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The Mysterious Controller of the Universe: Shree Neelamadhava - Shree Jagannatha : Guiding the Humanity across the Ages

Dr. K.C. Sarangi

*Madhava madhava vacyam, madhava madhava harih;
Smaranti madhava nityam, sarva karye su madhavah.*

Towards the end of Lord Rama's regime in Tretaya Yuga, Shree Hanuman was advised by Lord Shree Rama to remain immersed in meditation (dhyana yoga) in 'Padmadri hill' till his services would be recalled in Dwapar Yuga. When the great devotee, Shree Hanuman expressed his prayer as to how he would see his divine Master during such long spell of time, Lord advised him that he would be able to see his ever-cherished 'Shree Rama' in the form of Lord Shree Neelamadhava whom he would worship in Brahmadri, the adjacent hill and enjoy the everlasting bliss '*naisthikeem shantim*' as Gita describes (Ch.5, Verse 12). Shree Hanuman was a *sthitadhi*. Those devotees, whose minds are equipoised, attend the victory over the world during their life time. Since Paramatma the Almighty Father is flawless and equipoised, such devotees rest in the lotus feet of the Lord '*nirdosam hi samam brahma tasmad brahmani te sthitaah*', (ibid v.19). According to the sacred thought expressed in Gita, the Lord, always desires His devotees to have equanimity in all circumstances: favourable or unfavourable '*nityam ca sama itatwatm istanistopapattishu*' and to work in a detached manner surrendering the fruit of all actions to the Lotus feet of the Lord

so that he does not become partaker of the sins as the Lotus leaf is not affected by water '*brahmani adhyaya karmani sangam tyaktwa karoiti yah, lipyate na sa papena padmapatramivambasa*' (Ch.V, Verse 10). The Graceful Lord desired His dearest devotee to experience this blissful ecstasy and unalloyed purity since according to His own saying '*matcintah madgat prana..... nityam tusyanti ca ramanti ca*' (Ch.10, Verse 9).

Indeed, no sublime thing in this world can be achieved without perpetual *sadhana* (perseverance). The Lord, therefore, has also suggested later, the solution, '*mayi ca ananyayogena bhaktih avyabhicarini, viviktadeshasevitwam aratih janasampadi*' (The Gita, Chapter 13, Verse 10). One can have this equanimity of mind and undisturbed worship and devotion through meditation concentrated *japa* (utterance of Lords's name) and *tapa* (penance which literally means to be equally happy in good fortune and misfortune. Yoga about which the Lord has explained in details in the Gita staying in an isolated and pure place. What is required is that the devotee through the prescribed Yogic process, should have undisturbed faith in the Lord. He should develop the inclination towards staying in places enriched with human habitation charged with materialistic aspirations. Thus, the reasoning

for the advice to Hanuman to stay in Padmadri, an isolated and pure place is clearly perceptible. The Lord desired that his dearest devotee should continue through unalloyed devotion and *Yoga* against the currents of time. This is one of the popular 'Lokakathas'¹ about Shree Neelamadhava temple at Kantilo. It is now not a legend but an acknowledged position accepted by many scholars that the cult of Lord Shree Jagannatha is inextricably linked with the tradition of Lord Shree Neelamadhava at Kantilo (Nayagarh).

But the above Lokakatha has a secret message. Usually where the spiritual struggler finds difficulty is, how to have this '*ananyayogena bhakti avyabharini*' as explained in verse 10 Ch.13 of Gita discussed in the foregoing paragraph. The great scholar and sage Swami Ramasukhadasji explains in this context

Because of having shelter in this world the spiritual practitioner becomes unable to get rid of the illusion of body. The infatuation for body is a great obstacle to know the 'avyakta', the Mysterious Controller. To help the devotee overcome this obstacle, the Lord advises to have unalloyed *bhakti* which leads to unflinching faith in Him. This faith gradually unfurls that material body is untrue. This, in a way, means that 'devotion: chaste and meticulous, enables the practitioner to cross the infatuation for the body'².

The above devotion is again a consequence of much cherished *budhiyoga*. The Lord has confirmed in Gita that those who are perennially engaged in meditating on Him and uttering His name, He bestows on them the '*budhiyoga*' by which the devotee gets Him, '*tesham satatayuktanam bhajataam preetipurvakam, dadami budhi yogam tam yena mam upajanti te*' (Ch.10, Verse 10). The

learned scholar and sage, Swami Ramasukhadasji, however cautions that the practitioner in spiritual line should not develop any desire to get anything from anybody other than God. There should not be an iota of feeling in the devotee's mind that he can get the 'adhwatma vidya' (spiritual wisdom) by virtue of his strength, intelligence or eligibility. Nor there should be the feeling that he can be able to realise the 'divine wisdom' by the help of other human beings, preceptors or spiritual books. Only by the grace of the Lord, grace alone, he gets a chance to realise the divine wisdom, the 'Brahmavidya'. His only saviour is the Lord Himself and total surrender before His lotus feet. This surrender is 'ananya yoga' i.e. uncommon yogic practice.³

Shree Hanuman, therefore was advised to practise this 'ananyayoga' staying in Padmadri and worship Lord Shree Rama in the form of Lord Shree Neelamadhava, the Divine Splendour with His incomparable beauty and elegance. In the prayer of Goswami Tulshidasji for Shree Rama, one may observe a hidden prayerful description of Lord Shree Neelamadhava, the Lord revealing Himself with incomparable effulgence and always kind enough to save the humanity from the confusion of Kaliyuga.

Nilotpala shyama kama kotisobhaadhika
sunia tasu guna grama jasu nama agha khaga badhika⁴

The Lord, whose body is like a blue lotus, whose beauty defeats the beauty of crores of Kamadeva, listening to Whose sacred name the devotee destroys all his sins, (as a hunter kills birds). It is beneficial always to hear about the *leela* of the same Lord Shree Rama-Neelamadhava. Tulshidasji has also held that the Lord's name is the medicine to cure the disease of the cycle of birth and death. The man or woman who hears this, all his/her wishes will be fulfilled by the 'enemy of Trisirari' i.e. Shree Ramaji.

*bhava bhesaja raghunatha Jasu sunahin je nara nari
tinhakara sakala manoratha siddha karahi trisirari.*⁵

At the end of Dwapar Yuga, at a later period, Lord Krishna advised Jara Savar (as the latter was totally flabbergasted due to his soul-killing blunder of piercing the Lord's lotus feet with an arrow) to go to Brahmadri and see the Tiger cave (Byaghra gumph) there and worship the Lord there. The legends say that in those days a tiger was safe-guarding the cave where Lord Madhava was worshipped. Biswavas, the staunch devotee of Madhava and the father-in-law of Vidyapati, the ambassador of King Indradyumna is believed to be belonging to Jara Savar's dynasty.

Reference about the present construction of Lord Shree Neelamadhava's temple is very difficult to be traced in contemporary scriptures/literature. Except 'Neeladri Mahodaya', recorded chronicles are almost rarities in this regard. But the lovable legends around are soul-stirring. One such source says that a king, namely Merukalpa, who happened to be in the genealogy of Kakabhusandi, constructed the temple of the Lord. Celestial beings from heaven and seventy two local *sewayats* contributed their concerted efforts to build the temple. Originally there were 752 caves in and around the temple. Kapila Samhita gives a vivid description of the river Mahanadi, flowing by the side of the temple. According to the above masterpiece in Sanskrit literature, by the blessings of 'suradhuni, papanashini Divine Mother Ganga, who was satisfied with the penance of 'Sukanti' a sage in Tretaya Yuga, (son of Sage Pulastya and Habirbhu), the river Mahanadi situated by the temple side of Lord Madhava to the point of mingling with *purvasagar* was declared as the incarnation of the sacred river, the Ganges.

A sacred book namely Neelamadhava Mahatmya written and compiled by Shri Samsari

Behera correlates marked similarities in the cult of Shree Alaranath at Brahmagiri and Shree Madhava at Niali with the tradition of Lord Shree Neelamadhava at Kantilo. The book also describes that Lord Shree Neelamadhava was worshiped earlier somewhere near the Bay of Bengal proximate to the present Shreekshetra Puri. The Lord whom Indradyumna saw in the dream was the Lord Neelamadhava. But when Indradyumna came with a large number of courtiers and followers to offer his prayer to the Lord, Yamaraj took shelter before the Lord and explained that if the Lord would give darshan to all those human beings coming, then everyday would get salvation and the Yamaloka would be vacant. Hence administration in Yamabhuvan would be in shambles. With the request of Yamaraj, the Lord disappeared from the referred place and made appearance at Brahmagiri which is at a considerable distance from Puri. The Lord also allowed a simultaneous mingling of His cosmic glow with Lord Shree Neelamadhava at Kantilo. The *Neeladhri Mahodaya*, though does not explain all these details but has some similar description about disappearance of the Lord from His abode near Mahodadhi (The Bay of Bengal). The Lord is mysterious and his actions are also mysterious. Words are incomprehensible, they cannot comprehend the action of the Lord who is the first word in the creation and the last word of the creation. He is the *ekakshara* Om Who alone exists after the 'Mahapralaya', when all other created beings cease to exist. Therefore, there is also every possibility that the Lord Madhava whom Yamaraj prayed was Lord Neelamadhava at Kantilo and the Ocean water might have receded or changed its course over the years.

At Brahmagiri the Lord was worshipped by a Brahmin namely Allalya. The Brahmin was very truthful, virtuous and religious.⁶ Due to their

stainless devotion, the Brahmin and his son were awarded *darshan* and all his family members got salvation. The Lord is Master of His own decision. From Brahmagri He desired to move to Niali and a part of; the divine effulgence again merged with the Lord at Kantilo (His ancient citadel). Years have passed in the meanwhile. But even today, the principal traditions of Shree Neela Madhava at Kantilo are to a large extent, similar with the traditions followed in Shreekshetra, Puri.

There are same exceptions, however. One such exception is the Magha Sukla Ekadasi celebration when a five day long fair is held at Kantilo. It is said that those who take sacred ablution in the Chitrotpala-Mahanadi and get the holy darshan of Lord Shree Neelamadhava especially on the above sacred occasion, attend salvation. Sage Bharadwaja in the Puskara forest and the sages living in the said forest are correlated with the worship of Lord Shree Neela Madhava and his divine cult by some scholars. It is beyond all questions however, that the divine grace and wisdom make the seeker God-ward and the divinity in him is unfurled. Gita says, '*Jnanena tu tadjnanam jesam, nasitatamatmaanah tesam adityavat jnanam prakasayati tatparam*' (Ch.5, verse 16). A seeker of spiritual solace through rare wisdom finds in the Lord Neelamadhava the effulgence of Shree Ramavatara and Shree Krishnavatar both rather the complete Brahman, the 'Adinatha'. The Neelamadhava Mahatmya describes :

You are Raghunath O' Lord Neelamadhava
You are also known as Shreepati
You are also Chakradhari,
As the most potent and powerful weapon
'Sudarshan'.

Adorns your finger in the right hand
In dwapara age, you were Lord Krishna
Winning everyone's heart,
By sacred love and wisdom
and fighting for virtuous and right causes.

To restore dharma.
The charismatic, melodious magic of your flute,
Showered divine bliss
In each heart and each soul;
You are Govinda, Gopala and the sacred Moon.⁷

A concentrated look at the Lotus feet of Lord Shree Neelamadhava opens the gateway to salvation. He is the Mysterious Controller of the Universe. He is 'Endless, Infinite and Sanatana'. He is 'anadi' and anantaviryam (Ominipotent). He is the Power the only knowable, after knowing Whom, nothing exists to be known. Arjuna after seeing the 'Viswarupa' the cosmic appearance was extremely moved by the divine splendour. He sang with all humility his prayer with awe and devotion:

twamaksharam paramaveditavyam
twamasya viswasya param nidhanam
twamavyayam saswata dharmagoptaa
sanatanah twam puruso mato me.

(The Gita, Chapter 11, Verse 18).

The ecstasy was same with Vidyapati when he saw Lord Madhava first. The direction to Arjuna was '*yuddhaswa jetasi rane*' where as the order to Vidyapati was to return to Shreekshetra and await for the Lord's reappearance there. In both the cases the devotees, who took shelter under the lotus feet have destroyed their illusion and were blessed with effulgence of divine wisdom and each felt that they had come out of the World of illusion and were read to obey the Lord's command '*sthitosmi gatasandehah, karisya vacanam tava*' (The Gita, Chapter 18, Verse 73).

The Divine is all pervasive. But His sacred presence is visibly felt in certain chosen places. The Lord and His Leela (divine play) cast magnetic and magnificent influence on His creation in general and chosen devotees in particular. Those who have destroyed all attachments and those whose consciousness is eternally fixed with

Paramatma, ‘*gatasangasya muktasya jnanabasthitacetasaḥ*’ (Ch. IV, Verse 23) are assured of emancipation. Apart from being Omniscient Omnipotent and Omnipresent, the Lord has also always been the saviour of the weak, downtrodden and fear-stricken and the *jijnasu* and devotees. The Car-festival in Puri bears ample testimony to the same. On this occasion of cosmic vibration, the Lord’s sacred *darshan* is open to all, irrespective of caste, creed, religion, status and power, giving a perennial message of universal brotherhood. At Kantilo similarly on the occasion of ‘Chandan Mahotsava’, despite the scorching heat, Lord Shree Madhava moves around the township in a very informal manner. The Lord moves from lane to lane across Kantilo town. Popularly known as ‘Bhaunri Yatra’, the Lord moves with His retinue, when sacred offerings and ‘*sapta-alati*’ are offered by the resident before His Lotus Feet. On this occasion accompanying Shree Madhava’s representative idol, the idols of Divine Mother Maha-Lakshmi, Divine Mother Saraswati, Lord Shiva and Divine Mother Parvati also move. The yatra symbolises the concern of the Master for his subjects and the Father for his children on one side, and the acculturation of different types of worship attributable to the Trinity on the otherside. Elders, youth, and children all equally rejoice on the occasion. As their supreme Master is amidst them, they get the feeling of spiritual ecstacy ‘*bhavasamanwitaḥ*’, as the scriptures say. The Lord has held in the Gita ‘*aham sarvasya pravavo mattah sarvam pravavate, iti mattwa bhajanti mam buddha bhavasamanwitaḥ.*’ (Chapter 10 verse-8). Even though, the Lord is the Master of all, He is so kind and magnanimous that He fulfils His desire to bless all His children alike through such celebrations while advising the secular governance to follow His footprints and make the justice and governance reach the doorsteps of the citizens. Simultaneously the Lord is advising the citizens

to follow the enjoinders made by codified law, abide by truth and the rules in a disciplined, ideal and humble manner with a serene sense of service and dedication leaving no room for anger, greed and sense linked-desires.

*tasmat shastram pramana te karyakarya vyavasthitou
Jnatwa shastravidhantktam Karma kartum-
ihahahasi.*

(Ch.16. Verse 24)

It is irresistible to conclude therefore that the mysterious Controller of the Universe has guided the humanity across the ages to develop equanimity, control of senses, purity, humility, self-restraint, wisdom, self-knowledge and surrender (*prapatti*). In the process the humanity learns that by His grace alone the man gets salvation, *matprasadat avapnoti saswatam padam avyayam*’ (Chapter 18, Verse 56). To get the grace, ‘*niskama karma*’ is one of the easiest ways. It is said that the Lord, Himself exists in ‘*niskama karma*’, ‘*tasmad sarva gatam brahma nityam jajne pratisthitam*’ (The Gita 3/15). There are also other ways prescribed by the Lord in the Gita and God realised noble saints in other scriptures.

The Shastras teach us that the jeevi gets salvation by divine grace alone. Needless to mention, however, that the Lord is One, the Ekaksharam ‘Om’. Karma yoga, jnana yoga, bhakti yoga, dhyana yoga, samkhya yoga, astanga yoga, laya yoga, hatha yoga, raja yoga, mantra yoga all have been created by the Lord and the God-realised souls as already discussed to save the humanity, to help them lead a peaceful life in this world and to reach the heavenly abode thereafter. Goswami Tulshi Dasji writes in Ramacharita Manasa ‘*hetu rahita jaga yuga upakari : tumh tumhari sevak asurari*’⁸. Swami Ramasukhadasji also quotes a devotee singing with similar surrender:

divi ba bhubi ba mamastu baso
narake ba narakantaka prakamam,
avadharita sarada arabindou caranou,
te marane pi cintayami⁹

A free translation of the above verse means that, O' destroyer of the hell, O Lord Madhava, You may keep me in heaven, in hell or in this world or may also keep me anywhere You like. Whatever You want to do with me, I have nothing to say rather I will gladly accept. I have only one prayer. I must meditate on Your Lotus Feet always; those feet which defeat in Their beauty, the gracefulness and beauty of the lotus flower, blooming in early autumn. I should not ever forget Your sacred lotus feet even at such crucial hour like death. I should never forget your lotus feet in any circumstance.

Experiences countries across, reveal that the devotees of Shree Madhava (Shree Jagannatha) face no obstacles. They never deviate from their sadhana, as is the case with wise persons. Rather with confidence they move across the heads of great generals, least caring for the turbulent obstacles on their ways. Shreemadbhagavatam affirms:

tatha natene madhava tavakah kwacid
bhrasyanti margattwayi baddha souhrudah
twayabhigupta vicaranti nirbhayah
vinayakanikapamur dhasu pravo¹⁰

To conclude it is appropriate to say that the Mysterious Controller of the Universe is the real friend, true guide and the wisest philosopher. Those who have surrendered before Him through undisturbed yoga "avikampene yogena" they are purged of their past sins, as they partake of the divine splendour which is capable destroying all impurities. Besides, the Mysterious Lord graciously, being seated in the heart of His devotees destroys their ignorance through the vivacious light of wisdom. The Lord has promised in the Gita :

"teshan eva anukampartham aham,
ajnanajanam tamah,
nasayami atmabhabastho jnanadeepena bhaswta"
(Chapter 10, Verse 11).

In the vast canvas of time it has been proved that the lotus feet of Lord Shree Neelamadhava (Shree Jagannatha) are the repository of eternal peace. His grace only gives salvation. As Indians we are fortunate that we are born in a land, where Shree Jagannatha is our Leader and the Guide. It is time that each son of this sacred soil should carefully treasure the Lord's advice to Arjuna which is the perennial solace during all difficult times;

tameva saranam gachha sarvabhavena bhārata
tatprasadat param shantim sthanam prapsyasi
saswatam.

(Ch.18, Verse-62)

To conclude, the prayer that enthralled the heart of all the sages of 'Naimisharanya' can appropriately be quoted here:

trivenim madhavam somam bharadwajam ca vasukim
vande akshaya-vatam, sesham, prayagam
tirthanayakam

(I bow humbly before Triveni, idol of Shree Madhava, Someswara, Sage Bharadwaja, Vasuki, akshaya kalpavata, Shree Seshadeva Ananta and the king of tirthas, the Prayaga Raj).

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GOOD GOVERNANCE





Landmark Legislation :

ODISHA RIGHT TO PUBLIC SERVICES BILL, 2012



Government of Odisha has placed a noticeable emphasis on ensuring basic entitlement for delivery of public services by passing a landmark Legislation - Odisha Right to Public Services Bill, 2012.

Keeping with the ethos of a Welfare State, Government of Odisha has passed a landmark legislation Right to Public Services Bill, 2012 that guarantee the delivery of selected services in a time bound manner.

Delivery of important services in a time bound manner is the hallmark of good Governance. Government of Odisha has time and again initiated steps for improving the service delivery to its citizen. With the passing of Right to Public Services Bill, Government of Odisha has taken another strong step to bring transparency in delivery of the public services.

The salient features of the Right to Public Services Delivery Bill are –

1. Different services which a citizen can obtain from different Departments will be notified, along with time limit for delivery of such services.
2. For delivery of each service notified, there shall be a Designated Officer to whom the citizen can make an application. The Designated Officer will provide the said service in a time bound manner.
3. In case a citizen is unable to get the said services within the prescribed time limit, he/she may file an appeal before an Appellate Authority. The Appellate Authority will consider the case and pass necessary order.
4. Any citizen aggrieved with the order of the Appellate Authority or in case of delay in providing the service within the prescribed time limit, may file a revision petition before the Revisional Authority.
5. If the Revisional Authority found that the Designated Officer has failed to provide the service without sufficient and reasonable cause, he may impose a penalty against the Designated Officer not exceeding of Rs.5000/-.
6. If the Revisional Authority observed that there is unreasonable delay in providing the service, he may also impose a penalty not exceeding Rs.250/- per each day of delay.
7. However, the Designated Officer will be given a reasonable opportunity of being heard before any penalty is imposed on him.
8. Non-compliance of the order of the Revisional Authority shall amount to misconduct and make such Government servant liable for disciplinary action.
9. The list of services offered by different Departments and their time limit will be displayed locally in Odia language and on the website of the State Government for information of general public.

