all set for Public Enterprises Reforms Programme with external assistance of 30 million pounds.

Finance : Inculcating Fiscal Discipline

- ⊙ A number of steps taken to correct the structural imbalances in the State Finances after an MOU signed with Department of Expenditure, Government of India and enactment of 'Orissa Fiscal Responsibility and Budget Management Act, 2005.'

- ⊙ States Own Tax to GSDP ratio increased from 4.4% in 1999-2000 to 7.2% in 2004-05.
- ⊙ Revenue Deficit reduced from about Rs.2574 crore in 1999-2000 to Rs.522 crore in 2004-05. This represents reduction of Revenue Deficit as a percentage of GSDP from 6.7% to 0.91%.
- ⊙ Fiscal Deficit reduced from Rs.3836 crore (9.7%) in 1999-2000 to Rs.1365 crore (2.37%) in 2004-05.

School & Mass Education : Grooming our Future Hope

- ⊙ Giving priority to universalization of elementary education, 70.18 lakh children enrolled in schools at elementary level.
- ⊙ Orissa Child Census - 2005 taken up for better planning and development of education and health of children.
- ⊙ Impressive performance shown by 'Sarba Sikhya Abhiyan' in the state at national level for utilization of funds.
- ⊙ About 3.17 crore text books supplied to 60,93,000 elementary students during 2005-06.
- ⊙ About 24.84 lakh girl students in government elementary schools supplied uniform free of cost through village education committees.
- ⊙ To develop and safeguard Oriya language and culture 'Oriya Bhasa Pratisthan' established.
- ⊙ A new programme called Education Satellite (EDUSAT) launched in the state from October - 2005 to support elementary and secondary education.

Higher Education : Setting Standards

- ⊙ A Uniform Academic Calendar framed for all degree colleges.
- ⊙ An increasing number of colleges being put under assessment of National Association and Accreditation Council (NAAC) to study the quality of education in colleges.

- Five Non-Government aided colleges declared as autonomous apart from the existing 18.
- Ravenshaw University Act, 2005 passed in Orissa Legislative Assembly.
- Establishment of a National Law University under active consideration.
- Admission in 15 different trades allowed in vocational institutions.
- Rs.35 crores allocated for developmental activities to be undertaken in different Universities during 2006-07.
- Uniform Dress Code introduced in all autonomous colleges from academic session 2005-06.

Commerce & Transport : Formulating a Pragmatic Port Policy

- A sum of Rs.404.87 crores collected as M.V. Tax against the target of Rs.400 crore upto March, 2006, with 101% achievement.
- Pension cells constituted for sanction of pension of retired S.T.S. employees and 2128 cases disposed by end of March, 2006.
- Gopalpur Port to be developed as an all weather port.
- L & T and TISCO taken up joint plan to construct a big international standard port at Dhamra.
- Three new trains introduced by Railways namely Sampark Kranti Express from Bhubaneswar to New Delhi, A New DMU Passenger train and another passenger train from Cuttack to Paradeep during the year 2005-06.
- Smart card based driving licenses and registration certificates to be issued in all RTO offices soon.
- 10 RTO offices and 7 checkgates alongwith State Transport Authority computerized.

Labour & Employment : Stimulating Employment Opportunities

- Full medical care extended to the industrial labourers and their family members through a network of ESI hospitals and dispensaries. Rs.1,02,66,000 approved for payment for the year 2005-06 towards reimbursement cost of treatment of ESI beneficiaries from Revolving Corpus Fund.
- Child labours employed in hazardous jobs released and admitted under National Child Labour Project Scheme for being imparted formal education and vocational training.
- 22 model carrier corners and 12 students information Bureaus in women colleges and girls high schools in tribal and backward districts opened for utilization by girl students.
- 18 Child Labour Projects functioning in 18 districts of the State. Till now, 33,843 child labours admitted in special schools run by National Child labour Projects and 64,885 child labours mainstreamed to formal schooling system.
- Minimum Wages payable to unskilled, semi-skilled, skilled and highly skilled categories of workers increased.
- Under the direct supervision of Chief Minister, State Employment Mission in association with Directorate of Technical Education and Training, launched vocational training programmes for both educated and semi-educated unemployed youth. 4225 candidates being trained for skilling and re-skilling in various market friendly courses.



