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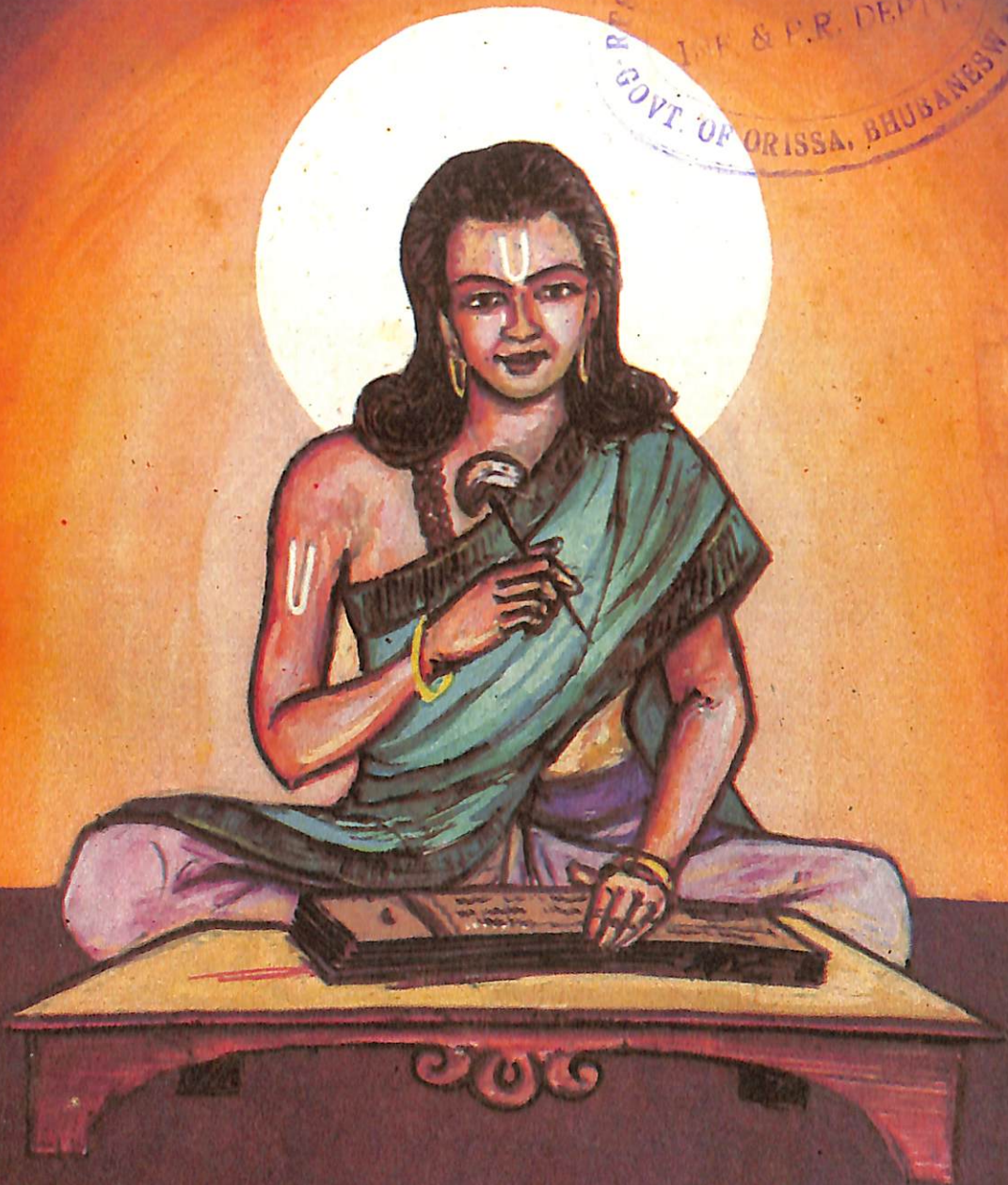
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ORISSA REVIEW

MAY - JUNE-2000

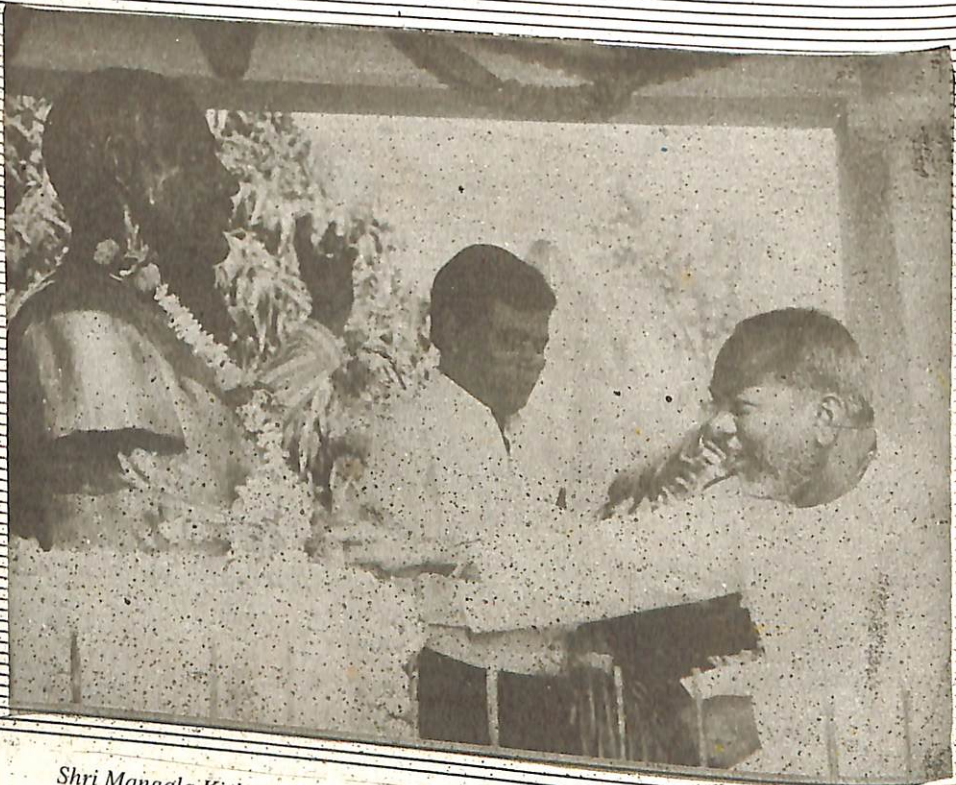


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Chief Minister Shri Naveen Patnaik discussing with the representatives of U.N.D.P. reconstruction programme in the cyclone affected areas on 27.3.2000.



Shri Mangala Kishan, Minister, ST & SC Deve. & Minorities & Backward Classes Welfare garlanding the statue of Sahid Laxman Naik at Adivasi ground in Bhubaneswar on the occasion of 58th Sahid Day on 29.3.2000.



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JAYADEV: HIS VISION AND RESOLUTION IN *GITAGOVINDA*

Rajkishore Mishra

Jayadev, a poet, musician and dance-composer, made a unique contribution to the cultural ethos of Orissa through his famous lyric, *Gitagovinda*, which displays a sophisticated blending of 'alliterative diction, ravishing music, romantic milieu and voluptuous imagery'. Its impact is so profound, particularly in Orissa, that it has become the prime prop of the Odissi dance which has received international acclaim as a novel classical dance-form, more lyrical and graceful than the earlier genres of Karnataki and Hindustani. Its impact is astoundingly perceived in the art-motifs whether on the *patta* paintings or on the stones embellished in Orissan temples. As an ardent practiser of Srivaishnav and Nimbark schools of Vaishnavism, he extolled his Jagadisa-Jagannath as Krsna-incarnate, from whom has bodied forth incarnations, particularly ten, in various dispensations. The poet in him yearned for glorification of the Krsna-self of Jagannath in an esoteric plane with a queer extended creative imagination. Lest he would be misunderstood for his intrusion into the spiritual realm of the *Parambrahman*, he has made his stand clear from the very beginning and exhorted the readers/viewers to approach it in right perspective. His hard conditions are :

- (I) if you are in a state of blissfulness to ruminant on divine sport
- (II) if you are sensible and curious to share sensuous poetic experience, you can

then only have the privilege of accessing to this sophisticated treatise. Right from the preamble and the first canto, he has been repeatedly voicing his concern for the readers and emphasising his view-points that :

- (i) it is an 'auspicious heightened music': *Mangal ujval gita* 2/8
- (ii) It is strange and secret amorous sport of Kesav: *raha keli*
- (iii) Here, the protagonist is 'manifestation of sensuousness': *murtiman Srngar* 3/8
- (iv) The *Lila* or sport is to be enacted in the individual mind: *manasa nataniyam*

The poet reinforces his viewpoint that the very purpose of this lyrical pastoral romance of Krsna is to carve out a niche in the heart of an admirer for godhead.

He has confessed with all humility that while composing this text, he has been transformed to that of 'an artful tender maid' (*Haricaranasara Jayadevkavibharati komalalakavati yuvatiriba*) (13/8)

The protagonist whom he depicts in the mosaic of his imagination is a potent hero but with some difference. In the *Dasavata*r hymn he has at length portrayed the astounding feats of his hero – his valour, his mutability, his control over Time, Space and various other

dimensions. Such is the hero of his who now volunteers himself to engage in a vernal sport as suggested in the *Srimad Bhagavat* of Krsnadwipayana Vyasadev and in some of the *Purans* which had made this theme rather popular. What actually lacked in them was its embellishment and transcendence to that of the height of poesy and of literary artefact. Jayadev flourished at a time when the practice of 'adding music to literature' was rather a novelty and more so, in Orissa itself. Of course, two centuries later, we find epics getting 'loaded with assonances and alliterations for artificial rhythms (becoming) obsessed with a voluptuous brooding on sex'.

Gitagovinda is enacted on a timeframe of thirtysix hours which include two nights and a day in the spring season. Love and consummation of love is its predominant theme. God, the Creator who could appear in different forms of physical manifestations to protect the Universe, the Logos in peril and the created beings from the teeth of impending menace at various 'loops in time'—has been most artistically and aesthetically chosen by the poet as his epic hero. It was He who lifted a hill in His little finger and held it aloft for a week. It was He who held a discus in His little finger as a powerful missile—automation to crush the Evil and it was He who held a bamboo flute in all his fingers to breathe into it the music of life and soul.

Kavireva prajapatih - just like the Creator, Jayadev as a creative genius recreates a world of his own and uses multiple colours to paint his protagonist in his twelve cantos where the hero emerges as *Samoda* (full of delight), *aklesa* (without any sorrow), *mugdha* (enraptured), *snigdha* (in a state of peace and happiness), *sakanksa* (full of desire), *dhirsta* (a bit silly and aggressive), *nagara* (in love), *vilaksa* (bewildered), *mugdha* (enraptured), *sananda* (full of joy), and finally *suprita*

(wholly pleased and graceful). The protagonist uses his amorous arm to effect complete subjugation of his consort Radha. The climax is achieved when the poet establishes his full control over his main character and almost summons him to prostrate before his object of love ... *dehi padapallavamudaram*. This places Jayadev as the precursor of Gaudiya Vaisnavism which would sweep Orissa four centuries later.

Like the autumnal *rasa* of Srikrnsa in the *Bhagavat*, Jayadev here introduces Krsna's spring-time sport in the light and shade of radiant nature where the landscape intuitively becomes a living character to lend its grace and charm and revivification of various impulses. The 386 verses which run through the artistry of 24 songs are the outcome of matured literary craftsmanship and an endowment of a most sublime vision. With tremendous race of mind, Jayadev wriggles out of his own snare which of course happens with most of the masterwriters. The snare is a rainbow snare—an interplay of dictions which constructs and deconstructs the little professed emotions. This he achieves, probably because of his resignation — *manasa nataniyam*. A devout poet does not necessarily tutor his mind to transcend the physical plane in order to station himself in a metaphysical plane. He does achieve it in a mystic mix of religious experience and sublimation of gross physical and sensory perceptions. A powerful imaginative impulse animates and sweetens the imagined objects, places and characters. This helps him to achieve immediacy, progression and silent eloquence. The opening verse "*meghei-rmeduramambaram vanabhuvah syamastamala-drumeih/rnaktam bhirurayam tvameva tadimam Radhe grham prapaya* etc. thus sets the locale, the flux of time, the main character who will gradually reveal its active principles, the recipient of bliss and the suggestive nuances. The

principal character is not named, rather veiled. The seemingly matron (i.e. Radha) now active, will certainly turn out to be a passive one as the romances glide along. This indeed sets the tune in perfect symmetry.

The poet immediately after this, humbly retreats to his poetic confines where he exposes his own interiorised mind which gets steeped in the bounty of the goddess of Poesy (*Vakdevata*). This transformation spurs him to delineate the divine eros of Vasudeva. Now, in a tranced state, he is no more different from *Vak-devata Sarasvati*, rather he is Jayadeva-Sarasvati himself, just an attending maid in the pleasure-paradise of Madhav, of the Creator.

Such are the artistry, the craftsmanship, the charmed diction, the in-built musicality, the mellifluity, the lyrical and graceful embellishment that prompted scholars world over to look forward to its enactment and recital for a unique blissful experience.

The text has been translated into German by F H Van Dalberg, Friederich Ruckert, F. Major and A. W. Riemenschneider.

into English by William Jones (1792), Edwin Arnold (1875), George Keyt (1940), Duncan Greenlee, Barbara Stoler Miller (1977) and by many Indo-Anglians and Indian translators. It has been translated.

into Latin by Cristianus Lassen, into French by H. Foucher (1850) & G. Curtillier (1904) and into Dutch by Faddegon (1932).

We do have a lot more translations in Indian languages, a lot more commentaries in Sanskrit from 12th century and still a lot of adaptations authored by Oriya scholars— for all of which Orissa prides herself for volubility and popularity that silences all conspired controversies regarding the nativity of the poet. The inscriptions of King Prataprudradev engraved on the Jaya-Vijay doors of Srimandir in 1499 A.D. are probably a glowing testimony to the marvel of *Gitagovinda* which is Orissa's invaluable and inviolable treasure.

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THE BIRTH ANNIVERSARY OF SHRI JAYADEV AND SANKIRTANA YATRA

The Birth Anniversary of great poet Shri Jayadev is going to be observed on the auspicious day of Askhaya Trutiya i.e. on the 6th of May, 2000. It has been decided to start the sankirtana yatra from Bhubaneswar to Puri as in the previous years on this occasion. The sankirtana troupe will follow the same route on which Shri Chaitanya and Pancha Sakha went on sankirtana pada yatra during the 2nd and 3rd decades of 16th century. The sankirtana yatra is scheduled to start in the morning of Askhaya Trutiya from the temple of Ananta Basudev at Bhubaneswar and move through Balkati, Balipatna and Kenduli, the birth place of the poet Jayadev. The troupe will make night halt at Kantapada in the district of Cuttack and on the very next day will move towards Kakatpur, via-Adasapur, Niali Madhav and Chari Chhack. Poet Jayadev used to worship Lord Madhav and Lord Siva at Madhav and Niali respectively. On the next morning this yatra will start from Kakatpur and will move via Konark, Birtung and Gop to Gundicha Mandir, Puri. On reaching Puri the troupe will perform sankirtan at Dasabatar Matha founded by the poet Jayadev, at Puri Gajapati's palace and at Shree Jagannath Temple.

The Jayanti celebrations and the yatra are being jointly organised by the State Culture Department, I. & P.R. Department and Jayadev Sanskrutika Parishad with a view to recalling the regular pada yatra of Shri Chaitanya and Pancha Sakha to the birth place of Jayadev and in the memory of their sacred endeavour to popularise Jagannath cult, eradication of untouchability and assimilation of the best elements of all religions. In the evening, colourful cultural programmes are being organised at Kenduli, Kakatpur and at Shri Gundicha Temple, Puri on 6th, 7th and 8th of May, 2000 on this occasion. A seminar on Jayadev is scheduled to be organised in the conference hall of Pantha Nivas, Bhubaneswar by the Utkal University of Culture on the 6th of May 2000.

THE LITERARY FORM OF JAYADEV'S GITAGOVINDA

Raghunath Panda

Gitagovinda is the only available recognised literary work composed by Jayadev, son of Bhojadeva and Vamadevi. As a beautiful, small, ornate *kavya* the *Gitagovinda* had earned a wide appreciation in home and abroad. Its sonorous diction and rhythmic musical excellence has created a unique place for it in the whole of the world literature, crossing the barriers of the classical Sanskrit language. The most striking factor about the popularity of *Gitagovinda* is the introduction of the 24 songs in its 12 cantos (*sargas*) designed to be sung with the help of definite *ragas* and *talas*. This has never been done earlier by any poet in Sanskrit literature, better not to say of any other Indian literature.

Due to its attractions many literary critics have tried their hand in finding out its literary genre. Thus Lassen considered the poem as a lyrical drama and Jones called it a pastoral drama. Levi regarded it as an opera and Pischel placed it in the category between song and drama. Schroder regarded it as a refined *yatra*. Keith compares it with the festival plays at Bengal which resembles the *rasa* of Mathura where the short story of *Krusnalila* is shown accompanied by song and music.¹

Further, due to the division of the poem into *sargas*, Keith finally regarded it as belonging to the generic type of *kavya*² on the subject S.K. De observes "as a creative work of art, it has a form of its own and it had defied

conventional classifications". This observation of De is almost true and near the reality, since *Gitagovinda* is an original piece of work of remarkable beauty which defies the traditional settings of *laghukavyas* or *khandakavyas*, say of the type of *Meghaduta*.³ It also does not confirm the *muktaka* type, namely, the *Rtusamhara* or even the *Nitisataka*. However no critic, Oriental or Occidental is against the idea that *Gitagovinda* is a lyrical poem, which in Indian languages called *gitakavya* or *gitikavya*.

Here, the title of the work which has been carefully chosen by Jayadev is most simple and a significant one to establish its broad category of *kavya* that too *gitakavya* as the title indicates, i.e. *Gitagovindam*. It means this is a book of songs where Govinda or the Lord Krsna who was in the roll of a cowherd was sung.

Now, therefore, it is observed here if without going to search the genre of the *kavya* outside, if the above cited critics have gone through inside the work itself along with its title, it would have been easier for them to reach at a definite conclusion. To corroborate this point of view, we can cite an introductory verse by Jayadev himself where the poet expresses his intentions in the following verse:

vagdevata-caritacirita-cittasadma
padmavati-carana-carana-cakravarti
srivasudeva-ratikeli-kathasametam
etam karoti jayadevakavi-prabandham.

It means Jayadev, who is obsessed in his heart by rhythms of the Goddess of speech (i.e. Saraswati), who sings at the lotus feet of Padma (or Laksmi) composes this *prabandha* (a type of lyrical poem) from the tales of the passionate play when Vasudeva (Krsna) loved Sri (Laksmi in the guise of Radha)

Thus, poet Jayadev's intention is very clear from the beginning regarding the subject matter going to be narrated as well as the definite style going to be undertaken for this purpose. As such the vernal love-play of Radha and Krsna is described in the 12 cantos of the *Gitagovinda* through different phases of the origin, growth, obstacles and consummation with the union of the pair.

This is all described in about 75 traditional classical Sanskrit verses cast in metres like Vasantatilaka, Sragdhara, Sardulavikridita, Harini, etc. as well as 24 songs designed to be sung in Karnata, Gujjari, Gondakiri, Desakhya, Desavaradi, Vasanta, Bhairavi, Malava, Ramakeri, Malavagauda, etc.

As regards the poet's intention of composing a *prabandha-kavya*, he has been doubly successful because of two reasons. Firstly, according to poetics smaller versified *kavyas* in Sanskrit are divided into two varieties, namely *Prabandha* and *Muktaka*. In a *Prabandha* a coherent plot structure having a story element forming the core subject of description should be there. According to which the desire, love, separation and finally union of Radha and krsna give *Gitagovinda* the shape of a *Prabandhakavya*. Secondly, from the point of view of Musicology a *Prabandha* type of song is identified as *ganavisesah prabandhah*.⁴ More over, Laksmanasuri, the author of the *Srutiranjani* commentary quoting *Sangitacudamani* says

*caturbhirddhatubhih sadbhiscangair
yasmat prabadhyate
tasmat prabandhakathito
pratapaprthivibhuja.*⁵

The four *dhatus* hinted above are (i) Udgraha, (ii) Melapaka, (iii) Dhruva and (iv) Abhoga.⁶ Later on, an additional section called 'Antara' was marked to make the *dhatus* five. Besides, the four or five *dhatus*, six *angas* or limbs were also conceived to form the part of the *prabandha* type of song. They are - (i) Svara, Biruda, Pada, Tana, Pata and Tala. Though these integral parts convey different meanings, yet they make the Prabandha-songs a united whole of distinct musical variety.⁷ All the 24 songs of *Gitagovinda* contain all the five *dhatus* and six *angas* for which the *prabandha* character of Jayadev's immortal poem *Gitagovinda* is proved beyond doubt. Poet Jayadev was a master of poetics and musicology; he was one who could mingle his expertise in both in this monumental work.

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1. A.B. Keith, *A History of Sanskrit Literature*, 1st Edn., London, 1920, p.191.
2. *Ibid.*, p.191.
3. S.K. De, *Indian Studies Past and Present*, p.647.
4. Kallinatha Commenting on *Sangitaratnakara*, Anandasrama Edn., Pune, 1985, Ch.4.
5. *Sri-Gitagovinda-Mahakavyam* with Sarvangasundari and srutiranjani Ed. B.Panda, Dept. of Culture, Bhubaneswar, 1985
6. *Sangitaratnakarah*, 4.7-10.
7. For details see, R.N. Panda, *Contribution of Orissa to Sanskrit Lyrics*, Ph.D. thesis of Utkal University, 1992, Chapter 3, pp.144-176.

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THE CHANDAN YATRA OF LORD JAGANNATH

Jagabandhu Padhi

The annual *Chandan* festival of Lord Jagannath is so called because *chandan* or sandalwood paste is smeared on the body of the deities during the entire period of festival and this is the most important ritual connected with the festival. This festival is held in the months of *Baisakh* and *Jyestha*, according to the lunar calendar, which correspond to April and May of the year. This festival has the longest duration of all other annual festivals, as it continues for a period of 21 days commencing on the 3rd day of the bright fortnight in *Baisakh* and continues upto the eighth day of the dark fortnight in *Jyestha*. The site of the festival is a large tank known as *Narendra Tank* which is found at a distance of about 1 km north of the temple of Lord Jagannath. On the 20th day, an activity called *Bhaunri* is held and on the last day the ritual is slightly different. This total period of twenty-one days is referred to as *Bahar (outer) Chandan* or *simply chandan* (the festival proper) as during these days, the deities come out of the temple premises. After the closure of the first spell of 21 days called *Bahar Chandan*, another spell of the festival extending over a period of another 21 days is held inside the temple premises at a place called *Jalakrida Mandap*. This spell is generally referred to as *Bhitar Chandan*. The last day of the festival is the 14th day of the bright fortnight in the month of *Jyestha*. It may be remembered that the next day is the full moon day called *Debasnana Purnima*, when a complete bath is enjoyed by the deities.

The first day of the festival, or the 3rd day of bright fortnight in *Baisakh* is known all over India as *Akshyay Tritiya*. It has been prescribed in various religious texts that all donations given to pious Brahmins, including those of gold and silver ornaments, paddy and other food materials, especially ghee never end and never perish. Such donations earn everlasting welfare to the donor, which ultimately leads to liberation from worldly bondage. Since this *Akshyay Tritiya* falls in hot summer season, it has also been prescribed that on this day, the holy Brahmins and pious people should be offered materials suitable for the season, i.e., umbrellas, shoes, fans, water-pots, cold drinks and sandal wood paste, which has very cooling effect should be smeared on their bodies. Besides, sandal-wood paste should also be smeared on the bodies of the deities. It is for this reason that, on this day, not only the wooden images of Jagannath, Subhadra and Balabhadra etc., but also those of the metallic images of Madan Mohan, Rama-krushna, Laksmi and Saraswati should be treated with sandal-wood paste mixed with several other incenses, which generally the human bodies require.

On the 2nd day of the fortnight, i.e., the day preceding *Akshyaya Tritiya*, large quantities of sandal-wood paste is supplied by *Ghatuari*, the concerned servitor and in the *Bhogamandap* this paste is mixed with various other incenses like *Sugru*, *Kasturi*, *Karpura*

etc to make it more scented. *Raghabadasa Matha* also supplies certain quantity of scented sandal wood paste for the purpose and this is also kept in the same room, on a wooden seat. Then the Pujapanda performs 'Adhibasa' or purification of the aforesaid quantities of scented sandal-wood paste for their use on the next day. The doors of *Bhogamandap* are then closed, locked and sealed till the next morning and the concerned 'lenka' or watchman guards over the doors.