Proposed Public Services to be provided under Odisha Right to Public Services Bill, 2012

1 Energy Department

1. LT Category (including agriculture)
2. HT Category
3. Re-connection
4. Fuse Call (Urban)
5. Fuse Call (Rural)
6. Meter replacement
7. Correction of Bill
8. Shifting of LT lines
9. Shifting of 11 KV lines
10. Shifting of 33 KV lines

2 Housing & Urban Development

1. Sanction of Building Plan
2. Issue of Occupation Certificate
3. Sanction of Water Supply/Sewerage connection
4. Correction of Water Bill
5. Permission for Sale, Mortgage etc. of properties
6. Issue of Trade licences
7. Issue of Marriage licence (under Hindu Marriage Act)
8. Holding Tax assessment
9. Repair of Tube wells

3 School & Mass Education

1. Issue of original High School Certificate-cum-Mark sheets
2. Issue of duplicate copy of High School Mark sheet
3. Issue of duplicate copy of High School Certificate
4. Issue of Transfer Certificate
5. Issue of Conduct Certificates

4 Commerce & Transport (Transport)

1. Temporary Registration
2. Registration of Vehicles
3. Fitness Certificate for Commercial Vehicles
4. Tax Clearance Certificate(TCC) in Form-D
5. NOC in Form-28
6. Issue of route permit/National permit
7. Addition/Deletion of Hire Purchase/Mortgage entry
8. Transfer of vehicle
9. Issue of Lerner's License for Driving License
10. Issue of Driving License/Renewal of Driving License
11. Issue of Trade Certificate
12. Issue of Transport Agents' Licence

5 Revenue & Disaster Management

1. Disposal of Misc. Certificate cases for issuance of SC, ST, OBC, SEBC and Legal heir certificates
2. Disposal of Misc. certificate cases for issuance of Residence and Income certificates
3. Issuance of Certified copy of RoR
4. Disposal of uncontested mutation cases
5. Disposal of cases u/s 8 (A) of OLR Act

6 Health & Family Welfare

1. Registration of Birth/Death
2. For getting Birth/Death Certificate
3. Submission of Post Mortem Report by the Doctors

7 Women & Child Development

1. Issue of Identity Card to persons with Disability
2. Sanction of assistance under NFBS

8 Home

1. Disposal of Arms License
2. Disposal of Renewal of Arms License
3. Disposal of application for Addition / Deletion of Weapon
4. Disposal of application for extension of purchase period for weapon
5. Disposal of application for registration of foreigners
6. Disposal of application for extension of residential permit of foreigners
7. Supply of copy of FIR to the complainant
8. Disposal of application for use of loudspeakers
9. Disposal of application for NOC for fairs/ mela/ exhibition, etc.
10. Disposal of application for NOC for Petrol Pump and Cinema Hall
11. Disposal of application for final form for (road accident/ stolen vehicles/ theft cases)
12. Character/ Antecedent verification
13. Disposal of application for NOC of Kerosene and Diesel outlet
14. Passport Verification
15. Supply of copy of fire report
16. Supply of copy of Fire complain for Fire incident without Insurance
17. Supply of copy of Fire complain for Fire incident in insured premises
18. Supply of copy of Fire complain for Fire incident with damage of property worth more than 10 lakhs (irrespective of insurance)
19. Disposal of application for NOC for factories/ industries/ storage godowns/ bottling plants/ explosive premises
20. Disposal of application for NOC for high rise/ non-high rise building

9 Finance

1. Registration of Dealers (VAT/CST)
2. Issue of Form C etc.

10 Rural Development

1. Repair of handpumps

11 ST & SC Development

1. Issue of duplicate copy of High School Mark Sheet
2. Issue of duplicate copy of High School Certificate
3. Provision of Post Matric Scholarship
4. Disposal of applications received from various quarters for selection of Post Matric Scholarship
5. Sanction and disbursement of Post Matric Scholarship to eligible ST & SC students
6. Disposal of Grievance Petitions received from ST and SC students in connection with sanction of Post Matric Scholarship

(The Odisha Right to Public Services Bill, 2012 shall come into force with effect from January, 2013.)

Interrogating Institutional Interaction in Governing Water Resources : The Role of *Pani Panchayat* in Odisha

Sagarika Mishra

Introducing the discourse

Since the inception of the human civilization, water as a form of natural capital, in addition, being most precious gift of nature is contemplated as an indispensable ingredient for the sustenance of various life-forms, such as human, animal and plant. In fact, it directly or indirectly influences every aspect of human activities; be it economic, political, social, ecological so on and so forth. However, the increasing population, their increasing demands and also technological breakthrough that emerged in late 20th century in the form of liberalization, privatization and globalization (LPG) has jeopardized the sustainability of water resources. Interactive or collaborative or participation is now an accepted model in the processes of governance of natural resources, like water. It has been strikingly enshrined in National Water Policy, 2002, which states 'Management of the water resources for diverse uses should incorporate a participatory approach: by involving not only the various governmental agencies but also the users' and other stakeholders, in an effective and decisive manner, in various aspects of planning, design, development and management of the water resources schemes'. In this context, the implementation of the Orissa *Pani Panchayat* (PP henceforth) Act 2002, initiated by the

Government of Odisha, one of the initiatives in the processes of institutional reforms in water management, has strongly encouraged the role of farmers in the form of Water Users' Association or *Pani Panchayat* in water especially irrigation management. With this brief introductory note, the present piece of research seeks to delineate various institutions – in the form of various policies, laws, governmental (Water Resource Department) as well as non-governmental (water users associations) institutions – in governing this threatened water resource.

Water: its use and abuse

Water is most commonly used commodity and most widely distributed resource of the 'Mother Earth'. The earth is otherwise known as 'the blue planet' since the major portion of earth is covered with water (Tiwari and Tiwari, 2003). It is well-known fact that 97.5 per cent of the total available water is salt water that has been contained mainly in oceans; only 2.5 per cent of water is fresh water. In this context, with 2.4 per cent of world's land area and 4 per cent of its fresh water, India has to support 70 per cent of the world's human population and 18 per cent of its cattle population (Sekhar, 2003). Enormous quantity of water is required for meeting the basic human needs for life and health, such as for

production of food, shelter and clothing. Besides, as a gift of nature, water is also indispensable for human beings in order to accomplish different domestic as well as non-domestic activities (for example drinking, irrigation etc.). Furthermore, there is also an outsized demand for hydropower, industrial enterprises and even for maintaining environment and ecosystem (Das, 2003). Nevertheless, during 21st century the world encounters number of challenges affecting the availability, accessibility and sustainability of its fresh water resources. The challenges have been produced and reproduced by multitude forms of man-made innovations in science and technology. In fact, the technological breakthrough, widely considered as the ultimate creation of human knowledge system has largely propagated different 'modules' for various developmental projects. At the same time, this human innovation has caused the paralysis of the environmental as well as the ecological landscape of the world, particularly the developing world. This devastating innovating activities, no doubt show the way of progress in the society in one hand, in other hand leads to the process of degeneration (pollution of air, water, soil etc.) of environment as well as the ecosystem.

Water: Its mismanagement to institutional management

Water as a resource is under relentless pressure due to population growth, rapid urbanization and large-scale industrialization. As population increases and the level of development calls for increased allocations of groundwater and surface water for the domestic, agricultural and industrial sectors, as a result, the pressure on water resources intensifies leading to scarcity, shortage, conflicts among users and excessive pressure on the environment. Decreasing per capita water availability and increasing water

pollution are serious issues now-a-days. According to UN estimation in 1999, more than 1.2 billion people lacked the access to adequate water and 2.9 billion people had inadequate access to sanitation. So, there is a need for development of water resources and their proper management is vital for adequate and safe drinking water supply, food production to meet ever increasing demand, maintenance of basic health and sanitation, generation of hydropower, inland navigation, maintaining the ecology and production of industrial goods (Goswami, 2003). Disaggregated management of water resources and its increasing contamination from industrial, agricultural and domestic sources are further deteriorating the situation. So, there are certain national level policies which are implemented looking at the basic issues pertaining to water resource (discussed in later section). In this light, the State Governments have restructured their institutional as well as the organizational set ups to conserve the water resource. Hence, the 21st century aimed for efficient use and continued sustainable development of water resources with emphasis on people's participation which ultimately leads to equitable economic growth and all-round development of human society.

Institution : Its definitions need not be discussed here so elaborately

The term 'institution' has a different definition: institutions are *complexes of norms and behaviours that persist over time because they are valued as well as useful* (Abernethy, 1993). The key characteristics are – they are patterns of norms and behaviours which persist because they are valued and useful. The terms 'institution' and 'organization' are often used loosely and interchangeably. Indeed they are overlapping terms, but many social scientists made a distinction between them. 'Organizations' are

structures of recognized and accepted roles (Uphoff, 1986). There are thus institutions which are not organizations: the laws of a country are institutions in themselves which exist separately from the particular courts which enforce them (Abernethy, 1993). Unwritten customary rules for sharing water in an indigenous irrigation system may be an institution if it is valued and persists over time in a community. Marriage – is an institution, as is kinship; they are valued principles and norms on the basis of which organizations - families, lineages – are formed. Organizations may be ‘institution’ or they may not. An organization that includes a set a norms and behaviors that persists because it is valued and useful is an institution (Abernethy, 1993). Examples include the family, an irrigation department, and a water user’s organization that persists over time regardless of whether it is legally recognized. This means that some organizations are not necessarily ‘institutions’. An ad hoc group that forms itself to achieve a single short-term objective, then dissolves after sometime is an organization that is not an institution. A water user’s organization formed by government officials as part of an irrigation project may be an organization which functions for the construction period; if it persists over time and continues to fill a need that is valued and useful to its members, it becomes an institution. This is what is meant by the term ‘institutionalization’: a process by which behaviours and roles become valued and therefore worth something, so that they continue as a part of peoples’ lives.

As it was discussed in above that the water resource is gradually getting endangered directly or indirectly due to some human induced factors. So, there is need for its proper management and its sustainable use for future generation. The shift from centralized and state-

driven natural resource management is clearly articulated in theories of collective action and Common Property Resource Management (CPRM) where the focus is on getting the institutions right. Research on common property resource institutions has tended to concentrate on visible and formal institutional arrangements (Murphre, 1991), yet there are other hidden and informal institutional arrangements, such as social networks, that are important for appropriating natural resources (Sithole, 2001). Such social networks include kinship ties, church groups, work parties and other informal social gatherings. In the CPRM literature, institutional arrangements are defined as the rules and regulations governing resource use (Ostrom, 1999). Institutional arrangements often form the basis for guiding the activities of an organization, although they may also be informal, and not associated with any specific organization. They can also be norms based on culture. The rules and regulations in use by a community determine who has access to Common Property Resources (CPR), what resources authorized participants can use and at what times, and who will monitor and enforce the rules (Ostrom, 1999). The impact of institutions on water – one of the fundamental common pool resources – has been a matter of concern in recent years. Institutions encompass both socialized ways of interacting and underlying rules and regulations, as well as structures and organizations that influence resource allocations (Adger 2000). In recent years, reforms have been carried out in the process of re-structuration of institutional management of water resources in India starting from national to grassroots levels. This study covers both formal (explicit) and informal (implicit) institutional arrangements governing water use. It aims to enhance our understanding of the effects of existing institutional arrangements on access to water resources.

Institutional requirements for water management vary depending on a number of environmental conditions, which are mainly determined by the stage of development of the country's water sector. Institutions evolve depending on the water-related issues that the sector faces, as the water resources are gradually developed and utilized. Thus, effective water sector institutions are basically demand driven. The term IWRM implied "*an inter-sectoral approach, representation of all stakeholders, all physical aspects of water resources and sustainability and environmental considerations*" (Savenije and van der Zaag, 1998). The definition of IWRM that came to be popularly known, however, was the one given by the Global Water Partnership (GWP), which embraced the two broad conceptual bases of improved water resources management formulated in the international conferences, namely, "integration" and "sustainability". Accordingly, IWRM is seen as "a process, which promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems" (GWP/TAC, 2000). It should be noted that, as it has been defined, the concept of IWRM does not seem to demand a specific institutional arrangement such as the river basin organizations, despite the fact that they are often prescribed along with IWRM.

Institutional reforms in water management

These emerging problems related to water and its adverse impacts on natural and human ecosystem, during recent years, become a subject of debates and discussions by academia, expert bodies, specialists and administrators in national and global forums. Hence, in addressing pros and

cons of these water related issues, both at the national and regional levels, there is an urgent need for an innovation in trans-disciplinary knowledge base (Bandyopadhyay, 2006) and a radically changing institutional framework (Maria Saleth, 2004). As a result, these problems at the local, regional, national and global levels constantly produce new knowledgebase through diverse perspectives towards addressing proper policy frameworks for the conservation of this threat water resource. As a result, the unprecedented water related issues have accentuated several legislative actions, undertaken by the international as well as national governments. A number of International Conferences and gatherings like Mar del Plata Conference on Water, Argentina, 1977, the United Nations Conferences on Environment and Development in Rio de Janeiro, Brazil, 1992, the International Conference on Freshwater, Bonn, 2001 etc. were held to focus on the problems regarding the water resources and also suggested measures for its proper conservation or restoration. Considering the importance of many water related problems, the United Nations has declared 2003 as the International Year of Freshwater. Government of India too has declared 2003 as the Freshwater Year for India.

The institutional reforms in water management can be approached from various forms: policy and objectives; laws, rules and regulations; organizations (their by-laws and core value); operational plans and procedures; incentive mechanisms, and norms, traditions, practices and customs (Raju and Taron 2008). The institutional framework for water resources management in the system of irrigation consists of established rules, norms, practices and organizations that provide a structure to human actions related to water management. In fact, we can broadly classify the whole institutional framework into three categories – (i) *Policies*

[national policies, local government policies and organizational policies]; (ii) *Laws* [formal laws, rules and procedures; informal rules, norms and practices; and internal rules of organizations]; and (iii) *Administration* [organizations at policy level for resource management, and organizations at implementation level for delivery management] - all of which are related in some way to water resources management.

Before Independence, India had passed two major legislations related to water: first, the Easement Act, 1882 that allowed private rights to use the resource, and the Indian Fisheries Act, 1897, which established penal offences to the persons who try to destroy any aquatic organisms within the resource. However, soon after Independence, the Indian Constitution asserted water as a State Subject. Further propositions and arguments take one of the two directions: one is to assert that water is rightly a State subject, that this position must be accepted and the Centre must refrain from encroaching into this area; the other is to counter water is a State Subject and to argue that the Centre needs to play an important role with regard to this precious resource, and that in order to facilitate this, water should be transferred to Concurrent List. Entry 17 in the State List reads:

Water, that is to say, water supplies, irrigation and canals, drainage and embankments, water storage and water power subject to the provisions of Entry 56 of List 1.

Further, water as a State List is subject to the provisions of Entry 56 in the Union List that enshrines:

Regulation and development of inter-state rivers and river valleys to the extent to which such regulation and development under the control of the Union is declared by Parliament by law to be expedient in the public interest.

In addition, Article 262 of the Indian Constitution mentions about the adjudication of disputes relating to waters of interstate rivers or river valleys. Apart from these Constitutional provisions, the Government of Independent India has passed several legislative provisions in the process of conservation of water resources. These are:

- River Boards Act, 1956
- Inter-State River Water Disputes Act, 1956
- Merchant Shipping (Amendment) Act, 1979
- Water (Prevention and Control of Pollution) Act 1974, later amended in 1979
- Water (Prevention and Control of Pollution) Cess Act, 1977
- Environment Protection Act, 1986
- National Water Policy 1987, later amended in 2002
- National Water Policy, 2002

Keeping in view the necessity of planning for development of country's water resources in a co-coordinated manner, along with various national policies, the Ministry of Water Resources was formed in September 1985 to assume a nodal role in regard to all matters concerning the country's water resources and to underscore the multifarious uses of water and need for integrated development accordingly. At present, the Ministries of Agriculture, Rural Development, Urban Development, Environment and Forests, Shipping, Power Industrial Development apart from the Water Resources are involved in the management of one or the other aspects of water resources. The Ministry of Water Resources has prepared an Action Plan for implementation of the *National Water policy, 2002 (NWP, 2002)* which is considered as in consultation with the state governments and union territories and with inputs from the non-governmental/voluntary organizations and expert deliberation. *NWP 2002* envisages the formulation of State Water Policy

(SWP) by each state and preparation of an Operational Action Plan in a time-bound manner to achieve the desired objectives. This policy (*NWP, 2002*) calls for development and management of water resources in general and irrigation in particular in a holistic and integrated manner encompassing various sectoral needs through a participatory approach. Obviously, an appropriate institutional mechanism is necessary at the highest level for carrying out the integrated and comprehensive planning and to ensure systematic implementation of the same.

Institutional reforms relating to irrigation

The institutional reforms in the process of management have marked a sea-change since the beginning of the civilization. While construction of small schemes was well within the capability of the village communities, large irrigation works were to emerge only with the growth of the state, empires and the intervention of the rulers. The British colonial rulers who initially came as traders realized the magnitude of the profits that could be made in irrigation and began investing heavily in this area. An irrigation policy built on such foundations disregarded social and ecological factors inherent in traditional irrigation planning. A major chunk of the British investment was in canal irrigation, a technology which led to both inequality in water distribution through the emergence of certain property rights, and ecological destruction, but that provided the colonizers with fat revenue (Singh 1997). The post-British India irrigation policy has its roots in colonial policies. The continued dominance of the landlord class, which was a direct beneficiary of the British policy, helped the continuation of colonial policies.

Due to some financial problem, it has become extremely difficult for the state

governments to provide adequate funds for efficient operation and adequate maintenance of the present irrigation projects. Unless farmers are progressively involved, in an organized way, in the operation, management and maintenance of irrigation system, the objective of increased utilization and production per unit volume of water from irrigation commands can not be realized. Formation of Water Users Associations (WUA) offers considerable scope for improving the present situation and in moving towards Participatory Irrigation Management (PIM).

Recent development in irrigation in India has been largely dominated by participatory irrigation management (PIM). Since 1985 Ministry of Water Resources has been inspiring farmers' participation in water distribution and management of tertiary system in the projects covered under the Centrally Sponsored Command Area Development Programme. The concept of involvement of farmers in management of the irrigation system has been accepted as a policy of the Government of India and has been included in the National Water Policy adopted in 1987. Provisions made in the National Water Policy of 1987 were as under:

Efforts should be made to involve farmers progressively in various aspects of management of irrigation systems, particularly in water distribution and collection of water rates. Assistance of voluntary agencies should be enlisted in educating the farmers in efficient water-use and water management.

The dominant objective of NWP, 1987 is to create a sense of ownership of water resources and the irrigation system among the users, so as to promote economy in water use and preservation of the system. This Policy was

again modified and again amended in 2002 that clearly mentioned provision for participatory approach to water resources management:

Management of the water resources for diverse uses should incorporate a participatory approach: by involving not only the various governmental agencies but also the users and other stakeholders, in an effective and decisive manner, in various aspects of planning, design, development and management of the water resources schemes. Necessary legal and institutional changes should be made at various levels for the purpose, duly ensuring appropriate role for women. Water Users' Association and local bodies such as municipalities and Gram-Panchayats should particularly be involved in the operation, maintenance and management of water infrastructures/facilities at appropriate levels progressively, with a view to eventually transfer the management of such facilities to the user groups/local bodies.

In light of the central legislation, several states have modified their irrigation policies. Following participatory irrigation management, states have been passed different legislation for the development of irrigation in their respective states. The forerunners are Andhra Pradesh, Madhya Pradesh, Chhatisgarh, Rajasthan, Karnatak, Odisha and Maharashtra.