Fishery & Animal Resources Development : Strengthening Rural Economy

- Following the objectives set out in "State Agriculture Policy" and by adopting new scientific technology, emphasis on milk, fish & meat production laid. 
- Total milk production per day touches 36 lakh litres, up by 3 lakh litres.
- All 30 districts of the state, covered by Orissa Milk Federation (OMFED) to promote dairy farming. OMFED increased its milk procurement substantially to 2.70 lakh litres per day.
- Under STEP programme, OMFED is running 'Women Diary Projects' in 17 districts.
- 837 women diary cooperative societies comprising 60,287 women formed in the State.
- Under RLTA, Rs.350 lakh released in the year 2005-06 for milk production and allied activities in KBK districts.
- OMFED aims at achieving milk production of 3.50 lakh litres per day and for creating self employment for 10,000 rural farmers during 2006-07.
- For scientific pisciculture in reservoirs, a 'State Reservoir Fishery Policy' approved.
- Under RLTA, 13 reservoirs having water spread area of 5709 hectares taken up for pisciculture development in KBK districts.
- During 2005-06, 101 reservoirs taken up under pisciculture through Fishermen Cooperative Societies and Self Help Groups.

Information & Public Relations : Improving People's Access to Information

- In order to promote transparency and accountability in the system of Governance,

the Right to Information Act, 2005 implemented effectively in the State from 12th October, 2005 with Information & Public Relations as the nodal department for implementation.

- For proactive disclosure required under the provisions of the Act, all the Government Departments making information available through the State Government websites.
- Orissa Information Commission constituted and started functioning.
- 'Oriya Film and Cultural Festival' organized successfully in Mumbai in January, 2006 as a part of inter-state cultural exchange programme.
- A developmental feature "Ama Katha - Odissa Katha" being telecast every Saturday through Doordarshan, Bhubaneswar.
- A multi-pronged strategy adopted to gather feedback on the implementation of developmental programmes.

Sports & Youth Services : Promoting Sports Talents

- To provide nutrient balanced diets to inmates of sports hostels, the monthly stipend per month per inmate increased from Rs.1200 to Rs.2250 from January 1, 2006.
- Toiletry allowances of Rs.100 per month introduced for girl inmates from January 7, 2006.
- An international standard swimming pool constructed inside Kalinga Stadium to promote the sport. Built at a cost of about Rs.2.72 crore, this will soon be converted into a composite Aqua-Sports Complex with construction of Diving Pool and Practice Pool. 
- Orissa delegates visited Port-Blair under

Inter-State Youth Exchange Programme from February 13 to March 7, 2006.

- The relaying work of Synthetic Astroturf in the field of sports Hostel, Panposh under progress.
- To develop and maintain Sports Infrastructure in the state, a sum of Rs.465.79 lakh allocated in State Budget for 2006-07.
- Biju Patnaik Sports & Bravery Award - 2006 conferred on eminent sports persons of the State including Shradhanjali Samantaray, presently captain of Indian women football team.
- All India Kalinga Cup Football Tournament revived.
- Proposal to set up a State Sports Academy for Hockey & Athletics inside Kalinga Stadium at an estimated cost of about Rs.20 crore approved in principle.
- 221 outstanding sports persons of the state received cash incentives for the year 2004-05 and 2005-06.

Home : Maintaining Law & Order

- Law and Order situation of the State during 2005-06 remained peaceful and communal harmony prevailed during the period.
- Modernisation of Orissa Police going on at a fast pace. An allocation of Rs.235.62 crore spent during the period 2000-2005.
- The State Forensic Science Laboratories being equipped with modern equipments.
- As a mark of commitment to make justice accessible to grassroots level, 17 Fast Track Court Buildings constructed during 2005.
- Modernisation of prison infrastructure and providing better healthcare to the inmates going on.
- To combat the menace of naxalism, appropriate strategies evolved.

Law : Justice for All

- Eight special Judge (vigilance) Courts to open in phases as a measure to provide justice to all.
- 446 Lok Adalats organized to dispose of about 91,000 cases.
- Legal Awareness camps being organized to create legal awareness among rural and tribal people.
- Sri Jagannath Temple Act amended with senior officials like Chief Administrator in the rank of Commissioner, given the charge to strengthen temple Administration.