The next day, i.e., the *Akshyaya Tritiya* day, after the morning food is offered to the wooden deities, all the deities take a bath which is called *Mahasnana* and this bath is a part of the rituals for the festival. Then the sandal wood paste kept in *Bhogamandap* is carried in several containers by specific servitors in a procession accompanied with musical instruments and divine insignia, three times around the temple and taken to *Ratna Simhasana*. After the sandal wood paste is placed on the *Simhasana*, the space in its front meant for food offerings is cleaned and some light food consisting of fruits etc. is offered to each of the wooden deities amid a worship in five *upacharas*. Then the deities are dressed afresh and decorated with various floral and golden ornaments. The sandal-wood paste placed on the *Simhasana* is applied to the deities. Then the front site is again cleaned and the food materials meant for mid-day session are carried to the spot along a befitting procession. By this time, the metallic deities of Madan Mohan and Ramakrushna stationed in *Dakshina Ghar* are also painted with sandal wood paste and offered the prescribed food. Then the metallic images are carried to the *Ratna Simhasana* and installed at appropriate places. Then the food meant for mid-day *Dhup* is offered to the deities in a worship with sixteen *upacharas*. After the space is cleaned, all the deities are welcomed with *Bandapana*. After receiving command (*Ajnamala*), all the

metallic deities are carried to the specified place near *Jhulan Mandap* and seated in their respective vehicles. While Madan Mohan (a two-armed Krushna image holding flute - representing Jagannath) is seated on a *Bimana* (a chariot carried on human shoulders) along with Laksmi (Sridebi) and Saraswati (Bhudebi or Dhara or Biswadhatri), Rama and Krushna are placed on a palanquin. Then the *Bimana* and the *Palinki* (palanquin) are carried by respective *Bimana Badus* (specified servitors) to the Narendra Tank along the Lions gate, grand road and Jagannath Ballabh Math amid great rejoice in a grand procession. It is both a pleasure and an act of devotion to accompany the deities from the temple to the Narendra Tank, Chanting devotional songs, *strotras* and sacred names (Nama-sankirtan) and shouting 'victory' and *Haribol*. Large-sized open sheds one erected on the way at strategic places, where the *Bimana* and the *Palinki* are stationed for a while to symbolise rest of the deities. These sheds are beautifully decorated with various auspicious materials, especially fruits and different leaves and fitted with open gates. On the way, the deities are offered light food at various places. The metallic images of *shiva* representing five chief linga deities, known as *Pancha Pandabs* also accompany the *Bimana* and *Palinki* in their separate *Bimanas*.

For the festival, two *chapas* (boat-houses) are prepared and kept in the tank, each by joining together two boats and erecting an wooden structure over them. The structure is divided in two parts, the front portion having a flat roof and rear portion with a pyramidal roof. An wooden pavillion is installed in the rear part of each *chapa*, where the deities are seated. These *chapas* are beautifully decorated with silken clothes tailored skillfully to cover the frame and filled with various auspicious designs and flags. While the first *chapa* is wrapped with red colour clothes, the second *chapa* is covered in white. In the first *chapa*

are seated the images of Rama and Krushna along with the five Shivas (Pancha Pandabas) and in the second *Chapa*, Madan Mohan, Laksmi and Saraswati sit.

After the deities arrive in the *Chakada* (open space) in front of the tank, plain water mixed with Karpur (camphor) is prepared and offered to the deities. Then the deities are carried to their respective *chapas* and after observing some minor formalities and offering betel leaves, the *Chapas* are rowed in the tank, a small boat carrying the musicians moving first. The servitors sing devotional songs and specific fire-works are burnt. The *Chapas* move around the tank. When they reach the starting point, the deities Rama and Krushna are carried from the first *Chapa* to the second *Chapa*, where all the deities now in the second *Chapa* are welcomed with a *Bandapana* and *Chamara Alata* service. Then the deities are carried to the Chandan Ghar, popularly called *Jagati*, a masonry structure inside the tank consisting of a big room, a kitchen, two bathrooms and a spacious verandah.

In the *Chandan Ghar*, all the deities bathe in their respective *kundas* (bath tubs), the water of which is scented with sandal wood paste and other incenses. After dipping in the tubs for a while, Rama and Krushna are carried to the central hall join Madan Mohan, Laksmi and Saraswati, where all the deities are dried and dressed. Plain flower garlands are put on them. Then a light tiffin is offered to the deities after which they are decorated afresh with golden ornaments. Thereafter the deities are worshipped again and a special sweet dish called *Mandua*, prepared in the adjoining kitchen is offered to them. Then after offering of betel leaves, the deities are again carried to their respective *chapas*. This time the *Chapas* make three rounds each of the tank. Then the deities are placed in their respective vehicles are carried back to the temple in the same process. Some minor *rites* are performed in

the Dakshin Ghar after which the deities return to their original places.

While the metallic images as aforesaid undertake the cruise in the Narendra Tank, the wooden images in the temple also receive same special and befitting treatments suitable for the occasion. After the evening session, all the doors of *Jagamohan* (Mukhasala) are closed and the lights are put off. The deities take off their usual silken clothes and wear cotton dress, along with flowers and karpur. Then the deities are served with *Alata* (fan) by the specific servitors for a while. A lady singer sings prescribed songs at that time at the Kalahata gate. This particular ritual is called *Alata Lagi*. While this *Alata Lagi* is performed only once on the first day, it is held twice on the rest 41 days, once after Bhoga Mandap and then after Sandhya Dhup.

The twentieth day or the *Bhaunri* is the most pleasurable day during the festival, for which the tank as well as the *Chandan Ghar* are well decorated. On that day, during the second cruise, called *Ratri Chapa*, the *chapas* make several rounds at different places in their own axis. It is prescribed in the texts that the *chapas* should make 21 rounds in seven spots. On the 21st day, the cruise is performed only once after which the deities play with coloured water made of turmeric. This is called *Haldipani*.

During *Bhitar Chandan* days, while smearing of sandal-wood paste and *Alata Lagi* continues for the wooden images, the metallic images of Madan Mohan, Laksmi and Saraswati are carried to the *Jalakrida Mandap* in a palanquin on only 4 days, i.e., the 11th day of dark fortnight of *Jyestha*, the new moon day, the 6th day of bright fortnight and the 11th day of bright fortnight of the same month. There is a kunda in the aforesaid *Jalakrida Mandap* which is kept filled up with water before arrival of the deities and scented with

flowers and incenses. A sweet drink is also offered to the deities while in the bath-tub.

This is in short a complete picture of the rituals connected with *Chandan Yatra* observed in the temple of Lord Jagannath. But *Chandan Yatra* is not found observed in other parts of India and it is not described in any of the *Puranas* or older religious texts. Scholars believe it to be an Orissan innovation and of late origin. It is also interesting to find this festival being observed in most of the established shrines in almost all villages of coastal Orissa, connected with various deities and their shrines in the village. The festival is mostly *vaishnavite* and the tradition of observing this festival in different shrines of Orissa existing in various villages must have grown subsequently after introduction of the festival in Jagannath Temple. Utkal Khanda of *Skanda Purana*, which is considered to be the most authentic text about the shrine of Lord Jagannath and the oldest as well, does not speak of *Chandan Yatra*, though it includes *Akshaya Tritiya* among the twelve festivals of Jagannath and simply prescribes that on that day a huge quantity of scented sandal wood paste should be applied on the body of the deities and for that the paste should be well-prepared and consecrated (*Adhibasa*), the previous day in the midnight. Yatra Bhagabata of Maguni Pathi for the first time mentions about *Nabakrida*, a boat drive for 21 days in a tank, without mentioning the name of the tank. Interestingly in yatra Bhagabata, the images partaking *Chandan Yatra* are those of Radha-Krushna and none else. Reference of the five Siva images is not there. Such reference is also not available in *Bamadeba Sanhita* another sanakrit text of later origin about the rituals of Lord Jagannath temple, although it says that the metallic images of Krushna, Rama, Lakshmi and Prithvi partake in the festival for 21 days under the command of the wooden images. Niladri Mahodaya a later work however gives a full detail about the rituals

observed in the temple, which were or less confirm to the state of affairs of the present day. It prescribes that the images taking part in the festival are Madan Gopal, Rama (single image), Lakshmi Prithvi and five Mahadebas.

As stated earlier, the first day of the festival has been described as very auspicious and the sanctity of this day has been eulogised in high terms in *Brahma Purana*, *Agni Purana*, *Matsya Purana*, *Bhavisya Purana*, *Padma Purana* and many others. It has also been stated in *Padma* and *Matsya Purana* that Satya age has commenced on this day and from this day, the vedic religion has been introduced in the earth. It has also been said that on this day, the heavenly river Ganga had descended from heaven and started flowing in the earth. *Matsya Purana* says that God Vishnu had produced *vava* (barley crop) on this day, for which donation of *vava* grains to Brahmins and saint. On this day brings prosperity to the donor. It has also been prescribed in various texts that by bathing in Ganga river on this day, one earns a number of merits and piety and by offering umbrellas, fans, shoes, etc., the forefathers are pleased. It has also been mentioned that on this day three incarnations of Lord Vishnu as Nara-Narayan, Parsuram and Hayagriva were born and for that their birth days are celebrated on this day.

Since the day is very auspicious, a number of vital activities commence this day. In Jagannath temple itself, construction of the cars for the wooden deities for car festival commence this day and a forest sacrifice is held. Cultivators start sowing seeds in their fields this day for the annual crops. Philanthropic institutions, welfare organisations and other social bodies commence their important activities on this day.

In the Dharmasastras or religious texts, of all offerings, that of sandal-wood paste on the *Akshaya Tritiya* day has been very highly

valued and praised; people make this offering with the hope of securing perennial prosperity. On this day, *chandan* is applied to all Vishnu images. The extension of the festival for a period of 21 days and then to 42 days seems to be a later development. Even, on the 1st day of dark fortnight of *Chaitra*(March), a symbolic commencement of the Chandan festival takes place in Narendra Tank. Sandalwood paste itself being very pleasant and

comfortable for the ordinary humanbeing, it is offered to gods and gooddess as well- *yatha dehe tatha debe*. Jagannath being the presiding deity of Orissa, He is annointed with sandalwood paste on this occasion

Secretary, Sri Nilachala Tatwasandhan Parisad
Balabhadra Lane, Puri

MEMORANDUM OF INTENT SIGNED FOR GOPALPUR L.N.G. PROJECT

A Memorandum of Intent was signed between AL-Manhal International Group (AMIG) of United Arab Emiretaus and Australia LNG (ALNG) for a port-based LNG Project at Gopalpur. The document was signed by Mr. Arthur Dixon, President of ALNG and Mr. Rashed AL Dhaheri, Managing Director, AMIG on 27th April, 2000 at Chief Minister Conference Hall in the presence of Chief Minister, Shri Naveen Patnaik and Minister, Industries, Shri Kanak Bardhan Singhdeo. As per the agreement, ALNG will supply 5 million MT liquified Natural Gas annual to Gopalpur for a period of 20 years.

AMIG has shown interest to set up a large port-based LNG complex at Gopalpur consisting of a 2000 to 2500 MW power project, 1.2 MT per annum Fertilizer Project. 2.5 MT per annum Naptha cum Gas Cracker based Petro-Chemical Complex and Gas pipe line network to Andhra Pradesh, Tamilnadu and Uttar Pradesh at a total capital outlay of approximately 7400 million dollars.

AMIG and IPICOL have signed an MOU on 7.12.97 for promoting the projects. A joint venture agreement was signed between IPICOL and AMIG on 13.1.2000 to promote the power company. IPICOL will have a stake of 51% of equity in the company which will be raised by AMIG.

AMIG will undertake repayment of both the Principal and interest with no liability to IPICOL. AMIG will offer 2% free equity to IPICOL as a good gesture in all the companies. IPICOL will have the option of contributing 3% of equity to one or all the companies.

For receiving the Liquified Natural Gas, Gopalpur Port will have facility to handle the cryogenic LNG carriers. The representatives of AMIG and ALNG visisted the Gopalpur Port on 28th April, 2000 an area of about 3200 acres of land shall be acquired through IDCO at Gopalpur for the entire complex.

MIS Gopalpur LNG Ltd. is a joint venture of AMIG, MIS Vavasi oil & Gas and IPICOL. It includes two pipelines, the first being 120 km. Length commencing from Gopalpur and culminating at Auraiya and second being a 1600 km pipeline commencing from Gopalpur, running the east coast in the South-ward direction linking two cities Bangalaore and Hyderabad.

Chief Secretary, Shri S.M. Patnaik, Principal Secretary, Industries Miss. Meena Gupta, Principal Secretary, Energy, Shri D.N.Padhy, Secretary Commerce & Transport, Shri N.C. Badudevan, M.D. IDCOL, MD, IPICOL and Addl. Secretary, Industries Mr. T.Ramachandru were also present.

It may be noted that AMIG is a private company founded in 1994 and based in Abu Dhabi. The main activities of the company are investment, structured finance and promoting energy related projects. ALNG is a consortium of six fortune 500 companies including Shell, Sheveron, Mitsubishi, Mitsui, British Petroleum etc.

BHAGAWAN BUDDHA AND ORISSA

C.B. Patel

The advent of Bhagawan Buddha in the 6th century B.C. is a remarkable phenomenon in the firmament of world religion. His mother Maya had a dream in which she dreamt a white elephant entering her body which was interpreted by the Brahmins as the conception of a son destined to become either a universal Samrat or Buddha, the enlightened one. It is difficult to comprehend the truth attained by Tathagata who had struggled for it for several aeons or ages (*kalpa*) to show the path of *nirvan* or *Mokshya* to the suffering humanity. He appeared on earth to keep beings to attain the *Tathagata* knowledge and insight which may be equated to omniscience (*Sarvajnata*).

From his childhood, Buddha exhibited a contemplative nature. The sights of a decrepit old man, a sick man and a dead body made him realise the *dukkha*, or the miseries of existence. On seeing the serene face of an ascetic on the 4th occasion he decided to renounce the world leaving aside the luxurious princely life. In Buddhist literature this incident, the Great Departure, was the beginning of the great life mission of Buddha in order to help the mankind get freedom from the cycle of rebirth. Buddha received a bundle of grass from the grasscutter's *svastika* and made a seat under a *pipal* tree, which later came to be known as the *Bodhi Tree*, the original point of Mahabodhi society. Thwarting the *maya* of Mara, the God of passions, he attained perfect enlightenment after years of severe penance. From this time till his death, Buddha led an active missionary life wandering ceaselessly from place to place in Madhyadesa preaching his Dharma to all without distinction except *varsavas* of three

months in one place in rainy season. The present Mahabodhi society is now rightly lighting the torch of the great missionary tradition started by Bhagawan Buddha for amelioration of the affliction of mankind. From about 3rd, 2nd century B.C., the stream of Buddhism that received the impetus and impress from Emperor Ashoka is thus still found flowing in Orissa quietly without being affected by the political changes.

The horrors of Kalinga war changed the course of human history and the message of Buddhism reverberated the ears of Asoka who gave up his ambition of *Digvijaya* in favour of *Dharma Vijaya* and became *Dharmasoka* from *Chandasoka*.

This event changed the course and scope of Buddhism not only in India but in the whole of the world from Volga to Japan making Bhagawan Buddha the light of Asia.

It is a matter of pride and glory that Orissa is intimately associated with Buddhism since its inception. Tapasu and Bhallika, the two merchant brothers of Uktaladesa while going to Madhyadesa with their caravan of 500 carts, in business trip, gave food to Buddha after his enlightenment in the forest of Uruvela. They also became his first lay disciples. They took hair relic and nail relics of Buddha and established stupas on the ancient Sarthavahapatha (trade route) leading from Utkal through south Kosala to Madhyabharata. In the Maraguda Valley of Nawapada district the ruins of ancient Kosalanagari has been discovered by Orissa State Archaeology. Many monasteries including a Buddhist stupa have been brought to light by excavations. This Kosalanagari was

located on the ancient trade route. Hiuen Tsang visited this city in 7th century A.D. and described about the existence of a stupa here. The said stupa dug out in Deol, Dongar furnished evidence to its construction in two successive periods. This seems to have contained "ash relics" of Buddha. Like Sanchi stupa, the stupa of Maraguda was known to have been constructed by the traders who passed through this dense plateau jungle route. A Muchalinda Buddha image has also been recovered from this site. Muchalinda was a Naga king who once protected Bhagawan Buddha from a downpour with his hoods. Recent researchers have indicated that Buddha had visited South Kosala kingdom and capital city in his life time. This is evident from the reference in the Sanskrit Buddhist literature of Nepal written by Rajendralal Mitra. From this source it is known that Buddha spent three months in the capital city of South Kosala which is being identified as the present Maraguda valley where even we have been city ruins spreading over 10-15 kilometres radius area between Pathora Dam and Goddhas Fall as described by Hiuen Tsang. Steps are being taken to bring to light the hitherto unknown aspect of Buddhism to Maraguda valley by extensive excavations and development of the site as a tourist resort by way of preserving the excavated stupa for tourist and visiting Buddhist pilgrims. The theory of visit of Buddha to Kosalanagari is further corroborated by similar existence of Muchalinda Buddha at Ganiapali near Melchhamunda in Bargarh district alongwith ruins of a Buddha Vihar. It seems to commemorate the visit of Buddha to South Kosala, a river has been named as Rahul after his son's name. These indications are subjects of further research and involvement of world Buddhist agencies like Mahabodhi Society. In fact, the panoramic Marguda valley of hills and dales is a befitting place of nourishment of Buddhism. Even Hiuen Tsang who has visited the place in first half of the 7th Century A.D. described about the existence of 100 Buddhist monasteries and about 10,000 brethren all Mahajanist. He refers to an old

monastery with an Asokan Tope which perhaps represents the same excavated stupa of Deol, Dongar. Archaeological activities in this part have also brought to light many new aspects of *Vajrajana*, *Kalachakrajana*, *Tantrajana* and *Sahajajana*. In fact, this region is the cradle of Buddhism of Orissa. Great Buddhist luminaries like Nagarjuna, Aswaghosa, Jalendra, Indrabhuti and Laxmikera have also flourished in this part and contributed immensely to the Buddhist Culture.

In the sphere of the Buddhist art and architecture, Orissa is intimately associated with Buddhism. The story of Buddha's birth has been depicted live at Dhauli. He was known to have entered his mother's womb as a beautiful white elephant. The forepart of the well modelled elephant hewn out of solid rock above the Asokan inscription of Dhauli represents this incident in the medium of plastic art. The colossal Sivalinga enshrined in the Bhaskareswar temple of Bhubaneswar has been indentified as an Asokan pillar along with the weathered lion capital and railing pillars. Numerous fine sculptures of Buddha, Dhyani Buddhas, Avalokitesvara, Tara, Vajrapani, Maitreya, Manjusri, Jambala, Heruka, Yamari and Aparajita etc. found at various Buddhist centres of Orissa testify to the Buddhist artistic excellence and exuberance of Orissa.

In the sphere of literature, Jnanasidhi of Siddha Indrabhuti, King of Sambala (i.e. Sambalpur) occupies an outstanding place blending Buddhism with the Jagannath cult. The invocatory verse starts with an invocation to Lord Jagannath, the Bhagawan of Buddhist saints— *Pranipatyā Jagannatham Sarvajina Varavchitam Sarvam Buddhamayam Siddhi Vyapinam Gaganopamam*. Subsequently, Bhagawan Buddha was incorporated into the Jagannath cult; He is regarded as an incarnation of Lord Jagannath. This how Buddhism has been assimilated into the Jagannath cult.

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CENSUS OF INDIA 2001 : HOUSELISTING OPERATION IN ORISSA

Manoranjan Saran

Indian Census System has achieved an excellence and it can be acclaimed as one of the greatest administrative exercises. It displays a brilliant illustration of co-operation between the Central and State/Union Territory Governments. This is a quite challenging task which had its origin during the British Rule.

The ensuing Census of 2001 would be the 14th Decennial Census of India and the 6th since Independence. This would also be the 1st Millennium Census. This Census would be conducted under the authority of Census Act, 1948. Government of India has already declared its intention to undertake population census of 2001 with 1st March 2001 (zero hour between 28th February and 1st March, 2001) as the reference date under section 3 of the Census Act, 1948.

Census operations all over the country are conducted under the over all direction, guidance and supervision of the Registrar General and Census Commissioner of India. In the State, the Director of Census Operations who is the Chief Principal Census Officer conducts the Census with the co-operation and assistance of the State Government. Notification assigning specific responsibility to different officers of the State Government has already been issued by Government of Orissa. For example, the Collectors have been appointed as Principal Census Officers, Additional District Magistrates as District Census officers, Municipal Executive Officers

of six big cities like Bhubaneswar, Cuttack, Brahmapur, Rourkela, Puri and Sambalpur as City Census Officer, Inspectors of Schools and District Statistical Officers as Additional District Census Officers, Sub-Collectors as Sub-Divisional Census Officers and District Inspectors of Schools as Additional Sub-Divisional Census Officers etc. The Tahasildars have been notified as the Charge Census Officers for the rural areas in respect of their Tahasils and the Executive Officers (other than the six large municipalities) have been designated as Town Census Officers within the jurisdiction of their respective municipalities and N.A.Cs. The District Magistrates have also appointed Additional Charge Officers/Sub-charge Officers wherever necessary from among the Block Development Officers, Additional Tahasildars, Additional Block Development Officers, Additional Executive Officers etc. to assist the Charge Officers as per delegation made in their favour under Section 4(4) of the Census Act, 1948.

The lowest but the most important functionary in the Census hierarchy is the enumerator who would be kept incharge in one or more Census Enumeration Blocks depending on the workload and operational convenience. The Sub-Collectors-cum-Sub-Divisional Census Officers have been delegated with the power to appoint the enumerators in their respective jurisdiction. For every six enumerators there will be a

supervisor who should be of a higher rank/scale than the enumerators. The supervisors are to be appointed by the Additional District Magistrates-cum-District Census Officers. The vast army of enumerators and supervisors is drawn from among the school teachers, VLWs/VAWs, State or Central Government employees, employees of State/Central Government Undertakings, Anganwadi workers having matriculation or above as their qualification, Revenue Inspectors, etc. Besides Revenue Supervisors, Sub-Inspectors of Schools and other officials of similar rank are also appointed as Sub-charge Officers where necessary.

The term "Population Census" which denotes nationwide counting of population presents information on socio-economic, cultural, migration factors etc. which cater to the needs of not only the Government but also semi-Government and private organisations, academicians and research scholars etc. The enormous data collected during the census is utilised for developmental planning at national and state levels.

Census of India 2001 shall be conducted in two phases, namely (i) House listing Operation and (ii) Population Enumeration. The House listing Operation is a pre-requisite for the population enumeration - the main object of which is to locate and identify all the places which are occupied or used or likely to be occupied by the people. It provides comprehensive database for assessing the conditions of human settlement, the housing deficit etc. required for formation of future housing policy. In Orissa the house listing operation has been scheduled to be held between 1st to 31st May, 2000.

The final phase i.e. the population enumeration will be taken up throughout India between 9th to 28th February, 2001 with a revisional round from 1st to 5th March, 2001.

Preparatory steps for the house listing operation in Orissa have already been taken. The formation of new administrative units like villages, Police Stations, C.D. Blocks, Municipalities/NACs, Tahasils, Sub-divisions, Districts etc. have been frozen by a notification of Government of Orissa in Revenue Department upto 31st March, 2001. Government employees who are involved in the implementation of the Census Programme and those who are already trained are required to continue till completion of the Houselisting Operation. Accordingly the proposal has been sent to Government of Orissa to issue orders banning transfer of such employees connected with the Houselisting Operation upto 31st May, 2000.

As per the practice in the past, clerical assistance are being provided to District Offices/Tahasils and Municipalities/NACs having a population of more than 1,00,000 for the Census 2001. Clearance of the Registrar General and Census Commissioner of India has been obtained in this respect. Government of Orissa is taking steps to create these posts. The expenditure on this account will be fully reimbursed by the Central Government. Necessary funds have been provided in the budget of Revenue Department of Government of Orissa for 2000-2001.

Census work is a timebound programme for which it is absolutely necessary to stick to the date lines. A Census Calendar has been prepared keeping this objective and the guidelines of the Census Commissioner of India in view.

A special feature of Census 2001 is that the revenue villages have been given permanent location code numbers beginning from one corner of the State to the last corner of the State in seriatum. An eight digit code number has been fixed for a Village out of which the first six digits denote the location

code and the last two digits are meant to accommodate future creation, modification etc. Similarly, a four digit code has been provided to the Police Station as well as the ward of a Municipality, eight digit code has been provided for a municipal area and two digit code has been provided for each district. Orissa State has been assigned with code number 19 by the Census Commissioner, India.

Before conduct of the Houselisting Operation, the Tahasildars and the Executive Officers who are Charge Census Officers will prepare houselisting blocks inside a village or a ward in the municipal area as the case may be which will be the jurisdiction of the enumerator. An enumerator will be required to visit 120-150 families approximately covering a population of 650-750. For every six enumerators there shall be one supervisor who would ensure that everybody is counted only once and no duplication or omission occurs. A vast army of nearly 70,000 enumerators and 12,000 supervisors would be necessary to cover as many as 51,091 Villages and 107 Notified Towns alongwith 31 Census Towns in Orissa. It is absolutely necessary to train them for the ensuing Houselisting Operation. To start with, State level Conference of the Additional District Magistrates-cum-District Census Officers was organised at Bhubaneswar on 12-13 January, 2000. The training at the district levels at 30 district headquarters of Orissa was organised between 1st to 18th March, 2000 in which the Collectors, Additional District Magistrates, Sub-Collectors, Inspectors of Schools, District Inspectors of Schools, District Statistical Officers, Tahasildars, Block Development Officers, Sub-Inspectors of Schools etc. participated. This district level training was imparted by the officers deputed from the Census Directorate, Orissa.