Participatory Irrigation Management: the case of *Pani Panchayat* in Odisha

Odisha stands out as an underdeveloped State within the Indian dominion eventhough it has been endowed with rich natural and mineral resources. The estimated water resource of the State is one of the highest in the country, being of the order of 11% with 4% geographical area. The

annual overall availability of surface water in Odisha is about 85.59 billion cubic meters. The per-capita availability of water in 2001 was 3359 cubic meter. By 2051, it is likely to reduce to 2218 cubic meter. With increasing population and the consequential increase in demand for food and water and with the growth in mining and industrial activities, the demand from various sectors is likely to increase to 55 billion cubic meter by 2051 (Water Resource Department, Government of Odisha, 2007). Hence, this increasing scarcity of this natural resource – water – in the State is creating a lot of problems to natural livings as well as its associated activities especially irrigational activities. In this context prior to Independence, the colonial power enacted *Orissa Famine Code, 1913* and after independence *Orissa River Pollution and Prevention Act, 1953* and *Acquisition of Land or Flood Control and Prevention of Erosion Act, 1955* by putting an eye on increasing water related issues. The State is mostly having small and marginal farmers. Based on the *National Water Policy (NWP) 1987*, the *State Water Policy* was formulated in 1994 in Odisha. With the amendment of NWP, 1987 in 2002, the Government of Odisha realized to review the *State Water Policy, 1994*. After due consideration, the State Government has prepared a new Water Policy called *Orissa State Water Policy, 2007* keeping in view the National Water Policy-2002. It aims at laying down the principles of equitable and judicious use of water for survival of life, welfare of human beings and sustained as well as balanced growth of the state. This State Water Policy and its amended version give emphasis on the all round development and proper management of water resource of Odisha as a whole and keep on highlighting on irrigation in particular.

On the basis of this State Water Policy, the Government of Odisha with a view to

providing equitable, timely and assured irrigation has introduced the concept of *Pani Panchayat* based on the PIM. Thus, the first step made in this process of reformation was to hand over a part of the network of the canal system/irrigation system for its operation and maintenance (O&M) to the farmers or the beneficiaries through the “*Pani Panchayats*” (Water User Associations or WUAs). *Pani Panchayat* programme has been implemented in the state of Odisha since 1996. Recognizing the need for systematic involvement and participation of farmers in irrigation management, initially 33 irrigation projects were covered under the Odisha Water Resources Consolidation Project (OWRCP) funded by World Bank. Four Pilot Projects in the first phase namely, Ghodahad Project, Rushikulya Distributary No.11 of Ganjam District and Aunli and Derjang Projects in Anugul District were identified for this work during 1996 and related activities of *Pani Panchayat* started simultaneously in the projects. PIM process was launched christened as Farmers’ Organization and Turnover (FOT) programme. In these project areas steps have been taken to motivate farmers to form Water Users’ Associations and to turn over the operation and maintenance of the downstream part of the canal to WUAs (Swain and Kar, 2000). The major functions of the WUAs are to operate and maintain the distributary/minor canals, to ensure equitable water distribution among the WUA members, to advise the department on main system operation and ultimately with gaining experience to collect irrigation fees in due course. In OWRCP area the implementation of FOT programme has been entrusted to Water and Land Management Institute, Command Area Development Authority, Nabakrushna Choudhury Centre for Development Studies (an Indian Council of Social Science Research Centre) and some local Non-Governmental Organizations. Since 2000 *Pani*

Panchayat scheme has been implemented by the personnel of Department of Water Resources in non-OWRCP areas as well. After a lot of experiment this *Pani Panchayat* programme was enacted by the Odisha Legislative Assembly and was assented to by the Governor on the 25th June 2002. *The Orissa Pani Panchayat Act, 2002, is an Act to provide for farmers’ participation in the management of irrigation systems and for matters connected therewith or incidental thereto (Pani Panchayat Act, 2002)*. The *Pani Panchayats* (WUAs) are registered as legal bodies to provide the required identity. Later, the geographical extent of the programme covers the entire State comprising of about 16.00 lakh hectares of Major, Medium & Minor Irrigation Command Areas in all the 30 districts of Odisha (Department of Water Resources, Government of Odisha, 2001).

Objectives of *Pani Panchayat* (PP)

The dominant objectives of PP are:

- To promote and secure equitable distribution of water among its users, adequate maintenance of irrigation system, efficient and economical utilization of water to optimize agricultural production.
- To protect the environment and to ensure ecological balance by involving the farmers, inculcating sense of ownership of the irrigation system in accordance with the water budget and the operational plan.

In Odisha the *Pani Panchayat* is a three tier organization for medium irrigation projects and four tier for major irrigation projects as indicated below:

- WUA/ *Pani Panchayat* at primary level consisting of several chak or outlet committees.

- Distributary Committee at secondary level (major projects) is a federation of all the WUAs/ *Pani panchayats* under the distributary.
- A Project Committee at project level is a federation of all Distributary Committees for major irrigation projects. Similarly for medium irrigation projects, a Project Committee at project level is a federation of all the WUAs/ *Pani Panchayats*.
- A State-level Committee would be constituted by the Government with Presidents of the Project Committees and Government officials not exceeding ten of each category.

Pani Panchayat: Its Institutional Structure

The institutional structure of Pani Panchayat in Odisha is as follows:

- The Pani Panchayats are formed on a three-tier system with two informal associations and one formal association on minor/sub-minor basis comprising an ayacut ranging between 300-600 hectares.
- Chak Committees per outlet are formed taking one farmer each from high land, middle land and low land areas of the ayacut. A representative from the chak committee will be a member of the executive body of the PP. Each PP will have a President, Secretary, and Treasurer.
- Each beneficiary landowner within the ayacut of the concerned minor/sub-minor qualifies to be member of the concerned PP.
- For registration of PP, a minimum of 51% of the beneficiaries, possessing 60% of command area, are required to be members. To be eligible as a member in PP, a token membership fee Rs. 10 or as decided by the PP is charged. Registration of the PP is done along with necessary documents like bye-law, general body resolution etc. and by depositing necessary amount with the registering authorities.
- A fund be created in the form of share capital with the contribution of the member of PP proportionate to their land holding plus a part of the water rates (Rs 35 per acre) in order to take up maintenance work of canals or to attend any work of emergent nature. The authorized office bearers of the Pani Panchayat will spend the amount.
- There will be an “Apex Committee” in each command area, comprising of all the presidents of the WUAs and with invited official members to prepare the canal operation schedules, O& M of the system, cropping patterns etc and to undertake the over-all co-ordination among the PPs.

Conclusion

Water, as a form of natural capital very much essential for the living organisms, is now facing a range of smouldering issues. This issues or increasing problems have drawn serious attention of the policy-makers, development practitioners and academicians to enforce various policy options – legislations, programmes, projects, and institutional developments - towards the conservation of water resources. The present piece of research work has relied heavily on secondary sources of information and thus it is more a review and less of empirical in nature.

Water has been considered as one of the basic needs of human beings as well as other living organisms. However, the use and overuse of water has been rapidly increased in recent years

because of an unprecedented growth in human population, rapid changes in human lifestyles, consumption patterns and the pollution of environment (due to industrialization, deforestation etc.), which has put unlimited pressure on the water resources as well as have lead to their over exploitation. In fact, this pressure over water resources has threatened/affected the availability of water (both in terms of quality and quantity) on the earth on the one hand, and it has also simultaneously influenced the socio-economic condition of the human society on the other. As a result, serious attempts have been going on to protect and preserve this vital natural resource, through different legislations and policy frameworks. As a result, the unprecedented water related issues have accentuated several legislative actions, undertaken by the international as well as national governments. A number of International Conferences and gatherings like Mar del Plata Conference on Water, Argentina, 1977, the United Nations Conferences on Environment and Development in Rio de Janeiro, Brazil, 1992, the International Conference on Freshwater, Bonn, 2001 etc. were held to focus on the problems regarding the water resources and also suggested measures for its proper conservation or restoration. In line with the international strategies, each country has developed their own policies and laws – River Board Act, 1956, Water (Prevention and Control of Pollution) policy, 1974, National Water Policy, 1987 and its amended version in 2002 etc. - and various institutional mechanisms for proper management and sustainable use of water resources. Following the above-mentioned national water related legislative actions; the State Governments have also formulated several legislations for the protection and conservation of water resources like Odisha River Pollution and Prevention Act, 1953; Acquisition of Land or Flood Control and

Prevention of Erosion Act, 1955; State Water Policy 1994, which has been further amended in 2007 by following the National Water Policy 1987 and 2002 respectively, The Odisha *Pani Panchayat* Act, 2002 and *Pani Panchayat* Rule in 2003 so on and so forth.

Thus, the present study has focused mainly on the legislative actions in India and specifically in Odisha water resource in general and irrigation in particular. It examines the effect of government policies in governance of the resource, simultaneously gives emphasis to the involvement of the local community and their active participation in proper utilization of the resource. It observes the impact of institutions on water which encompass both socialized ways of interacting and underlying rules and regulations, as well as structures and organizations that influence resource allocations. It is at best elaborated through participatory irrigation management (PIM) and the enactment of The Odisha *Pani Panchayat* Act, 2002 which aims to promote and secure equitable distribution of water among its users, adequate maintenance of irrigation system, efficient and economic utilization of water to optimize agricultural production under the banner of various water users' association. Finally it is concluded that the enactment of this Act by Government of Odisha is very much significant for the farmers to use or govern their resource – water – in a better way under the proper guidance of government personnel.

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MSMEs In Odisha – An Overview

Dr. Rashmita Sahoo

MSMEs (Micro, Small & Medium Enterprises) have remained high on the agenda of all political parties, intelligentsia and policy makers since Independence as a legacy of Gandhian philosophy. The special thrust to this sector has been with the multiple objectives of employment generation, regional dispersal of industries and as a seedbed for Entrepreneurship. The contribution of small scale industries (SSIs) has been remarkable in the industrial development of the country. It has a share of 40% in the industrial production. 35% of the total manufactured exports of the country are directly accounted for by this sector. In terms of employment generated, this sector is next only to agriculture employing approximately 14 million people.

SSI Sector produces wide range of products: The small scale sector produces a wide range of products, from simple consumer goods to highly precision and sophisticated end-products. As ancillaries, it produces a variety of parts and components required by the large enterprises. The sector has emerged as a major supplier of mass consumption goods like leather articles, plastics and rubber goods, fabrics and ready-made garments, cosmetics, utensils, sheet metal components, soaps and detergents, processed food and vegetables, wooden and steel furniture and so on. More sophisticated items

manufactured by the small scale sector now include television sets, electronic desk calculators, microwave components, air conditioning equipment, electric motors, auto-parts, drugs and pharmaceuticals.

Rural Enterprises: Rural and Traditional Sector enterprises largely from amongst the unregistered SSEs and non-farm sector contribute to about 15 % of the total output of Small Scale Industries but about 40% of the work force is employed in this sector. These industries are based on traditional skills and are based on simple manufacturing processes that are carried out by making use of hand tools mostly and in few cases by use of simple machines. This also explains the larger employment generated in these units.

Government's Promotional Policy and Support Network

Govt. of India has enacted the Micro, Small & Medium Enterprises Development Act-2006 with a view to providing a comprehensive legal framework to address the needs of both the manufacturing and the service sector MSMEs, particularly to enable the MSMEs of the country to face the emerging challenges in globalized and competitive market. The Government of India has

announced an all India campaign under the National Manufacturing Competitiveness Programme (NMCP) for the Micro, Small & Medium Enterprises so as to withstand global and organized competition and to thrive through better technologies and skills. The Govt. of Odisha has also notified Industrial Policy Resolution-2007 (IPR-2007) which provides for specific fiscal as well as non-fiscal interventions to develop the Micro, Small & Medium Enterprises of the State. Despite of having abundant natural resources and human resources the growth of MSMEs in Odisha is not at par with the national and international standards. The new wave of industrialization being witnessed in Odisha today, especially in the metal, power, cement, petro-chemical, IT, tourism sector and the current growth in the services sector provide enormous opportunity for the growth of Micro, Small & Medium Enterprises in the State. So to overcome the hurdles in way of development of MSMEs in Odisha Government of Odisha has declared a policy Known as “Orissa MSME Development Policy-2009”. The main objectives of the policy are to maximize growth of existing MSMEs, to reduce sickness of MSMEs, to provide opportunities as well as promote local entrepreneurial talent, to maximize avenues for employment generation etc. Under this policy women entrepreneurs are also encouraged when women entrepreneurs setting up new MSE shall be entitled to additional two (2) years fiscal incentives relating to VAT under IPR- 07 subject to being otherwise eligible for the said incentive and also subject to the overall absolute limits prescribed for the said incentive under IPR-07. Below it is the **Administrative Structure for Governance of Small Scale Industries:**

Industry	Administrative Dept./Ministry
Large/Medium Industries	Dept. of Industrial Policy and Promotion and Dept. of Industrial Development, Ministry of Industry

Small Scale Industries	Dept. of Small Scale, Agro & Rural Industries, Ministry of Industry, Powerlooms Ministry of Textiles.
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Traditional Industries

Khadi and Village Industries(KVI)	Dept. of Small Scale, Agro & Rural Industries, Ministry of Industry.
Handlooms	Ministry of Textiles
Sericulture	Ministry of Textiles
Handicrafts	Ministry of Textiles
Coir Fibre	Dept. of Small Scale, Agro & Rural Industries, Ministry of Industry.

In practice, the small scale industry sector serves as a residuary sector in the sense that all units that fall within a prescribed investment limit and are not recognized in a particular subsector are included in the small scale industries sector.

‘National Small Industries Corporation’ (NSIC) is another important institution set up in 1955 that supplies primarily imported machinery on easy finance terms, provides marketing assistance, operates ‘Prototype Development and Training Centres’ (PDTC) in specific fields such as machine tools, injection molding, leather manufacturing equipment etc. NISIET (now called National Institute of Entrepreneurship and Business Development i.e. NIESBUD) was set up to train and promote personnel, industrial managers and entrepreneurs. Other national level institutions that are supporting the small scale sector are ‘National Research Development Corporation’ (NRDC), ‘Bureau of Indian Standards’ (BIS), ‘National Productivity Council’ (NPC), ‘Consultancy Development Centre’ (CDC) and ‘Electronics Test and Design Centres’ (ETDC). The central financial institutions have also set up the Entrepreneurship Development Institute of India (EDII) at the national level to promote entrepreneurship. All the above mentioned institutions are largely meant for the

modern small scale industry. In order to promote khadi and village industries, a separate high level commission has been set up under the Ministry of Industry. Similarly for the handlooms, handicrafts, sericulture and other non-modern small units there are separate divisions to promote them.

At the state level, the governments have set up institutions as follows :

- Small Industry Development Corporations (SIDCs) to develop infrastructure in the form of industrial plots and industrial sheds.
- State Financial Corporations (SFCs) to provide long term credit facilities.
- State Exports Promotion Corporations to provide marketing assistance for exports from the small scale sector.
- Technical Consultancy Organizations (TCOs) that provide technical, financial and marketing consultancy to the sector.
- Centre for Entrepreneurship Development (CEDs) and Institute of Entrepreneurship Development (IEDs) have been set up to promote entrepreneurship through training.

At District level, in the year 1978, the Central Government launched a programme of establishing District Industries Centres to provide under a single roof all the support services, clearances, licenses and certificates required by the small entrepreneurs. There are more than 400 such centres, one each in a district.

Institutional Finance for Small Scale Industries:

The following agencies through their various schemes provide finance to small scale industries sector under the overall policies and guidelines evolved by Reserve Bank of India.

At the National Level:

1. Small Industries Development Bank of India (Mainly through re-finance)
2. National Bank for Agriculture & Rural Development
3. National Small Industries Corporation
4. Khadi & Village Industries Commission
5. Nationalised Banks
6. Development Commissioner, Small Scale Industries (DCSSI)

At the State Level:

1. State Financial Corporations (SFCs)
2. State Industrial Development Corporation (SIDCs) - Infrastructure/ Finance
3. State Cooperative Banks
4. Khadi & Village Industries Board

At Regional & District Level:

1. Regional Rural Banks (RRBs)
2. District Central Cooperative Banks
3. Primary Cooperative Banks
4. Branches of State level institutions & nationalised banks about 65,000 in number
5. Khadi & Village Industries Commission
6. District Industries Centre (DIC)

The state MSMEs (Micro, Small & Medium Enterprises) Development policy of 2009, according to media report, is likely to raise the upper limit of capital investment subsidy for the units from Rs.8 lakhs to 20 lakhs in Odisha.

The Odisha government is currently busy in promoting small enterprises in the state, with

support from the newly-formed MSME Department. The Department is chalking out plans for future growth and development of the state MSME industry. In this regard, it intends to hold systematic awareness programmes in collaboration with the Small Industries Development Bank of India (SIDBI). To encourage entrepreneurship in the state, the MSME Department also plans to organise a 2-week-long fair every year from January 1, 2013. The expo aims at providing start-ups with marketing support, help in technology procurement and take business development initiatives for them.

The Department has also partnered with apex export body FIEO to facilitate state MSMEs in increasing their export revenues. FIEO is likely to extend help in organizing open house meets, workshops, buyers and sellers meet and the like, which in turn would scale up exports of products manufactured by MSMEs across Odisha.

A large number of small enterprises in the state are engaged in exports. Hence, the MSME Department is laying a focused approach to promote regional exports. The Department is also emphasizing on the development of MSME-specific sectors such as food processing. In this light, it has drafted a new food processing policy for the state, which is yet to receive government's approval.

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Shri Lal Bihari Himirika, Minister for ST & SC Development, Minorities & Backward Classes, Shri Ashok Panda, MLA, Ekamra, Shri Santosh Kumar Sarangi, Commissioner-cum-Secretary and Shri Sushil Kumar Popli, Director are present during the inauguration of Computer Lab at Tapobana High School, Khandagiri.



Nuakhai : Festival of Social Harmony

Dr. P.K. Singh

Festivals are the occasion that reinforce the presence of gods and goddesses in the life of individuals and bind them to the community. Those are also moments for the people and to be a part of age-old, yet still vibrant and living traditions¹. Festivals are also full of enjoyment, when they coincide with agricultural events such as Nuakhai or Navanna celebrated in West Odisha on the day of Bhadrava Suklapaksha Panchami every year. Webster's Dictionary defines the term festival as "a day or time of religious or other celebrations marked by feasting, ceremonies or the observance". Festival is celebrated by one religious or sub group, group, a tribe or a community with exceptions to few individuals. Foods, sweets, fruits, nuts etc. prepared during the festivals are specific. Such an agro-based religious festival is Nua Khai, which is celebrated in Western Odisha with much pomp and gaiety is quite unique and colourful is discussed in the present paper.

As we know majority of the population in India are agriculturalists. West Odisha where both tribals and non-tribals coexist side by side depend on agriculture, some are farmers and some are farm labourers. The staple food of West Odishan people is rice i.e., Anna, the central point of life circle of the Universe. Therefore the

following verse is told by Lord Krishna to Arjuna in Bhagvat Gita:

*Annat bhavanti bhutani parjyanat anna sambhava
Yajnat bhavanti prajanya jagnya karma sambhuvah
Karma brahmobhavam vidhi brahmakshara samudhavam
Tasmait sarvagatam brahma nityam jagnye pratisthitam².*

Nature poet Gangadhar Meher also depicted the importance of *anna* in the following verse:

*Anna eka atai visva muladhara
Ekavakye samasthe gayaho annara jayakaraho³*

Anna is the centre of the whole universe. Therefore this navanna or *nuakhai* festivals give much importance to *anna* with a special celebration. *Nuakhai* is not merely a tradition or festival but it mainly concentrate on the worship of food grain or rice which is the manifestation of life itself. Regarding the origin of Nuakhai there is no concrete evidence when exactly it was celebrated in Western Odisha. Historically and archaeologically it is proved that food grain or *anna* has a very important role in the agrarian culture of Vedic, Mesopotamia and Indus Valley Civilization. According to oral tradition during the reign of first Chauhan king Ramai Dev of Patna (1355-1380 A.D.) Nuakhai was introduced as a state festival. Raja Ramai Dev had understood the role of peasants and tribals of Western Odisha in order to consolidate his newly created Chauhan

Empire, its capital city being at Patnagarh. Therefore in order to appease and satisfy the local populace Ramai Dev accepted their age old tradition of Nua Khai and the tribal Goddess Samalei as the tutelary goddess of Chauhan dynasty. Nuakhai became a state festival which played a major role in the life and society of the people resulted in the state formation in medieval Odisha ⁴.