Textile & Handlooms : Weaving Success

- Nearly 2.00 crores of Handloom fabrics by the primary cooperative societies and apex societies marketed through Direct Marketing in Exhibition at the National, State and District levels last year.



- A pilot project for building sustainable livelihood of weavers and sericulture farmers under World Bank assisted Orissa fund for Development Initiatives with a project cost of about Rs.5 crore started with effect from April 2006.
- To promote handloom products worldwide, the state participated for the first time in international marketing events like Gift Fair-Mumbai, IFTEX-Delhi and Heimtextil-frankfurt.
- Status of state TDCC granted to Orissa Cooperative Tassar & Silk Federation (serified) by Ministry of Tribal Affairs, Govt. of India.
- During 10th plan, sericulture sector provided employment to around 18,000 families with additional annual income of Rs.9000 per family. This includes 10,000 SC & ST farmers in Tassar, Eri and Mulberry cultivation.

Planning & Co-ordination : Evolving Sustainable Strategies

- ⊙ A Revised Long Term Action Plan (RLTAP) formulated for the KBK districts namely, Koraput, Malkangiri, Nawarangpur, Rayagada, Balangir, Sonapur, Kalahandi and Nuapada with the core objectives of drought proofing, development saturation, poverty alleviation and improved quality of life of the people.
- ⊙ Ganjam, Mayurbhanj, Gajapati, Keonjhar and Sundargarh districts included in Backward Districts Initiatives (BDI) of Rastriya Sam Vikas Yojana (RSVY).
- ⊙ A special Rural Connectivity Programme for the KBK districts conceptualised.
- ⊙ In evolving a poverty reduction strategy, a Poverty Task Force constituted.

General Administration : Accelerating Governance Initiatives

- ⊙ A programme for improving Transparency and Accountability by making available required information to the citizens through the web, launched in the state involving nine Departments and nine districts on a pilot basis.



- ⊙ Implementation of National e-Governance plan to enable delivery of citizen's services through one stop shop under implementation.
- ⊙ Assistance to the tune of Rs. 1,83,22,966/- and Rs.2,08,34,763/- provided from the Chief Minister's Relief Fund in favour of 1885 and 2105 indigent applicants for treatment of major ailments during 2004-05 and 2005-06.

- ⊙ A sum of Rs.4,30,000/- and Rs.23,30,000/- provided from Chief Ministers Relief Fund to the next of the kins of 43 and 233 victims killed in Heat wave during 2004-05 and 2005-06.
- ⊙ Assistance to the tune of Rs.1 crore provided from CMRF for the relief and restoration of earth-quake hit Jammu & Kashmir during 2005-06.

Works : Strengthening Infrastructure

- ⊙ Efforts on to improve physical connectivity in the state by construction, improvement, repair and maintenance of roads and bridges of State Highways, National Highways & Major District Roads.
- ⊙ 8 Bridges and 221 kms of road completed during 2005-06 by December 2005.
- ⊙ Government of India sanctioned Rs.43.5 crore during 2004-05 and Rs.17 crore for 2005-06 to take up 6 road projects and 2 industrial road projects with a total length of 100 km.
- ⊙ With a view to provide quality road for upcoming industries in the state under Economic Importance Scheme, roads being improved with an estimated cost of Rs.210 crore in 3 years commencing from 2005-06.
- ⊙ Target set to complete 22 bridges and improve 475 km of roads with an outlay of Rs.223 crore during 2006-07.



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EDITORIAL



Change is the spice of the civilisation. The subtle change begets many possibilities. Many changes have taken place during the last two years to improve the socio-economic condition of the people. In the fields of agriculture, water resources, women & child development, industries, steel & mines, ST, SC & Backward Classes development, education, information technology and other sectors there has been perceptible progress. The concept of good governance has already become the abiding principle. Transparency and accountability have set in. The perception of the people creates confidence in the system of governance. No doubt government's intervention facilitates the path for progress. But it is the people whose participatory role materialises the fruits of development to be experienced. Under a dynamic and visionary leadership of the Chief Minister of Orissa the trend of growth treads on. The feeling is quite comfortable. May it be investors, opinion makers or the people, every corner recognises the change. The May issue of Orissa Review attempts to project these changes in a succinct manner. We hope, it will be of interest to readers.

Narankar Sekhar Panda