Keeping the programme of the High School Certificate Examination in Orissa in view, the programme for training of the key functionaries of the Houselisting Operations (i.e. the enumerators and supervisors) was drawn up from 12th to 29th April, 2000 with the intention to impart two rounds of training of one day each. While the first round of training was meant for theoretical instruction, the second round was designed to provide practical experience.

As per the Census calendar prepared by the Directorate of Census Operations, Orissa the enumerators will number the houses within the enumeration block during 3rd-5th May, 2000. They will put the house number at a prominent place near the entrance of the house by using paint or wax chalk. This number at the entrance of the house should be preserved till the end of the population enumeration i.e. March, 2001. The canvassing of the Houselisting schedule will be taken up during 6th to 20th May, 2000. The people should co-operate to the enumerators in providing accurate information.

During the Houselisting Operation scheduled to be held in May, 2000, the enumerators will ask a number of questions regarding the predominant material of the floor, wall and roof of the census house, use and condition of the census house, total number of families and the persons normally residing in the census house indicating males and females, name and caste status of the head of the household, ownership status of the house, number of dwelling rooms available per household, number of married couples staying there, number of married couples having independent bed rooms, source of drinking water and its proximity, source of lighting, availability of latrine within the house, existence of drainage facility, availability of bath room and kitchen, fuel used for cooking.

use and ownership of radio/transistor, T.V., telephone, bicycle, moped/scooter/motor cycle, car/jeep/van availing banking services etc.

It is needless to point out there under the provisions in the Census Act that the information collected during this operation are treated as secret and cannot be produced in any court of law as an evidence against the informant or the people. No entry in any book, register, record or schedule under the Census Act shall be admissible in any civil or criminal proceeding not withstanding anything to the contrary in the Indian Evidence Act. It has been provided in the Census Act that every person who is asked for information shall be legally bound to answer such question to the best of his knowledge and belief. Every person occupying any house or enclosure or vessel shall allow Census Officers such access and allow them to paint on or affix to, the place such letters, marks or numbers as may be necessary for the purpose of Census.

Census Act also provides for penalties for violation of its provisions. Any person who hinders or obstructs a Census Officer or any person required to assist in taking Census in

performing such duty, or gives false answers to or refuses to answer to the best of his knowledge or belief or refuses reasonable access into a house or any other place to a Census Officer or removes, obliterates, alters or damages any letters, marks or numbers affixed for purposes of the Census shall be punishable with a fine upto one thousand rupees.

Census is a great national task which reflects the socio-economic status of the nation. The data collected during the Census will be utilised primarily for the purpose of devising policy and framing plans and programmes for national development. Census should not be treated as a Government Programme only, but should be taken up in proper perspective where co-operation of the people is absolutely necessary. Keeping this vital purpose in view, people should come forward to provide correct information without fear in order to make the programme a grand success.

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EXTENSION CENTRE OF TECHNICAL TEACHERS' TRAINING INSTITUTE, CALCUTTA OPENED AT BHUBANESWAR. MOU SIGNED WITH GOVERNMENT OF ORISSA.

Four Technical Teachers' Training Institutes (TTTI) have resources Development, Government of India at Chandigarh, Bhopal, Calcutta and Chennai, cater services to the Technical Institutes in the Eastern Region.

Memorandum of Understanding (MOU) is signed today between Ms. Meena Gupta, IAS, Principal Secretary, Industries Department on behalf of Government of Orissa and Dr. S.K. Bhattacharya, Principal, TTTI, Calcutta on behalf of Government of India in the presence of Shri Kanak Bardhan Singhdeo, Minister, Industries, Shri Sanjeev Chopra, IAS, Director of Technical Education & Training and Officials of Technical Education were present. The Extension Centre will function immediately in the premises of Women Polytechnic, Bhubaneswar and cater various services for overall development of Technical Education in Orissa. Teachers deputed frequently to Calcutta to attend various training programmes now get this facility at Bhubaneswar.

EMPEROR KHARAVELA AND HIS CAPITAL CITY, KALINGANAGARI AN ARCHAEOLOGICAL STUDY

Benudhar Patra

The Chedi descendant Mahameghavahana Kharavela is considered the first historical emperor of Kalinga. Under his sceptre, the Kalingan domain stretched far and wide. Kharavela happens to be the greatest of all the monarchs, who ruled over Kalinga or ancient Orissa. During his reign, there was all-round economic prosperity; society, religion and culture were in an uplifted status. But unfortunately, the data available on this period are meagre. The Hathigumpha Inscription located at Udayagiri near Bhubaneswar is the only source of information regarding the achievements of Kharavela. It is the only lithic record in India so far discovered, which depicts the achievements of a ruler in detail and in a chronological order. The inscription refers to the capital city of Kharavela as Kalinganagari.¹ The aim of this paper is to describe the capital city of Kharavela, Kalinganagari with its modern identification.

Line three of the inscription has clearly recorded the name of the capital as Kalinganagari, although it is referred to only as 'Nagari' in lines five and six of the inscription. It is mentioned in line three of the inscription that Kharavela in the very first year of his coronation "caused to be repaired the gates, towers, rampart and the structures of the fort of Kalinganagari, which had been damaged by storm and caused to be built embankments for the cool-tanks and laid out many gardens at the cost of thirty-five hundred thousand coins".

Line five states that in his third regnal year Kharavela organised various performances of acrobatism, dance and music both vocal and instrumental and made 'Nagari' play as it were". According to line 6 of the inscription, Kharavela in his fifth regnal year "caused the aqueduct that had been excavated by king Nanda three hundred years before to flow into (Kalinga) nagari through Tanasuli".

Besides these three direct evidences there are some subsidiary references, i.e. in the sixth year of his coronation (line seven) Kharavela in order to display the regal wealth, benevolently remitted all taxes and cesses on the rural and urban population, evidently of Kalinganagari. In his ninth regnal year (line 9-10) Kharavela caused to be built the great victory palace (Mahavijaya Prasada) at the cost of thirty-eight hundred thousand coins. Kharavela must have constructed this palace at his capital Kalinganagari² in commemoration of the glories of victory in the minds of the people of the capital city as well as the visitors.³ These descriptions in the Hathigumpha Inscription suggest that Kalinganagari was a strongly fortified township adorned with cool tanks and gardens, encircled by a moat. The people of the city passed their time in enjoying festivals, convivial gatherings, dance and music.⁴

Besides the Hathigumpha Inscription, we have no other corroborative evidence either in the epigraphical records or the literatures

regarding the capital of Kharavela. However, the aforementioned references substantially proves one thing that the name of the capital of Kharavela was Kalinganagari. In spite of such references its identification, however was a subject of historical riddle for a long time. It has passed through conjectural restorations without unanimity among the scholars.

B.M. Barua⁵, an eminent epigraphist has identified Kalinganagari of the Hathigumpha inscription with *Mukhalingam* on the Vamsadhara river. B.C. Majumdar⁶ has said that it was once washed off by the sea and thus situated on the sea-shore. He further inclined to suggest that modern Kalinganagara on the sea-shore in the modern Andhra Pradesh was the site of the capital of Kharavela. However, the identification of both the scholars is on the basis of the nomenclature of the capital city of the Eastern Gangas i.e., Kalinganagara which has been identified by S. Levi⁷ with Kalingapatnam. The latest research shows that both are not the same and were two distinctive cities.

K.P. Jayaswal⁸, on the other hand, identified the capital of Kharavela with Tosali (Dhauri) where a set of Ashokan Edicts have been found. But it seems to be incorrect. Because it is supposed that Kharavela who was an ambitious ruler and a mighty conqueror never had his capital at Dhauri, but somewhere at a nearby place to it. He even, to surpass and counter-effect the invasions and edicts of Ashoka issued his gigantic Hathigumpha Inscription not at Dhauri but few miles away from it. S.N. Rajaguru⁹ supposes that the ending part of the river Daya or its surrounding areas could be the site of Kharavela's capital city. He further says that river Daya mixed with the Chilika lake at Brahmagiri. Hence, a site either at the confluence or nearer to it on the bank of Chilika could be the kalinganagari of Kharavela. In another context, he suggests that

Kumariparvata (Udayagiri and Khandagiri near Bhubaneswar) being the main religious centre of Kharavela and his family, Kharavela might have built this centre very near to his capital city. Because, in those days the communication system was not good.

However, the excavation of Sisupalagarh¹⁰ (20° 13' 30" north latitude and 85° 51' 30" east longitude) near Bhubaneswar which brought to light important material remains testify to the fact that Sisupalagarh was no other than ancient Kalinganagari of Kharavela. Sisupalagarh is located about 1½ miles to the east-south-east of Bhubaneswar, the capital city of Orissa. The excavation branch of the Department of Archaeology, Government of India, under the able guidance of B.B. Lal had carried out the excavation work of the fort are in the month of April to June, 1948. B.B.Lal has tentatively identified the site with Kalinganagari of Kharavela. The excavation of Sisupalagarh is significant from archaeological as well as historical point of view, because besides the discovery of dating factors, i.e., the coins, the potteries, the terracotta ornaments, the rouletted ware, it brought to light an excellently laid out fort of the pre-Christian era. In the context of the identification of Sisupalagarh with Kalinganagari, we may quote here the view of B.B. Lal¹¹. According to him, "to turn to the possibility of Sisupalagarh representing the site of Kalinganagara. The Hathigumpha Inscription does not say anything about the distance and direction of the city of Kalinga from the Khandagiri-Udayagiri hills and therefore, the city could be anywhere—far or near—irrespective of the location of the inscription. If the city was somewhere in the neighbourhood, the claim of Sisupalagarh has to be taken into consideration. According to the inscription, Kalinganagara was provided with fortifications and king Kharavela repaired the gateway and fortification—wall which had

been damaged by a storm. Now, no fortified town of comparable date except Sisupalagarh is known to exist near about the Khandagiri-Udayagiri hills; secondly, the excavation did reveal a collapse and subsequent repair of the Southern Gateway-flank of the fortification. On these pieces of circumstantial evidence, a presumption is raised in favour of Sisupalgarh being identical with ancient Kalinganagara".

After this some scholars even equated Sisupalagarh with that of Tosali, the provincial capital of Ashoka Maurya mentioned in his inscription at Dhauli¹². K.C. Panigrahi¹³ one of the participants of the excavation work says, "It had existed during the reign of Ashoka and might have played some part in the Kalinga war." He has further says, it is most likely that Sisupalagarh, whether it was known as Tosali or by any other name was occupied by the victor of the Kalinga war who turned it into the headquarters of this newly conquered country i.e., Kalinga. But it is difficult to identify Sisupalagarh with Tosali only with some pottery specimens in the absence of any other relics of the Mauryan period so far as the excavation is concerned. However, probability of this identification cannot be ruled out. From the discovery of a good number of Pre-Ashokan Punch-marked silver coins it can be presumed that the Sisupala fort was in a flourishing condition in the Mauryan period¹⁴. But till today, it is not an unchallenging phenomena.

A. Das¹⁵, however, is reluctant to accept the identification of Sisupalagarh either with Kalinganagara of Kharavela or Tosali of Ashoka. His refutation of the identification of Sisupalagarh with Kalinganagara is based on the following grounds, (i) that the fort was located on a small area of about half of square mile, (ii) it cannot be imagined that the great Kharavela constructed his *Mahavijaya prasada* or the great victory palace in this small locality at a cost of thirty eight hundred

thousand (gold) coins in his 9th regnal year and (iii) it cannot be said that in the first year of his reign he caused the repair of gates, walls and building of the capital which had been damaged by storm at a huge cost of thirty-five hundred thousand coins. Further, he argued that the mighty standing army of Kalinga (which as per the accounts of Pliny (1st CAD) consisted of 60,000 infantry, 1,000 cavalry and 700 elephant soldiers) could not be garrisoned at such a small fort. On the contrary, he presumed that it was being used as the cantonment where the standing army of Kalinga used to be stationed for protection of the great capital Tosali. In addition to this, he even put forth a supposition that Kalinganagara would be located somewhere in the Chandaka Reserve Forest area called Bualigarh.

But the views expressed by A. Das are subjected to serious scrutiny. All the arguments of A. Das are with regard to the area of the fort. It seems most probable that Sisupalagarh did not accommodate all the people which was quite natural. In ancient times, it was not a practice to accommodate all the inhabitants within the capital city. The capital city mostly consisted of the kings palace and official quarters. In case of Sisupalagarh, there are evidences to prove that most of the people appears to have lived outside its confines. The capital city, however, was surrounded by a host of urban centres like Dhauli, Khandagiri-Udayagiri hills etc. where developed great centres of habitation. In proof of this were picked up potsherds not only in the fort area but also outside it, on the north as far as the Brahmeswar temple and on the west as far as the Bhuasini temple¹⁶. Secondly, the fort area which is of square plan covers an area of 1.2 Km. on each side. This is not too small to be a fort site and it is indeed, "larger than a mere citadel". A.Das is doubtful with regards to the repair of the storm stricken capital city in the

TABLE

L. NO.	PERIODS	CHRONOLOGY	DATABLE OBJECTS	CULTURAL SEQUENCE
I-Early Period	Cir.300-200 B.C.	Pottery was essentially plain, devoid of any decorations, largely wheel turned and varied in colour from dull-grey to terracotta-red (black and red ware).	Settlement in its formative stage. No structural remains of the period have come to light. No defence work during this period	
II-A-Early Middle Period.	Cir 200 B.C.-100 A.D	Sophistication of pottery combined with incised and applied decorative patterns and evolution of well-fired and nicely finished bright-red polished ware at bottom occurs the black and red ware the upper level has yielded fragments of the rouletted ware (1st CAD) appearance of black and red ware of megalithic fabric terracotta ear ornaments, iron implements of peace and war beads of agate, carnelian, quartzed etc., a knobbed vessel, a pottery ring well.	Sisupalagarh culture was in its full bloom Construction of defences in four successive phase. Reign of Kharavela. Presence of brickbats indicated the use of bricks for constructional purposes.	
IIB-Late Middle Period	Cir 100 AD-200 AD	The bright red ware deteriorated into a plain red ware with an ordinary wash. The decorative patterns became crude terracotta (clay) bullae imitating Roman coins a silver punch marked coin and a copper coin of Huvishka of 2nd CAD) three specimens of northern black polished ware (NBPW), terracotta ear-ornaments, iron implements and beads, glass bangles etc.	Phase of decline and transition.	
III-Late Period	Cir-200 AD- 350 AD	Devolution of the bright red ware into a thin ineffective red or yellowish-red pottery a gold coin bearing a standing Kushana figure (Vasudeva) on the obverse and a Roman head on the reverse (2nd/3rd quarters of the 3rd AD). upper limit-so called Puri-Kushana coins (copper). terracotta ear-ornaments, iron implements, beads and etched carnelian bead etc.	A transition in the fabric and general appearance of pottery and not a change of culture. Indication of a break in the occupation and the cultural degeneration of the site. An etched carnelian bead and two fragmentary coin-moulds throw light on the method of casting coins.	

very first year on his reign. On the contrary, the excavation did reveal a collapse and subsequent repair of the southern gateway-flank of the fortification. Further, the fixation of the period of Sisupalagarh on the basis of discovered archaeological remains confirms it to be a fort in full prosperity during the time of Kharavela.

The name of the fort as Sisupalagarh has been derived from the name of a small village, Sisupala, located in the eastern sector of the fort itself¹⁷. It was not constructed by king Sisupala mentioned in the *Mahabharata* or by Sisupala Kesari of the Soma-keshari dynasty. As has been revealed by the excavation that the occupation of the site did neither go back as early as the *Mahabharata* period nor continue as late as the Keshari rule. We do not also find the name of Sisupala-Keshari in the genealogy of the Somavamsi records¹⁸. The excavations revealed that the site was in occupation from the beginning of the third century B.C. to the middle of the fourth century A.D. (circa 300 B.C. to 350 A.D.) and was marked by one integral culture throughout, though there occurred gradual changes in some of the industries most distinctively in pottery.¹⁹

The site of this ancient fort is circumscribed by the waters of a streamlet called Gangua or Gandhavati, whose main current flows to the west of the site and joins the Daya river 7 miles further south. The famous Dhauli hills with Ashokan Edicts lies to South-east of the site. The fort forms a rough square on plan. Each of its sides measures about three quarters of a mile long, thus enclosing an area of a little over half-a-square mile. On the basis of contours B.B. Lal²⁰ opines that there were corner-towers and eight large gateways, two on each side, besides a similar number of smaller openings distributed all over the perimeter. The gateways are so

placed that if the distance between two corner-towers of any side is trisected a gateway will be found at or near each point of trisection. This clearly suggests a regular planning of the site not only of the fortification but also of the streets inside, which presumably ran east to west and north to south, connecting the opposite gateways in a grid pattern.

Of the eight gateways, the one nearer the north-west corner on the western side was taken up for excavation. From excavation it is revealed that the gateway was constructed of a large well-dressed laterite blocks. It had a passage about 25 feet wide between the flank-walls and was provided with two gates, one nearer the entrance and the other about 100 feet further back. Immediately behind the outer entrance, a guard room was built in the south-flank while the north-flank near the inner gate was pierced by a narrow pathway for pedestrian traffic, presumably as a by-pass when the main passage was closed.

Here in corroboration to our purpose the existence of a streamlet called Gangua which goes all round the fort is significant. Its location even today suggests that whoever built the fort must have taken advantage of this stream to canal its waters around the northern, eastern and southern sides of it, providing the fort with a moat. This was a significant event which bears a striking correspondence to the accounts in the Hathigumpha Inscription wherein Kharavela is stated to have renovated the aqueduct that had been originally excavated three hundred years back by Mahapadma Nanda and extended its flow upto Kalinganagari so as to serve as the moat of that fortified city.²¹

The excavator had to depend mainly on five items for the preparation of the chronology i.e. the black-and-red ware, the rouletted ware, a coin of Huvishka, a gold coin immitating the *Kushana* type and *Puri-*

Kushana (copper) coins. The following table shows the various periods dated by the excavator from the bottom upwards.

From the above table it is evident that the site which was occupied from the beginning of the third century B.C. came to a close in about the 4th century AD and period II-A is the most significant one in connection with our discussion. The early middle period, i.e. II-A presents the Sisupalagarh culture in its full bloom. The most significant event of this period was the construction of defences. Scholars have assigned emperor Kharavela to this period i.e. 2nd half of the 1st century BC.²² In the light of the Hathigumpha Inscription and from the excavation findings, it is clearly proved that the site had substantial potentiality to be Kalinganagari of Kharavela. Not only the ruined site was a strong fort but along with its adjoining regions, i.e. Dhauli, Khandagiri etc., constituted one of the most important urban centres of ancient India. The discovery of rouletted ware indicates the fact that the site and its peripheral regions had trade contact with the Roman Empire atleast with Arikamedu near Pondichery which was then the main centre of the Roma trade in India. This contact could be either through land route or water route or through both. B.B. Lal²³ says "very likely it was an imported item brought along by inland or coastal trade from Arikamedu or Amaravati or some other place in south-east India". Secondly, occurrence of the black-and-red ware of 'Megalithic' fabric positively indicate its contact with the south. About 200 BC the megalithic ware appeared for the first time at the site.²⁴ From the recovered relics of Sisupalagarh K.C. Panigrahi has given his opinion that in the earliest part of its life, the city had intimate contact with a northern culture while in subsequent period its culture had more affinities with the south.²⁵

Period II-A marks the construction of fort defences (fortification-wall) in four successive phases. The excavations revealed that the defences were erected at the beginning of the second century B.C. In the earliest phase, the defences consists of a massive clay-rampart, some 25 feet high and over 110 feet wide at the base. In the second phase, the clay rampart being susceptible to erosion was reinforced by adding a 4 to 6 feet thick layer of laterite gravel on its top. In the third phase, two brick walls, 26 feet apart and 2 feet 6 inches and 3 feet 6 inches thick respectively were erected at the top of the laterite gravel with fillings of mud and earth in between. The phase, however, seems to have come to an end about the middle of the first century B.C.²⁶ Finally, in the fourth phase, a collapsed revetment wall was renovated with a battered exterior sometimes in the second half of the 1st century B.C. which was determined as the period of Kharavela. Thus, according to the Hathigumpha Inscription, Kalinganagari was provided with fortifications and king Kharavela repaired the gateways and fortification wall which had been damaged by a violent storm. In the light of the Hathigumpha Inscription we can now say that towards the middle of the 1st century B.C. there was the occurrence of a heavy storm causing damage of the gateways and fortification walls of Kalinganagari. Kharavela, immediately after his coronation repaired those damaged gateways and walls. Though the Hathigumpha Inscription does not say anything about the distance and even direction of the capital city-Kalinganagari from the Udayagiri-Khandagiri hills, it is more reasonable to assume that it could be situated somewhere in the neighbourhood and not far away from it. If that may be the case, as till date no fortified town of comparable date except Sisupalagarh is known to exist near about the Khandagiri-Udayagiri hills. It is

quite logical to say that Sisupalagarh was no other than ancient Kalinganagari of Kharavela. Moreover, as has already been stated the excavation revealed the collapse and subsequent repair of the southern gateway-flank of the fortification. Taking all the aforesaid aspects into consideration, we can putforth the argument that Sisupalagarh was most certainly the much glorified capital city, Kalinganagari of Kharavela's Hathigumpha Inscription.

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ENHANCING ONE'S LEVEL OF VITAL ENERGY TO FOSTER PROFESSIONAL EXCELLENCE

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INTRODUCTION

In the wake of advancement of science and technology the modern trend is to achieve professional excellence for the overall benefit of organisations involved either in business or industry or agriculture or for socio-economic developments for its economic sustenance in this competitive world. Time being the essence, the speed of qualitative achievement for approaching the organisational goal has therefore assumed paramount importance. The duties and responsibilities of the executives holding key posts in an organisation have therefore sensitive and vital for the organisation. This core issue encounters some limiting factors. It need not be emphasized that, for such vital operations, the decision making process involving wisdom based on ethical values through logical reason and analysis acts as foundation on which the future of an organisation rests. Therefore, it transpires that in order to achieve excellence, the professionals or the executives must devote themselves initially to building their personality, developing culture; later, organisational achievement will follow. Integrity and personality of an individual depend on the degree of life force working on vital principles. The life force and level of vital energy are founded on spirituality, which alone gives man strength. With this strength, one can achieve the total life efficiency - efficiency in external life and action as well as efficiency in internal thought, wisdom and culture. With this strength, man becomes absolutely fearless

and enjoys physical and mental freedom. Integrity and personality of an individual depend on the degree of life force and level of vital energy working on vital principle in the vital plane.

CONCEPT OF LIFE FORCE AND VITAL ENERGY

These two are derivable from the COSMIC POWER and in turn ultimately from SUPREME CONSCIOUSNESS (Almighty). The ultimate or irreducible reality is spirit in the sense of pure consciousness from which power, mind and matter proceed. Consciousness remaining in one aspect unchanged, changes in other aspect as active power which manifest as mind and body. Man then is pure consciousness vehicled by its power as Mind and Body.

Extract from the luminous writings of Sir John Wood Roffe.

Based on Hindu theory the Human Body constitutes gross body and subtle bodies. The gross body is the combination of the compound of five 'Maha-Bhuttas' such as ether, air, fire, water and earth. The subtle body constitutes four mental Tattwas (Budhi, Ahamkar, Manas and Pakrit). The gross and bodies are vitalized and held together as an organism by vital force called 'PRANA', which is evolved from the active energy of soul (The Atma). Since Mind and Matter are many and of many degrees and quality, therefore the quantum of vital energy varies from individual to individual and is directly proportional to the degree of spiritual quality; integrity and

personality factors of the individual. Life and mind are one and identical since they have identical qualities and attributes and Mind is the primary cause of motion. This quality of mind is termed as CREATIVE WILL. Thought—the action of mind—may be called, a mode of motion of mind acting on vital plane for the vital operation of life force influences molecules of the brain cells.

Dr. Hahnemann, the founder of Homoeopathy philosophy has profounded the universal laws on life and life force. The spiritual vital force working on vital principle on vital plane of Human being is responsible for functioning of human organ. The article 9 and 10 of the Organ of Medicine states as follows :

Article 9

In the healthy condition of man, the spiritual vital force (autocracy), the dynamic that animates the material body (organism), rules with unbounded sway and retains all the parts of the organism in admirable, harmonious, vital operation, as regards both sensations and functions, so that our indwelling, reason-gifted mind can freely employ this living, healthy instrument for the higher purposes of our existence.

Article 10

The material organism, without the vital force is capable of no sensation, no function, no self preservation; it derives all sensation and performs all the functions of life solely by means of the immaterial being (the vital principle) which animates the material organism in health and in disease.

Thus it transpires that the spiritual vital force sustains the living organism of the human body in admirable and harmonious, vital operations so long the same is not dynamically altered by the dynamic influence of noxious agents inimical to life. This philosophy Hahnemann matches with the

philosophy of Charak-Samhita as regards to prevention of diseases in the living organism.