In early medieval Odisha Nuakhai was celebrated by the local tribals and peasants on specific date and *tithi* of the year with lot of festivities and rituals when they start their life afresh with new crops. However with the formation of small principalities and kingdoms during the later period, Nuakhai was celebrated according to the *Tithi* and date assigned by the respective royal priests decided in the name of presiding gods and goddesses. For example the *Tithi* (day) and *Lagna* (auspicious moment) for the celebration of *navanna* is decided astrologically by the royal priest of Manikesvari temple at Bhawanipatna, in case of Bolangir and Patnagarh in the temple of Patnesvari and at Sundargarh and Sonepur in the temple of Sekharavasini and Suresvari respectively. The head priest in those temples offer *Navanna* to the presiding deities and then only people in the locality take *navanna*. Therefore, there was not a common day for the observance of this festival. However during 1991 the then Chief Minister of Odisha late Biju Patnaik passed a historic order to celebrate this occasion on the day of Bhadrava *Suklapaksha Panchami*, the day following Ganesh Puja has been declared as State Holiday.

Such a festive occasion which is basically agrarian in nature has a special significance in the social and cultural life of the people of Western Odisha. After hard work throughout the year the farmers become extremely happy when they see the golden crops in the paddy fields. They become beholden and prepared to rejoice this occasion

on a special event and that is the occasion of Nuakhai. All the family members wherever they stay assemble together in their respective homes. The surroundings of the houses are made neat and clean, members of the family wear new clothes. Preparations for this occasion start before fifteen days. People used to purchase different items like clay pots, bamboo baskets, *puja* items like banana, ghee, gud etc. and groceries. Just before one day of the *Navanna* the head of the family goes to the paddy field to collect the new crop in the paddy field. Before collecting the new crop the head of the family conducts special rituals and *puja* with milk, flower, ghee, unboiled rice facing towards east. Then he collects the crops and came to the house. At house also the senior most lady of the family receive the new crops in the same manner of rituals. In the night the lady members prepare different ingredients for the next day's food. For special *pitha* (cooked cakes) and *Manda* they grind the rice with the help of pestles. Leaves from the trees of Mahul, banana, kure, rengal etc. collected for the Nuakhia by different communities. For example the Kulta caste eat Nua on Mahul leaves, the Brahmans take Nua on sal and banana leaves and members of the other communities eat Nua on Kure leaves ⁴. Ladies bring water from the well in the night for the next day's *puja* and for the preparation of food. On the day of Navanna senior lady members wake up early in the morning and take bath and remain busy for the preparation of the event. On this occasion cows and bullocks are also bathed and they are worshipped with special *puja* and rakhees are put on their horns and bodies. They are offered with green grass plentifully. Because the help of those domestic animals are quite noteworthy for agricultural operation. This is an exhibition of gratitude and respect to domestic animals. In the morning the head of the family goes to the paddy field and offer *puja* rituals to the earth mother and deities of the paddy field. The

family deities at home are offered with *nua* and other sweets like *Manda Pitha* and *Khiri*. Then only all the family members sit together to eat *nua* with the performance of special rituals. The youngsters paid respect to their elders and the elders bless to the young. This event is popularly known as *Nuakhai Juhar Bhet*. This includes exchange of greetings with relatives, family members and members of other communities as well. Then the group eating starts with different varieties of food items like rice, *dal*, *sabji*, and *hendua karadi khata*, *saga bhaja*, *khiri*, *pitha*, *manda* etc. In the afternoon the members of different communities go to the nearby temples to pay *darshan* to the local deities on this special occasion. Different type of games and sports, *kusti* etc. are organized in the locality which becomes quite interesting. In the evening Nuakhai Bhetghat meetings, folk cultural events like *dalkhai*, *rasarkeli*, *mailajada*, *ghumra*, *bazasal* etc. are organized which becomes quite enjoyable.

During this occasion the enemies become friends. People forget their differences and forgive to the persons who commit mistakes. This is an example of unity in the society. Nuakhai has a great contribution to social harmony and solidarity. It teaches unity in diversity and the whole world a family i.e., Vasudhaiva Kutumvakam. In true sense of the term it is a festival of the masses or *gana parva*.

Now a days Nuakhai Bhetghat are being observed and organized at different metropolis like Delhi, Mumbai, Bangalore, Chennai, Kolkata etc. by the people of non-resident west Odishans who are unable to attend the Nuakhai festival in their respective villages. Even in abroad like United States, United Kingdom, Japan, people from Odisha celebrate Nuakhai Bhetghat. This occasion bind them together with social harmony, unity and friendship. The west Odishan culture and music like traditional Sambalpuri folk music,

dance and food are exhibited on this occasion. During the last forty years in the capital city of Bhubaneswar Nuakhai Bhet Ghat are being organized by the people residing in Bhubaneswar and nearby places. But this festival is observed much after the scheduled date of Nuakhai Bhetghat depending upon the suitable occasion. This is an noble endeavour for the preservation, documentation and exhibition of West Odishan folk music and culture which are fast vanishing.

Though the celebration of Nuakhai has changed in course of time but the main cause of this *navanna* continues to be a vital force i.e., the spirit is the spirit or the gratefulness that man have for the almighty for good harvest for the sustenance of life on the earth⁵. Therefore Nuakhai is a very unique festival in the whole country where both tribal and non-tribals participate and bind them in the force of unity, cohesion and brotherhood and the collective ritual offering to gods and goddesses for all their blessings.

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Role of Education in Promotion and Protection of Human Rights

Nibedita Mahapatra

Abstract:

The term 'human rights' denotes all rights that are present in our society and without which one cannot live as human beings. Human rights are the basic rights that a person irrespective of race, gender or any other background cannot be denied anywhere or at any condition. This article enhances the importance of human rights in day to day life and the role of education in protecting and promoting them. It also focuses the interrelation between RTE 2009 and HR. It is shown in the discussions below the role of HER started by UN around 60 years ago. It is shown here the potential of education to inculcate and imbibe the values of human rights and values in a person and use them in his life. The paper concludes with some suggestive measures that should be taken as a part of education programmes.

Introduction:

Human rights are rights inherent to all human beings, whatever our nationality, place of residence, sex, national or ethnic origin, colour, religion, language, or any other status. We are all equally entitled to our human rights without discrimination. These rights are all interrelated, guaranteed by law, in the forms of international law, general principles and other sources of

international law. International human rights law lays down obligations of Governments to act in certain ways or to refrain from certain acts, in order to promote and protect human rights and fundamental freedoms of individuals of groups.

Human rights are commonly understood as basic fundamental rights that a person cannot be denied by any individual or any government simply because he or she is a human being. They are universal and same for everyone. Human rights entail both right and obligation. Human rights developing from the concepts of natural rights became culminate with the thoughts of philosophers like John Locke, Francis Hutcheson, and Jean-Jacques Burlamaqui and became prominent with American Revolution and French Revolution. Most of the basic ideas and norms of human rights existing now adopted as Universal Declaration of Human Rights by United Nations General Assembly in 1948 has its root from Second World War and the atrocities of 'The Holocaust'.¹ Every year 10 December is celebrated as Human Rights Day.

Education has a very important role to play for promotion and protection of human rights. Education makes us aware about our civil and political right often called as the first generation rights and the social, economic and cultural rights as the second generation rights. Without proper

education one cannot be introduced with these essential philosophic and their basic rights and obligations. The concept of expanding human rights through education is now popularly present and traveled to encompass as the third generation rights itself. So it is very important that we know what is the role of education in promotion and protection of human rights.

Being a tool to spread awareness and information and assimilating, creating and disseminating knowledge amongst its recipients, education can play a crucial role at each of levels for promotion and protection of human rights. But, unfortunately the education system, except for last few years after the establishment of Indian institute of human rights in 1990 which registered Universities for offering such courses in 10 December 1999, has hardly shown any credible in regards of evolvement of human rights and its protection.

Importance:

A comprehensive education in human rights consists of two components: knowledge and information on human rights and the mechanisms that protect these inalienable rights. It is important that education also impart the skills needed to promote, defend, and apply human rights in daily life. Education about human rights is distinct from other types of values education. For example, citizenship education or education for democratic citizenship (EDC) is a set of practices and activities aimed at making young people and adults better equipped to participate actively in democratic life by assuming and exercising their rights and responsibilities in society.²

The need of promoting & protecting all human rights is important in order to secure full & universal enjoyment of these rights cannot be fulfilled without mass awareness and sensitivity to human rights issues. The grand agenda of global

peace & prosperity is possible only with people understanding & imbibing the human rights values. Awareness is important in order to resolve the human right conflicts. This robust participation can be achieved only with human rights education. The Vienna Declaration adopted by General Assembly in 1993 incorporates a separate section on role of education protection and promotion of human rights.³ For example, gender is a social construction, not a biological one, and discrimination on this basis is consequently difficult to assess and address. The human rights protection and promotion of gender equality requires more than numerical equilibrium, it also requires conceptual equilibrium, and a conscientious effort to redress inequality, as it exists.

Hurdles:

Unfortunately, the very motivations and benefits of human rights pose direct challenges to their existence. Human rights are universal since they are said to belong to all humans in every society. Human rights are also supposed to be *inalienable*; because they flow from and protect human existence, they cannot be taken away without endangering the value of that existence. However, these universal and inalienable qualities of human rights are disputable in both their conception and operation.

Beyond the genesis of human rights, wherever they come from, lies a fundamental challenge to their universality, regardless of their origin. With any inception of human rights, one faced with having to acquire acceptance of their authority. There is a problem in that not everyone will share the same motivation or inspiration for human rights. Not everyone will agree that everything asserted as a human right is indeed one. At a very basic level, the proclamation and acceptance of human rights norms inherently involves majoritarian morality.

Notwithstanding that it has been more than six decades since the concept of spreading and protecting human rights as Human Right Education (HRE) first entered the lexicon of international law, it is readily apparent that HRE has not succeeded in preventing widespread human rights abuses. Wards like 'Rwanda', 'Srebrenica' and Darfur' immediately bring to mind examples of our failure to prevent catastrophic human rights violations. This because of inadequacy of education in the prevailing society. Within many nations many political debates rage over the denial or abuse of human rights. Even in prosperous, democratic countries like Canada much public discourse is phrased in the rhetoric of rights. Racism and related phenomena thrive where there is ignorance, unfounded fears of racial, ethnic, religious, cultural and linguistic or other forms of difference, the exploitation of prejudices, or the teaching or dissemination of distorted values.⁴

"It's the largest democracy in the world. It's also a big country with lots of human rights challenges. And when we have concerns, we raise them with the Indian Government," US Assistant Secretary for democracy human rights and labour Michael Posner said. The major population of India resides in villages which do not get sufficient education support. Problems like human trafficking, exploitation of women commercially and sexually, religious violations, caste related issues are some example leading to human right violations. Moreover, many prisoners in India are also denied their human rights. They are detained without adequate reason.

Role of education in promotion and protection of Human Rights:

Education is a tool for creating the real idea of human rights and making people know its importance in their day to day life. It is also a tool

for eliminating the violations of human rights. An educated civilization can only know its rights and hence have the knowledge to protect it. According to Kofi Annan, the former Secretary General of United Nations "without education, we can see beyond ourselves and our narrow surroundings to the reality of global interdependence. Without education, we cannot realize how people of other races and religions share the same dreams, the same hopes. Without education, we cannot recognize the universality of human aims and aspirations. UN mandates that education shall be directed to the strengthening of respect for human rights & fundamental freedom. These entities have been chosen because one is an expert body responsible for monitoring States' implementation of the HRE obligation in Article 13(1) of the International Covenant on Economic, Social and Cultural Rights (ICESCR), and the other is an inter-governmental body with an explicit mandate regarding HRE.⁵

It is important to make each and every people literate just not in order to make them educated and capable of earning but also recognize their rights towards themselves and each other. An educated person only can stand for its right. HRE is about "empowering the individual to both recognize human rights abuses and to commit to their prevention". Thus, a core part of HRE is the strengthening of respect for human rights.⁶ It is now a global responsible of every person and the government to promote education and hence promote human rights.

Article 51A(1) of Indian Constitution 1950, imposes a duty on all citizens to develop scientific temper, humanism and the spirit of inquiry & reform. The effective discharge of this duty will require HRE to give people enhanced awareness & greater openness. Right to Education has also been incorporated.⁷ The Constitution mandates

the state to direct its policy towards securing that children are given opportunities and facilities to develop in a healthy manner and in conditions of freedom & dignity and that childhood and youth are protected against exploitation and against moral & material abandonment. HRE of the children as well as the other people is indispensable to the full realization of the responsibility under this constitutional directive. Indian state has an obligation to foster respect for international law and treaty obligations as laid down in Article 51 of the Constitution. In India is a signatory to UDHR & has ratified Civil and Political Rights Convention, Economic, Social and Cultural Rights Convention, CEDAWCRC etc. HRE is inescapable and a legal obligation.

‘Human Rights’ is not treated as a separate subject in the curricula. NCERT has felt that all contemporary concerns & issues cannot be included in the curriculum as separate subjects of study. It has culled upon incorporation of certain emerging concerns including human rights in the course content. University Grants Commission appointed Sikri Committee in 1980 to consider and report on the different ways and means for promoting HRE in India. The committee suggested inculcating values without marks weight age in schools. At college levels it was felt that all disciplines should be including human rights topics at least which are directly relevant to their disciplines.⁸ But it is disappointing to observe that the NCF 2005 has failed in identifying the content of the HRE in schools.⁹

Implementation of RTE 2009:

A Human rights-based approach of education assures every child a quality education that respects and promotes her or his right to dignity and optimum development. The right to education is marked priority on the agenda of the international community since right to education

is not only a human right in itself but also is quintessential for the exercise of all other human rights. A number of human rights treaties accepted and development and social transformation. The right to education flows directly from the right to life. The right to life and the dignity of an individual cannot be assured unless it is accompanied by the right to education.

Victims of injustice and violations of human rights will have no faith in justice and values. Right to education and HRE will fall through. The government and the society should be prepared to foot the bill if concrete results are desired.

Conclusion:

There is no doubt that education has a major role to play for protection and promotion of human rights. HRE is considered as one of the major tools to stop the violations against human rights. From the above discussion we saw the importance and how education can play a vital role in this regard.

Education should be imparted to each and everyone so that they understand the importance of human rights. Equality shall be the primary consideration in actions concerning children, respect for the views of the child are the general principals of the Convention on the Rights of a child. Education in their own mother language about human rights will make the learners more prompt about their values and ways to use them in their day to day life. The values of cultural diversity and social diversity should be inculcated as a basic teaching. For integration of human rights, the relevant subjects at the primary stage are languages & environmental studies. Stories, poems and songs concerning human rights values will have to be selected. Education should impart gender equality, respect for human dignity and rights.

Human rights concepts of religious freedom and religious tolerance can be inculcated while teaching history topics. Human rights concerns about self determination can be introduced to students while teaching them colonialism and imperialism. While teaching about *sati* and widow remarriage, suppression of women and the need for reverse discrimination can be taught. Democracy equality can enhance human values in a person. Rule of law and social justice gives immense opportunities to discuss and understand human rights and human duties. Languages offer many gateways for HRE. Stories, poems, paragraphs can be carefully selected. Themes on French Revolution, Nazism can be used to discuss the evolution of human rights. A discussion on the omnibus violations of human rights during world wars can sensitize the students.

Dramatic clubs and literary activities can be utilized effectively. Students can be motivated to write poetry, drama and essays on human rights. Poster making competition, elocution or contests, debates etc. can also be held on similar themes. The school can celebrate the 'World Human Rights Day' which can go a long way to create wariness among students, parents and the neighborhood community. Initiatives should be taken to enrich the school library and personal collection with books and materials on human rights.

All of this suggests that the time is ripe for HRE to come to the forefront of international consciousness, and to fulfill its intended role as a preventive tool. Education should be granted to one and all across the country and world. Human Rights are the basis of human values, disciplines and dignity. It should be enhanced, protected and promoted to every nook and corner with the help of education.

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Dr. S. Radhakrishnan : The Great Guru

Madhusudan Patnaik

Born in a humble Brahmin family on 5th September 1887 at Tiruttani, Dr. Radhakrishnan was educated in the intermediate college of Vellore and then at Christian College, Madras. Here Dr. Hogg, Professor of Philosophy greatly influenced his life. He qualified himself as a great teacher in the training college at Saidapet. He then joined the Madras Educational Service of Rajahmundry. In 1909 he was appointed Assistant Professor in the Presidency College of Madras. Here he became the Professor of Philosophy.



Despite his poor financial condition he continued studies at Godae School and Mission School depending upon scholarship. He completed his Post Graduate qualification in Philosophy from Madras Christian College. He achieved vast knowledge in Hindu Philosophy specially in Upanishad, Bhagabat Gita and

Brahmasutra including the preachings of Shankar and Ramanuja. To add to all these, he was well-up with the Philosophy of Buddhism and Jainism and the teachings of great thinkers like Plato, Bradley and Bergsen.

Then he was appointed Professor of Philosophy in the newly-founded University of Mysore, where Professor Candeth and Professor TK Doraiswamy Ayer became his life-long friends to whom he

dedicated his book 'Reign of Religion'. In 1921 he became the Professor in the University of Calcutta. He had achieved so much in so many fields like religion, politics, legislator, ambassador in thirty years of work that none had done. With his dual appointment at Banares and Oxford like a weaver's shuttle he had gone to and fro between the east and west. His first publication was 'the Philosophy of Tagore' which brought him fame

and facilitated his Calcutta appointment. The Hindu views of life brought immense popularity all over the world. His appointment was made as first Vice-President and subsequently as President of the Republic. He could bring a great change in the field of education through his learned counsels in the Radhakrishnan committee basing upon the need of the country. These high appointments were preceded by a spell of his ambassadorship at Moscow in 1949. Stalin, the then President of U.S.S.R., gave him two interviews, a great honour, and almost shed tears as he complimented Radhakrishnan on his deep humanity.

Dr. Radhakrishnan was most considerate to poor students. He helped them generously. His work was usually done in his bed : reading, writing, dictating and talking to visitors. He never takes physical exercise not even walking. He was able to bear the strain of the strenuous town that he had to undertake as Vice-President and President of India.

His hobby had been reading only. Even in his retirement he could be found surrounded by books. He was a voracious reader with a quick grasp and a photographic memory.

In 1903 he married to lady Sivakamma. He was blessed with five daughters as Smt. Padmavati, Smt. Rukmini, Smt. Susheela, Smt. Sundari and Smt. Shakuntala and a son Dr. S. Gopal, Reader in South Asian Studies, Oxford University.

Dr. Radhakrishnan was awarded the higher honour of Bharat Ratna in 1954, a couple of years before he had become the first Vice-President of India in 1952. In 1962 he was the second President of Republic when China and Pakistan war was going on in 1967. He retired from President of India and then he come to Madras. He passed away on 17th April, 1975.

A Great Guru whose birthday on 5th September is observed as Guru Divas in Schools and Colleges throughout the country, and the Government have been pleased to declare it a holiday to commemorate it. Let's pay tribute to him.

Madhusudan Patnaik, Kaibalya, Duttatota, Puri.

ST & SC STUDENTS TO BECOME COMPUTER SAVVY

Government in ST & SC Development Department decided to set up computer labs in 86 High Schools managed by ST & SC Development Department. Recently Shri Lal Bihari Himirika, Minister, ST & SC Development inaugurated this novel project "Setting up computer lab and providing computer education" at Tapobana High School, Bhubaneswar. The project aims at upgrading IT infrastructure in ST & SC Development Department schools involving students from standard VIII to Std. X. Each school will have a computer lab in shared computing model with qualified instructor. Under this programme each school will be provided with a completely shared multimedia computing lab equipped with one high end host PC (server) alongwith ten multimedia enabled workstations and one digital multimedia projector apart from power backup and other necessary equipment wherein all software like Microsoft Windows etc. will be loaded in the server and can be accessed at different workstations.



Khudiram – Glimpses of his Life and Achievement

Anasuya Swain

The life of Khudiram is an extraordinary example of dedication and hurdles from the very beginning. When an individual would very much want to enjoy life, he had never given importance to that attitude. He considered his duty towards the country and its people to be more important than confirming himself only to his own work.

When India was desperately struggling for freedom, when the country was under the ruthless administration of the British rule, he joined with his Headmaster, Satyananda Basu for such a great cause. No precious thing was there for him rather than to achieve the freedom of Motherland. It could have been very difficult on the part of any young man to choose a path of turmoil.

He joined Satyananda Basu against the British. He helped the movement of boycotting foreign goods being inspired by the ideals of Aurobindo Ghosh. In this movement they had to stage *dharana* in front of the shops selling foreign goods. For this he had to tolerate many difficulties. He was aware that without the use of Swadeshi goods and boycott of the foreign goods, the economic development of the country is impossible. This consciousness made him a revolutionary which was reflected in his doings. To bring an end to the selling of foreign goods, he

burnt many shops with foreign goods. That time favoured Khudiram and he was not identified by the spy.