*Narohitahar sebi samokhyachhar: bhaveswaktah
Data samah satyaparah khvamadhanapasehi cha bhahatsarogah
Matibochah karma sukhambandhu satyam bhesham pisadachabuddhah
Gyana tapastaparata cha yoge vasyasi: iam tanupanti yogah*

He who is given to wholesome food and conduct, who has discernment and detachment from sense pleasures, who is charitable, impartial, truthful and forgiving and who follows the precepts of sages, lives free from diseases. Diseases do not befall a man in whom thought, word and deed are happily blended, the mind is controlled and the understanding is clear and who is possessed of knowledge, austerity and the absorption in Yoga.

Hahnemann's ORGANON
by B.K. Sarkar.

Shri Aurobindo and THE MOTHER of Pondichery Ashram, India have propounded the similar philosophy of life and energy of human being in their spiritual teaching and experience.

From the spiritual teachings of Shri Aurobindo and THE MOTHER it implies the following considerations :

1. Life and energy are spiritual; not in anyway material and not in anyway mechanical.
2. The god-gifted vital force of the individual is limited according to his personality. The personality is highly influenced by one's ego and pride. The more a man becomes egoistic and proudy, the more he losses his strength and vigour. The more he is proudless for his good social work, the stronger will be his vital force and consequently can offer greater resistance to the dynamic influence of noxious agents causing of all difficulty, discord, struggle, strain that mars life. The consciousness being limited losses it's capacity of assimilating universal absolute pure energy pervading the whole universe consistently.

3. Deranged vital force, if unaided, will tend towards invalidation. This seems to be the last stage of human being possessing almost negligible body resistance hence falls not only to fight out against disease forces but also fails to maintain vital functions of important organs of human body.

4. One must keep faith in God and spiritual protection. The man who keeps faith in God obviously free from worldly bondage, pride and egoism. Faith in God makes the man fearless and courageous. A courageous man possesses tremendous strength in the vital plane and this energy helps him to accomplish any sacrificial work in the interest of mankind. Such selfless service augments his spiritual power which bestows blissful health.

5. Spiritual practice, such as resorting to honesty, truthfulness, integrity, purity in body and mind and other moral qualities augments the vital force. Thus the astral body of the human being builds up a protective sheath in the spiritual plane which can dynamically resist the influence of disease force. This destructive negative force cannot face the positive absolute power.

6. Fervent prayer to Almighty with whole-hearted love and devotion is the greatest spiritual force. The prayer works wonder for the sick in death bed in restoring his normal health.

Dr. Alexis Carrel, the famous Indian doctor describes the miraculous effect of prayer. His writings are reproduced below :

"Prayer is the most powerful form of energy one can generate. It is a force as well as terrestrial gravity. As a physician, I have seen men after all other therapy had failed, lifted out of disease and melancholy by the severe efforts of prayer. Prayer like radium is a source of luminous self generating energy. In prayer, human beings seek to augment their finite energy by addressing themselves to the infinite source of all energy. When we pray, we link ourselves with the inexhaustible motive power that spins the universe. We pray

that a part of this power be apportioned to our needs. Even in asking our human deficiencies are filled and we arise strengthened and repaired. Whenever we address God in fervent prayer, we change both soul and the body for the better. It would not happen, any man or woman could pray for a single moment without some good results.

Dr Alexis Carrel, noted from the "Indian Practitioner".

"If we provide food for the body which is perishable, then, surely, it is our primary duty to provide food for the soul which is imperishable; and such sustenance is found in prayer".

Mahatma Gandhi

Method of Enhancing level of vital energy and degree of life force :

Spiritual Method (Meditation)

For the purpose of meditation, VEDANTA gives a location to the Atman (Soul), inspite of his being all-pervasive by nature. That location is heart by which is meant not physical heart but that of which it is the physical symbol namely the vital organ of the personality. It is conceived as a Guha or cave which is filled by Buddhi or Reason. The Atman is in the very centre of this Buddhi where it becomes self revealed.

Extract from the luminous writings of Swami Ranganatha Nanda.

Focus your mind upon the centre of the conceptual heart to start the process of meditation. While on meditation repeatedly recite Mantra (Lord's Name) such as *Om Namah Narayanaya.*, *Om Namah Bhagabate Basudevaya*, *Om Namah Sibaya*, or *Kleeng Krushnaya Gobindaya Namah* etc as per your likings.

The meditation should be at least for 1 hour in the early morning preferably between 4 A.M. to 6 A.M. before sunrise in a year in the evening just after sun-set. During the

meditation period on account of concentration of mind on the heart imagining the existence of luminous soul. The quantum of electrical energy generated inside the heart is to the extent of 17-20 millwatt in every second and with this rate, the total quantum of electrical energy so generated will be around 5 k.w.h. As the meditation continues the quantum of electrical energy produced by the heart will be transmuted in subtle form and stored in vital plane in the conceptual centre of the heart in form of vital energy. The vital energy do stored, can be utilised for exerting dynamic influence upon any person through transcendental communication to oblige the transcendental communicator as per his desire. Here one important thing to be borne in mind that the desire should not be self interest oriented but for the interest of mankind.

2. Resorting to spiritual practice : Try as far as practicable to resort to moral practice such as nullifying the ego centering attitude, anger, jealousy, hatredness, worries, anxieties, fear, untruthfulness, dishonesty unlawful activities, sexual thoughts etc. These are all TAMASHIK qualities and have to be curbed down slowly and steadily so that the veil ki of ignorance is removed. In such case the heart becomes pure day by day and the life force emanating from the centre to all parts of the body works in admirable way for the greater purpose of existence.

3. Adopt YOGIC ASAN and PRANAYAM for cleansing the vital organs responsible for functioning of vital processes such as digestion, nutrition, repair secretion, excretion, assimilation, self preservation and reproduction, self-recognition etc.

4. Resorting to prayer-Fervent prayer has got tremendous impact in upgrading the life force since the cosmic power can be grabbed through transcendence communication established between the ALMIGHTY and transcendent communicator.

5. Changing of food habits : Non vegetarian foods are inimical to life force and

in course of time the vital force is deranged and the vital functions of organs are deteriorated. Resorts to SATTWIK food, green vegetables fruits, milk products, proteins and other proteinous foods etc. Donot take hot drinks and other narcotics substances which will damage the brain cells and creat problem for heart. The vegetarian foods can impart vital energy as per their inherent quality of (concerning to mind) vitalizing the mind power.

6. Mineral compound and vitamins which are beneficial to health must be taken regularly as per advice of the Doctor. Early morning sun bath and prayer to Sun enhance to vital energy.

CONCLUSION

1. In order to foster the spirit of excellence in professional career, one has to develop magnanimous personality possess high integrity, strong will ower discipline and as well as principles and ethics in every sphere of life.

2. Resorting to spiritual practices, will enhance the vital force and body resistance against disease force so as to maintain sound body and mind.

3. One must be God believer and God fearing and shall refrain from his ego centering attitude specially during professional career in order to assess the intrinsic and intricate problems prevailing and arising from the lowest level to highest level of the organisation. No stones shall be untouched to mitigate all types of problems whatever small may be, lest it may create a strong barrier in developmental work.

4. One must sacrifice his self interest and motive in every aspect.

5. One should meticulously observe the saying "Neatness and cleanliness lead to Godliness".

PRODUCTION OF ROCKBEE HONEY IN ORISSA

B.C. Sabata

Right from 1976, the H & T Welfare Department, Government of Orissa, as well as several other voluntary organisations have been advocating scientific beekeeping among tribal people to achieve the following objectives :

- (i) to exploit natural forest floral resources for honey production;
- (ii) to provide them with part-time occupation during their spare time;
- (iii) to provide them with subsidiary income; and
- (iv) to improve their socio-economic condition.

These organisations distributed bee boxes and appliances and provided technical assistance. The tribal beneficiaries hived locally available *Apis cerana* bee colonies. But this programme was not an unqualified success. There were several reasons for this, which have been discussed elsewhere. Now there is an attempt by the Horticulture Department of Orissa and the Orissa University of Agriculture to introduce *Apis mellifera*, the European bee, into Orissa. Management of this bee requires scientific knowledge and is very expensive; but bee keeping with it is highly profitable, with an average production of 40kg. per hive and can be taken up on a commercial scale. Leaving alone the question of commercial viability of *Apis mellifera* bee keeping in Orissa, I feel

that it can not be advocated to the tribal people for the reason of the high costs it involves and the technical management it needs.

There are four species of honey bees in Orissa, namely *Trigona* species (*nikuti*), *Apis cerana Indica* (*Shathafeni*), *Apis florea* (*dali* or *binchini*) and *Apis dorsate* (*Baghra*). The last of these classed the rockbees or giant bees, because of their size. They build their combs on branches of big and tall trees, under tall overhead water sources or ceilings of tall buildings or on rock cliffs. Their nest sites are often inaccessible to humans without special effort.

These bees are ferocious and sting intruder or enemies of their nest in large numbers. Collection of honey from the nests of these bees is therefore not easy in spite of the fact that each nest stores from 5 to 10 kg of honey. Rockbees are found in Orissa normally in deep forests and on steep hills where vegetation is rich.

Because of the laborious effort in approaching the nests and operating on the combs, with the risk of getting stung, rockbee honey collection is not normally done in Orissa. In the Similipal forest area the forest tribe, The Bhuinjas, generally collect honey from rockbee combs as profession. Similar honey collection is also found in some parts of Phulbani and Boudha districts. In all these areas, harvesting of honey is done by cruel methods, such as killing of the bees of fire,

taking the brood portion of the comb cut for eating and squeezing the honey portion of the comb to collect honey. Very little honey is obtained through these methods. Because much of it gets wasted during the operation. For the application of fire below the comb, the bees die and the wax comb gets melting, leading to wastage of honey. But the tribals enjoy eating the brood. Honey hunting is done during the nights. Each bee hunter has one or two helpers and is accompanied by many other associates.

Because of this cruel and crude bee hunting and honey collection, much of the rockbee population is being destroyed every year. Besides, large scale deforestation is also helping rapid dwindling of rockbee nests. The primitive and destructive methods of honey harvest and the dwindling bee population render rockbee honey collection is gradually becoming un-economical.

The Central Bee Research and Training Institute of the Khadi and Village Industries Commission is conducting research on several aspects of rockbees and technology for hygienic harvest etc. After retirement from the services of the Khadi and Village Industries Commission, I have had the opportunity to work on the rockbees and study their behaviour. During my association with the Girijan Co-operative of Andhra Pradesh, (a State Government undertaking for tribal development, like the Tribal development co-operative corporation in Orissa) I gained some experience and knowledge of tribal methods of rockbee hunting. Here I was given charges on the improvement of the quality and quantity of production from rockbees. And I evolve the following improved methods; (i) removal of bees from the comb, without killing them, by application of bee repellent sooke; (ii) safe approach to and convenient operation of the nests (iii) Collection of only the honey portion

of the comb without wastage or contamination; and (iv) collection of good quality bee wax.

For safe approach, rope ladder or rope with knots at every 2 feet distance is used with an improved system of operation. For safety the bee hunter is covered with a gunny apron, sprinkled with diluted carbolic acid and his face covered with a bee veil. After approaching the comb, smoke is applied from a Wig made with about 1 kg. green weem leaf twigs, and 5 to 8 cock feathers. For producing smoke the twig is covered with some straw. When the smoke is applied to the comb, the bees run away from the comb. The smell of smoke from burnt neem leaf and cock feathers will make the bees slightly nervous and unable to fly. Now the comb without bees, if shaken holding at the bottom, will break at a line between the honey portion and brood portion. The honey and the brood portion can be collected separately in a bucket. It is also convenient to do it on a wide oil cloth, held over the ground below the comb. Clear and hygienic honey can be collected by centrifugal force placing the honey comb (made into small pieces) on a mess having 30 to 40 holes per sq. Inch. In this way we get clear honey without squeezing the comb and without hurting the bees.

Tribal honey hunters who now kill the bees and collect honey and bee wax by crude and destructive methods need to be trained in the new and improved technology for harvest of honey converting it into an income generating activity and at the same time making it not destructive but sustainable.

Orissa has an enormous potential for the production of rockbee honey and bee wax. A detailed survey of the state is necessary to record the density and distribution of rockbees to assess its potential as a natural resource for income generation and to identify the potential pockets. Orissa has about 45 per cent of its areas under forests. If we consider, it there are

500 Rockbee Colonies in a potential Community Development Block and if each colony gives 10 kgs. of honey on an average, we would get 5 tons of honey whose cost would be Rs.200.00. This means that Orissa would be able to collect about 500 tons of rockbee honey in a single year.

Forests and bees are interdependent. Forest plants provides pollen and nectar to bees. Honey bees provide pollination service to the plants which they visit to collect pollen and nectar. Thus, where there is a forest, there are bees; and where there are bees, reproduction and growth of forest plants are assured. Bees are important also for pollination and qualitative and quantitative improvement in yields of our agricultural and horticultural crops. The tribal honey hunters need to be educated to fulfil the need to protect the forests and the bees.

Following are some reasons that compel us to adopt new and improved technologies for the utilisation of our valuable forest and bee resources.

1. Utilisation of natural resources for production of honey without harming the bees or plants.
2. Augmenting the social and economic status of the tribal population and providing them with subsidiary income with minimum investment of labour or money.
3. Prevention of destruction of bee population which is an integral part of the forest, if we think in terms of maintaining environmental balance.

4. Prevention of wastage of pollen and nectar, the precious materials of nature, which directly results in increasing the nation's health and wealth.

5. Improving the quality of forest honey which will result in marketing of the forest produce. Forest honey is organically produced and does not contain chemical pollutants that are common in apiary honey, Forest honey, with improved quality can meet the export norm, and therefore, can be exported. This helps in getting valuable foreign exchanges for the nation.

6. Helping in the preservation of natural bee for biodiversity.

Considering the above points, I feel that, besides the State Government Organisations such as the State Tribal Development Co-operative Corporation, the Orissa State Forest Development Corporation, and all others interested in agriculture, horticultures, forests and tribal development should take up individually or jointly this programme of national importance and contribute to the improvement of the honey industry, agriculture, horticulture, forests as well as to the status of the tribal peoples of the state. If implemented, such a programme will surely transform the socio-economic condition of the tribal communities in Orissa and bring them to the mainstream of national life.

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STRENGTHENING OF THE SOIL TESTING SERVICE IN ORISSA

N. Acharyya

With the advent of modern farm technologies, there has been an impressive increase in crop production largely because of increase in coverage under high yielding varieties, irrigated areas and fertilizer use supported by hard and dedicated work of the scientists and farmers. The contribution of fertilizer alone towards increase of production is estimated to be about 49 to 50 percent. The country's fertilizer consumption which was less than 70,000 tons in 1947 has gone up to 15 million tons by 1996-97 with concomitant rise in food grain production from 50 mt to 190 mt. by 1996-97. Similarly in our state, the consumption of fertilizer has gone up from 25,300 (0.253 lakh) metric tons in 1970-71 to 21,908 lakh metric tons in 1996-97. The fertilizer if applied in excess of the requirement gets exposed to losses and adds unnecessarily to the cost of production and at times becomes harmful to the crop. Thus, this being a costly input must be, therefore, applied judiciously so that the farmer gets optimum yield without increasing the fertilizer bill unnecessarily and the added fertilizer is utilised efficiently and economically.

The soil testing service in India was started with establishment of 24 soil testing laboratories during 1955-58 under the aegis of Intensive Agricultural Development Programme. Orissa had one soil testing laboratory at Sambalpur. Subsequently, 10 more soil testing laboratories have been established. By now there are 514 soil testing laboratories established in India.

The chemical indices chosen for nutrient availability were organic carbon or alkaline permanganate oxidisable nitrogen as a measure of available nitrogen, 0.5 M sodium bicarbonate (01 sens' extractant) extractable phosphorus as a measure of available phosphorus and neutral normal ammonium acetate extractable potassium as a measure of available potassium. Soil acidity which gives a broad indication of availability of nutrient elements was estimated by glass electrode pH meter. Sets of critical values (Table-1) which characterised the estimates as low, medium and high were found out based on researches conducted in pot culture and fields with crops like paddy and wheat at Indian Agricultural Research Institute. Taking these as the basis for fertilizer recommendation the soil testing laboratories went ahead in recommending suitable fertilizer does to different crops. For soils with medium fertility status the normal recommendation was followed. When the fertility status was high a cut of 25 to 35% of the recommended dose was prescribed and when low, an extra amount of 25 to 35% of the recommended dose was prescribed (Table-2)

Table-1. Critical limits or rating of nutrient elements

	Method	Low	Medium	High
1	Organic carbon (%) Walkley & Black	<0.5	0.5-0.7	>0.7
2	Avail N (Kg/ha) method Alkaline permanganate	<250	250-500	>500

3	Avail P (kg/ha)	in Brays in Olsen's	<14 <9	14-40 9-22	>40 >22
4	Avail K (kg/ha)	NH ₄ OAC	<118	118-280	>280

Soil test information is compiled soil wise or area-wise in the form of soil test summaries. This indicates the number of samples falling in the category of high, medium or low N, P and K content. This is subject to change, say after five years as a result of continuous cropping and fertilizer application. Another way of expressing soil fertility is to calculate Soil's Nutrient Index according to the formula

$$NI = \frac{N_l + 2N_m + 3N_h}{N_l + N_m + N_h}$$

Where, NI = Nutrient Index, N_l, N_m and N_h are number of samples falling under low, medium and high nutrient status and are given weightages of 1, 2 & 3 respectively. Nutrient Index below 1.5 is termed as low fertility status, 1.5 to 2.5 as medium and beyond 2.5 as high.

Table-2. Basis of recommendation

Nutrient requirement of the crop	Soil test value	Increase or decrease over general recommendation
High	High	(-) 25%
High	Low	(+) 35%
Low	High	(-) 35%
Low	Low	(+) 25%

Soils with pH values less than 6.5 are termed as acid soils. pH range of 6.5 to 7.5 is considered optimum for availability of most of the nutrients. The pH range for optimum availability of nutrients is given in Table 3. Further, even though the lime requirement is not routinely determined the liming of the acid soil is also done on the basis of pH and texture to bring the soil to optimum pH for better availability of nutrients for the multicrop systems.

Table-3. Availability of nutrient elements in soils under different pH range.

pH range	4.0-6.5	6.5-7.5	7.5-8.5	> 8.5
Nutrients available	Fe, Mn, Zn Cu	N, Ca, Mg P, K, S, Mo, B	N, S Ca, Mg, K, Mo	N, P, K, S Mo, B

This is a simplistic view of the situation. It did not take into cognizance the soil properties which govern absorption of nutrients by the plants. Taking this into consideration and to back up the existing soil testing service with more refined techniques ICAR instituted 17 co-ordinated projects on soil test crop correlation in different Universities in the country to develop relationship between crop yield and fertilizer inputs using multiple regression approach. Orissa was belatedly fortunate along with Kerala and Rajasthan to have a co-ordinated project in 1996.

The objectives of the project were :

1. To develop relationship between soil test values and crop response to fertilizer in order to provide a calibration for fertilizer recommendation based on soil testing.
2. To make a basis for making fertilizer recommendations on targetted yields and
3. To evaluate various soil test methods for their suitability under rainfed situations.

Subsequently, during the VIth Plan period two more objectives were included for evaluating joint use of chemical fertilizers and organic manures for enhanced nutrient efficiency and for finding a basis for making fertilizer recommendation for a whole cropping sequence based on initial soil test values.

Soil Fertility Evaluation :

The crop growth and nutrient needs of the crop are governed by certain laws of

Agrobiology-Von Liebig in 1840 Propounded the law of Restitution which states that whatever is being taken by the plants from the soil needs to be restored to maintain the nutrient supplying capacity of the soil. The selection of the right kind of nutrient in right amount and right time is based on the nutrient requirement of the crop at different stages of its growth and the nutrient supplying capacity of the soil which is nothing but the fertility status of the soil.

In addition to this, other two important laws which operate in the nutrient availability and crop growth are Law of minimum and Law of diminishing return. The Law of minimum is one of the earliest hypothesis put forward by Von Liebig which envisages that if a soil contains optimum or adequate amounts of all but one nutrient element, the crop growth is regulated by that single nutrient. The crop growth can be varied by varying the amount of that nutrient. The law of diminishing return says that with each increment in the nutrient the rate of increase in yield becomes smaller and smaller. The expressions relating the amount of nutrients with plant growth as given by Mitscherlich is $\text{Log}(A-Y) = \text{Log}(A-Cx)$ and that by Spillmen's is $Y=M(I-R^x)$, where Y =Yield obtained when amount of nutrient is applied is x . A or M = Maximum yield obtained under optimum nutrient condition. C & R are constants.

It is established by Ramamoorthy *et al.* (1967) that the Law of minimum operates for N, P & K in soil. Based on this the targeted yield concept was developed by him and his associates. The uniqueness of this method is that it not only indicates the soil test fertilizer dose but also the level of yield the farmer hopes to achieve. The essential basic data required for formulating fertilizer recommendation are: (i) nutrient requirement of the crop (kg/q), (ii) the percent contribution from the soil available nutrient or the fraction

of the soil nutrient element utilised by the crop and (iii) the percent contribution from the applied fertilizer and these three are calculated as follows :

$$\text{Nutrient requirement (kg nutrient/quantal of grain)} = \frac{\text{Total uptake of nutrient (kg)}}{\text{Gram yield (quantal)}}$$

$$\% \text{ contribution for soil (\% } C_s) = \frac{\text{Total uptake in control plots (kg/ha)}}{\text{Soil test values of nutrient (kg/ha)}}$$

$$\text{Contribution from fertilizer (} C_f) = \text{Total uptake} - \text{uptake from soil} = \text{Total uptake} - \text{Soil test value} \times \frac{\% C_s}{100}$$

$$\% \text{ contribution from fertilizer} = \% C_f = \frac{\text{Contribution fertilizer}}{\text{Fertilizer dose}} \times 100 = \left(\frac{\text{Total uptake}}{\text{Fertilizer dose}} \times 100 - \frac{\text{Soil test value} \times \% C_s}{\text{Fertilizer dose}} \right)$$

Fertilizer dose =

$$\frac{\text{kg nutrient/q} \times T \times 100 - \text{Soil test value} \times \% C_s}{\% C_f}$$

For that specific season and crop variety and for that soil under the management practices adopted $\% C_p$, $\% C_s$ remain a constant.

So fertilizer dose (kg/ha) $C_1 T - C_2$ soil test value

Value of C_1 depends on fertilizer use efficiency and C_2 depends on both fertilizer use efficiency and soil use efficiency. T = Total grain yield in quintals.

Most of the centres established prior to 1996 have by now worked out modules for their centres for predicting fertilizer doses to crops based on multiple regression and targeted yield approach. Now soil testing has become mandatory in states like Andhra Pradesh, Tamilnadu, Maharastra, Himachal Pradesh, Madhya Pradesh, Haryana and Punjab.

Multiple regression equations have been developed for different crops at different research centres. From this, the dose for maximum yield has been calculated. To get

the Maximum yield three conditions are to be satisfied.

(i) $R^2 = 0.67$, through numerous experiments it has been realised that for high order of predictability the coefficient of determination should be equal to more than 67%.

(ii) The partial regression coefficient should be significant.

(iii) The law of diminishing return must be obeyed.

Let us take one example of multiple correlation equation developed at Pusa, Research Station, Bihar for crop like sugarcane.

$$Y = 1369 + 12421.6 SN + 7.29 SP + 735.99 SK + 95.6 FN - 0.17 FN^2 + 109.32 ** FP - 0.49 ** FP^2 + 47.58 FK - 0.03 FK^2 - 137.86 FNSN - 3.59 ** FPSP - 0.32 FKSK; R^2 = 0.93 **$$

$Y =$ Yd in quintals, SN, SP, SK are soil Nitrogen, soil phosphorus and soil potassium and FN, FP, FK are fertilizer nitrogen, fertilizer phosphorus and fertilizer potassium respectively.

In the above equation all the three above conditions are satisfied.

$$Y = 109.32 ** FP - 0.49 ** FP^2 - 3.59 ** FPSP$$

$$\frac{dy}{dFP} = 109.32 - 0.98FP - 3.59 SP$$

$$\text{For maximum yield, } \frac{dy}{dFP} = 0, FP = 111.5 - 3.66 SP$$

F(N,P,K) fertilizer nutrient (NPK)

S (NPK) Soil nutrient (N, P, K)

For targeted yield also equations of the type $FN = C_1 T - C_2 SN$ have been developed for each crop at each Research Centre. The constants C_1 & C_2 , however, vary with soils, crop and seasons. So it is required that number

of trials should be conducted for a crop for at least three seasons and then pool the data for getting a prediction equation for that crop.

To give an example the equations developed at Nellore Centre for rice crops are as follows :

$$1993 \quad FN = 4.350 T - 0.475 SN \\ FP_{205} = 3.175 T - 3.49^2 SP \\ FK_{20} = 3.485 T - 0.327 SK$$

$$1994 \quad FN = 11.192 T - 0.654 SN \\ FP_{205} = 8.400 T - 6.183 SP \\ FK_{20} = 6.171 T - 0.220 SK$$

$$1995 \quad FN = 3.481 T - 0.370 SN \\ FP_{205} = 2.535 T - 2.130 SP \\ FK_{20} = 1.885 T - 0.195 SK$$

The pooled equation is

$$FN = 5.442 T - 0.467 SN \\ FP_{205} = 3.441 T - 3.152 SP \\ FK_{20} = 3.429 T - 0.231 SK$$

Similarly targeted yield equations have been developed for cropping sequences based on the post harvest soil test values. Since it is not practically possible to predict the fertilizer dose to the second crop after analysing soil after harvest of the first crop, a prediction is made on the nutrient status after harvest of the first crop and based on that fertilizer is recommended for the end crop for a targeted yield using polynomial equations. All these need elaborate trials and analysis for number of seasons for developing prediction equations.