Slowly but steadily he started moulding the minds of the people against the British. For this he had to distribute the booklet named 'Sonar Bangla' which was written by the 'Gupta Samiti'. This booklet contained the British injustice towards the Indians. This work was dedicatedly done by Khudiram and while doing so he was captured by the police force. This time a case was filed against Khudiram and he was declared as the 'defaulter' but in this team his age was only 14 and not old enough for the imprisonment.

Khudiram's 'Gupta Team' joined with Shree Aurobindo. At that time Shree Aurobindo published two magazines. One in English is called as *Bande Mataram* and another in Bengali. These magazines aimed to create awareness about the English dictatorship and ruthless unlawful rule. That was effective in that time and made many people to join the movement of Aurobindo. That was a headache for the British Authority. For this Sri Aurobindo was arrested by the British. Subsequently Sri Aurobindo was released but the printing authority Bipinchandra Pal was imprisoned. This incident made an impact on the mind of the revolutionist like Khudiram. During

this time the revolutionist made plan to kill Kingsford but the British Administration came to know about the plan. The English government at that time transferred Kingsford to another place, Mozafarpur. But the revolutionists wanted to achieve their aim by any means. This target was given to the bold, enthusiastic, capable, young, energetic revolutionist Khudiram.

‘Do or die’ was the *mantra* for Khudiram at that time. He and his friend Prafulla Chakhi were sent to Mozafarpur to take revenge against the Kingsford. The revolutionists remained there and made plan to achieve their target. One day he bombarded the car of Kingsford. But in that car instead of Kingsford, the Kennedy family were travelling.

Only truth of this world is death. But the deeds of those great people make them ever remembered. It was proved in the life of Khudiram living only for 14 years which proved his life’s justification to the world. He will always continue to be the ideal of the entire country for his strong

and indomitable zeal and personality. Let the younger generation try to be worthy of Khudiram and fight against superstition, sorrow, difficulty, tragedy, and the ideals for which he stood.

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Award giving ceremony on the occasion of Independence Day 2012 organised jointly by Kolkata Branch of I & P.R.Deptt.and Utkaleeya Milita Manch, Kolkata. Shri Srikant Panda, Chairman, Siksha Cell, Kolkata and Shri Shambhunath Goswami, I.O., Kolkata are present among the meritorious students.

Occurrence of Platinum Group of Elements (PGE) in Odisha and their Importance

Suryanshu Choudhury

ABSTRACT

Wafted by the breeze of Bay of Bengal, Odisha stands at eastern coast of India being ninth largest state by area. The state is endowed with wide gamut of mineral resources like Iron ore, Bauxite, coal, limestone, manganese ore, gemstones, fireclays, nickel ore and platinum group of minerals etc. The state has got a lion's share of the Country's mineral reserves. Several mineral based industries have already come up in the state with many others are in pipeline. The dynamic State Government of Odisha has left no stone unturned in cashing in on the attention it has been getting from different business houses in recent times. The huge mineral resources of the state, 480 km long coastal stretch, the liberalised economic policy of Govt. of India, Industrial Policy 2007 and availability of infrastructural support make the state an investors' paradise. Exploration for Platinum group of elements (PGE) has been undertaken in many prospective areas of India based on the well-established genetic concepts of PGE mineralization in space and time. At present Odisha is the only state of India where there is presence of significant resource for Platinum group of elements (PGE) is proved after drilling by Geological Survey of India in collaboration with BRGM (France) at Baula-Nuasahi ultramafic complex. Apart from this there are many other locations found to be presence of the PGE but yet to be quantified.

1. INTRODUCTION

Platinum is popularly known in the society as Rich Man's Gold. It is basically bright white and precious metal which has got wide application to industry. Platinum Group of Elements comprises of a family of six greyish to silver white metals Platinum (Pt), Palladium (Pd), Rhodium (Rh), Ruthenium (Ru), Osmium (Os) and Iridium (Ir) are the rarest of precious metals in the earth's crust. Because of the similar physical and chemical properties, they tend to occur naturally together in the same mineral deposits. These are often associated with gold and silver and are classically known as Noble Metals. They all have commonality of extreme rarity in occurrence on

the surface of the earth and attractive appearance with noncorrosive qualities even with long use and normal exposure to the ambience and the environment. Their crustal abundance are very low (less than sub-ppb level to maximum 10 ppb) and the PGE deposits are too few in number compared to other metalliferous or more specifically other precious metal deposits of the world. Exploration techniques in this field aimed at detecting subtle indications of PGE mineralization and assessing the economic potential of a geological environment have, however, yet to be developed and field tested. Success will depend on the formulation of practical sets of guidelines for implementing a programme of PGE exploration.

A concept oriented approach supplemented by appropriate field techniques is necessary to identify PGE targets. In view of the fine size of the PGM in the host rock, occurrence over narrow thickness and lack of clear-cut contact for easy discernability, field identification of zones of enrichment is rendered difficult.

2. OCCURRENCE IN ODISHA

Tony Naldratt of Canada, called the father of platinum group element (PGE), has mentioned in the editorial columns of the Journal of Geological Society of India that Bastar Craton and Cuddapah basin are two potential areas in India, where one should look for PGE mineralization. Based on geological criteria such as rock association, age, tectonic setting, depositional environment, geochemical association and abundances, the principal terrains for identification and delineation of Platinum group of elements are explored at certain targets areas in Odisha: 1. Baula-Nuasahi, Keonjhar District 2. Sukinda area, Jajpur District, 3. Singhbhum-Odisha Craton and 4. Amjori Hill, Keonjhar District (Mukherjee, 1998). However in addition to above four targets, the incidence of this platinum group of mineralization found to be reported at two other localities of Odisha. One being Bastar Craton located at western Odisha and another at Eastern Ghat Granulite belt located at southern part of Odisha. All the six locations are shown in *Figure-1*. In India, only a minor amount of Palladium is recovered as a byproduct from Singhbhum Copper belt, Jharkhand. Besides, no other Platinum Group Elements mine production is known in India as on date.

2.1 PGE AT BAULA – NUASAH

Baula Nuasahi ultramafic complex of Keonjhar district is located at around 170 Km NNE from the state capital Bhubaneswar. It is NW SE trending and around 3 km long arcuate belt. Auge

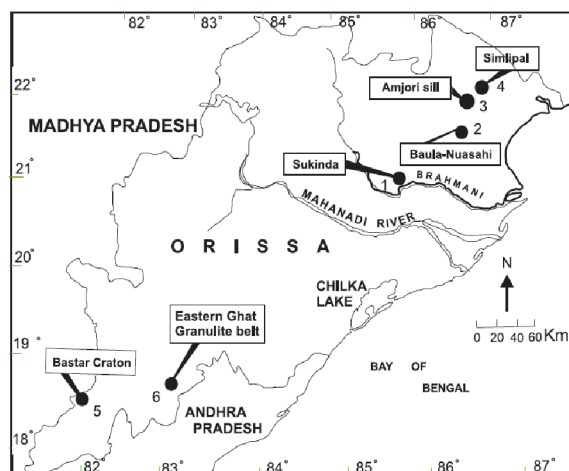


Figure-1 Location of Platinum bearing areas in Odisha

and Lerouge (2004) documented magmatic and hydrothermal PGE mineralization, both associated with chromites in the Baula-Nuasahi ultramafic complex, Odisha. The magmatic variety is a 'contact-type' mineralization that occurs at the contact of the Bangur gabbro and the ultramafics, and is characterized by high Pt/Pd ratio (~8 to 9). The hydrothermal type is restricted to the breccia apophysis of the Bangur gabbro, associated with an intense hydrothermal alteration and comprises relatively low Pt/Pd ratio. Within the Baula ultramafic complex, the interface between the ultramafic and the mafic unit (gabbro) in its eastern border, is marked by a prominent magmatic breccia zone ranging in width between 1 m to 40m and with a strike length of >2 km. Although incidence of platinum group elements (PGE) in the belt was recorded by Banerjee (1966), Roy (1970) and Chakraborty (1972), PGE rich zones containing more than 1 ppm (Pt+Pd) was reported by the AMSE wing of the Geological Survey of India (Thiagarajan *et al.* 1989). Subsequently the mineralized units confined to the brecciated Ganga Shankar chromite lode were identified (Nanda *et al.* 1996, Patra & Mukherjee 1996). A collaborative

programme undertaken by BRGM, France and Geological Survey of India (1996-99) confirmed the PGE potential of the Baula sector (Augé *et al.* 1999). Two types of mineralization, viz. magmatic and hydrothermal origin, both linked to the intrusion of a gabbro into the ultramafic complex are reported (*Figure-2*). Confined within the gabbro, the ultramafic complex contains an orthopyroxenite band (50m wide and ~2 km long) in the west followed by other ultramafic members. The chromiferous dunite/ peridotite and chromitite with an estimated thickness of 120–150 m, constitute the core of the ultramafic complex. It hosts three major lodes of chromitite namely; Durga (av. 5-6m wide) in the west followed along dip by Lakshmi (2-3m) wide in the center and Ganga–Shankar (mainly dismembered) in the east (Mukherjee & Haldar 1975). The top of the ultramafic sequence is marked by a pyroxene rich unit whose contact with the easternmost gabbro is obscure. On the eastern and northeastern part, the gabbro with its variants is associated with bands of vanadiferrous magnetite. In the southern part of the exposed ultramafic complex, a coarse to very coarse grained gabbro-norite, with large euhedral cumulus plagioclase and pyroxene crystals (up to 1 cm across) contains xenoliths of dunite, peridotite (serpentinite) and chromitite of variable size. This unit named as Bangur Gabbro intrudes all the litho units of the ultramafic complex including the gabbro unit. Confined to a restricted zone in the Baula (FACOR and IMFA mines) sector, the easternmost Shankar Ganga chromite lodes occur as bigger clasts within the gabbro matrix. Here chromite is generally being mined from the breccia zone. Within the matrix, base metal sulphide (chalcopyrite, pyrite, pentlandite and pyrrhotite) occur frequently both as stringers, veinlets and cluster. *Figure-3* shows the microscopic view of the existence of PGE in pyrrhotite. The southern extension of the complex, mostly concealed under

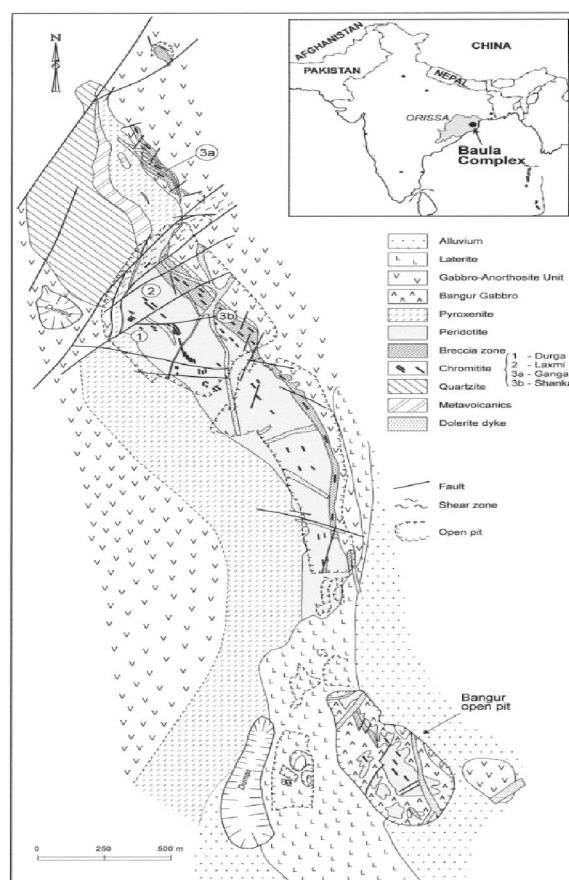


Figure-2 Geological map of Baula ultramafic complex, Keonjhar district, Orissa (GSI/BRGM)

a thick laterite profile (>10m) is only exposed in the opencast mine of Odisha Mining Ltd. at Bangur. All the three chromite lodes (Durga, Laxmi and Shankar) of Baula have been brecciated and occur as clasts, thus losing their entity. These chromite clasts are mined by OMC Ltd both by opencast and underground methods. In course of exploration work undertaken by OMC Ltd during 2004-05, encouraging values of Pt & Pd was reported from the breccia zone through ICP MS analysis carried out at NGRI Laboratory, Hyderabad. A detailed PGE investigation programme in Bangur is being carried out by GSI as a sponsored item of OMC Ltd. It is observed that in spite of the complex nature of gabbro at Bangur, a NW-SE trending breccia

zones rich in chromitite clasts is broadly decipherable, whose depth continuity is confirmed in underground mines occurring either as clusters or single grains within clinopyroxene and these are mainly associated with base metal sulphides. Concentration of Pt and Pd in the sulphide bearing chromitites is very distinct in the Nuasahi complex. There is clear variation in Ni/Cu ratios between the platinum bearing chromite lodes and adjacent gabbroic rocks. In the chromite lodes with platinum, the ratio is invariably higher. There is distinct positive correlation between silver and palladium indicating a possible geochemical linkage.

Geological Survey of India completed exploration including drilling to prove the depth continuity of the mineralized zone down to 300m. Shankar-Ganga lode is investigated in detail by GSI for two years in collaboration with BRGM (France). On completion of this project the indicated and inferred resources of PGE ore from the Baula area has been estimated as 14.2 million tonnes at a grade varying from 1.38 g/t to 1.55 g/t of Pt+Pd (Tejale, 2007). From this area IBM reported 2.33 ppm Pt, 1.99ppm of Pd, 1.54 ppm Ir, 2.46 ppm Rh and 0.71 ppm Ru. Odisha Mining Corporation from their lease area of 1900 hectares of Boula-Nuasahi complex from 65 samples analyzed by ICP-MS reported up to 18.59 ppm Pt as highest value (Nayak and Ray, 2007).

2.2 PGE AT SUKINDA

Since the discovery of Chromite in Sukinda area by TISCO people in late sixties, the exploration and mining activities related to chromite have intensified by many mining companies. The principal chromite deposits of the country are located in Odisha along a 2-5 km wide and 20 km long belt of ultramafic rocks in Jajpur-Dhenkanal districts well reported as

Sukinda Ultramafic Belt. This Sukinda ultramafic belt is located at around 140 km north of Bhubaneswar, the state capital. This belt is found to be in the east-west trending valley around Damsal, a tributary to Brahmani river. It is flanked by Daitari hill ranges in the north and Mahagiri hill ranges in the south. The main chromite bearing areas are restricted to 3 km in width and 20 km in length. Sukinda chromite is relatively rich in chromium, Cr₂O₃ widely varying between 15 to 60% with MgO content around 11%. Cr/Fe ratio is more than 2. Southerly flowing Damsal Nala is the main drainage channel in the valley draining through the east-west aligned hill ranges locally called as Hunda Parbat of Daitari Ranges as well as Mahagiri, respectively forming as water divides of the Sukinda Valley. The entire complex covers an overall area of about 60 sq km. Geological set-up and geochemistry of Sukinda ultramafic complex has been well studied and described by several research persons.

The chrome and nickel bearing areas around Sukinda warrant exploration for PGE. Das Sarma et al (1966) reported 5 to 8 ppb of Platinum in the chromite and 5 to 11 ppb in the overlain laterite cover, from Sukinda chromite belt of Odisha. Chromitite and low grade oliviferous chromite analyzed anomalous platinum values ranging from 2 to 400 ppb and palladium 1 to 500 ppb. In certain zones laterite and altered products like limonite capping on the ultramafic bodies analyzed 40 to 290 ppb Pt. Pyrite and chalcopyrite specks and disseminations are found in all the rock types in the area indicating the concentration of sulphides. The rocks which have analyzed from 0.5 to 1% sulphide are considered as the possible carrier of platinum minerals. In Kathpal chromite deposit located in the western most part of Sukinda complex incidence of platinum minerals have been reported. PGE are present as native alloys of Os-Ir-ru, metallic solid

solutions or Ir-Pt and sulfides of Os-Ir-Ru and laurite-erlichmanite (Mohanty and Sen, 2007). Based on general geological set up, geochemical configuration, stratiform disposition, Sukinda complex chromite ore is considered comparable with platinum bearing Great Dyke of Zimbabwe where as the Baula-Nuasahi chrome ore shows similarities with that of Bushveld complex of South Africa. The information regarding the PGE was ignorant by the people at time of initial discovery of chromite in this area. Later on with discovery of the PGE in the ultramafic complex of the area, many international exploration companies started approaching to the area.

2.3 AMJORI SILL

Amjori sill is located in Keonjhar district of Odisha. It is about one km thick covering an area of about 130 sq.km which is another example of layered intrusion complex consisting of dunite, peridotite, gabbro and diorite sequence emplaced into the volcano-sedimentary suite of rocks of Early Proterozoic Cover sediments. Anomalous PGE values have been reported from a few localities from Amjori sill. Mukherjee (1998) reported up to 200 ppb of Pt and 60 ppb of Pd from pyroxenite from this area. Chromite bearing ultramafic bodies in the area need to be investigated in detail. Anorthosite-gabbro zones with V-Ti enriched magnetite bands considered as potential areas and have to be explored for possible concentrated zones of platinum mineralization. The sulphide bearing zones associated with chromite bands also deserve to be investigated for platinum group of elements.

3. INDUSTRIAL USE OF PGE ELEMENTS

With the burgeoning stage of the modern technologies at various industries, the application of the platinum group of elements increased many folds due to the chemical inertness and refractory

properties of these metals are conducive for electrical, electronics, dental and medical fields. Platinum and palladium are primarily used as catalyst in controlling the toxicity of emissions from automobile, chemical and petroleum refining plants. Nearly half the total platinum used worldwide is as catalysts in catalytic convertors in automobiles. These metals are also used as catalyst in various chemical processes, viz, in organic synthesis in hydrogenation, dehydrogenation and isomerisation, production of nitric acid as also in fabrication of laboratory equipment. Platinum, palladium and a variety of complex gold-silver-copper alloys are used as dental restorative materials. The unique properties of platinum find varied applications in the medical field. Platinum's excellent compatibility with living tissue, as it does not get affected by the oxidizing reaction of blood, enables its utility in pacemakers. The primary usage of PGM in medical science is in chemotherapy for treatment of cancer. It has the ability to prevent division of certain living cells, a remarkable characteristic which find profound application in treatment of cancer. Besides, platinum-iridium alloys are extensively used in prosthetics and biomedical devices. Platinum's excellent conductivity lends itself for use in the electrodes of phosphoric acid fuel cells for generating electricity. Another significant use of platinum and its alloys in cast or wrought form are in jewellery. Platinum-iridium alloys find major application in making crucibles for growing crystals and in data storage disks of computers. Glass made with platinum and rhodium is used in housing construction, flat screen televisions, computer monitors, display panels, automobile displays, factory monitoring equipment, etc. Platinum is used to enhance storage capacity of devices, such as, computer hard discs, cell phones, digital cameras and personal music players. Recently, palladium silver resistors have been used in secondary lightning surge protection devices.

Significant quantities of the three light platinum group metals Ruthenium, Rhodium and Palladium are formed as fission products in nuclear reactors. Palladium has been of special interest due to its less complex behaviour when compared to rhodium and ruthenium. The demand of palladium is expected to rise as it is increasingly substituted for platinum as catalyst for petrol engines and to certain extent even in diesel engines.

4. CONCLUSION

Due to the diversified application of the PGE in various industries, the demand for PGE in the world is increasing at a faster rate and as per recent estimate by RENO, an Ottawa based Mineral Economics Firm, the growth expected for supply from South Africa, the biggest producer is expected to be around 7.5%. The demand for platinum will continue to rise with tighter emission controls, robust growth of automotive sector and electronics and emerging Indian market for platinum jewellery. There is a need for application of state-of-the-art technology and integrated multidisciplinary approach for exploration in the state. Also the prices of Platinum group of metals are on ascending trend. The presence of the precious noble PGE metals at couple of places inside the state of Odisha highlighted its importance over the world and already many external agencies/investors showed their interest and started approaching to have exploration and extraction operations as joint venture. There is tremendous scope for development of PGE deposits in both brown field and green field areas in the state. High value and precious byproducts have to be given proper weightage for evaluation. Those target locations of PGE are to be explored intensely to prove the reserve with the grade of elements based on which mining can be done and suitable modern hi-tech extraction techniques are to be implemented for the economic metal extraction. With the effective utilization of these

PGE deposits, undoubtedly Odisha will be leading producer for the Platinum group of elements in world.

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Dhavalesvara Siva Temple at Mohangiri, Kalahandi District

Sasanka Sekhar Panda

Mohangiri is a small village, situated in the Madanpur Rampur *Panchayat Samiti* area of Kalahandi district close to the border of Kandhamal district, at a distance of around eighty-five kms to the northeast of the district headquarters, Bhawanipatna. A mountainous stream called Kali Ganga is flowing nearby, on the bank of which stands a dilapidated Siva temple. Ruins of a collapsed Siva temple are scattered on a hillock. Local folklore records that around 1940, one assistant sub-inspector of police, who was posted in this remote area, came to know through dream that one Siva temple is lying buried underneath. His dream came true when he dug out the hillock with the help of the local villagers and discovered the ruins as well as eleven pillars of the *Jagamohana* hall still in standing position.

A big Siva Linga of black chlorite stone was also discovered for the worship of which he constructed a small hut. The present temple is a modern structure in which stone-blocks of the collapsed old temple have been used. Still one can see innumerable huge cut stone-blocks of the old temple lying in the courtyard of the present temple, from the size which one can guess that in its original state this old temple can be studied from the sculptures which are found fitted to the new temple, and also from the decorative carvings on the stone-blocks of the original temple lying around. The present temple is standing on a mound

in the side of a pond. The Jagamohana pillars of the original temple are still preserved. Here we find eight pillars and four pilasters as well as the beams that once rested above them.

The lower half of the column is a plain square, while the upper portion is embellished with a large *ghata* with leaves over-flowing in its four corners and with several round as well as many-sided mouldings below this. Internationally reputed Art Historian Vidya Dehija is of the opinion that the interior pillars of Odishan temples are treated in a utilitarian manner. The shafts are plain squares that occasionally become octagonal in the centre, and capitals consist of square abacus with a roll below it. Very rarely as at Mohangiri the pillar is treated in a decorative manner starting out as a square and then becoming a *ghata* with large leafy scrolls overflowing at four corners. There follow several decorative mouldings, below which the remaining half of the shaft is again a plain square. These pillars are taken to be of an early period in design than such temple pillars at Gandharadi, Ranipur Jharial, Narsinghnath, Belkhandi, Baidyanath, Patnagarh and Charda, as these are devoid of much ornamentations. The most remarkable features of this Jagamohana hall is that one short inscription as well as four tantrik Yantra diagrams are found to be inscribed on its floor. The learned scholar Dr. Satya Narayan Rajaguru reads this inscription as *Gruha*

Bhairava. Dr. Rajguru is said to have found another inscription on the temple floor as early as 1948, during his visit to this place. He has deciphered this second inscription as *Mudgalakulasya (Sri) Citracanda*. Dr. Rajguru thinks it to be the oldest of the short inscriptions of the Mudgala kings who were ruling around 6th – 7th century A.D. Mudgalas were Brahmin kings of Uttara Tosali and were in all probability feudatory of the Guptas as seen from the use of Gupta era by one of the Mudgala king Mahārāja Sambhuyasa. It is extremely difficult to guess as to how an inscription of the Mudgala king is found in a temple not situated in Uttara Tosali region but far from it.

In Padmashree Paramananda Acharya's opinion Mohangiri was situated on a salt-route in the remote past, through which salt and other commodities were transported from Kalinga to Daksina Kosala (the upper Mahanadi valley). Mohangiri is situated in one extreme end of a mountain range, which is spreading from Bhanjanagar in Ganjam district to M. Rampur in Kalahandi district. While preparing a paddy field, one villager named. Janak Sahu unearthed a brick structure underneath the field only at a distance of one furlong from this temple site. Therefore, it is possible that Dhavalesvara Siva temple at Mohangiri was built for the travellers and caravan traders to worship the Lord and the said structure was used as a rest house and defence tower simultaneously.

Besides the inscription, four peculiar diagrams are carved on the floor of the Jagamohana. These diagrams were certainly associated with the Yantras of Bhairava cult, having an esoteric nature. Dr. Satyanarayan Rajaguru has informed this scholar that similar diagrams are illustrated in the Oriya version of the Linga Purana. The names such as 'Mulacanda' and 'Sricanda' found in the short

inscriptions of Amath and Belkhandi respectively have something to do with the name "Citracanda" or "Sphitacanda" of Mohangiri inscription.

The entrance-door pillars to the present inner sanctum are plain. Pillars of both sides like the Jagamohana pillars come out of a *purmaghata*. In the places of two dvarapalas, standing four-armed figures resembling Siva are there. Figure in the right side depicts a dancing figure with *Jata mukuta* adorning his head and necklace in the neck. *Yajnopavita* is around his body, while a short tiger-skin is covering the thigh-portion below waist. Due to heavy lime plastering, weapons in his arms are not clear. Similarly, there is a standing figure in the *sambhanga* posture in the left side of the entrance which is also four-armed holding a long *trisula* (trident) in his right upper arm. This type of *dvarapalas* are not observed by this scholar in any other ancient temple or temple-ruins of the upper Mahanadi valley in Odisha except at Narsinghnath, but in a very exquisitely ornate form in the later case. Above these dvarapala figures, a plain leaf design occurs.

Some carved reliefs of the collapsed temple are fitted to the walls of the present inner sanctum. In the southern wall a lady-face and her right arm holding a lotus-stem and flying *vidyadhara* couple with garland in arms are depicted. Similarly in the western wall stone-blocks with the depiction of four swans moving in a row is found. Swan-panels are found in another place called Bhulia-Sikuan village near Khariar, where a panel of three swans in a row is depicted on the pedestal-portion of a standing Saivite divine couple. Mohangiri sculptures, which belongs to the inner sanctum are demon king Ravana trying to shake Kailasa Mountain, the heavenly abode of Lord Siva; a seated Ganesa, four-armed Saivite seated figure in *yogasana*, upper arms seen to be folded in obeisance and both lower palms placed on the

knees; scene of the churning of sea (Samudra Manthan) and the forest-wandering scene of Rāma, Laksmāna and Sitā. In the lower-portion of this western wall a crouching bull with long horns raised up, big hump on his back and bell hanging from the neck is depicted. Such depiction of Nandi is found on a loose sculpture of the Pātālesvara Siva temple at Budhikomna also.

In the temple-precinct, where the steps descend to the pond, two stone-blocks of the collapsed temple are kept, one depicting a lady waist-up, her right arm seen to be in *abhaya-mudra* placed in between her both breasts and another, that of a seated male in *yogasana* with *jatabhara* on his head and a staff placed in a suspended position in between his arms, which are folded in obeisance. This figure can be taken as that of Lakulisa, a great religious teacher and the founder of the Pasupata sect of Saivism in the first quarter of the 2nd century A.D. It is believed that Lakulisa-Pāsupata cult was brought to Kosala and Kalinga in the 4th century A.D. in the train of the military campaign of the Gupta monarch Samudragupta. Lakulisa images with *lakuta* (club) in arm, seated in *yogasana* posture and *Dharma Cakra Pravartana Mudra* (of Buddha) are found in the Parasuramesvara and Bharatesvara temples at Bhubaneswar, which were built in the 7th century A.D. and the last temple bearing the Lakulisa image in coastal Odisha is the Muktesvara temple at Bhubaneswar, which is believed to be architecturally marked by parting of ways between the Bhaumakara and Somavamsi periods. Muktesvara temple is dated to the second-half of the 10th century A.D.

The Lakulisa motif of Mohangiri can be taken as the earliest of its kind so far found in the upper Mahānadi valley of Odisha. Another Lakulisa figure seen to be seated in a Yogic posture called *utkutikasana* is depicted on one of the Jagamohana hall pillars of the Kosalesvara temple at Patnagarh in the district of Balangir, which can

be placed in the first half of the 9th century A.D. Lakulisa, a great religious teacher of the Pasupata sect of Saivism is depicted on the temple-wall of the brick temples of the upper Mahanadi valley at Budhikomna and Ranipur Jharial also.

In the Lakulisa panel of the Mohangiri Siva temple, Lakulisa is seen to be seated in his usual sitting-posture, and to his left the profiled seated figure of a bearded *yogi* with folded-arms in obeisance to Lakulisa as well as the figure of one bird seated and staring back are carved. This bearded *yogi* can be none-else but one of the first four disciples of Lakulisa. This panel of Lakulisa, his disciple and the bird are carved separately in between miniature pilaster-designs. Besides this depiction, other figures like the unknown Devi in *abhaya mudra*, seated *gana* on the northern outer wall of the temple and couchant bull (Nandi) on the wall of the inner sanctum are carved in between two miniature pilaster designs. This sort of carvings of figures in between two pilasters are found in the panels in Kosalesvara temple at Baidyanath fitted to the northern and western inner walls of the sanctum sanctorum and Patnagarh (Jagamohana entrance-door panel) also.

Two *gana* figures on panels are unique. These figures are carved on stone-blocks, which are apparently loose pieces of the original temple, but now fitted to the northern outer wall of the present Jagamohana during reconstruction. In one depiction, the *gana* or atlantes dwarf (lower-portion of the body below chest missing) is seen to be seated under a semi-circular floral design motif, wearing a beaded necklace and holding a *cauri* in his raised right arm, and in another depiction, a pot-bellied *gana* is seen to be seated in *kukkutasana* by putting his palms on both raised knees. Such *ganas* are carved on the jagamohana-pillar abacus of the Kapilesvara temple at Charda, but in a more developed form. Another stone piece of the temple ruins of

Mohangiri has been taken away and now preserved in the M.Rampur College Building. It depicts the figure of a lady (Nayika) up-breast portion existing, seen to be wearing a broad necklace.

The most significant sculptures of Mohangiri temple are the *parsva-devata* figures; Ganesa in the southern, Karttikeya in the western and Parvati-Kārttikeya in the northern niches respectively.

The two-armed Ganesa figure of the southern *parsva-devata* niche is of very crude workmanship and is seen to be seated in *ardhaparyankasana*, with the right leg folded and the left one raised with the heel on the seat, left arm resting on the knee, while keeping the right arm in *abhaya mudra*. He has flat elephant ears and no *mukuta* on head. The proboscis is turned towards left side and the tusk is seen in the left. *Yajnopavita* is seen on his body. Like the Ganesa figure of Amath, this figure can be also taken as an early representation of Ganesa.

Similarly frontally-looking two-armed Kārttikeya is seen to be seated in *bhadrasana* on the back of his front ally looking *vahana* peacock, both his legs spread in both sides and putting both arms on his knees, but in his right arm is seen a long object, probably a *sakti* or *dhvaja* (flag). Instead of *mukuta*, *jatabhara* is seen on his head and one necklace is hanging from his neck on the chest.

In the northern *parsva-devata* niche is housed the standing figure of a heavy-breasted female wearing a flat *mukuta* on her head, *makarakundalas* in both ears and a broad necklace. This lady figure is calm and while her right arm is in *abhaya mudra*, the left arm is put around the shoulder of a youth whose mouth is near her breast. This youth is holding a big knife in his left arm. The lady figure is wearing long cloth hanging from waist below upto her feet while the

youth is wearing cloth from waist upto knee-portion and *uttariya* hanging from their shoulders in both cases. It seems to be the 'Mother-Son' figure of Parvati and Karttikeya.

Besides the images in the *pārsva-devata* niches, two more images are kept in two separate rooms, constructed in front of the temple and worshipped as Durga and Chandi respectively. One is that of a standing four-armed goddess, of the height of around three feet and a half. Three of her arms are broken and in the lower right arm she is holding a vase. Here Devi is standing in the *samabhanga* posture. The other one is also that of an eight-armed goddess figure, locally known as Durga, seated with the left leg resting on the pedestal while the right leg is hanging below. Devi is seated in *lalitasana* on a *padmapitha* (lotus-pedestal). She is wearing a *kirita-mukuta* on her head and *patrakundalas* in both ears. Objects in her arms are small trisūla (right-lower-upper), *khadga* (right-upper-second), *cakra* (right-upper-second) and *sankha* (right-lower-fourth) as well as *khetaka* (left-upper), *dhanu* (left-lower third) and left-lower-fourth arm in *varada mudra* respectively, while the left-upper arm is broken. In the extreme right portion of the pedestal is a male seated figure in *yogasana* with folded arms with obeisance near chest and to his right a seated female devotee in profile also in folded arms as well as that of a third devotee in the extreme left side are depicted. The head of her mount, a roaring lion is seen in the left side of the pedestal, Devi's right foot being put on its back. It seems to be the figure of goddess Vana Durga, while the standing one described above, that of Ksemañkari, another form of goddess Durga who bestows good health to her devotees.

Two more figures are found in the Mohangiri Siva temple precinct. One is that of a seated headless male figure in *yogasana* with both arms folded in obeisance. Now this sculpture is lying underneath a tree in front of the temple. Inside

the Jagamohana, another figure in *yogasana* and with both arms folded in obeisance is kept. This figure has a *kirita mukuta* on his head and *makara kundalas* in both ears. The first figure underneath the tree seems to be that of the Saivacarya and the second one, which is inside the Jagamohana that of the royal personage who might have been associated with the construction of this temple on the ancient route between Daksina Kosala and Kalinga.

The worship of Vana Durgā and Ksemankari, both being two of the important aspects of goddess Durga as well as that of Bhairava as testified by the existence of the inscription and tantric *yantras* found on the Jagamohana floor takes this temple to the hoary past, to around 7th-8th century A.D. The sculptures of Mohangiri Siva temple seem to be of an early period as those are devoid of much ornamentation. It is more appropriate to say that the kings of the Parvatadvāraka dynasty who were ruling from their capital Parvatadvāra during the time of king Nandaraja and Sobhanadeva, and later from Tārabhramāraka during the time of king Tustikara might have been responsible for the spread of Bhairava cult in this region. Copper plate inscriptions of this dynasty, two in number found from Narla and Teresingha respectively speak of these kings as great devotees of goddess Stambhesvari (*Stambhesvari padabhakta*). Tarabhramaraka is identified with the village Talbhainra near the bank of river Tel, while that of Parvatadvāra with Asurgarh near Narla both in the district of Kalahandi. Excavations at Asurgarh by Prof. N.K.Sahu in 1973 unearthed existence of a town, which existed there from the 2nd century B.C. till the 5th century A.D. Similarly excavation in 1946 unearthed a temple-complex at Belkhandi on the river Tel not far from Talbhainra village.

The collapsed temple site of Mohangiri is extensive. Here we find huge stone-blocks scattered all around. Miniature *caitya* medallion motifs in repeated courses as well as foliage creeper, floral and *puṇnaghata* designs are seen carved on these stone-blocks. Similarly, huge round *amalakas* and square *bhumi amalakas* are lying in the temple- ruins, which make us to believe that there existed more than one temple at Mohangiri. The original temple was might be of the *tri-ratha* order. On one of the stone-blocks, now fitted in the floor of the *pradaksina patha* near the northern *parśva-devata* niche are carved two tortoises. More research can throw light on the association of these 'Tortoises' with the esoteric art, which was practised in the Mohangiri temple in the remote past.

Recent observations of these researches of some temple pillars of Dhavalesvara temple ruins at Mohangiri fortify the belief that, this temple belonged to the early period, 7th-8th century A.D.

Beautiful intertwined *lata* scroll, *kirttimukha* head, crouching lions with horns in their heads and *puṇnaghata* motifs are carved out in line drawings. In some temple pillars of Mohangiri taken away in the past and at present kept in the M. Rampur College and M. Rampur Upper Primary School, a *nayika*, one lover couple as well as monkeys in playful mood are carved. Very recently in the Mohangiri temple ruins, broken pieces of one temple pillar containing the frontal portion of an elephant was unearthed by the local villagers. All these carved pillars depict the art form of the formative period of the temple art of the post-Gupta era.

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Sufi Legends in Odisha Revisited

Dr. Mohammed Yamin

Sufism (*Tasawwuf*) found solid footing in Odisha since its inception. Sufis settled and devoted themselves in religious and social activities. A few of them experimented their super-natural power and showed miracles and attracted people from all communities. There are quite a large number of Sufi tombs throughout Odisha which bear testimony to high adoration they commanded from people of Odisha. Though tombs of the Sufi saints are located in all parts of Odisha but important of them are in Cuttack, Puri, Balasore, Astarang, Khurda, Pipli, Kakatpur, Kaipadar, Manikptana, Satyabadi, Kendrapara, Sambalpur, Tarbha, Khariar Road so on and so forth. Sufi's of Odisha secure the adoration of Hindus and even today the Hindus on a certain day present *shirini* and *khir* on the name of Sufis. Sufism found firm footage in Odisha and all Sufi sages are important to the peoples of Odisha. Some of the important Sufi of Odisha's and their legends with their traditions are underlined in brief;

Saiyed Ali Bukhari of Cuttack and his legend

When Kalapahad, one Afghan General marched against Raja Mukunda Deva to capture Barabati fort, Saiyed Ali Bukhari, Muslim Sufi saint accompanied him to give him moral and spiritual support. During the siege of Barabati fort the saint displayed great valour, but when its

garrison was about to yield his head was severed by the sword of the enemy. His headless trunk however gave spur to his horse which carried him straight to Jajpur. Here he prayed and was sanctified and when the headless trunk set up other saints who were present there took the trunk inside and built a tomb or shrine for it. Another tomb was built in memory of the same saint at Cuttack on the spot where his head was left. In subsequent year a tomb for his horse after its death was built at Jajpur. For the people of Odisha both the places are sacred and they pay respect to Hajrat Saiyed Ali Bukhari Sahab when they visited the tomb or shrine site.⁽¹⁾

Saiyyed Jalaluddin Bukhari of Kaipadar and his legend

Saiyyed Jalaluddin Bukhari was a Sufi saint of 18th century and tradition says he was a close friend of a Hindu hermit. Both of them preached their respective religious beliefs with a spirit of religious synthesis without having any prejudice to their respective religious principle.⁽²⁾ It is said that the Hajrat Bukhari sahib saint was sitting in deep meditation for a long period of time. The white ants constructed an anthill (*Hunka*) around him and the saint remained hidden from the sight of the people forever. Hence, the tomb is stood in the shape of an anthill over which the

sandal paste is sprinkled by both the Hindus and Muslims. Tradition also says that a ship of a merchant was put into trouble in the ocean. He vowed that if he were safe he would construct the shrine of Bukhari Sahab. By the miracle the ship was saved from storm and according to the vow the merchant constructed the shrine or mazaar of the saint which still stands there. ⁽³⁾

Makhdum Jahania Jahanganst of Astarang and his legend

The shrine or mazaar of Saint Makhdum Jahanganst is located near Astarang on the sea beach. Some tradition says that, Sufi saint Makhdum with his disciples came to India from Baghdad (Iraq) in 15th century and while staying for sometime in Bengal he came to Odisha. He roamed many places in Odisha and finally settled down near Astarang. ⁽⁴⁾

Tradition goes as such that, the saint had travelled over the length and breadth of the globe on foot. It is also stated that he had come to Astarang and had stayed there for sometime on an island not far away from the sea shore. His umbrella and wooden shoe are still there as his relics. Both the Hindus and the Muslims pay their respect to the shrine. Different stories are heard about the shrine. A popular story now spread in the area where the shrine stands is that one poor man with his only son used to visit this saint daily to offer his prayer. On the advice of the saint he had asked his son not to turn his face back while returning his home. One day out of curiosity, as ill-luck, has it, the boy looked at his back and immediately after that the saint disappeared. In memory of his name present beautiful shrine or mazaar or *pirsthan* was built. ⁽⁵⁾

Legend related with Noor Bibi of Sambalpur

Since one hundred years 'Noor Bibi' shrine (Mazzar) at Pir Baba Chhak in Sambalpur

city is the symbol of communal harmony among Muslims, Hindus and Sikhs. They prayed here for their betterment. According to Mohammed Ibrahim Razwi, around hundreds of years back one old Faqir couple came here from an unknown location, prayed God under the shed of two Pipal tree (present shrine site). Both of them were very pious and maintained purity in life. In course of time the holy lady died, her name was Noor Bibi. She was a saintly figure. Legend goes on as such that, every day the holy lady read one paragraph of the holy Quran before her night sleep and put one paper as a sign to continue reading in coming day. As a miracle, she found one silver coin each day in place of paper cut out which was placed in the holy Quran the others night as a sign of stop.