Integrated Nutrient supply system:

Earlier yield target equations were mainly confined to major nutrients like N, P & K. Since organic source like FYM, green manure, compost and biofertilizer like Azospirillum and phosphobacteria contribute a lot towards increase in yield, those have been also accounted for in the prediction equation.

Fertilizer trials with suitable design are developed to isolate contribution of each of the components required in developing the prediction equations.

Studies made in Orissa :

The State Soil Testing laboratories analyse about 2 to 2.2 lakh soil samples annually and pass on recommendation to the concerned farmers. No follow up action is however, undertaken due to lack of facilities. They impart training to the farmers on collection of soil sample and recommendation of fertilizer application on the basis of soil test results. Each Laboratory has the capacity of analysing 20 to 30 thousand soil samples annually. Based on this the soil fertility index for each nutrient could be prepared for each district and also for the State of Orissa and inference drawn after 5 to 10 years for appraisal.

The University has got one coordinated project which has just started operating from 1996. It has started taking up studies to evaluate the effect of graded doses of fertilizers on crop yield and soil properties under paddy-paddy and paddy-greengram systems. As envisaged in the programme, the yield nutrient uptake and fraction utilised from fertilizer and from soil will have to be determined for generating basic data for prediction equations. Some research work was done on targeted yield concepts. But the information is too meagre. As it stands now this process of study will take long years to come to a comparable state with other states who have already generated information because of their having the research centres established much earlier.

Most of all these studies relate to major nutrients specifically N,P,K. From the soil test data available the fertility map of soils of Orissa in different districts can be prepared. The university has broadly indicated the

fertility indices (low, medium and high) of the soils of the agroclimatic zones of the state. This again needs to be updated based on the recent data available with the Department of Agriculture.

Regarding the micro and secondary nutrients, the situation is still worse. Practically no large scale study has been undertaken in the state. The Fertilizer Association of India under Indo British Education programme did analyse a good number of soil samples from different parts of Orissa. The coordinated project on micronutrients started only in 1996. Through this project and through research work conducted by the students some information on micronutrients has been generated. But it is too meagre to depend on. In some soil testing laboratories, Atomic Absorption spectrophotometers have been procured for analysis of micronutrient. Based on the research data generated from the thesis work of students and project scientist, the sufficiency or deficiency level of the micronutrients have been found out. But the number of samples are not adequate for delineating the micronutrient status of the soils. Crop response to application of micronutrients has been reported in Orissa soils. Rice has given an yield increase of 1 to 6 quintals/ha in alluvial soils and 1.5 to 2 q in balck soil. Groundnut has responded to application of Boron and molybdenum. Yield increase to the extent of 2-3 q/ha has been reported through application of unic. Similarly greengram has given an additional yield of 1-1.5 q to application of Molybdenum.

Considering the importance of the soil testing service, soil test value and enormity of the research and field trials to be conducted for different important cropping sequences of the State for judicious use of fertiliser mostly input, it is suggested that priority should be given at the state level to organise in an effective way the working of the state soil

testing laboratories and the University Research Projects on soil testing crop correlation and micronutrients with the co-operation of the concerned scientists in the Regional Research Station. so that Joint Research Projects could be formulated for study on target yield concepts on important cropping sequence of the zone in the line with the research programme formulated by ICAR such that useful information could be generated in a short span of about three to five years for different important crops and crop sequences in different zones. The state will then be in a position to recommend to its farmers for judicious fertilizer application to different crops and cropping sequence based on the research results. The Head of the Department, Soil Science, OUAT and if necessary, a senior most state functionary may together act as liaison or coordinating officers

for effective implementation of the programme. The contingency provided to the soil testing laboratory may be raised a little after review and the staff posted may be trained in soil test programmes for delivering the goods.

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WORLD PRESS FREEDOM DAY : MINISTER'S CONCERN ON THE RISE OF MEDIA REPRESSION

Orissa Minister for Information and Public Relations Mr. Duryodhan Majhi expressed his deep concern at the rise of repression of media all over the world and said, "World public opinion must consolidate against the human rights violation":

Mr. Majhi who was delivering his inaugural address at a meeting at Soochana Bhawan here on 3 May 2000, organised jointly the Orissa Media Centre and Dr. H.K. Mahatab Centre for Communication studies and Research to Mark the "World Press Freedom Day".

Mr. Majhi said that the last year was particularly a "Black year" as 71 mediemen died in the course of their reporting or while on duty worldwide, the highest death toll since 1994. He stressed the role of the fourth estate in preserving democracy and called upon media to make major efforts to give impact to this day of sacrifice and dedication.

Mr. Ramahari Mishra, a veteran journalist and Director of H.K. Mahatab Centre for Communication Studies and Research in his address said that newspapers were often reluctant to talk about problems of their own profession and hoped that there would be an exception today in the interest of readers, as the repression of the Media, after all, first and foremost a direction of the basis rights of their readers "to receive inform freely".

Dr. Chitta Ranjan Samant, Director DIPS Communication Centre, said that Democracy is variously conceived and understood and its success depends on how "We make out a concrete shape of its functioning". He said that media responsibility had increased manyfold as the World sunk due to electronic revolution.

Mr. Satya Mohapatra, the Chairman of the Media Centre, who presided over the meeting said that World Press day declaration called for free and pluralistic media in our continent and the world.

Mr. Majhi released a book for children entitled "Ama Bhubaneswar" written by Mr. Ramesh Chandra Swain.

Earlier, a Resolution was adopted condoling the death of Mr. Chintamani Panigrahi and Mr. P.K.Bal, two veteran journalists of the State.

MANGROVES OF BHITARKANIKA

Monalisa Jena

The Bhitarkanika Wildlife Sanctuary of Orissa is famous for its dense and diverse mangrove forests. These forests, stretching over 650 sqkm., are the second largest of its kind in the country. The lush green marshland arching with long stilts like roots acts like a natural barrier against erosion. It is interspersed with several large rivers i.e. the Brahmani and the Baitarani which throw out a network of branches in every direction after innumerable twists and turns, rejoining the parent stream as it approaches the sea.

The entire area is deltaic and is the region of rich rice fields dotted with magnificent banyan trees, thickets of bamboos, mango orchards and palm groves. Hental, Bani, Rai, Pitamari, Kerwa, Sundari, Guan, Siris, Karanja etc. dominate the forests. Of the 67 varieties of mangrove so far identified in the country, 62 species are available here alone.

For a long time, these forests were inaccessible and unknown. The name Bhitarkanika means "the core of Kanika". The undisturbed surroundings sustained plenty of wild and aquatic animals. The largest estuarine reptiles of the world, "Boula" infest the creeks inside Bhitarkanika. The mass nesting of Olive Ridley Turtles on Gahiramatha island here has made the place world famous. The forests are rich in flora and fauna and the waters are the breeding ground of a large variety of aquatic life - fish, prawn, crab, etc. The mangroves yield good timber and tanning bark and are also exploited for firewood and honey.

Till about 50 years ago, these gifts of nature served mankind in many ways. Named Qila Kanika, the estate with an area of 1135 sqkm (440 sq miles) was the largest on the Cuttack revenue roll. Because of the dense jungles and innumerable small creeks winding into the heart of the forests, it was thinly populated. The density was as low as 824 persons per square mile in 1933. The total population of three major towns, i.e. Cuttack, Jajpur and Kendrapara was only 5,000.

The forest faced a threat to its survival when, in the name of land reclamation, large tracts of wooded area were ruthlessly cut down. When the Zamindari system was abolished, the Forest Department took over the area in 1952. But many portions were sold away to affluent Bengalis before the land and forests could be demarcated and recorded. Of the remaining forest, some portion was declared reserved areas and others fully protected but a major portion was left undemarcated and hence remained disputed. No survey was done and the Forest Department had no power to stop the destruction of precious mangroves.

Five decades later, the scenario has altered drastically. As many as 399 villages having a population of nearly 1.7 lakhs have come up in what was a thinly populated area and these are now converted into revenue villages. Within 50 years, half of the forest area is gone. The remainder is subjected to pressure for human livelihood.

The Mangrove Forests Division (WL) of Bhitarkanika is the only one of its kind in the country to be named after the mangrove. It has 28 forest blocks, but no area in the forest is reserved so far. About 6,807 acres of land is protected and about 9,612 acres of forests proposed to be categorised as 'reserved'.

The mangrove forests of Bhitarkanika which have been reduced to 262.5 sqkm are now endangered due to increasing human settlements, encroachment by prawn farmers and use of land for paddy cultivation. Bhitarkanika possesses a lion's share of the State's mangrove reserve.

According to a report by the Soil Conservation Department and the Orissa Remote Sensing Application Centre (ORSAC), the picture is grim. The mangrove forest is being depleted at an average of two sqkm. a year. A survey conducted by the National Remote Sensing Agency (NRSA) a few years ago said the total area under mangrove forest was 234 sqkm in 1972. Later, an ORAS study found that by 1984 the mangrove cover had been reduced to just 214 sqkm. However, the total mangrove cover according to the Dehradun-based Forest Survey of India's report, is only 195 sqkm. The rate of depletion was as high as 21 sqkm between 1989 and 1991, according to the report. No survey was done after that.

Destruction of the forest is mainly a human activity. Since most of the forest land was not retransferred to the Forest Department and was declared as wasteland, it was converted into agricultural land and consequently lost the regeneration power to replace the forest cover. Mangroves have a unique regeneration system. But when it is cultivated for agricultural purposes, the seeds of mangroves cannot grow and die permanently. Rehabilitation of refugees from Bangladesh led to the systematic denudation

of mangroves. Prawn farming converted 22,750 acres of forest into prawn 'gheries' and damaged to precious reserves.

Political decisions to construct Paradeep port and Dhamra port also endangered the survival of the forest. About 3,000 hectares of mangrove in Bitarkanika were cut down to make space for Paradeep port alone.

The National Mangrove Committee (NMC), set up under the Ministry of Forests and Environment to protect the dwindling mangrove reserve had selected sensitive areas for conservation. But due to lack of coordination between the Central and State agencies involved and the half-hearted response of the State Forest Department the action plan has remained a non-starter.

The inflow of refugees (there are already at least 60,000) who have been encroaching the land and felling precious mangrove forest for agriculture is systematically damaging the eco system of the region.

Mangrove forests protect coastal regions from cyclones. Since the forests produce firewood, timber, honey, wax and the waters are a breeding ground for fish, crab, prawns, etc. it is also in the interest of the people to conserve the unique forest cover.

Remedial measures are urgently required. No new plants should be introduced in the natural forest areas. Even digging of tanks for freshwater should be avoided. Frequent patrolling by speedboats and motorized launches should be avoided in the sanctuary areas. All forest lands including rivers and creeks within the boundary of Bhitarkanika Wildlife Sanctuary should be declared as reserve forest and be treated as the property of the Forest Department and restored to it.

No new leases for land and water bodies should be granted. Aquaculture farms should not be allowed within the sanctuary. Immediate steps should be taken to evict the unauthorised occupants of forest land. Efforts should be made to involve the local people and attempts should be made to create awareness among them.

Bhitarkanika Wildlife Sanctuary, which has dwindled to an area of 170 sqkm, is one of the best sanctuaries in the country so far as reptile reserves are concerned. The

management of the national park/sanctuary should be completely entrusted to the Wildlife Wing with adequate staff, vehicles and communication support. Special pay and free accommodation should be provided to the forest officials to work under adverse conditions. Budget allocation needs to be increased.

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HUDCO & ORHDC BAG AWARDS FOR OUTSTANDING PERFORMANCE IN CYCLONE AFFECTED ORISSA

The performance of HUDCO has been outstanding in providing Housing Loan Assistance to cyclone affected people of Orissa. HUDCO Building Centre, Jagatsinghpur, HUDCO Regional Office, Bhubaneswar, HUDCO Niwas Office, Bhubaneswar and Orissa Rural Housing & Development Corporation Limited (ORHDC) have achieved spectacular success in getting recognition both from people and Government alike.

The Building Centre, Jagatsinghpur was awarded first prize for its outstanding performance during the year 1999-2000. The Centre has been instrumental in achieving its objectives like constructing Low Cost houses for different purposes and providing training to skilled and semi skilled masons in Cost Effective Innovative Technologies.

The HUDCO Regional Office, Bhubaneswar had a growth of 1470.54% in sanction and 1404.49% in release during the year 1999-2000. It has achieved a total sanction of Rs.1142.57 Crores and released Rs.543.94 crore during the year, surpassing the cumulative all time sanction and release for the state from the commencement year in Orissa. It received awards at the 30th Annual Day function held at India Habitat Centre, New Delhi from Minister, UD & PA, Sri Jagmohan.

The HUDCO Niwas Office, Bhubaneswar has achieved record sanction in the country for Rs.501.35 crore and released Rs.375.70 crore for one lakh and thirty four beneficiaries on the aftermath of super cyclone. HUDCO Niwas Office has achieved a sanction of Rs.500 crore for the employees of the State Government under bulk finance and has released Rs.375.00 crores for the super cyclone affected people of the state.

Similarly, the Orissa Rural Housing and Development Corporation Limited (ORHDC), Bhubaneswar, one of the premier housing agencies in taking up Rural Housing in Orissa, has been declared as the Nodal Agency for the reconstruction programme in the aftermath of the Super cyclone. A total amount of Rs.318.76 crore has been sanctioned and an amount of Rs.166.78 crore has been released to the Agency during the year 1999-2000. The ORHDC has taken up the job of constructing 92,500 Dwelling Units in Economically Weaker Section category for the rural people, out of which 47,500 D.Us are for the beneficiaries of super cyclone affected areas.

In a function at India Habitat Centre, New Delhi, Shri P.K. Hota, Principal Resident Commissioner (PRC) received the awards on behalf of the Govt. for ORHDC on the 30th Annual Day function of HUDCO from Minister, Urban Development and Poverty Alleviation Shri Jagmohan and Minister of State for UD & PA, Shri Datatraya.

KHALLIKOTE AT A GLANCE

Bibhuti Bhusan Mahapatra

One of the phases of the evolution of Orissan art and architecture can be traced in some of the great centres of Hindu religion. The artistic urge of the people of Orissa expresses itself through architectural, cultural and sculptural excellence.

The Ganjam District of South Orissa, is washed by the blue waters of Bay of Bengal on the east. The natural surroundings of Eastern Ghat Mountains is its rich store house of antiquities. Its temples, archeological remains, monuments and shrines bring ample glory to the history and culture of Ganjam.

Khallikote is small town of Ganjam district of Orissa, surrounded by hills and forests, touching the coasts of the Chilka Lake. It is lying on the north eastern part of Ganjam District full of antiquities with rich cultural heritage, hearing the sweet sound of perennial stream.

Khallikote lies between 19° 20' and 19° 44' N 85° 5' E, with an area of 231 square miles and 235 revenue villages. It is on the north part of the District from the days of British rule. It is very close to National Highway - 5.

BOUNDARY

It is bounded on the east by the world famous 'CHILKA LAKE' on the west serpentine River 'KHARKHARI' and 'ASTADURGA' has flourished on the north by the Banapur estate and on south it spread up to Biruli and Mahuri estate. After abolition of the Athagada Zamidari, on account of

public auction for Rs. 29,150,150 to Khallikote Zamidari, its boundary spread over to 'GHUMUSAR' estate.

HILLS & RIVERS

Picturesque hills which enhance the beauty of the Zamidari. Krishna Giri Hill (Ht. - 1070 ft.) situated by the south west part, Marua (Ht - 905 ft.) by the south, Ghata pahad (Ht - 700 ft.) in the north, Khandahana in the north west part of the estate.

HISTORY

Khallikote has its own glorious history from its foundation upto Independence. It plays a major role during creation of 'SWATANTRA ORISSA' - 1936, (separate Orissa state).

According to tradition the founder of the family was one 'Gandu' and 'Kirtan' from Maraber Rana Rajput. Actually, the chronological history is only available from the King 'Hari Gopal' during 13 AD.

The ruling Chief of Khallikote rendered valuable military services to over load the Gajapati of Orissa from time to time, particularly during their military expeditions to the south. This state played a Vital role during their expeditions by virtue of its Geographical and strategic position.

ARCHAEOLOGICAL REMAINS

This modern Khallikote was the very heart of ancient Kangoda Mandala. Hence the

historical antiquities such as palaces, hills and temples bear testimony which push back the history of this region to a distant part.

The archaeological remains at Krishna Giri hill, a historical form of 'Kul Parvat' reveals that this place is famous for Jainism, Saivism and Saktism. The caves of this hill witness to the memory of the Jain saints and Saiva hermits. It was a famous place for Jaina 'SRAMANS' during Sailodbhavas.

At the foot of this famous hill there are number of temples of Lord Siva (i.e. - Jhadeswar, Mukteswar, Dhabaleswar, Anadiswar etc.). In addition to these, other temples are existing like Jagnya Narayan, Adi Narayan, Mahanarayan, Savitri, Yama and Danda Temple. The famous 'Danta lagna Kanistika Vairabi', Goddess Rama Chandi is also here too. At the entrance of the Mukteswar temple, there are two inscriptions of Chodaganga deva region dated the Saka Yera 1064 corresponding to 1142 A.D. In these inscriptions, Rani Mahadevi and Satyavama devi offered sacred *Dipas* (Light) to this temple.

Beautiful attraction of this place is a bathing complex named 'Snana Kunda' (Gupt Godavari) the ever ending spring coming out of the Krishna Giri Hill and making it's surrounding area most fertile. Krishna Giri is situated between Khallikote and Athagada boundary, 18 kilometer from national high way. This Krishna Giri bears imminence historical back-ground and stands as the mute witness of glorious Archeological remains of Khallikote.

Having Archeological remains Raj Bhavan, the place and residence of Raj family on a hill is popularly known as Giri Durga. D.I.E.T. and Art & Craft College are running here.

Dewan Bunglow of this Kingdom is just beside the road running towards N.H.5.

having the Archeologies. Indian Bank and Telephone exchange is functioning here.

Rambha Palace, constructed by resident Snod, Grass in the year 1792 was subsequently occupied by the Royal Raj family. It is 10 kms. distant from south east part of Khallikote and on the edge of Chilika Lake.

This place stands like a sphinx bearing the evidence to the contribution towards amalgamation of Oriya speaking tracts and the birth place of Utkal Sammilani, a leading association during Swatantra Orissa Creation Movement. According to H.K.Mahatab - "Khalikote is a historical place in Ganjam District which has an important role in the Orissa history. The contribution of Khallikote dynasty in the field spreading over education and formation of Special Orissa State is noteworthy."

MONUMENTS

On the foot of the hill Marua is Nirmaljar. It is an exquisite picturesque site situated towards south west of the Khallikote, just beside pucca road running towards Rambha. Some beautiful temples are specimen of of Orissa temple architecture, dedicated to Lord Siva, Lord Krishna, Lord Jagannath, Lord Ganesh, Lord Surya and Goddess Bimala scattered in this complex. Corresponding 15th century A.D. on the centre of the complex perennial stream flowing emanates from the hill Marua is a suitable bathing complex. The stone carving of the temple is beautiful. Neelakantheswar temple of this place is marked for it's rich architecture. Mithun figure are done in various poses on the walls of the temple. One inscription is also existing here.

There are twelve eye existing temples in the town. All the temples are the glorious master pieces of Mardaraj family of Khallikote built in between 16th to 19th century A.D.

Lord Jagannath temple is a magnificent temple of Orissa architecture, its height is 108 ft. and fourth one in Orissa. Basically, the plan followed by the Jagannath temple of Puri. The entire structure stands the designs of *Pancha Ratha of Orissa Silpa Sastra*. This temple was completed during the year 1863 by Raja Narayan Dev.

Radha Krishna Temple is situated by the road side. It is a full fledged temple. The temple walls are decorated with floral and geometrical designs. *Parswa Devatas* are also kept on the exterior walls of the temple. No such inner beautiful carving stone work is found through out the state.

Balukeswar Temple is situated in a beautiful spot, close to bus stand which is always crowded. The founder of this temple is Balukeswar Mardaraj.

Besides these, Amareswar, Raghunath, Gundicha temples are worth seeing of the town. Goddess BAHUTI (presiding deity of the Raj family is in between the palace and Jagannath temple.

Despite the Marda temple, the history of Orissa will not be completed and full fledged. It is within Astadurga Boundary. During the region of Gajpati Ramachandra Dev - II, Mahamad Taqi Khan, the then Subedar of Orissa attacked Jagannath temple of Puri. Unable to restore the Muslim, Ramachandra fled to Athagada and sent the images of Jagannath to Marda. The reason of withdrawing of the images was in order to secure his palladium and to present Taqi Khan from controlling the cult through his Officers. Three round cut stones called 'Chhaka', still bear the testimony of this historical event still now. The other *Parswa Devatas* are Bimala, Loknath, Baraha, Baman, Nrusingha and Surya peeth.

FLORA AND FAUNA

The attraction to the visitors for flora and fauna for natural surroundings is the famous chilika Lake and Narayani Peeth. Nilambu Chilika is just beside the National Highway and 4 kms. from Khallikote on east. Goddess Kalijai is worshipped here. It is home of birds. Different type of birds migrate from different parts of the world in winter.

Between Khallikote and Balugan just opposite to Chilka and very close to Naval Centre at Chilika, 4 kms away from the National highway, on the Bhaleri Hill range, famous Sakti Shrine Goddess Narayani is worshipped. Here is also an ever ending spring flowing from top of the hill, surrounding with dance forest. We find another pictorial site called Devijhar the midst of the scenic beauties of the nature. Young people would come here to become familiar with flora and fauna of this area.

SCHOLARS

Eminent scholars of this area include Nilambar Vidyadhar, Pandit Gadadhar Mishra, Kabi Aniruddha, Raj Bhrata Jagannath, Kasinath Vidya Bhusan Rajguru, Balukeswar Tarkalankar, Sadashiva Brahma, Nilakantha Bharati Bhusan, Raghunath Rajguru, Mahadeva kabichandra, Kasinath Tarkabagis. The contribution of Baikoli Jyotish Visarad deserves special mention. *Odisha Etahas-re Khallikote-ra Sthana, Bharatiya Jyotishara Etahas, Jyotisa Ratnabali* are his well known works.

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FINANCING SILK INDUSTRIES OF BERHAMPUR : A PERSPECTIVE

P.Ch. Mohanty
G.Padhy

Berhampur is famous for its silk products. During navigation trade, the ancient port 'Palura' known as Dantapur was rich with the export of silk materials. Distinctly the weaver areas were Ganjam, Brahmapur, Mantridi, etc. which had immense importance for manufacturing silk and other textile products. Silk clothes have been used on different ceremonial occasions. Greeks, Britishers and Egyptian mummies dating back to 2000 B.C. were wrapped in Indian Muslin clothes. Skilled weavers who are traditionally trained in the art of weaving of such type of textile skill upkeep the glory of Berhampur.

Besides the Berhampuri *patto*, muslims of Dhaka, the *chintzes* of Lucknow, *dhoties* and *dopattas* of Ahamedabad, silk bordered cloth of Nagpur and Murshidabad, shawls of Kashmir, Amritsar and Ludhiana are the National and International pride till today of this country.

THE CITY

Berhampur popularly known as the Silk City of India is a thickly populated city with a population of 2.11 Lakhs (1991). The city was famous for 'Patto' in addition to other consumer necessities. The silk 'Patto' business of Berhampur finds its way to Madras and Calcutta and other important places of the country and outside. The annual turnover of this business is estimated at 4 cr. The Chief industry of the city as described by T.J. Malt in the Ganjam District Manual is the weaving of tassar silk, which is manufactured into gold

embroidered turbans, dresses and other articles of weaving apparel. These are usually of excellent quality. The ordinary artisans at Berhampur are, as a rule, a very indifferent set of workman and take but little pride in their work.

SOCIO-ECONOMIC CONDITIONS OF WEAVERS :

The weavers are Devangulus (Deras), Rangunees, Pataras, Pats alias Tantees, Matia tantees or Bengali Tantees, now-a-days generally residing in Berhampur and nearby village areas, viz., Jayantipur, Patrapur, Muapentho, Solobagh Pentho, Nuapada, Padmanavapur, Kurula, Kankarada, Pitala, Pailipada, Munishpentho, Gangapur, Nalabanta, Mantridi etc. In Berhampur these weavers are found in Desi Behera and Krishnama Street, Haridakhandi, Ganesh Nagar and some other areas of Old Berhampur. Mostly the socio-economic conditions of these weavers are very poor. They need financial help & assistance to carry on their day-to-day occupation. There are more or less 750 silk weaver-families carrying approximate adult working population of two thousand artisans. Earlier each family had a loom and is economically independent but due to deterioration of the silk business, the weavers left their interest in the same and became poor day by day. Now a days the silk weavers are under the clutches of big merchants, private Mahajans and working under a master craftsman on daily wages basis. Any way

formation of three silk weaver co-operatives benefits nearly 350 weaver-artisan members which counts nearly 20% of the total weaver population of the city & the rest are still living in an unorganised way and are exploited to their last breath. The weavers who are working independently are some how financed by the Govt. under different poverty alleviation schemes and projects like Project Package Scheme (PPS), Handloom Development Centres (HDC), Intensive Handloom Village Development (IHVD) Projects. Under these schemes Government (State & Central) provides financial assistances for purchasing looms, loom accessories, dyeing equipment, construction of workshed (Rs. 4,000/-), Workshed-cum-Residences (Rs. 16,000/-), supply of electricity and drinking water. Alongwith all the above help packages, Govt. also extend, health and social security provisions to develop these weavers i.e. medical reimbursement, supply of spectacles, maternity and family planning benefits, Group Insurance and Thrift Fund Deposit Scheme provisions. Government also assists the member artisans of a co-operative society in supplying them share money which is Rs. 10 in the beginning but to be Rs. 500/- within five years of membership.

In the above context, we tried to study the working capital financing procedure and the refinancing measures of NABARD in respect of these silk weavers cooperative societies of Berhampur City in order to know the quantum of finance required and how it is met, the role of different organisations linked with this service etc.

FINANCING THE WORKING CAPITAL

In Berhampur, there are three silk weaver's cooperative societies at work carrying 350 weaver members. These societies are (1) Berhampur Silk Weavers Coop Society, (2) Chowdeswara Weaver's Cooperative Society, (3) Berhampur are to Cotton and Silk Weaver's Cooperative Society. compute their

working capital requirement and credit limit as per the guidelines available by NABARD, the refinancing institution. Generally, the coverage eligibility for Working Capital is computed by taking all current assets into consideration as per the following formula.

$$\text{Eligibility} = \text{Stock of Finished Goods} + \text{Stock of Raw Materials} + \text{Stock of Raw Materials with weavers} + \text{Dues, if any} + \text{receivables} + \text{Development Assistances, if any} + \text{receivables from the Government on account of subsidies rebates, grants etc.}$$

Similarly for the calculation of refinancing limit by NABARD is done through the criteria such as :

Per loom and another on the basis of 50% (Last Year's Production + 20% for anticipated production).

The refinancing amount will be the least amount (which is the less) of these two.

The Model Of Refinancing :

			State Govt
	A.D.T.	D.T.	Guarantee
Society	----- Funding Bank	----- OSCB	----- NABARD
	By 15th	By 15th	By 31st
	January	Feb	March

Refinancing the working capital model involves the organisation like the *cooperative Society*, the Central Cooperative Bank and the Assistant Director Textiles (ADT) at the field level and Orissa State Cooperative Bank, Director Textiles (DT), NABARD and the State Govt. at the apex level. Assistant Director Textiles & Director Textiles are the forwarding & scrutinising authorities whereas the State Government is the guaranteeing authority. Central Cooperative Bank is the funding and Orissa State Cooperative Bank is the linking institution for obtaining refinance from NABARD.

The application for working capital requirements of the society will be forwarded to the Central Bank by A.D.T. by 15th Jan. After scrutiny they are given to O.S.E.B. through Director Textiles within Feb., 15th and then to the NABARD by 31st March of the year prior to the financial year requiring finance. NABARD as a procedure will refinance 90% of the working capital requirement and the rest 10% is to be arranged by the Society itself.

FINDINGS :

The data collected are plotted in a table & the analysis made shows that in credit limits Berhampur Cotton Silk Weaver's Cooperative Society secures first within average of Rs. 17.63 Lakhs, Berhampur Silk Weavers Cooperative Society stood second with Rs. 8.98 Lakhs & Choudeswari, the third Rs. 6.20 Lakhs. It is seen that, in all the three Silk Weavers' Cooperative Societies the average deposits are exceeding the credit amounts. From this one can arrive at the conclusion that though there is a refinancing limit fixed by the NABARD, the funding bank heeds no ear to that but counts on the deposits received by the Society. Berhampur Silk Weavers' Cooperative Society within the period deposited Rs.54.79 lakhs but received only Rs.42.99 lakhs and by this, deposit exceeds by Rs.11.80 lakhs. In Choudeswari the total deposit to credit receipts is more or less equal. The credit limit of this society is more than Rs.6 lakhs in average but sanctions only a very negligible amount of only Rs.45,000/- from the limit. But the operational results of Berhampur Cotton Silk Weavers' Cooperative Society is some how better. It has an average deposit of Rs.20.10 lakhs but receives a credit of Rs.19.01 lakhs which exposes that the B.C.C.B. is utilising more than a lakh of rupees in their business instead of giving liberal credit money to the society for development. In toto, it is seen that the bank collects Rs.13.71 lakhs from the deposits per annum in average from

these societies but pays only Rs.12.84 lakhs as loan to the society under the refinancing measure. This reflects a minus or zero role in financing silk weavers cooperative societies for their development. Though there is a higher credit refinancing limit set by NABARD and guaranteed by the State Government for the amount it brings no use in practice.

It is also marked at the time of investigation that the societies have not been able to get their working capital requirement from the funding bank to flourish. The funding bank plays a very miserly role in issuing credit instead they use these customers as a source to their business expansion and deposit exploitation.

SUGGESTION AND CONCLUSION

To remove the bottlenecks of finance the Textile Dept. is arranging monthly meetings with the funding bank and society people and a bimonthly meeting by the Director, Textiles and the apex bank in this regard with O.S.C.B. and Govt. officers but so far no improvement is seen. This causes low quality material production, cheap dyeing procedure and indulging into the use of low quality raw material i.e. Malada Silk Yarns instead of Bangalore Yarns, which enhanced the fame and quality of Berhampuri *Patto*. Consequently, its good will is affected to a great extent.

The study, in this context can be concluded with the suggestions that the Govt., the apex bank, the funding and assisting banking institutions will come forward to supply sufficient credit to the weavers and also to the weavers' cooperatives to build up their profession in a better way by carrying research and development work for producing new, modern and attractive designs of Berhampur Silk Products. Finance should not stand as hindrance in the path of improving the silk industries of Berhampur which carries the Worldwide glory for our nation at large.

WORKING CAPITAL FINANCED BY NABARD

(Rs. in Lakhs)

Year	Berhampur Silk Weavers' Coop. Society			Chowdeswar Silk Sweavers' Coop. Society			Berhampur Cotton & Silk Weavers' Coop. Society			Remarks
	Limits	Credit Receipt	Deposits	Limits	Credit Receipts	Deposits	Limits	Credit Receipts	Deposits	
1993-94	7.73	9.09	13.88	5.72	6.05	9.06	16.36	13.05	22.76	
1994-95	4.63	15.14	9.36	5.49	12.52	8.26	14.75	27.31	20.33	
1995-96	8.32	3.10	7.17	5.49	7.06	11.87	18.26	20.77	22.81	
1996-97	5.26	5.01	15.24	6.00	15.75	15.22	23.68	17.52	23.78	
1997-98	10.93	7.58	5.77	9.47	19.27	11.05	15.24	24.05	14.57	
1998-99(upto Jan'1999)	17.00	3.07	3.47	17.00	13.43	15.96	17.51	11.36	16.35	
Total	53.87	42.99	54.79	49.17	74.08	71.42	105.80	114.06	120.60	
Average	8.98	7.17	9.14	6.20	12.35	11.90	17.63	19.01	20.10	

- N.B.** Coverage for 1998-99 : 1. Berhampur Silk Weavers' Coop. Society - 18.53 lakhs, outstanding - 1.07
 2. Chowdrswari Silk Weavers' Coop. Society - 16.34 lakhs, outstanding - 4.68
 3. Berhampur Cotton & Silk Coop. Society - 17.28 lakhs, outstanding - 7.86

Source : Records collected from the office of the Asst. Director Textiles, Berhampur, Ganjam.

BENEFIT – COST ANALYSIS

Umakanta Mishra

Benefit-Cost Analysis plays a vital role in assessing the economic value of a project. Merely setting up a project, spending a huge amount without considering its impact over society is meaningless in a developing country. Through benefit-cost analysis, we can find out whether the project caters to the real needs of people. A project without sizeable returns may prove disastrous for repayment of loans brought from lending agencies. The question arises: what is benefit-cost analysis? What are the components associated with benefit-cost analysis? How the benefit-cost analysis is done?

To get answer, a detailed analysis is required. Let us discuss about the salient features of benefit-cost analysis with the help of scientific observation and mathematical calculation.

BENEFIT-COST ANALYSIS

Year	Capital cost	Discount factor @ 12%	NPV of capital cost	Gross benefit	Operation & maintenance cost	Production cost	Net benefits (5-6-7)	Discount fact or @ 12%	NPV of net benefits at 12% discount rate (IRR)
1	100	0.893	89.3	-	-	-	-	-	-
2	100	0.797	79.7	-	-	-	-	-	-
3	80	0.712	57.0	80	8	9	63	0.712	44.8
4	20	0.636	12.7	100	10	10	89	0.636	50.9
5	-	-	-	120	12	14	94	0.567	53.3
6	-	-	-	120	12	14	94	0.507	47.4

BENEFIT-COST ANALYSIS

5. While making project approval analysis, two essential components of the project are to be assessed, (i) the cost of the project or the capital investment and (ii) the benefits likely to be derived from the project. The cost covers both the capital cost and operational cost and benefit covers the economic benefits(financial benefits) and social benefits. These are all projections or anticipations made on scientific lines by using approved and realistic norms.

6. The basic principal of project appraisal is the derivation of benefit-cost ratio of the project. To make a detailed calculations an illustration is given below. Assuming that an appraisal is to be made for an irrigation project. The benefit cost ratio is to be calculated as follows:-

7	-	-	120	12	14	94	0.452	42.5	
8	-	-	120	12	14	94	0.404	38.0	
9	-	-	120	12	14	94	0.361	34.0	
10	-	-	120	12	14	94	0.322	30.3	
300		-	238.7	900	90	103	707	-	341.2

$$(i) \quad \text{Benefit cost ratio} = \frac{\text{NPV of net benefits}}{\text{NPV of capital cost}}$$

$$= \frac{\text{Rs.}341.2}{\text{Rs.}238.7} = 1.43$$

$$(ii) \quad \text{Net present worth @ 12\%} = \text{Rs.}341.2 - \text{Rs.}238.7$$

$$\text{Rs.}102.5 \text{ lakhs}$$

NET PRESENT VALUE (NPV)

7. N.P.V. means the net present value. While comparing the cost and benefits, those are to be reduced to the present value. For this purpose, discount rates are to be applied. The choice of rate of discount affects the profitability of the project. The higher the rate of discount taken to favour quick gestation period and if the benefit cost ratio of the project is favourable by using higher rate of discount, the project shall be positively viable.

8. Why the costs and benefits during all years are to be converted to present value? It is because money has time value. A rupee which will be received 10 or 20 years later is not considered equivalent to a rupee now. This will be so even without inflation. In case of inflation it loses value even further. Most of us or the society places a higher value on present consumption than future consumption and any deferment in present consumption demands a higher premium to the sacrifice made in present for future periods. A part from consumption premium which necessitates social discounting of values of rupee, on the production activity makes a rupee to generate incremental income. Hence, the project should be at least as productive as an alternate possible investment. Hence the discounting is applied bringing both the cost and benefit in future to the present value for obtaining benefit cost ratio.

DISCOUNTING:

9. Discounting is the opposite of the term compounding with which everybody is familiar, especially in financial deposits and accrual of interest. Every body knows that Rs. 100 invested in a Bank with a compound rate of interest of 10 percent will fetch Rs. 259 after 10 years. This means that Rs. 259 will have a net present value of Rs. 100 with a discounting rate of 10% (in ten years time). Therefore, such discounting rate has to be applied to be applied to bring the future costs and benefits to net present value. The table giving the discounting rates is displayed for ready reference and application.

10. In our example of benefit cost analysis (in the table at para 6) we have applied 12% discounting rate and analysed benefit cost for a period of 10 years. Normally a 12% discount rate is adopted for such development projects as an appropriate rate to derive NPV. In columns 3 and 9, the discounting factor has been taken from the discounting table in the appendix under 12% discounting rate and according the HPV has been obtained.

11. It may be seen in the table that the present value of Rupee after 10 years at 12% rate of discount will be only Rs. 0.3220 and as we go on future, the present value goes on diminishing every year. After 20 years it becomes only Rs. 0.1037 and after 50 years it becomes only Rs. 0.0035. It is not necessary

for anybody to calculate benefit cost of a project for taking a period of more than 20 years even though the physical life of a project may be 50 or 100 years. The project appraisal analysis is not concerned with the life of a project as after 20 years there may develop various other situations which is likely to influence the benefit cost.

12. It may be seen in the table that the capital cost has been converted to NPV by applying the discount factor. But the operational and maintenance cost has not been taken into consideration under cost. On the other hand, the annual operational costs and production costs have been deducted from the gross annual benefits to obtain net benefits which has been reduced to NPV by applying the discount factor. The benefit cost ratio is thus calculated by taking the NPV of net benefits and NPV of capital cost. Similarly, net present worth (Net present value) is obtained by deducting NPV of cost from NPV of net benefits.

13. If the benefit cost ratio is found to be more than 1 the net present worth is greater than zero, then the project is considered viable.

IDENTIFICATION OF COSTS AND BENEFITS

14. The items to be covered under cost are rather easy to understand. But the items under operational cost and maintenance, gross benefits in terms of products/outputs, production cost etc. are difficult to identify. Therefore, these are to be very carefully listed for calculating the costs. The benefits relate to the increase in the value of output which is the difference between the net value of output with the project and the value of output without the project.

15. The other is direct benefits may flow due to completion of the project. There may be (a) improvement in quality of produce. (b)

higher price because of storage and marketing facilities, (c) reduction in transportation cost (d) equitability in distribution of income and etc. Some such benefits which are amenable for quantification may be so done and included under benefits. But it may be appreciated that quite a number of such benefits are not quantifiable as methodologies have not yet developed. While making appraisal, however, these indirect benefits which are not quantifiable are to be fully listed out.

16. There may be secondary benefits relating to increased economic activity, activities by transport companies grain-mills and agro- industries (on account of higher production in agriculture), traders and shop keepers etc. It is very difficult to quantify these benefits. The secondary benefits are in the employment sector because of multiple cropping and introduction of growth centre activities. It is also a complicated task to quantify such benefits. But a complete listing of these benefits must be made during the course of project appraisal.

17. Similarly the intangible benefits which are not at all quantifiable may be in the form of higher income and equitable distribution of income, removal of economic imbalances between different regions, better quality of life and creation of imbalances between different regions, better quality of life and creation of more compatible living environment etc. If any such benefit is accruable, the details may have to be given.

VALUATION OF BENEFITS AND COSTS

18. Even though the cost items are easily identifiable, the valuation is not so easy. It may be relevant to point out that market prices do not always reflect social value. Our analysis aims at determining social costs and social benefits. There are certain items where social values are different from market prices. For

example, the social prices of labour (unskilled labour) in chronic unemployment pockets or areas with concentration of under employment is not equal to market prices or wage rate of labour even though the actual wage rates to be paid or paid to such labourers is the market rate. The social prices shall hypothetically be much less than the wages actually paid as in the absence of employment opportunities, the social expectation is low. The employment provided in the project does not affect production elsewhere or in any other sector but, on the other hand, when there is no opportunity cost of labour any where else, the social cost (or price) may be zero. Though in practice it can not be taken as zero, a lower social price than market price is to be attached for unskilled labour being engaged in the project. In case of unskilled labour it may be 10 to 25% of market wage, agricultural labour 25% and semi skilled labour at 50% of the market wage rate. The valuation for this analysis may be made accordingly. But in regard to labour intensive projects or projects located in areas other than areas of concentration of idle labour force, for valuation of labour the market wage rate has to be taken.

19. In calculating the cost, the payment made under taxes and duties payable to Government are to be deducted from the capital cost or from cost or inputs since these are merely transfer payments to Government and are not intended for use of real physical/material resources. (Tax on diesel etc. to be deducted). But if any subsidy etc. are available for any item, these are to be added to the cost. (Subsidy on some industrial inputs). Raising the prices through taxes or duties or reducing it through subsidy does not alter the actual cost of the project for appraising the project.

20. It may also be remembered that for making social benefit cost analysis, depreciation is not taken under cost factor. Since our analysis aims at comparing the

discounted cost with discounted benefits, depreciation does not play any role in it. But for financial analysis, depreciation is taken as a cost item to determine the profitability of the project.

21. Similarly, interest payment is also not treated as a cost item for social cost benefit analysis. Since the society is the lender (either bank or individuals or public funds) and the society is the borrower for the project, these get mutually cancelled. It is immaterial as to where from the capital is collected and where to the interest goes as these are matters of the society as a whole. So long as the discounted returns are higher than the discounted opportunity cost of capital the project is considered viable from the point of view of the society though the financial analysis takes interest on invested capital as cost.

22. While appraising a project, the experience gained in similar projects elsewhere should also be taken into consideration to make the analysis easier.

23. For valuation of benefits normally the producer's prices are to be utilized and the price paid by the consumers, if any, should not be taken into consideration.

Benefit-cost analysis is done at different levels. In the Government the technique is used by P & C Department and its sister agencies like Directorate of Economics and Statistics. The P & C Deptt. normally uses the methodology while taking up evaluation studies of different Govt. schemes. But a more systematic and authentic way is adopted by the Directorate because of their well trained and experienced staff. Departments should come forward to take the help of P & C Deptt. in analysing their projects/schemes in the State during the plan period for building a successful economy.

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KONDHA CRAFTS OF TUMUDIBANDH

Raghunath Rath

Kondha-predominated district Phulbani, now named as Kondhamal after the name of the Kondha tribe, lies between 19.34N. and 20.54 N latitude and 86.30 E and 84.48 E longitude with a population of 858553 as per 1991 census. Kondhas numbered 279976 in undivided Phulbani district as per 1981 census which forms 39.2 percent of the district population and 16.72 percent of State's population. The district has a geographical area of 7649.2 sq. kms. cut of which the forest area covers about more than 5000 sq. kms.

Tumudibandha Block is situated on the South-Western end of the district which adjoins Kalahandi district in the west and Rayagada district in the south. Hence the culture of this Block is influenced by the culture of the people of Kalahandi and Rayagada districts.

The geographical area of Tumudibandha Block is 1,15,456 hectares with a population of 30,360 as per 1991 census. The Block constitutes eight Gram Panchayats. The most primitive Kutia Kondhas are found in Guma, Belghar, Jhiripani and Lankagarh Gram Panchayats. The rest Gram Panchayats namely Sirla, Kurtamagarh, Mundigarh and Tumudibandha are inhabited by Desia Kondhas, locally known as Malua Kondhas. A few Kutia Kondha population are also traced in Mundigarh Gram Panchayat. Most of the Desia Kondhas of Sirla Gram Panchayat area and some of Mundigarh G.P. area like Sesharigam adopted the penthom of

Christianity. A few Kondha members of Dadanga village have gone into the penthom of *Sanatan Dharma*. These villages under study are roadside villages. Hence their life style is on the cross road of change although they are still using the traditional crafts objects.

According to need man manufactured various crafts objects for smooth maintenance of livelihood. Crafts objects also varies from one community to other according to their cultural phenomena and environmental situation. Kondhas also manufacture and use many craft objects. Some are manufactured by themselves and some are bought from the local market or from other communities. Now they are using some modern accessories like Lantern, Radio, Cycle, Television set, Slipper, Golden ornaments etc. by imitating their civilised neighbours.

This paper deals with the crafts objects under use in Desia Kondha community of Tumudibandh Block area where they are called as Malua Kondha by their Hindu neighbours. The crafts objects used by these Desia Kondha may be classified into the following :

- (a) Wood Works (b) Bamboo works (c) Iron implements (d) Materials from forest products (e) Jewellery (f) Earthern wares (g) Metal articles (h) Stone works (i) Textiles

(a) WOOD WORKS

1. Building of House

Most of the Desia Kondhas of Tumudibandh Block area build walls (Guda) of houses by wide planks of sal (*Sorea*).

robusta) wood. Such houses are said by them as "Pangad idu". These wide planks are hewn manually by axe and arranged the one over another and knotted with less wider planks called "Tabedika" with wooden chips (*Kandede*). They also make door jamb (*Dara Goba*), Door (*Dara*) from sal wood and planks and use wooden beams and rafters to build up a house.

Kondhas never need the help of carpenters. They themselves build up their houses. Some geometrical designs found in the pillars of houses are also curved by them.

2. Building of cow sheds (*Kadingtsala*) also show the able craftsmanship of the Kondhas. They raise a platform by wooden polls or by manually hewn planks of about 3 feet high and above the plank bed they build up the roof of the cowshed by long pillars and make the walls of it with less girth long poles by closely putting them with a wooden or a bamboo mat door. A ladder-type path with half polished wooden planks is also attached to it for to and fro of the cattle.

3. Kondhas make wooden cot (gate) sewn with Shiali plates for sleeping and sitting purpose.

4. Plough (*Nangeli*), Yoke (*Juelli*), Clod (crusher) (*Patasi*), Harrow (*kurly*) used by the kondhas for agricultural purpose.

5. Cage (*Pinjuri*): Cage-like sheds from small wooden planks or poles are prepared for domestic.

6. Small and big dug-out wooden container called (*Danga*) to feed cattle and domestic bores are made by Kondhas from wood.

7. Small temporary huts (*kudi*) to guard crops are seasonally made of wood by Kondhas.

8. Mortar or pounding whole (*Seni*) and pestal (*kalu*) for hand pounding of paddy and other corns are found in the main room of every Kondha house.

9. Wooden Fences (*Aggeri*) are often found in the Kondha villages to protect the houses as well as crops of the yard.

10. *Jambali* are wooden planks made of wood by Kondhas for sitting purpose.

11. Hollow Wood (*Duna*) is put in the embankment of paddy fields to regulate rainy water.

12. Sacrificial posts (*Darni Gaba*) of wood with geometric curvings are made by the Kondhas to worship *Darni Penu*, the EARTH GODDESS.

13. In *Podha Puja* or Buffalow sacrifice festival two wooden posts of sal wood are designed like buffalow horns joined with a small wooden beam at the top called 'Manga' is posted and a new cloth hangs from it during the festive occasion.

Another post '*Karu Gaba*' or the pole to tie the buffalo for sacrifice is posted near the 'Manga' post at the centre of the village.

Two wodden posts with a hole in each are posted either side of the village called '*Gaba*' and '*Tala Gaba*' where rotten eggs are offered to protest the village from malevolent spirits.

14. Some musical instruments like big and small drums (*Dhole*, *Nisan*, *Tasa*) percussion musical instruments (*Changu*) Tambourin (*khanjar*) etc. also are made of wood covering with goat or *Godhi* (Laguna reptile) skin. These instruments are prepared and played by the scheduled caste people in Kondha festivals and cermonies.

15. Wooden Bell (*Kiredi*) prepared by curving a piece of wood are tied to the neck of cattle to trace them from the forest while grazing.

(b) BAMBOO WORKS

1. Basketry – '*Bhoga*' big carrying basket, '*Taapa*' small carrying basket, made of thin bamboo plates from split bamboo for carrying corns. Wicker basket (*Dangeli*) is used for

harvesting paddy and ragi etc. by feet and sieve (*Sangeri*) to cleanse harvesting materials are also made by thin bamboo plates.

2. *Madi siredi* - '*Madi seredi*', a comb manufactured from very small bamboo sticks sewn with thread shows the skilled craftsmanship of the Kondhas. Making of various designed combs from bamboo sticks is a speciality of the Desia Kondhas as well as Kutia Kondhas of the Tumudibandh Block area. In the other part of the district this industry is seldom found.

3. Winnowing tray - (*Shesi*) made from thin bamboo plates is manufactured and used by the Kondhas for cleaning and fanning harvested crops and to clean rice, etc. for cooking.

4. To keep fish during fishing CREEL (*Diudi*) is prepared from thin bamboo plates and used by Kondhas.

5. Mats prepared from thin bamboo plates for sleeping, sitting and to dry corns are used by the Kondhas.

6. Big mats from split bamboo are prepared to cover up verendah or for fencing which is called "*Madichali*" in Kui language.

7. Small faced netting basket known as *Jurusi* or *Diudi* are made of thin bamboo plates to keep poultry.

8. Split bamboo is often used in roofing and other house-making purpose.

9. '*Nala*' or bamboo pipes is used for fanning hearth.

10. Big baskets for storing grain (*Dhipeli*) and small baskets (*buruda*) made of split bamboos are in use in Kondha society.

(c) IRON IMPLEMENT

1. Axe is the most important Iron implement for the Kondhas. Whenever they go out, an axe remains with them. They use '*Goda Kuradi*' or big axe for cutting the big trees, for chopping and making planks from logs and '*Tangeri*' a small axe, which is the

companion of the tribesman used to cut small trees, bushes and bamboo.

'*Tangi*' the battle axe is held by the groom when he goes to marry. It is a must to hold a *tangi* as a mark of bravery of the groom and they consider it to be a part of wedding material. *Tangi* is also held in dancing during festive occasions. *Tangi* is utilised in sacrifice of the animals in religious and ritual occasions also. These articles are prepared by the 'Lohara' community, the Blacksmith of the locality and purchased by the Kondhas.