Everyday, the holy lady collected silver coin as a blessing of God to her and divided the silver coin into four pieces. One piece she used to give to a Faqir, second one to a destitute, third one to a disease stricken and fourth one kept herself for her maintenance. It was a sheer miracle experienced by the holy lady Noor Bibi and her husband. After the death of Noor Bibi and her husband a tomb was built there. Thereafter, the Chhak has been named as Pir Baba Chhak in the heart of Sambalpur city.

Every year in the Gyarmi month Urs (Death Ceremony) celebrate with religious fervour and *Takrir* (Moulvi Lecture) and *Milad* ceremony (lecture on prophet Sunna organized). Sometimes Qawali competition was also organized and Qawali singers came to the Urs from different parts of India. Noted Qawali singers like Isa Bazar from Bombay, Ismael Azar from Kolkata, Inayat Bharti and famous lady singer Shahin Parvin have very often come to charm the Urs ceremony. The Qawali competition was discontinued after sometime due to certain other

reason. Jhasketan Sahu, the then Minister, Government of Odisha served as the President of Urs Organiser Committee. The first Muzawar (caretaker) of the shrine (Mazaar) was Sayeed Abdul Rahim. After his death his wife Munira Bi and after her death her daughter Jaitun Banu is the present Muzawar (caretaker of the shrine). In the year 2006 Urs was celebrated in the (*Gyarmi* or eleventh day of *Rabi-ul-akhir* month in accordance with Islamic *Hijra* era based on lunar movement) month of April 11th and 12th and continued for three days. ⁽⁶⁾

Sayyed Abdul Sakur Baba of Tarbha and his legend

Sayyed Abdul Sakur Baba was born in 1831 C.E. in Afghanistan. The year of his birth has been confirmed by going through the passport of Baba which is in the home of Masud Khan Lawyer ⁽⁷⁾ his father's name was Sayyed Mohammed Siddiq. He came to Tarbha in 1931 C.E. At that time his age was about 100 years. He remained here till his demise. ⁽⁸⁾ At first at Tarbha, in Sonapur district he remained in a thatched house where he prayed Namaj five times. In course of time, he made a Pucca house ⁽⁹⁾ and built a grand mosque at Tarbha. Abdul Sakur Baba cured the leprosy patient of Tarbha; he had the miracle power in which he cured many incurable diseases of the people. From the tradition as goes on he lived around 150 years and in the year 1984 C.E. on March 16th at 10 hour 5 minute he left this mundane world. ⁽¹⁰⁾

Every year Urs ceremony organized by Urs committee of Tarabha, where people from all quarters of life come and receive the blessing of Baba. ⁽¹¹⁾ Devotees from Honk Kong, Srilanka, Dubai, Nepal, Pakistan, Bangladesh and Afghanistan also come to receive the blessing of Tarabha Baba. The caretakers (Muzawar) of the shrine are Anwar Ali Adami and Pyar Mohammed

Khalimi. ⁽¹²⁾ In 2010 it was remarkable for religious unity and solidarity shown by both the communities by organizing the annual Urs and Biswa shanti Maha yagna simultaneously with traditional gaity and religious fervour. ⁽¹³⁾ The shrine of Sayyed Abdul Sakur Baba is the symbol of communal harmony among the different communities Odisha.

Takht-i-Sulaiman Shrine of Cuttack and his legend

Takht-i-Sulaiman shrine is one of the most prominent and commanding spot in Odisha standing on the Alti hill. It is a plain stone building consisting of a single room surrounded by a dome and bearing inscription in Persian on three black chlorite one over each door. It was erected in 1132 A.H. (1719-20 C.E.) by Shujauddin Mohammed Khan. A Persian inscription on a table on the shrine gives information that Shuja-ud-din Mohammed was its builder. ⁽¹⁴⁾

There is an interesting story with regard to the circumstances which led to the construction of the building at the top of the mountain. It is said that a holy saint called Suleman Sahib came to this area first to Lalitgiri hills and then to the present location on the top of the hill. There he went on offering prayer and meditation in the thickness of the forest. Once some Muslim commander at the command of the soldiers, passing by this way, saw a flag fluttering on the hill. The army commander and others went up the hill and made a vow that if they succeeded in winning the battle they would return and do something in commemoration of the holy saint. The army was victorious in the campaign and the shrine of Takht-I-Sulaiman was accordingly constructed. From the settlement records it is noticed that 16 *batis* land were donated from various services by Shujauddin Mohammed Khan

and Murshid Quli I and Raja Januji Bhonsale during later period.

The impact of the Sufis on the religion of the people of Odisha cannot be rejected outright. They arrived in Odisha with the purpose of preaching and teaching Islam. The establishment of *Khanqahs* helped the dissemination of Islamic spiritual and intellectual values. Their establishment of important centres in Odisha suggests the Sufis were prepared to face the Hindu religious and intellectual challenges. There the Sufis demonstrated their own way of life and the doors of some *Khanqahs* such as those of Tarbha, Dhamnagar and many more of Odisha were opened to all classes of people. The interest of Sufis in the welfare of the people in general must have also helped them to attract non-Muslims to their *khanqahs*. The advent of the Muslim saints was also indirectly responsible for including the non-Muslim to embrace Islam.

The popularity and fame of Sufism made the Odishan Muslims increasingly gullible and credulous. Both living and dead saints came to be recognized as endowed with great miraculous powers. The graves of the saints became constant centers of pilgrimage for all classes of Odishan people, who thronged there to obtain spiritual blessing for the fulfillment of their wishes and vows. Many people whom living saints were not able to impress were, in times of crisis and difficulty, attracted to the tombs of the saints. It can be worth mentioning here that, the Sufis of Odisha, however, were a great strength in maintaining the structure of Sunni Muslims social and religious order in one piece.

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Annual Health Survey - Key Highlights for Odisha

Bishnupada Sethi

INTRODUCTION

The Annual Health Survey (AHS) was conceived during a meeting of the National Commission of Population held in 2005 under the Chairmanship of the Prime Minister wherein it was decided that “there should be an Annual Health Survey of all districts which could be published / monitored and compared against benchmarks”.

The Annual Health Survey (AHS) aims to yield a comprehensive, representative and reliable dataset on core vital indicators including composite ones like Infant Mortality Rate, Maternal Mortality Ratio and Total Fertility Rate along with their co-variates (process and outcome indicators) at the district level and map the changes therein on an annual basis. These benchmarks would help in better and holistic understanding and timely monitoring of various determinants on well-being and health of population particularly Reproductive and Child Health.

OBJECTIVE

Realizing the need for preparing a comprehensive district health profile on key parameters based on a community set up, the AHS has been designed to yield benchmarks of core vital and health indicators at the district level on fertility and mortality; prevalence of disabilities, injuries, acute and chronic illness and access to

health care for these morbidities; and access to maternal, child health and family planning services.

COVERAGE

AHS is implemented by the Office of Registrar General, India in all the 284 districts (as per 2001 Census) in 8 Empowered Action Group States (Bihar, Jharkhand, Uttar Pradesh, Uttarakhand, Madhya Pradesh, Chhattisgarh, Odisha and Rajasthan) and Assam for a three year period (i.e., a Base-line Survey followed by two updation surveys) spread over 2010-11 to 2012-13. In Odisha 2364 sample units including 1798 rural and 566 urban units comprising a total of 456413 households and 1925439 population has been covered under AHS.

INDICATORS

In the first phase of dissemination, 9 Core Vital Indicators, viz., crude birth rate, crude death rate, natural growth rate, infant mortality rate, neo-natal and post neo-natal mortality rate, under 5 mortality rate, sex ratio at birth, sex ratio (0-4 years) and overall sex ratio have already been released.

In this phase of dissemination, data on remaining 152 indicators pertaining to Total Fertility Rate, Abortion, Family Planning Practices, Ante-natal care, Delivery care, Post-

natal Care, Immunization, Childhood Diseases, Breastfeeding and Supplementation, Birth Registration, Disability, Injury, Morbidity, Personal Habits, etc., are being released.

AGENCIES INVOLVED

The field work for the AHS in Odisha has been carried out by M/s. GfK MODE Pvt. Ltd, New Delhi and M/s. Social and Rural Research Institute (IMRB International), New Delhi in the allotted zones. The Third Party Audit work has been done by M/s. Research and Development Initiative Pvt. Ltd. New Delhi. The coordination, supervision and monitoring of the fieldwork in the state are being carried out by the dedicated staff posted at various levels in the Directorate of Census Operations, Odisha.

THE KEY HIGHLIGHTS COVERED IN THE SURVEY:

1. Total Fertility Rate (TFR): TFR represents the average number of children born to a woman during her entire reproductive span. There is a wide variation in TFR across the 9 AHS States. Uttarakhand and Odisha with the TFR of 2.3 each are at one extreme and Uttar Pradesh and Bihar with 3.6 and 3.7 respectively are at the other extreme. Out of 284 districts only 20 districts have already achieved the replacement level of 2.1. In Odisha the TFR is highest in Boudh (3.7) and lowest in case of Anugul, Bargarh, Debagarh, Jharsuguda and Puri (2.0). As good as 10 districts namely Anugul, Baleswar, Bargarh, Debagarh, Jagatsinghpur, Jajpur, Jharsuguda, Khordha, Puri and Sundargarh have achieved the replacement level of TFR i.e. 2.1.

2. Abortion: Abortion as an option was probed for all the pregnancies which resulted into any kind of outcome i.e. live birth, still birth, spontaneous and induced abortion during the reference period i.e. 2007-09. Out of total 5.6% abortion that has

taken place in Odisha, 56.5% cases are institutional. Bargarh district reported the highest percentage of abortion (12.1). In Kandhamal 49.4% of the women went for ultrasound before abortion. Rayagada district ranked the highest with 96.7% of institutional abortions.

3. Current Usage of Family Planning: The Contraceptive Prevalence Rate (CPR) is the percentage of Currently Married Women aged 15-49 years who are using any method of contraception (modern/ traditional). In Odisha, the usage of Any Family Planning method is highest in Balassore district (73.4%) and lowest in Kandhamal (28.6%). Female sterilization is reported maximum in Gajapati district (50.5%) and lowest in Kandhamal district (17.9%).

4. Unmet Need for Family Planning: The unmet need for Family Planning is a crucial indicator for assessing the future demand for Family Planning services / supplies. Currently Married Women (CMW) who are not using any method of contraception and who do not want any more children or want after a period 2 years are defined as having an unmet need. In Odisha the total Unmet Need varies from a minimum of 6.1% in Balasore to maximum of 48.3% in Boudh district. The rural urban gap is prominent in Puri district.

5. Mean Age at Marriage for Female: Mean Age at Marriage for Female is based on the marriages taken place during 2007-09. Mean Age at Marriage of females varies from 19.8 in Nabarangpur district to 24.0 years in Jagatsinghpur district.

6. Marriage among Females below legal age (18 years): As in the case of Mean Age at Marriage, this is also based on marriages taken place during 2007-09. It varies from 0.5% in Jagatsinghpur district to 24.7% in Nabarangpur district.

7. Ante-natal Care: Ante-natal care constitutes one of the key elements towards initiatives to promote safe motherhood. This comprises all kinds of care, treatment, tests given to a pregnant woman like administration of Tetanus Toxoid (TT) injections, ultrasound, blood test, consumption of Iron & Folic Acid (IFA) tablets/syrup, etc.

Full ANC comprise 3 or more ANCs, at least one TT injection and consumption of IFA for 100 days or more. Jagatsinghpur has reported the maximum FullANC coverage of 36.0% while Jajpur the minimum (5.4%). FullANC coverage in urban areas is remarkably better than the rural areas. Jharsuguda, Mayurbhanj, Jagatsinghpur, Cuttack, Ganjam, Kandhamal and Nuapada in Odisha have reported 25% & above coverage of fullANC.

8. Delivery Care: The delivery in institutions is considered as the most important indicator under Delivery Care. Deliveries, however, do take place at home also. These can also be made safer by employing trained hands such as Doctor/ Nurse/ ANM/ LHV. Institutional Delivery ranges from 31.8% in Nabarangpur to 91.6% in Puri.

Safe delivery comprises Institutional deliveries and domiciliary deliveries assisted by Doctor/ Nurse/ ANM/ LHV. Nabarangpur has reported the minimum of 35.6% and Puri the maximum of 92.7%.

9. Janani Suraksha Yojana (JSY): JSY is one of the most important programmes under the umbrella of NRHM aimed at reducing Maternal Mortality Ratio and Neo-natal Mortality Rate by promoting institutional deliveries. Mothers availing financial assistance under JSY range from 29.1% in Nabarangpur to 80.2% in Puri.

10. Post-natal & New-born Care: Mothers receiving Post-natal Care within 48 hours of delivery varies from 40.1% in Nabarangpur district to 90.0% in Bargarh district of Odisha.

New-born checked up within 24 hours of birth exceeds 50% in all AHS States. It varies from 38.6% in Nabarangpur to 91.0% in Boudh district in Odisha.

11. Immunization: Children are considered Fully Immunized if they have received vaccination against Tuberculosis, 3 doses of DPT & Polio and one dose of Measles. Rayagada has reported the minimum percentage (11.9) of children fully immunized whereas Kendrapara the maximum (82.0).

12. Exclusive Breast Feeding (up to six months): Exclusive Breast Feeding for the first six months of the child's life is an essential component of the optimal infant and young child feeding practices. In order to assess the situation on ground, the mothers of all living children [last two outcomes of pregnancy(s) resulting in live births during reference period, i.e., 2007-09] were asked how many days/months did they exclusively breastfeed their baby. Based on the responses, percentage for children aged 6-35 months exclusively breastfed for at least six months has been worked out and presented. Kandhamal has reported the maximum percentage of Exclusive Breast Feeding (57.2) whereas in Bolangir it is the minimum (4.4).

13. Disability: The data on any type of disability as on the date of survey was collected in respect of all the usual residents. Type of disability includes mental, visual, hearing, speech, locomotor and multiple. In Odisha the prevalence of any type of disability per 1, 00,000 population is 1990. Kalahandi ranks the highest with 3153 whereas Khordha stands lowest with 914 of disables.

14. Birth Registration: In order to assess the functioning of Civil Registration System in the community, information on whether the birth of the baby was registered with the Civil Authority

and if so, the birth certificate was received or not in respect of all living children [last two outcomes of pregnancy (s) resulting in live births during reference period, i.e., 2007-09] has been collected. In Odisha a total of 83.7% of births have been registered and 30.4% of children have received the birth certificate. Balangir district has reported the highest percentage of birth registration (95.8) whereas Nabarangpur district has the lowest (43.9%). In Nuapada district the highest percentage of children have received birth certificate (51.4), the lowest being in Boudh district (4.3).

15. Other highlights : Besides the above indicators the data on Mortality (Crude Death Rate, Infant Mortality Rate, Under Five Mortality Rate and Maternal Mortality Ratio), Wealth Index, Household characteristics, Sex Ratio, Effective Literacy Rate, Schooling status, Injury, Chronic and acute illness, Personal habits, Childhood diseases and Awareness on HIV/AIDS, RTI/STI, HAF/ORS/ORT and ARI/

Pneumonia have also been presented for the State and the districts.

PROJECT OUTCOME

Availability of 63 indicators (co-variates) on various facets of Mother & Child Care at the district level will help in understanding the dynamics of composite indicators like IMR, U5MR and MMR. For the first time, the data on TFR, Injury, Morbidity and Personal Habits are available at the district level. This would provide new insight in evidence-based planning and facilitate appropriate interventional strategies.

The results of AHS would also enable direct monitoring of UN Millennium Development Goals on Child Mortality and Maternal Health at the district level; help in identifying high focus districts meriting special attention in view of stark inter-district variations in the AHS States; and provide critical inputs to assess the milestones of various interventions including NRHM and pave the way for evidence-based planning.

1. TOTAL FERTILITY RATE

State/District		Total Fertility Rate		
		Total	Rural	Urban
	Odisha	2.3	2.4	1.9
Highest	Boudh	3.7	-	-
Lowest	Anugul, Bargarh, Debagarh, Jharsuguda and Puri	2.0	-	-

2. ABORTION

Indicators		State/District	Total	Rural	Urban
Pregnancy to women aged group 15-49yrs resulting in Abortion (%)		Odisha	5.6	5.5	6.3
	Highest	Bargarh	12.1	12.1	11.4
	Lowest	Nayagarh	1.7	1.6	NA
Women who received any ANC before Abortion (%)		Odisha	61.6	59.6	72.1
	Highest	Nuapada	81.7	79.6	NA
	Lowest	Malkangiri	31.6	25.4	44.4

Women who went for Ultrasound before Abortion (%)	Odisha	17.3	15.5	26.7
Highest	Kandhamal	49.4	49.4	60.0
Lowest	Balasore	9.7	10.0	8.0
Average month of Pregnancy at the time of abortion (%)	Odisha	3.0	3.0	2.8
Highest	Rayagada	5.7	5.8	5.4
Lowest	Samabalpur	2.6	2.7	2.5
Abortion performed by Skilled health personal (%)	Odisha	60.0	58.0	63.1
Highest	Rayagada	97.7	100.0	86.7
Lowest	Sambalpur	36.6	28.3	41.9
Abortion Taking place in Institution (%)	Odisha	56.5	56.1	60.0
Highest	Rayagada	96.7	100.00	85.7
Lowest	Bolangir	31.0	27.7	66.7

3. FAMILY PLANNING PRACTICES

Indicators	State/District	Total	Rural	Urban
Any Method(%)	Odisha	56.2	54.9	62.7
Highest	Balasore	73.4	72.7	78.6
Lowest	Kandhamal	28.6	27.5	38.1
Any Morden Method(%)	Odisha	44.0	43.4	47.0
Highest	Balasore	57.7	57.4	60.1
Lowest	Kandhamal	28.1	27.0	37.7
Female Sterilisation (%)	Odisha	30.1	30.6	27.4
Highest	Gajapati	50.5	49.5	57.7
Lowest	Kandhamal	17.9	17.5	21.1
Male Sterilisation (%)	Odisha	0.3	0.3	0.4
Highest	Koraput	2.0	2.3	0.6
Lowest	Bolangir, Bargarh, Boudh, Mayurbhanj, Nuapada have below the state average i.e. 0.0			
Copper-T/IUD(%)	Odisha	0.3	0.2	0.8
Highest	Kendrapada	0.9	0.8	1.2
Lowest	Nuapada	0.0	0.0	NA
Pills (%)	Odisha	11.1	10.6	13.8

	Highest	Balasore	22.8	22.7	23.7
	Lowest	Rayagada	1.3	1.0	2.5
Condom/Nirodh(%)		Odisha	2.1	1.6	4.4
	Highest	Jharsuguda	8.4	7.5	9.9
	Lowest	Rayagada	0.1	0.1	0.1
		Nabarangpur	0.1	0.2	0.4
Emergency Contraceptive Pills(%)		Odisha	0.1	0.1	0.1
	Highest	Nabarangpur	0.4	0.3	NA
	Lowest	13 districts has below the state average i.e.			0.0
Any Traditional Method(%)		Odisha	12.2	11.5	15.7
	Highest	Keonjhar	26.6	26.0	29.5
	Lowest	Kandhamal	0.5	0.5	0.5
		Malkangiri	0.5	0.4	-
Periodic Abstinence (%)		Odisha	4.6	4.4	5.3
	Highest	Bolangir	13.1	13.0	15.1
	Lowest	Kalahandi and Kandhamal rank lowest with			0.0
Withdrawal (%)		Odisha	5.9	5.2	9.4
	Highest	Anugul	17.2	16.2	21.7
	Lowest	Boudh, Malkangiri and Nuapada rank lowest with			0.0
LAM(%)		Odisha	1.2	1.2	0.7
	Highest	Bolangir	4.6	4.7	4.1
	Lowest	11 districts rank lowest with			0.0

4. UNMET NEED FOR FAMILY PLANNING

Indicators		State/District	Total	Rural	Urban
Unmet need for Spacing (%)		Odisha	10.8	11.3	8.2
	Highest	Nuapada	21.5	21.8	NA
	Lowest	Balasore	5.6	5.3	7.5
Unmet need for Limiting (%)		Odisha	12.4	12.3	13.4
	Highest	Boudh	28.0	28.2	NA
	Lowest	Balasore	0.5	0.0	3.9

Total Unmet need (%)		Odisha	23.2	23.5	21.7
	Highest	Boudh	48.3	48.8	NA
	Lowest	Balasore	6.1	5.3	11.4