2. BOW - (*Biloo*) and Arrow (*Ambu*) manufactured from iron by local blacksmiths are preserved in every house as an essential part of the wedding material of the groom.

3. '*RAMPE*', spade is bought from the local market for agricultural use.

4. SICKLE (*Gagi*) are manufactured by the blacksmiths from iron and purchased by Kondhas to cut paddy, ragi etc.

5. '*KENDA*' or sword is held at the time of group dance on the festive occasions and is also used to cut big fishes from water at the beginning of the rain.

6. '*KNIFE*' (*Dude*) made of iron by the blacksmiths is used by the Kondhas in cutting fruits and vegetables. It is also used for sharpening and polishing wooden implements and to clean sacrificing animals and to prepare meat from them.

7. An iron rod curved semi circularly and thinly on the top with a wooden handle called '*Sesu*' is used in cutting the small branches and bushes.

8. Ploughshares of two types are in use among the Desia Kondhas of Tumudibandha Block area which are called '*Nangeli luha*' and manufactured by blacksmiths.

9. Crow-bar (*Sabali*) is also in ample use by some Desia Kondhas in digging earth.

10. '*Guru Sabali duda*' made of iron is used by the priest who performs the buffalo sacrifice (*Podha puja*).

11. Kondhas use 'Sikalanga' small chains for door hook, *kabjas* and at times iron nails in house making purpose.

12. Big iron chains were in use, now in vogue, to tie the victim for human sacrifice.

13. *Dipa* or *nantara* (lamp or lantern) brought from the local market are in use within Kondha community.

14. Tin boxes are now-a-days are traced in some kondha houses, though traditionally is not in use.

(d) MATERIALS FROM FOREST PRODUCTS

1. It is a regular feature with Kondha women of making leaf plates (*Pananga*) and leaf cups (*Thola* or *kala*) from *Siali* or sal leaves at their leisurely hours. Kondhas generally use *thola* for eating rice and gruel and *kala* for eating curry. They make huge quantity of big and small leaf cups of their leisurely hours and preserve them for the working season for eating purpose. They also present *thola* and *kala* to their relatives on the ceremonial occasions.

The leaf plates made by Kondha women are sold in the local market or to agency marketing co-operative society, Tikabali or T.D.C.C. marketing centres to earn some money.

2. Hill flower brooms (*Saperi*) are seasonally collected by Kondha womenfolk and bind them with *siali* plates in leisure hours and sell them in the local market or to the co-operative purchasing agencies.

3. *Siali* plates (*Paerimale dar*) are collected from nearby jungles and utilised for sewing cots and twisting ropes and for other purposes.

4. Wild grasses, known as "*Bigaka*" are collected and used for thatching.

5. Rope shelves (*Sikanga*) are prepared for keeping of foods and edible things and

tethers are made for binding the domestic animals.

6. Mats from date-palm leaves (*sitaka*) are made by the Kondha women woven digonally at the leisurely hours for sleeping purpose.

7. Dried, empty gourds (*Laka*) are used as water pots to carry gruel, wine (*kalu*) etc. and bitter gourds (*pitataka*) are used to serve food and to distribute wine as skimmer.

(e) JEWELLERY

1. "*Taperi*" a round ornament made of thin silver plate and silver one rupee coins hang by making holes and tied around it is worn by the bride at the time of marriage as headdress.

2. "*Kakadi*" made of two or three narrow thin silver plates joined together at the bottom and four anna coins fixed on the top of it are worn by the Kondha brides on their heads.

3. "*Tatipaka*" or hair pin made of a bunch of ten small silver sticks about 3.5' inches length and sewn at one end with a wooden stick are worn by the bride on the back side of the head.

4. "*Dipa*" or hair clip made of silver or iron are worn by Kondha women folk to keep press the hair on festive occasions and on the matrimonial ceremonies.

5. "*Kichedika*" or "*Kisedika*", ear rings made of silver aluminium are worn in the lobe of the ears by the married Kondha women numbering from twelve to twenty. At the pre-marriage stage the ears were bored and sticks were put into the holes. At the time of marriage the groom presents *kisedikas* to the bride.

6. "*Khagala*" a round one piece ornament made of silver or aluminium worn by the Kondha women in two or three numbers as necklace in festive occasions.

7. Bead necklaces of different colours known as "*Patika*" are often in use among the Kondha womenfolk.

8. The bride wears *katrianga* and *Bandrianga*, a round hollow decorated ornament made of silver at wrist.

9. "*Krakanga*" or armlet made of thin silver plate and fixed with four anna coins are worn by the bride at the left arm.

10. "*Chikili*" or waist ornament made of thin silver plate fixing with eight anna coins are worn by the Kondha bride around her waist over cloths.

11. "*Birigagali*" or anklets made of silver is a hallow ornament with small bells inside it which produces sweet sound while walking, are worn by the Kondha bride.

12. "*Balanga*" a round hallow wrist ornament made of silver or aluminium are always worn by Kondha women.

13. "*Gagali*" the anklets made of hallow silver are often in use among the Kondha ladies at the ankle.

14. Kondha ladies wear "*Jutianga*" a ring for feet fingers and "*Mudi*" for hand fingers made of brass, silver or iron.

15. Every Kondha woman wears a piece of cloth called "*Dabeni*" from the childhood from belly to the back side of waist which passes through the thighs. To tie the *dabeni* Kondha woman wears a waist chain known as "*Taderi*" which is made of silver or aluminium and purchased from the local market.

16. Most of the Kondhas are below the poverty line. In some well-to-do families, women wear golden necklace (*patika*) ear and nose ornaments.

17. Some Kondha women wear glass bangles called "*Suringa*" by purchasing from local market.

18. Kondha groom wears two metal horns called "*Kamanga*" made of bronze during marriage as headdress and Kondha males also wear it during festive occasion for dancing.

(f) EARTHENWARES

Desia Kondhas of Tumudibandh Block area do not manufacture earthen wares. They purchase earthen wares from the potter community for their use. No other use of earth is seen for any purpose except building of mud walls of houses.

Kondhas use earthen pots to cook rice known as "*Bajataki*" and "*Kusa lata*" for cooking dal and curry. "*Siruguda*" or earthen pitchers are used to carry and keep water. "*Njukundi*" known as earth pots where oil is preserved are made of earth. "*Degili*" or frying pan of earth is used to prepare cakes and to fry vegetables etc.

Big earthen wine jars known as "*Bdahi*" and small earthen wine jars known as "*kumpi*" are in use in Desia Kondha community.

Handmade tiles are purchased from potter community for roofing of houses made of earth.

(g) METALLIC ARTICLES

Metallic articles under use in the Desia Kondha society of Tumudibandh Block area are purchased from the local market. But occasionally, some well-to-do Kondhas use brass or bellmetallic utensils. Aluminium utensils are also in use in most of the Kondha families.

Brass and Aluminium pitchers known as "*Gura*" to carry water and glass of brass or bellmetal is used by Kondhas is called "*Gilasi*" in the kui language.

"*Mandi*" bowl, "*Taali*" plate, "*Plipa*" basin for curry of bellmetal or aluminium are in use within Kondha society. "*Tabala*" aluminium cooking pots, "*Satuki*" or skimmer of brass iron or aluminium, "*Laka*" or spoon of the same metal are used by them. "*Balti*" Bucket made from thin iron plate or aluminium are in use among the Kondhas. Use of brass, bellmetal and aluminium jars (*Jari*) are also

seen in Basin Kondha community of the study area.

Special mention may be made of the bronze images or ancient bronze valuables. Images of wild and domestic animals, birds, reptiles, human figures, cavalry men, elephant rider, etc made of bronze are presented as "Darab" or dowry to the bride. These images are sometimes offered worship at the time of buffalo sacrifice and other religious functions at the place of ancestral worship by the Kondhas. Moreover, the bronze valuables are purchased at a high price by some merchants for commercial purpose.

(h) STONE WORK

A flat stone slab used as curry stone *Bahn* and a rounded long stone used as pestle *Pahn* are used to crush spices like turmeric, mustard, chilly etc. and to make powder from tobacco leaves.

Gunter Ball or grindstone is used in some Kondha families to make powder from tobacco leaves.

"*Gunter ball*" or grindstone is used in some Kondha families to make *dal* from grains or to grind ragi etc.

"*Darni Peni*", the Earth Goddess is symbolised by three stones with another stone kept over it.

Stones are used to make sharp edge of knife, axe etc. by rubbing on it and embankment of some fields are made by stones to control the heavy flow of rainy water in order to protect the embankment from unnecessary breaches.

(h) TEXTILES

Kondhas use the word "*Sinda*" for cloths. They do not manufacture clothes. The required clothings are purchased from the local market. A piece of cloth known as "*Dabeni*" is worn by Kondha women; "*Asaluga*" a thick cotton blanket is used to prevent the cold of the winter.

Women use "*Dabeni*" as inner dress. Over it they wear a towel around the waist known as "*Tuali*" and for the upper part of the body another piece of cloth called "*Gati Tuali*" is tied to the neck on left shoulder.

At the time of marriage the groom wears a loin cloth called "*Jada Gaji*" and holds a red wollen blanket on the left shoulder. Wearing of these cloths are now in vogue and now they wear dresses like other civilised or modern communities as marriage dress according to their economic ability.

CONCLUSION

The ability and skill of craftsmanship of the Kondhas is connected with nature. They make their crafts objects according to their needs from wood, bamboo and all other forest products, which are chiefly available within their handreach. They never feel to sell these crafts objects to earn money. Hence they never feel necessary to make their attractive crafts objects. Even though the aesthetic view of the Kondhas can be judged from the curved wooden posts of their houses, sacrificial posts, plank walls, date-palm leave mats, hill flower brooms, leaf plates and cups, bamboo combs and other bamboo works etc. These objects also show their skillfull craftsmanship. It is also evident that the Kondhas are on the cross road of rapid change due to Christianity, modernisation and cultural assimilation with neighbouring civilised folk and using more modern accessories day by day according to their financial stability. Hence some crafts industries are partly or completely diminished from the Kondha society now-a-days.

Time is pregnant with all sorts of events. Changes are noticed in almost all walks of life. It is natural that some changes are also noticed in the lifestyle of the Kondhas.

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THE DANCES OF THE SAORA TRIBE OF ORISSA : AN ETHNOGRAPHIC STUDY

Hrushikesh Mahapatra

Art has entered the day-to-day life of people through folk-music and folk-dance. In all cultures of the world human movement has worked as a vehicle of expression of joy and sorrow. The urge of outward expression through body movement has assumed many shapes and forms at different periods of history and in different parts of the world. These forms of human movement sometimes assume the form of dance and are different in context, theme and style. But these are similar in spirit of spontaneity.

Folk dances of different parts of the world have common links. Usually they portray the functions of daily life, rites and rituals, belief of performer in spirit and the like. These are performed throughout the year on social events like marriage, child birth, agricultural functions and during fairs and festivals. Folk dances are the best means of pleasure for people during such occasions. No one can fix up an exact date and claim that folk dances started on that date.

Here is an ethnographic study of the folk dances of Saora, a section of hill tribes of Gajapati district of Orissa.

The Saora is one of the oldest and primitive tribes of Orissa. They are rebellious and war-like people. They occupy permanent settlement and earn their living by cultivating the hill terraces. Besides, their economy is supplemented by forest produce collection and hunting.

Saora dance is very simple in comparison to other tribal dances of Orissa. Soaras dance on four main occasions such as :

- (i) during *Nuakhia* Festival in the month of November & December;
- (ii) during the tenth day of a dead person, known as *Guar* ceremony;
- (iii) during marriage;
- (iv) during name giving (*Tangseng*) ceremony.

Occasionally they dance during harvests and on religious occasions.

DANCING DRESS

Saoras' dancing dresses are very simple. Men use head wear tied with a coloured turban. Women use colour cloth to cover their chest. Both men and women dance to the tune of drummers.

Three days before the *Nuakhia* occasion they start dancing. On this occasion Soaras first worship the village deity called Jodisum on the outskirts of the village. The Bhuya (village priest) and Gomango (village head man) of the village worship the deity. Next, the village deity called Sadru is worshiped. The Soaras believe that if they undertake dancing without worship of the Jodisum and Sadru they may suffer from fever or the tiger may kill them.

Before the dance, drinking liquor (local liquor called "Salap", "Tadi" etc.) is a

routine. The liquor pot is placed at the centre and the dancers sit around and take the liquor using dried pumpkin skin.

After drinking men, women and children start dancing. They dance making a round, then move a straight direction. The persons who play different musical instruments remain in the front of the dancing folk. At intervals, "Ae, Ae" rhythmic sounds are made along with whistling. Saoras dance individually remaining in a group. Occasionally the girls may dance jointly keeping their hands over the shoulders of other girls. The dancers move around the village along with the drummers. Saoras while dancing lift one leg at a time. The persons who play musical instruments are not specialists. Any one of them can use an instrument.

The dance on the occasion of a marriage ceremony is little different from the "Nuakhia" dance. Here the girls dance, keeping their hands over each other's shoulder and the boys also dance in a similar way. One does not find any difference between the dance of the marriage ceremony and name giving ceremony. But differences are found in the musical instruments.

On the tenth day of a dead person, (known as *Guar* ceremony) Saoras dance after worship and sacrifice of the buffalo. The male members only dance on *Guar* ceremony. Except the brass-made musical instruments other instruments are used on this occasion. The *Guar* dance is performed to forget the sorrow caused by the death of near and dear ones.

MUSICAL INSTRUMENTS

Saoras use a variety of musical instruments at the time their dance. The

instruments include drums of various size called *tudum*, brass cymbals (*tanorjab*), brass gangs (*mandi*), hide gangs and bugle (*kaner*). They also use *sarangi*, a type of violin and *papadusal* a type of wooden bell in their dance. The musical instruments used on the occasion of *Nuakhia* ceremony and marriage ceremony are different from those used during the "name giving" ceremony and *Guar* ceremony. On the "name giving" ceremony the musical instruments played consist of violin and *papadusal*.

Saoras dance as a routine and for merry making. No special training or guidance is given to the youngsters. Saora children participate in the dance and pick up the art.

The tradition of dance has been maintained by Saoras for generations. The youngsters pick up the art from the older ones; there is no formal training given to the younger ones. So there is no intervention of a professional dancer or a teacher. Through dance and songs the people seek to satisfy their inner urge for revealing their soul. Their performance only gives expression to their inner feelings, their joys and sorrows, their natural affections and passions and their appreciation of beauty in nature and in man.

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PROTECTION AND CONSERVATION OF BIODIVERSITY IN SIMILIPAL NATIONAL PARK

Introduction

Nature's living treasure – the genes, species, populations, communities and ecosystems in existence today represent a wealth of options for the present as well as future generations in the biosphere. Unfortunately, we are thoughtlessly destroying varied species and ecosystem faster than nature can create new ones. In the process we are pushing the 'Earth' from the state of 'biodiversity rich' to 'biodiversity deficit'. During the current decade, the earth's biological riches have been rapidly and irreversibly diminished. Huge areas of old growth forests have been degraded or cleared in temperate as well as tropical regions eliminating thousands of plants and animals. With the advent of mad rush of developmental activities following the independence of the country, our attention from nature has turned away, so much so that it has resulted in wanton destruction of nature and natural resources. In this holocaust, the worst victim has been the forest. Biological species alone are now vanishing 100 to 10,000 times faster than natural extinction, as a result of human actions. The earth's ecosystems are now being ripped at the rate of at least 50,000 species a year.

At global level there is realisation that whatever biodiversity resources are now available in, the wild should be protected for posterity.

Similipal Forest : Location

The Similipal Forest spread over an area of 2,750 sq.kms. is situated in the centre of Mayurbhanj, the northern most district of Orissa. It is a unique habitat of mixed tropical forests in the northern plateau of Orissa. The reserved forest area of 2,200 sq.kms. has been declared as a sanctuary since 1979. The core area of 845.70 sq.kms within the sanctuary area has been gazetted under the provisions of the Wildlife Protection Act, 1972 as the future Similipal National Park. During 1994, the Similipal forest has been declared as a Biosphere Reserve by Government of India due to its biodiversity and rich natural heritage.

Forest Types

Four types of forests are seen in the Similipal system. They are :

- (i) Northern Semi-evergreen forests confined to upper reaches of deep valleys.
- (ii) High level Sal forests above 900 meters, grass lands and Savanna.
- (iii) Dry deciduous hill forests confine to the steep eastern and southern faces of Similipal hills and dry Sal forests.
- (iv) Northern moist deciduous forests extending all over the Similipal except the eastern portion and plain Sal forests.

The unique positioning of the massif acts as a barrier to monsoon blowing from

south-west and besides causing heavy rain, diverts the moisture laden wind to south-western region to cause heavy rainfall in the west of Orissa. Thus it has been said that Similipal to Orissa is as the Himalayas to India. With about 2,000 mm. Annual rainfall and variation in altitude and aspects, the Similipal forest supports varieties of dense vegetation.

Biodiversity in the flora of Similipal forests:

Similipal is a virgin sub-tropical forest and is a stockhome of large varieties of flora, which are a mixture of South Indian, North Indian and Andamans species. Very few plants are endemic. The range of flora existing and evolving are the elements of evergreen forests of deep valleys, moist and dry deciduous forests of medium to high table lands chiefly represented by Sal, as well as alpine and savannah elements. The data of enumerations by taxonomists gives a total of 3000 species of plants, ferns, orchids and mosses.

The topographic variation harbours many diverse species and ecotypes of species of plants. Saxena and Brahman (1989) have reported 1076 species of plants representing 168 families. The density of species per family is one of the highest as compared to the distribution of Himalayan species. The large genera are Acacia (11 species) Aneileme (6 species), Butea (4 species), Blumea (4 species), Ficus (11 species), Leea (10 species), Terminalia (5 species) etc.

Mishra (1986) has reported 93 species of Orchid flora of Similipal, out of which 4 species are new reports for India. Further, Similipal rears many rare species of plants. Besides the more economic species of trees such as Sal, Silk, Cotton, Arjun, Asan, Champa, Madhucá, Bija etc. It also contains about 200 species of medicinal plants, many species of economic plants and plants yielding alkaloids, resins, lae, myrobalan, arrowroot and species as feed for tassar.

The aborigines of Similipal are the tribals who live in harmony with the natural settings of the forest. Their habit is so well adjusted with nature that it can be cited as an example of true ecosystem in the scheme of sustainable biodiversity.

Geology, Rock, Soil

The sequence of rock of Similipal basin beginning with a well developed dark carbon phyllite as base and followed by a quartzite band which is conglomerate at places. Overlying this, there is lower layer of spilitic lava with volcanic broceia. This geological formation is unique in the world. Out-crops of metamorphics and stone and quartzites are to be found all over Similipal hills. They produce a reddish and sandy soil in which Sal appears to be doing well. Most of the areas in Similipal have rich spread of red loam. Extensive pockets of laterite soil also come across on the plateau. Heavy clay is also found in the wide flat basin.

Climate

The climate of the massif is warm and humid. Summer is tolerable as the temperature hardly goes above 40°C. Three distinct seasons are felt during the year. Rainy season starts from the middle of June till October with rain fall of about 1250 mm in the monsoonic leeward valleys, over 2000 mm is the general spread of the rainfall in the plateau. Frequent annual receiptal of 2500 mm is experienced in some pockets and more in higher elevations inside Similipal. Winter creeps in gradually from mid-october and becomes severe in December lowering temperature to 5°C in many parts of the hill, with frost in valleys and open grass lands. The spring is pleasant. The southern and western aspects are cooler and North-Eastern aspects are warmer in Similipal. This geophysical condition influences flora and faunal distribution.

Biodiversity Protection

It has been realised that protection of biodiversity saves the future of human lives in the longrun. It is not only the number and spread of the species, but the presence of genes of characters for resistance to diseased and pathogens and a variety of environmental stresses reside in the wild plants. These characters or genes need isolation from the plants. It is strongly felt that research be initiated to isolate these principles of genepools or molecular biodiversity from the rare and unique plants of Similipal, so that they can be used to produce important drugs for human health, or other organic principles so important for life. In this sense the protection and conservation of biodiversity is a useful capital which will at one time be used for the benefit of mankind.

Ecological dependence of biotic elements is the mainstay in any sustainable environment. Thus co-existence of mankind with plants and animals in Similipal, which is yet not very seriously injured by outside interference, will be an asset for security of ecosystem and conservation of biodiversity. Similipal tolerated many ravages of destruction on account of population pressure, development and greed of unscrupulous traders of wood and forest production. This has million of years to evolve and stabilise. Once destroyed, it is impossible to get these back anew.

Biosphere Reserve

The Government of India declared Similipal as a Biosphere Reserve on 22nd June, 1994. The creation of biosphere reserve as per international norms will have full protection of the core region, which is around 1000 sq.kms. in Similipal, where nature will be undisturbed. This zone will be encircled about with a ring of buffer with a zone of forest

of approximately 1500 sq. kms. which will be used for research, education and limited access to tourism. The outer ring of another 1500 sq.kms. will be mostly used for tourists and research.

Measures to be undertaken

In order to preserve such a unique forest eco-system, the following aspects need due attention.

1. Creation of artificial forests through social forestry scheme in the available wastelands in the peripheral region of the Biosphere-Reserve.
2. Rehabilitation of forest blanks and grasslands created due to over exploitation in the past.
3. Prevention of unscientific agricultural practices inside the forest.
4. Prevention of overgrazing as well as illegal felling of standing crops.
5. Demarcation of fire protection lines inside the forest to control the ground fire.
6. Extensive soil conservation work to prevent erosion.
7. Protection of wild-life.
8. Development of minor forest products and management of forest resources in general.
9. Prevention of further encroachment and eviction of forest land already encroached upon and bringing back those lands under an effective tree cover.
10. Tackling of areas subjected to heavy ground forest fire resulting in the decay of Sal seedlings.
11. Supply of old and unwanted timbers and firewood to the local people.

12. Water resource management.
13. Prevention of mining activities as well as any cultural activities.
14. Rehabilitation of tribal people engaged in unscientific agricultural practice as well as hunting of wildlives.
15. Spraying of the insecticides over the disease affected standing crops.

Conclusion

Coming to the present day scenario, participatory forest management is the cry of the day. Since Similipal Reserve Forest has been declared a Biosphere Reserve, the conservation and preservation of its natural

flora and fauna should attract immediate attention.

It has been rightly realised all over that the forest resources cannot be preserved or the problems of grazing, forest fire and indiscriminate collection of bamboos cannot be solved, without involving the local communities in protection and conservation. There should be regular monitoring of the forest resources. The working plan maps should be more frequently updated. The database should be maintained in GIS base for integration of various spatial and nonspatial information pertaining to the area.

CHILD LABOUR IN INDIA: RECENT INTERNATIONAL INITIATIVES

Subrata Sarkar

BACKGROUND

Although Child Labour as an issue assumed importance in Europe and the US hundred and fifty years ago articulated in the form of anxiety against children working for long hours and under grim conditions in factories, sweetshops and up chimney's, it was only in the twentieth century that it emerged as an issue of global concern touching all nations and people of the world. Spearheading the new opposition to child labour was the International Labour Organisation whose guiding principle of social justice reflected in its Constitution as also in the *Philadelphia declaration*, militated against the employment of children. Starting with the preamble to the Constitution of ILO, concern to protect children from the effects of premature work was reflected in a total number of 18 Conventions adopted by ILO against child labour. The first of these was convention no.5 adopted in 1919 which prescribed a minimum age for work in any industrial establishment followed by a series of eleven conventions that laid down norms for the employment of children in sectors such as agriculture, railways, mining, seafaring, plantations etc.

1970s

By the 1970s, the world opinion against child labour had taken a concrete shape and the need to enunciate international standards regarding child labour in all sectors

of employment culminated in convention no.138 which was adopted by the International Labour Conference of the ILO in 1973. This Convention is a flexible instrument in that it not only fixes different minimum ages for different forms of employment but also for countries at different stages of economic development.

1980s

In the context of the slow but growing worldwide interest on Child Labour, one of the most significant international developments took place in 1989. This was the unanimous adoption of the convention on the Rights of the child more popularly known by its acronym CRC by the UN General Assembly in November that year. The CRC seeks to protect a wide range of children's right including the right to protection from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the education of children or to be harmful to their physical, mental, spiritual, moral and social development. The CRC requires state parties to take legislative, administrative, social and educational measures to ensure the implementation of the convention and in particular :

- ♦ to specify a minimum age or minimum ages for admission to employment.
- ♦ appropriate regulation of hours of work and conditions of employment.

- ♦ appropriate penalties or other sanctions to ensure the effective enforcement of its provisions.

The CRC also contains important provisions that have a bearing on extreme forms of Child Labour such as the sexual exploitation, abduction, sale of and trafficking in children for any purpose or in any form. The CRC is one of the most widely ratified instruments on any subjects with 191 countries having ratified it.

DECADE OF THE 1990s

The decade of the 1990s was a watershed in that it saw a sudden spurt in global interest on Child Labour, which manifested itself in a number of forms. One of them being the global technical co-operation project on Child Labour known as the International Programme on the Elimination of Child Labour (IPEC) taken up by the ILO in 1992. The IPEC is operational in thirty countries today, with 191 countries ratified it.

India was the first country to join the programme in May 1992. In India, it has worked with both Central and State Governments, NGOs, Trade Unions, Employers' Organizations, Research Institutions, the media and various sections of civil society. The Programme is guided by a National Steering Committee of which the Secretary, Ministry of Labour, is the Chairman. Highlights of the IPEC programme in India are:

- ♦ Release and rehabilitation of bonded Child Labour and children working in hazardous and abusive circumstances.
- ♦ Raising public awareness against Child Labour.
- ♦ Assisting in policy making at National and State levels.
- ♦ Training NGOs on the design management and evaluation of Child Labour projects.

- ♦ Training of labour and factory inspectors on enforcement of Child Labour Laws.
- ♦ Sensitizing employers and employers organisations against Child Labour.
- ♦ Enrolling working children in regular schools after weaning them away from the work place.
- ♦ Activising dysfunctional and non-functional Government schools in areas where working children are concentrated.
- ♦ Sensitizing Trade Unions, their leaders and their worker members on Child Labour.
- ♦ Eliminating Child Labour in selected areas and work-spots.

Even though a wide variety of interventions was devised under the IPEC rehabilitation of Child Labour through non-formal education was accorded a central place. About a lakh of working children were rehabilitated under various Non-formal Education Programmes largely implemented by NGOs.

EVALUATION OF IPEC

An evaluation of IPEC conducted last year noted that "in most schools the children were found happy and eager to learn. This is reflected in a significantly higher (96-98) percent level of attendance as well as retention in schools. The implementation of these programmes has also demonstrated that the beneficiaries and their families were willing to accept adjustments to the consequential income losses".

The evaluation team found out that the IPEC had significant impact on Child Labour through a variety of interventions especially a number of innovative educational approaches adopted by implementing partners and in particular the following NGOs.

- ♦ The camp approach of MV Foundation Hyderabad.
- ♦ The three tier platform schools run on railway stations by Ruchika, Bhubaneswar.
- ♦ The community based approach to mobilize children into schools of CREDA Mizapur, CINI-ASHA Calcutta and Bharat Children Shiksha Samiti, Tonk, Rajasthan.
- ♦ NGO networking approach of Bhagvatula Charitable Church A.P.
- ♦ Establishment of Databank on Child Labour
- ♦ Conduct of Project Design Workshops.
- ♦ Preparation of project documents for new NCLPs.
- ♦ Preparation of guidelines for NCLP managers.

ASSISTANCE FROM UNICEF

The evaluation noted that the IPEC and the National Programme on Child Labour have reinforced each other bringing the issue on Child Labour to the national forefront and at the same time creating a conducive climate for tackling the same.

CLASP

The other ILO Programme CLASP originated in response to the initiatives taken by the Indian Government in the mid-1980s to deal with the problem of Child Labour. The Programme is aided by the Government of Germany. The agreement between the German Government and the Government of India was signed in Nov. 1992 and CLASP became operational thereafter. The aim of CLASP is to enhance the Central Government's Policy, Planning and implementation capacity, to increase its capability to provide support for ongoing and future projects by the State Governments and NGOs, mobilise greater support and sustain a community wide movement on behalf of working children, and facilitate a more efficient use of government resources.

Some of the important activities undertaken under the programme are :

- ♦ Conduct of Baseline Surveys in NCLP areas.

The UNICEF has played an important role by supporting Government and NGO activities in this area. The primary focus of UNICEF has been on prevention of Child Labour through primary education. It has in addition provided financial and technical support for legal enforcement, studies on Child Labour, and workshops and discussions on the problem at the national and state levels. More recently, the UNICEF has been involved in combating child trafficking and prostitution by organizing regional workshops and is working with the National Human Rights Commission to co-ordinate policy, action and advocacy. UNICEF believes that Child labour can be eliminated if appropriate policies are implemented. According to their policy Child Labour can be eliminated in a phased manner within a specified period of time. UNICEF, India believes that the main strategy to eliminate Child Labour would include strong legislation and its enforcement, specific measures to release and rehabilitate children from labour, accompanying social policies, such as education and rural development, and activities to raise public awareness on the issue of Child Labour.

OTHER UN-AGENCY-SUPPORTED PROGRAMMES

The UN- Agency supported programmes that are increasingly concerned with the Child Labour problem include the UNDP's South Asia Poverty Alleviation

Programme, UNDCP programme for street children, UNSCO's Learning without Frontiers (LWF) programme, UNFPA's support activities in the context of Government of India's Adult Literacy Programme, UNIFEM's Entrepreneurship Development Programme for women, and UNAIDS' activities on Child Trafficking.

JOINT INITIATIVES WITHIN THE UN SYSTEM IN INDIA RELEVANT TO THE ELIMINATION OF CHILD LABOUR

The most important of these is the Joint UN System Support for Community - Based Primary Education. This is a collaborative effort of the UNICEF, UNDP, ILO, UNESCO and UNFPA which aim at supporting government efforts on universal elementary education and making primary education more accessible and effective for primary school age children, with special focus on disadvantaged and marginalized children including child workers. Other relevant joint UN initiatives include UNICEF-ILO-UNESCO joint convention on the status to Teachers, collaboration between UNICEF and UNAIDS on prevention of child trafficking and collaboration among UNAIDS, UNICEF, UNESCO and the WHO on HIV/AIDS prevention.

However, the crucial initiative of the UN system in India which reflects the convergence of the thinking of seventeen different UN agencies has found concrete shape in the recently adopted UN system Position Paper on Child Labour in India. The paper notes that Child Labour has emerged as an increasingly important issue in the national context, reflecting heightened sensitivity to the problem at all levels within the country. Highlights of the paper are:

- ♦ The Joint Position statement views Child Labour as a violation of the child's basic rights to education to her/his full and

harmonious social, physical and mental development and in some cases a violation of the child's moral and physical integrity.

- ♦ UN system in India believes that the country should move ahead quickly to a position where it can ratify ILO convention No.138 and the proposed new ILO convention on most forms of Child Labour.

Arising from the UN system's common position on Child Labour in India the ILO has taken the lead in setting up an Inter-Agency working group on Child Labour to be chaired by the ILO Area office, New Delhi. This body will continuously synergize and co-ordinate the work of all UN agencies in the country on Child Labour. Example of the emerging collaboration and convergence within the UN system is the recent proposal for a project in Mumbai and New Delhi to be jointly implemented by ILO, UNESCO, UNDP, UNFPA and UNICEF to end Child Labour in selected city slums and declare them free of Child Labour, thereby generating an awareness of its evils within the civil society in these two cities.

WORLD BANK ASSISTANCE

The World Bank has also started taking serious note of Child Labour in India as a development issue. Its official commitment to assist countries in reducing and ending Child Labour is expressed in their document 'Child labour. Issues and Directions for the World Bank. The World Bank's India Country Assistance Strategy has included Child Labour as an important issue for it in India. The support usually takes the form of leading programmes in affected countries. Ongoing lending Programmes could be refocused for greater impact in reducing the incidence of harmful Child Labour.

An inter-ministrial meeting in which eight State Governments participated

represented by their departments of Education, Labour, Rural Development and Women and Child Development was convened in July 1988 by the Ministry of labour to examine how the World Bank interest on Child Labour could be channelized to support projects in its country for the prevention, reduction and eventual elimination.

INTERNATIONAL CONFERENCE :

International conferences such as the Amsterdam (Feb. 1997), Oslo, (October, 1997) and the Stockholm Conferences are examples of growing global initiatives aimed at mobilizing world public opinion against it. A new convention No.182 on the elimination of worst forms of Child Labour was unanimously adopted at the plenary of the 87th session of the International Labour Conference on 17th June 1999. The instrument does not deal with the elimination of all forms of Child Labour but only with the prohibition and elimination of worst forms. These are as follows :

- ♦ Bonded children who work under forced or slave like conditions and children who are compulsorily recruited for use in armed conflict.
- ♦ Children who are victims of child sex abuse or prostitution and pornographic performances.
- ♦ Children who are victims of trafficking in drugs
- ♦ Children who are engaged in hazardous industries/occupations.

The new instrument envisages priority action, explicitly lists some of the worst forms, provides for monitoring mechanism and programmes of action, requires measures for prevention, rehabilitation and re-integration, requires special attention to the situation in which girl children are placed and calls for international co-operation and assistance.

INDIA'S RESPONSE TO INTERNATIONAL ACTION AND PROGRAMME ON CHILD LABOUR :

The Indian Government has come under pressure to deal with the problem of Child Labour from western countries particularly the United States of America and Germany. West is experiencing a new wave of public opinion against the import of goods using Child Labour. The Carpet Industry in India has become the main target of their attack and the focal point of their campaign against Child Labour.

The US Congress has threatened that it will ban the import of merchandise produced by children to enter the American market. The bills introduced by Senator Tom Harkins and Representative Barney Frank if passed will ban the import of merchandise using Child Labour.

The western nations are demanding a label system for guaranteeing that carpets and other products are not made using Child Labour which has come as a big blow to the export oriented industries which employ children on a large scale particularly the Carpet Industry. The Indian Government has come up with the KALEEN label, offered to Carpets made without Child Labour. The NGOs in India have dismissed the Kaleen label as unconvincing and have in turn set up the RUGMARK label which comprises representatives from the industry, South Asia Coalition on Child Servitude (SACCS), the carpet manufacturers association without Child Labour, the Indo-German Export Promotion Project (IGEP) and UNICEF.

The Western nations are trying to erect non-tariff barriers to free trade in the guise of labour standards especially by putting child labour on the agenda of World Trade Organization through a social clause. India has campaigned against such a linkage.

The Indian Commission on labour standards, created in Aug. 1994 has suggested that instead of a flat rejection of a linkage between labour standards and tread or a complete surrender, India should press rich industrialized countries to help fund the cost of wiping out Child Labour by the turn of the century.

The Government of India has adopted constitutional, statutory and developmental measures to deal with the problem of Child Labour. However, despite these prohibitions children continue to work in prohibited areas of work, which is largely due to the tardy implementation of Child Labour laws and developmental programmes for the benefit of children.

INTERNATIONAL CONVENTIONS RATIFIED BY INDIA

Name of the Convention	Month & Year
1. Right of right work of young persons (Industry) convention 1919 of ILO	July 1921
2. Minimum age of (trimmers and stokers) convention, 1921 of ILO	Nov. 1922
3. Medical Examination of Young persons (c) convention, 1921 of ILO	Nov. 1922
4. Right to night work of young persons (Industry) convention (revised) 1948 of ILO	Feb. 1950
5. Employment of children under minimum age convention, 1919 of ILO	Sept. 1955

6. Minimum age (underground work) convention, 1965 of ILO March 1975
7. Convention of the rights of the child 1989 Nov. 1992

References :

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3. UNICEF (1999) : State of the World's Children (UNICEF, New York)
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5. UNICEF : UNICEF India Policy on child Labour UNICEF, 1994
6. UN (1966) : International Covenant on Economic, Social and Cultural Rights, UNTS No.14531, Vol.993 (1976)
7. UN (1966) International Covenant on Civil and Political Rights, UNTS, No.14668 (1976), P.171.
8. ILO : International Programme on the Elimination of Child Labour Document (Geneva: ILO, 1992)
9. ILO : Report of the Director General to the International labour Conference, 69th Session (Geneva : ILO, 1983)
10. ILO : Towards the Abolition of Child Labour : ILO Policy and its implications for ILO Technical co-operative Services (Geneva: ILO, 1993).
11. CLASP : Child Labour Action and Support Programme.
12. NCLP : National Child Labour Project.

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FIRM COMMITMENT OF A SELF-RELIANT & RESPONSIVE GOVERNMENT

- Government is committed to ensure greater transparency, efficiency, integrity and accountability in every area of governance, corruption and inefficiency will be dealt firmly.
- Plans for fiscal restructuring of the State with a view to achieving long-term stability will be implemented with full vigour.
- Priority will be accorded to accelerating the pace of economic development, promoting good governance, social justice and communal harmony.
- Aiming at the development of rural areas; adequate flow of Government funds to the rural areas will be given priority and schemes of devolution of power and functions would be comprehensively reviewed for the effective empowerment of Panchayati Raj institutions.
- Building of institutions required for basic governance and essential services like health, revenue administrations, police, primary education, animal health, anganwadi centres; roads and bridges which have been damaged in the super cyclone and floods will be reconstructed.
- Khariff programme will be expanded further through substantial augmentation in supply of quality seeds; and steps will be taken to supply tractors and power-tillers under the ongoing schemes.
- The strategy for increasing the area under irrigation substantially will focus on cost effective schemes such as creek irrigation projects, small irrigation projects, shallow tube-wells, small lift devices and tanks.
- Fisheries, poultry and milk productions will be given high priority both as primary and subsidiary means of livelihood. The problem of unemployment will be addressed primarily through promoting avenues of self employment in the areas of agriculture, horticulture, animal husbandry, cottage industries and handicrafts.
- Development of Information Technology, industries, agro-processing units, food processing units, ancillary and down stream industries will be encouraged.
- To prepare children to face the challenges of life in the new millennium; computer education at the secondary school level will be introduced.
- A plan of action will be drawn up for fully exploiting the tourism potential of the State.
- Laws relating to child labour and bonded labour will be enforced effectively and special attention will be paid to women workers and the workers in agricultural and other organised sectors.
- To optimise the outreach of primary education, District Primary Education Programme will be extended to all districts.
- Special thrust will be given to raise the standard of living of the people in K.B.K. districts and other tribal areas and address the problems of regional disparity.
- The minor forest produce policy will be reformulated to protect the legitimate interests of the tribal gatherers.
- Western Orissa Development Council will be made more effective and efficient and its area of operation will be widened.
- Government intends to establish a Minority Commission and to create a Fund for development of other backward communities.
- Maintenance of land records, land registration, treasury business, motor vehicle tax and excise duty collection are some of the areas where computer would find wide application.
- Six Technology Missions will be instituted for watershed development, horticulture development, handloom and sericulture development, weavers and fishermen's development, information technology and upgradation of livestock.
- High priority will be accorded to development of Oriya language. A Handicrafts and Culture Museum will be established for preservation, dissemination and propagation of Orissa's rich heritage of handicrafts and culture.
- Every effort will be made with strong determination and sincerity to implement the promises reflected in the Common Minimum Programme.



Shri M.M. Rajendran, His Excellency, the Governor, inaugurating the Baisakhi Utsav organised by Chinta O' Chetana at Soochana Bhavan, Bhubaneswar on 15.4.2000.



Chief Minister Shri Naveen Patnaik at the mass rally organised by the Biju Janata Dal on the occasion of the 3rd Death Anniversary of the Great Leader Biju Patnaik at Naveen Nivas on 17.4.2000.



Chief Minister Shri Naveen Patnaik inaugurating the Kalyan Mandap and the Guest House constructed by the Puri Municipality at Mochi Sahi, Puri on 17.4.2000.



Chief Minister Shri Naveen Patnaik releasing a book on Dr. Ambedkar on the occasion of his 101st Birth Anniversary at Soochana Bhavan on 14.4.2000. Minister, Co-operation, Textile' & Handlooms, Shri Aurobind Dhali and Minister of State, I. & P.R., Shri Duryodhan Majhi are also on the dias.



Shri M.M. Rajendran, His Excellency the Governor, attending the 110th Birth Anniversary of late Biswanath Dash as Chief Guest at Diploma Engineering Association Building, Bhubaneswar on 19.4.2000.



Chief Minister Shri Naveen Patnaik inaugurating the function of the Old Students' Association at the Rourkela Engineering College on 16.4.2000.



Minister of State, Agriculture, Shri Amar Satapathy at Meet the Press on Kharif Campaign on 3.5.2000. Principal Secretary, Agriculture, Shri Sanjib Chandra Hota, participating in the discussion.



Speaker Shri Sarat Kumar Kar, Minister, Revenue, Shri Biswa Bhusan Harichandan, Minister, Mass Education Shri Bhagabat Behera, and Minister I. & P.R. Shri Duryodhan Majhi, are on the dias on the occasion of the Death Anniversary of Pandit Raghunath Mishra on 24.3.2000.



Chief Minister Shri Naveen Patnaik, in the seminar and workshop arranged at Rotary Club, Bhubaneswar on 11.3.2000.



Chief Minister Shri Naveen Patnaik, making a surprise-visit to the Bhubaneswar Tahasil office on 15.4.2000.



Shri M.M.Rajendran, His Excellency the Governor, attending the Annual Day Celebration of Utkal Pathak Sansad as Chief Guest at Sriram Chandra Bhavan, Cuttack on 26.3.2000.



Shri M.M. Rajendran, His Excellency the Governor, attending the Bisuvmilan Utsav organised by the Lekhak Sammukhya at Hotel Swosti on 16.4.2000.



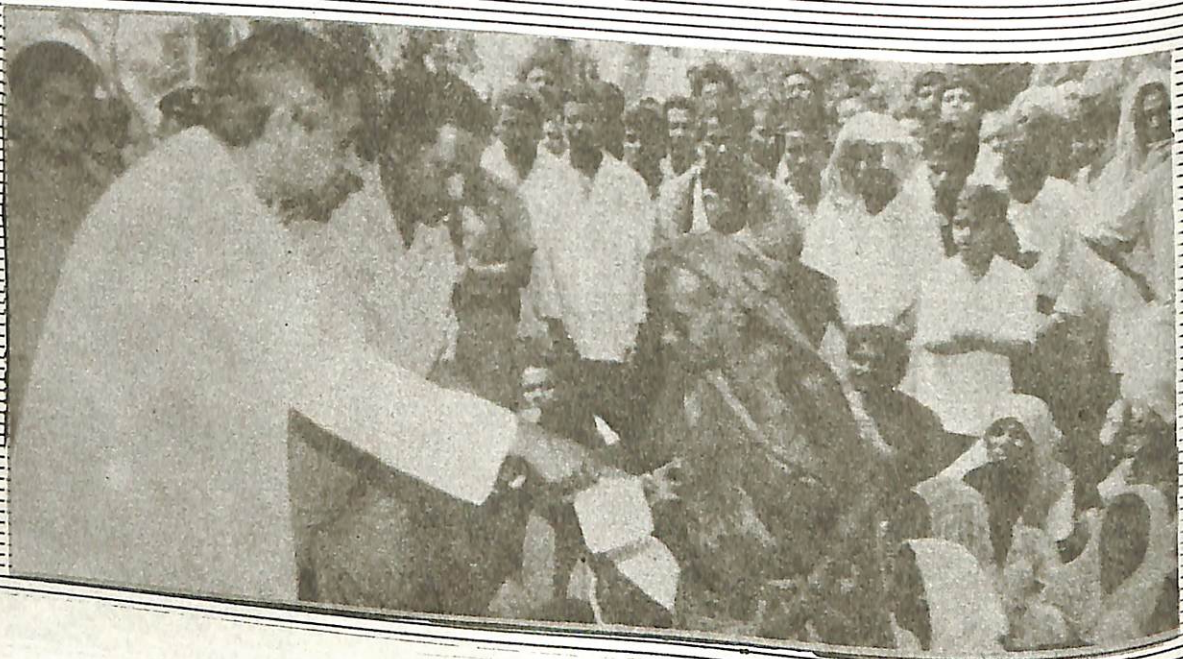
Chief Minister of Orissa Shri Naveen Patnaik receiving a draft for Rs.12,29,022/- and US Dollar \$ 1000 from Shri K.S. Rao, Chief Executive of ITC Ltd. towards Chief Minister's Relief Fund on 29.3.2000.



Dr. J.E. Mitchiner, British Deputy Commission for Eastern India, meeting the Chief Minister Shri Naveen Patnaik at his Secretariat Chamber on 28.3.2000.



Shri M.M. Rajendran, His Excellency the Governor, addressing a seminar on 'Modernisation of Police Administration and Community Policing' organised by the Bhubaneswar Metropolis Management Association at Hotel Swosti, Bhubaneswar on 28.3.2000.



Chief Minister Shri Naveen Patnaik distributing G.R.cards to the cyclone affected people at Jireilo of ERASAMA block on 25.3.2000.



Shri M.M. Rajendran, His Excellency the Governor, flagging off the human chain set up on the occasion of the Pulse Polio Awareness programme at the Rotary Club, Bhubaneswar on 23.2.2000.



Minister of State, I. & P.R. Shri Duryodhan Majhi, Secretary I. & P.R. Shri Tarun Kanti Mishra and Director Shri Durga Madhab Dash are in a Press Meet on 25.3.2000 held in the Conference Hall of I. & P.R. Department.



Chief Minister Shri Naveen Patnaik receiving a cheque for Rs.2,42,750 for Orissa Defence Personel Relief Fund presented by the Mayurbhanj and Karanja Education District teachers and employees on 26.3.2000.



Chief Minister Shri Naveen Patnaik in a surprise visit to a control shop at Ambiki of Erasama Block on 25.3.2000 and interacting with the people about supply of essential commodities.



Chief Minister Shri Naveen Patnaik receives a cheque for Rs.24,02,628 towards the Chief Minister's Relief Fund from C.G.M., NABARD on 27.3.2000.



Chief Minister Shri Naveen Patnaik offering floral tributes to the mortal remains of Sahid Manoj Kumar Bhanja on 26.3.2000.



Chief Minister Shri Naveen Patnaik offering tributes to Kalinga's Great Leader Late Biju Patnaik at the Samadhi Peeth at Swargadwara Puri on 17.4.2000



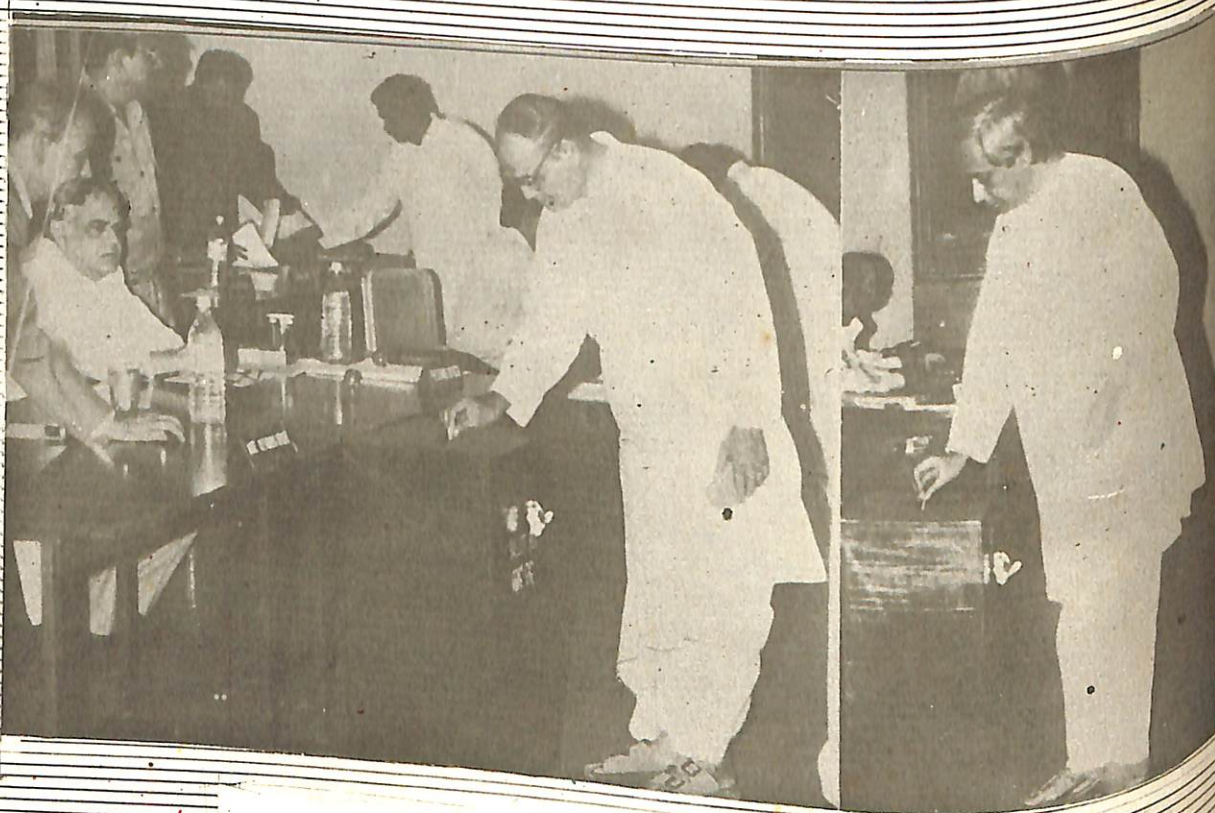
Chief Minister Shri Naveen Patnaik gearing up the Pulse Polio programme at Bhoi Sahi in Nayapalli, Bhubaneswar on 26.3.2000.



Minister, I. & P.R., Shri Duryodhan Majhi gracing the occasion as Chief Guest on the 12th Death Anniversary of Rajasaheb Sarat Kumar Dev on 25.3.2000.



Shri M.M. Rajendran, His Excellency, the Governor inaugurating the Puri Sea Beach Festival on 24.3.2000.



Speaker Shri Sarat Kumar Kar and Chief Minister Shri Naveen Patnaik and other M.L.As. casting their votes for Rajya Sabha election in the Assembly Hall on 29.3.2000.