5. MARRIAGE

Indicators		State/District	Total	Rural	Urban
Females married below legal Age (18 yrs) (%)		Odisha	5.9	6.5	3.2
	Highest	Nabarangpur	24.7	25.3	NA
	Lowest	Jagatsinghpur	0.5	0.5	0.9
Males married below legal Age (21 yrs) (%)		Odisha	5.2	5.8	2.4
	Highest	Nabarangpur	22.4	23.0	NA
	Lowest	Jagatsinghpur	0.9	0.8	1.4
		Kendrapada	0.9	0.9	0.0

6. AGE AT MARRIAGE

Indicators		State/District	Total	Rural	Urban
Mean Age at Marriage for females		Odisha	21.7	21.5	22.9
	Highest	Jagatsinghpur	24.0	24.0	23.3
	Lowest	Nabarangpur	19.8	19.8	NA
Mean Age at Marriage for males		Odisha	26.9	26.5	28.6
	Highest	Jagatsinghpur	29.0	28.8	29.4
		Cuttack	29.0	29.2	28.3
	Lowest	Nabarangpur	23.3	23.2	NA

7. ANTE-NATAL CARE

Indicators		State/District	Total	Rural	Urban
Currently Married Pregnant women aged 15-49 yrs registered for ANC (%)		Odisha	68.7	68.5	70
	Highest	Bargarh	87.3	86.7	93.1
	Lowest	Nuapada	41.1	40.9	NA
Mothers who received any ANC (%)		Odisha	95.6	95.3	97.4
	Highest	Jharsuguda	99.3	99.1	99.5
	Lowest	Nabarangpur	83.3	82.9	NA
Mothers who had full ANC (%)		Odisha	18.6	16.9	28.9
	Highest	Jagatsinghpur	36.0	35.3	40.7

	Lowest	Jajapur	5.4	5.1	NA
Mothers received ANC from Govt. Sources (%)		Odisha	57.7	59.2	49.0
	Highest	Mayurbhanj	92.0	93.3	70.7
	Lowest	Malkangiri	41.3	39.2	63.9

8. DELIVERY CARE

Indicators		State/District	Total	Rural	Urban
Institutional Delivery (%)		Odisha	71.3	69.2	84.0
	Highest	Puri	91.6	91.5	91.7
	Lowest	Nabarangpur	31.8	30.1	NA
Delivery at Govt. Institutions (%)		Odisha	61.7	62.6	56.0
	Highest	Puri	80.7	83.4	66.7
	Lowest	Nabarangpur	30.0	28.6	NA
Delivery at Private institution (%)		Odisha	9.2	6.2	27.5
	Highest	Jharsuguda	20.7	11.7	35.3
	Lowest	Malkangiri	0.4	0.2	2.6
Delivery at Home (%)		Odisha	28.1	30.2	15.7
	Highest	Nabarangpur	68.1	69.8	NA
	Lowest	Puri	8.2	8.1	8.3
Safe Delivery (%)		Odisha	75.2	73.3	86.9
	Highest	Puri	92.7	92.7	92.9
	Lowest	Nabarangpur	35.6	33.9	NA

9. JANANI SURAKSHA YOJANA (JSY)

Indicators		State/District	Total	Rural	Urban
Mother who availed financial assistance for delivery under JSY (%)		Odisha	61.6	63.4	50.5
	Highest	Puri	80.2	83.9	60.7
	Lowest	Nabarangpur	29.1	27.8	NA
Mother who availed financial assistance for institutional delivery under JSY (%)		Odisha	83.3	88.1	59.6
	Highest	Kandhamal	96.2	96.3	95.2
	Lowest	Gajapati	54.9	56.1	47.3

Mother who availed financial assistance for Govt. institutional delivery under JSY (%)		Odisha	94.4	95.5	87.2
	Highest	Bargarh	97.4	97.4	97.9
	Lowest	Gajapati	70.8	69.8	78.5

10. POST NATAL CARE

Indicators		State/District	Total	Rural	Urban
Less than 24 hrs .stay in institution after delivery (%)		Odisha	53.5	55.7	42.8
	Highest	Bolangir	73.7	75.2	59.0
		Dhenkanal	73.7	74.2	68.3
	Lowest	Jagatsinghpur	26.0	24.2	43.4
Mother who received Post-natal Check up within 48 hrs of delivery (%)		Odisha	74.5	72.6	85.9
	Highest	Bargarh	90.0	89.4	96.2
	Lowest	Nabarangpur	40.1	38.7	NA
Mother who received Post-natal Check up within 1 week of delivery (%)		Odisha	78.5	76.9	88.6
	Highest	Bargarh	92.6	92.1	96.9
	Lowest	Malkangiri	48.2	46.5	69.3
Mother who did not receive any Post-natal Check up (%)		Odisha	19.6	21.1	10.4
	Highest	Malkangiri	43.7	45.1	26.6
	Lowest	Bargarh	7.1	7.5	3.1
New born who were checked up within 24 hrs. of birth (%)		Odisha	74.9	73.1	85.8
	Highest	Bargarh	91.0	90.5	96.6
	Lowest	Nabarangpur	38.6	37.1	NA

11. IMMUNIZATION

Indicators		State/District	Total	Rural	Urban
Children (12-23 months) having Immunization Card (%)		Odisha	94.0	93.7	95.4
	Highest	Jagatsinghpur	99.1	99.0	100.00
	Lowest	Nabarangpur	76.0	75.1	NA
Children (12-23 months) Fully immunized (%)		Odisha	55.0	54.3	59.5
	Highest	Kendrapada	82.0	81.4	92.3
	Lowest	Rayagada	11.9	12.1	11.1
Children who did not receive any Vaccination (%)		Odisha	0.9	0.8	1.1
	Highest	Gajapati	4.9	5.0	4.7
	Lowest	Boudh and Nayagarh	0.0	0.0	NA

Children With Birth Weight less than 2.5 Kg. (%)		Odisha	22.3	22.9	19.2
	Highest	Malkangiri	39.6	41.0	30.1
	Lowest	Bolangir	16.0	16.3	12.8

12. BREAST FEEDING PRACTICES

Indicators		State/District	Total	Rural	Urban
Children Breastfed within one Hour of birth (%)		Odisha	71.5	71.2	73.3
	Highest	Nuapada	89.8	89.6	NA
	Lowest	Bolangir	36.0	36.6	28.0
Children (aged 6-35months) exclusively breastfed for at least 6 months (%)		Odisha	24.8	24.2	28.1
	Highest	Kandhamal	57.2	59.3	37.6
	Lowest	Bolangir	4.4	4.2	6.5

13. DISABILITY

State /District	Prevalence of any type of Disability (Per100,000 Population)								
	Person			Male			Female		
	Total	Rural	Urban	Total	Urban	Rural	Total	Urban	Rural
Odisha	1990	2105	1399	2098	2233	1426	1880	1977	1371
Kalahandi (Highest)	3153	3211	NA	3204	3293	NA	3100	3127	NA
Khordha (Lowest)	914	1318	418	1034	1492	490	786	1139	340

14. BIRTH REGISTRATION

Indicators		State/District	Total	Rural	Urban
Birth Registered (%)		Odisha	83.7	82.7	89.6
	Highest	Bolangir	95.8	95.5	100
	Lowest	Nabarangpur	43.9	42.8	NA
Children whose birth was registered and received Birth Certificate (%)		Odisha	30.4	26.9	51.7
	Highest	Nuapada	51.4	50.5	NA
	Lowest	Boudh	4.3	4.0	NA

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Social Security in Informal Sector : A Myth

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ABSTRACT

Social security means the overall security for a person in the family, work place and society. Social Security is a system to meet the basic needs as well as contingencies of life in order to maintain an adequate standard of living. It is not a charity rather a right. But women workers in the informal sector have the least access to social security. The objective of this paper is to assess the degree of social security of the working women in the informal sector in Odisha.

Keeping in view the objective of the study, a sample survey was conducted in districts like Keonjhar, Mayurbhanj and Cuttack. Hundred (100) women from each district were randomly selected and supplied with structured questionnaire pertaining to their availability of social security measures undertaken by the Govt. of Odisha.

In Odisha, three schemes like National Old Age Pension Scheme (NOAP), National Family Benefit Scheme (NFBS), Madhu Babu Pension Yojana (MPY) are launched to ensure social security at state level.

But everywhere they are deprived of various social security measures which are available in organized sector.

INTRODUCTION

Social security, as a system to meet the basic needs as well as contingencies of life in order to maintain an adequate standard of living, is not charity but the right of all workers, because they are the contributors towards the national income of the country. In India about 390 million of unorganized workers are deprived of these benefits. It is generally believed that unorganized workers do not contribute anything to the national income. But according to some experts unorganized sector generates 62 per cent of the GDP, 50 per cent of gross national savings and 40 per cent of national exports. As they are the contributors towards the growth of the economy

they should have the privilege of social security as labour right. Now what is social security?

Social security is defined as labour right because it is originated from work and is claimed out of the income towards which the labour has contributed.

The Constitution guarantees rights including the right to life, equality, health, food, education, water, work and livelihood to all its citizens. These rights ensure to its citizens to lead a dignified life for themselves and for their families. Decent, dignified and safe work is a precondition for actual social security which is only possible if the workers' rights are recognized and employment is regulated. The regulation of

employment is mainly concerned with service conditions and condition of work. Social security now demands comprehensive social security legislation which ensures citizen rights, workers' rights and regulation of employment.

To ensure social security in unorganised sector, the schemes like Public Distribution System (PDS), Targeted Public Distribution System (TPDS), Annapurna Scheme, Antyodaya Anna Yojana and Mid-day Meal Scheme (MDMS) have been launched especially to provide food security to all age groups in unorganized sector. Similarly schemes like Food for Work Programme (FFW), Jawahar Rozgar Yojana (JRY), Sampoorna Gram Swarozgar Yojana (SGSY), Jawahar Gram Samridhi Yojana (JGSY), Employment Assurance Scheme (EAS) and Pradhan Mantri Gram Sadak Yojana (PMGSY) have been launched to provide employment opportunities in informal sector. Schemes like National Old Age Pension Scheme (NOAPS), National Maternity Benefit Scheme (NMBS) and Janani Suraksha Yojana (JSY) are undertaken to provide social security for workers in unorganised sector. These schemes are basically implemented at national level.

Similarly, at State level the schemes like National Family Benefit Scheme (NFBS), National Old Age Pension Scheme (NOAPS) and Madhu Babu Pension Yojana (MBPY) are being implemented to ensure social security in unorganised sector in Odisha. It is the right time to assess and examine the working and operation of those schemes in ensuring social security as well as their efficacy for the betterment of those socially deprived section.

OBJECTIVE

The objective of this paper is to assess the degree of social security of the working women in the informal sector in Odisha.

METHODOLOGY

Keeping in view the objective of the study, a sample survey was conducted in districts like Keonjhar, Mayurbhanj and Cuttack. Accordingly 100 women from each district were randomly selected and supplied with structured questionnaire pertaining to their availability of social security measures taken by the Govt. of Odisha. Further, to supplement the survey, secondary data are used from the published articles, journals and reports.

This paper is divided into four sections. Section-I depicts the women in different unorganized sector and the need for social security; Section-II deals with different social security measures at international, national and state level; Section-III covers the primary data which are collected from the unorganized women workers of Keonjhar, Mayurbhanj and Cuttack districts. This section depicts the status of social security measures in informal sector of Keonjhar, Mayurbhanj and Cuttack districts; Finally section-IV focuses the findings and conclusion of the investigation.

SECTION – I WOMEN IN DIFFERENT UNORGANISED SECTOR

Generally unorganised women workers are not organised for their common interests due to certain constraints like casual nature of employment, ignorance and illiteracy, small and scattered size of establishments. They usually work in agricultural sector, construction site, manufacturing sector and in small trade and commerce. But everywhere they are deprived of various social security measures which are available in organised sector.

WOMEN IN CONSTRUCTION SECTOR

In construction sector, women workers live in miserable conditions with regard to payment of wages and working hours. According to violation of Minimum Wage Act of 1948 there no worker can be paid below the legal minimum wage and a proper register should be maintained with the records of wage slip and there is also provision of extra payment for extra working hours. According to the Equal Remuneration Act of 1976 the duty of the employer is to pay equal remuneration to men and women workers for the same work or work of similar nature. Similarly the Maternity Benefit Act, 1968 provides that women workers who have children below the age of 15 months are entitled for two breaks in addition to the interval for rest granted to nurse the children are common problem in construction sites.

These workers do not have legal protection of employment or access to state the supported social security measure. Benefits of permanency of employment are available only to those employees who can establish permanent employment relationship with their employer. Women are paid less wages than men in construction sector for similar nature of work which violates the Equal Remuneration Act of 1976. Since these women are illiterate and belong to poorer class accept whatever rate is fixed by the contractor which may not fulfil their basic minimum needs as they lack bargaining power. The coverage of labour laws has not benefited these women workers in areas like health, maternity and social security. In this sector, there is the risk of death due to accident at working place. No compensation is given to them in exchange. In analysing the attitude of women workers it has been found that not a single worker

is interested that their children to continue working in construction sector.

WOMEN IN AGRICULTURAL SECTOR

In agricultural sector, the percentage of working women is nearby about 70 per cent. They are doing variety of field operation like tilling, manuring, weeding, transplanting, harvesting, threshing and storing. In spite of this they are to look after dairy animals, poultry, fuel needs, food processing and storing of water for household need. Their domestic work is considered as invisible as it is not contributing anything towards the growth of economy. The daily income of women workers is generally less than those of men as they have to spare time for domestic work. During off season, the agricultural women workers have to find out alternative source of income. Mostly they engage themselves in construction work and also collection of forest products because of the least access to capital. Children of agricultural women workers do not get full attention of their mother. Though laws have been developed with regard to children facility, but some lacunae exist in their implementation.

BRICK - KILN INDUSTRY SECTOR

Brick - kiln industry as a major employer of workers is a complementary industry to the construction sector, where majority of women workers are illiterate and so also their children. These workers go to their working place in month of October – November and stay there till May – June . They have to remain away from their houses for nearly nine months. So they have to leave their children at their native places as there was nobody to look after their wards. Further, the school is also far away from the brick-kiln industry.

With regard to safety of women in brick-kiln they should be provided hand gloves for protecting their hands and fingers from bruises and injuries. Similarly those women who work as unloaders of the trench require gas masks and goggles because they work in extreme dust all the time.

According to Factory Act, 1948, every factory having more than 500 workers shall have Ambulance Room with nursing staff. For more than 250 workers there must be a canteen and where there are 150 or more workers there shall have to be shelters, rest rooms and lunch rooms. Crèches are required in every factory having 30 or more women workers. The existing social security schemes do not provide any security to workers of brick-kiln due to non-implementation of these schemes by the owner of the kilns.

NON-AGRICULTURAL SECTOR

In non-agricultural sector, most of the women workers are self employed. It includes variety of work forms – own account workers, casual workers, domestic workers and home workers.

Own account workers : Their activities range from agriculture, animal husbandry, fishery and forestry in rural areas to vending, service work, rag picking, paper recycling and manufacturing in urban areas. This type of self employment needs little finance, low skill and leads to low earnings. Their employment is not at the mercy of any employer.

Casual workers : In rural as well as in urban areas in India, women dominate casual work. In construction industry which is a large employer of casual labour, women tend to perform the less skilled and less paid casual work, even if both husband and wife work in same industry.

Domestic workers : Domestic workers work either full time for one employer or part time for many employers; Domestic work is the least regulated informal work. Women as domestic workers work without any contract or any leave.

Home workers : Home workers are classified under two groups - one is self employed and another is piece rate workers. Self employed home workers buy raw materials from market and produce the finished product themselves. A middleman gives piece rate home workers raw materials on the basis of weight or numbers, they work on these and return it to the person who gives it to them. Piece rate workers are paid on the basis of number and weight. They are regarded as disguised wage workers.

Social Security : An urgent need of the hour.

Social security is very much essential for working women in informal sector as they face varieties of hazards in their life and workplace. The hazards which working women face along with their male colleagues, i.e., common to all workers.

i) **Less payment :** Women workers have no job security and do unskilled works for longer hours with less payment. Similarly the wage of piece rated workers depend on the speed with which they work. Unemployment under employment and temporary work are more common among women than among men. They do not enjoy social security or health care benefits for which they suffer from diseases like headache, back pain, fatigue, emotional and mental disorder. Fatigue is not considered as an illness, but if it is neglected, it may lead to variety of illness.

ii) **Discomfort and mental stress :** There is lack of some basic facilities like toilets, rest rooms, dining space etc. at the workplace which

create a lot of physical discomfort and mental stress

iii) **Dual responsibilities :** Similarly, they do not have any child care facilities. So they are forced to leave their children at home, under the care of their elder children or old people or neighbours, which create emotional strain.

iv) **Hazards related to society and family :**

Insufficient dietary make : Generally women workers face dual responsibilities one is in domestic field another is in working place. Many women are unable to take proper meal before leaving work. Improper and insufficient dietary intake along with heavy workload result in nutritional disorders.

v) **Hazards faced by women trade unionists :** Family support is very rare for women who participate in trade union activities.

Section-II

Social security measures at different level :

International Level

In international level International Labour Organisation (ILO) has occupied pivotal role in social security policy across the world. ILO defines social security as “the security that society furnishes through appropriate organisation against certain risks to which its members are perennially exposed. These risks are essentially contingencies against which an individual of small means cannot effectively provide by his own ability or foresight alone or even in private combination with his fellows. The mechanics of social security, therefore, consists in counteracting the blind injustice of nature and economic activities by rational planned justice with a touch of benevolence to temper it”.

The 89th session of International Labour Conference was held in 2001 which undertook a general discussion on social security. The resolution and conclusions concerning social security contained a detailed list of aspects such as technical, social and political to be taken into consideration in formulating an approach to the development of policy and in practice social security which is appropriate for the ILO.

The list of conclusions have been drawn from the above meeting are as follows :

- i) In order to provide basic income to all it is necessary to extend social security measures to all.
- ii) Development of national schemes of social security.
- iii) Each country should determine a national strategy for working towards social security to all.
- iv) Proposal for a major campaign to promote the extension of coverage of social security.

Features

- i) Universal coverage of income security and healthy systems.
- ii) Benefits and poverty protection as a right (benefits should protect people effectively against poverty).
- iii) State should remain the ultimate guarantor of social security rights.

More than 30 developing countries have implemented varieties of programmes in this field in 2010. It is clear that middle income countries are more advanced in this field.

In Thailand, the health care coverage under the auspices of the government consists mainly of three components namely employer provided schemes provided by the government for its own employees, health insurance under the social security health insurance scheme and the universal health care scheme (WHO 2005 b; ILO, 2004 b); Ghana, Act. 650 identifies three major types of health insurance in the country as stated below.

- i) District Mutual Health Insurance Scheme,
- ii) Private Commercial Health Insurance Scheme and
- iii) Private Mutual Health Insurance Scheme.

Now the social security measures which are achieved through world wide is non-contributory. Some of the social transfer scheme which have been implemented like Bolsa Familiar Programme in Brazil, Oportunidades Programme in Mexico, Basic Pension System in South Africa, Nepal and Namibia and National Rural Employment Guarantee Scheme in India(NREGS).

NATIONAL LEVEL

In national Level, government and other social institution have launched various social security programmes to meet the minimum needs of poor informal sector workers, which are classified under three heads as mentioned below:

- i) Centrally funded social assistance programme.
- ii) Social Insurance Scheme.
- iii) Social assistance through Welfare Funds of Central and State Governments.

i) Social Assistance Programme

Social assistance programme comprises of food based transfer programmes, income transfer programmes and cash transfer programmes. The basis aim of food based transfer programmes is to provide food security to the poor and thereby improving their nutritional status. The Public Distribution System (PDS) plays an important role in providing food security in the country. The aim was to supply foodgrain and other essential commodities at lower prices, i.e., wheat, rice, sugar, imported edible oil, kerosene and soft cake. Due to limited effectiveness of PDS, the government introduced from 1997 onwards Targeted Public Distribution System (TPDS). The main aim of TPDS is to identify beneficiary one is below the poverty line and another is above the poverty line. The beneficiaries who are below the poverty line receive foodgrains at subsidized prices. Along with TPDS, other schemes were introduced such as Annapurna Scheme, Antyodaya Anna Yojana, Mid-day Meal Scheme and Integrated Child Development Scheme. Both mid-day meal scheme and integrated child development scheme provide cooked food to poor children.

Among the income transfer programme, the Food for Work Programme (FFW), Jawahar Rozgar Yojana (JRY), Sampoorna Gram Swarozgar Yojana (SGSY) Jawahar Gram Samridhi Yojana (JGSY) and Employment Assurance Scheme (EAS) are some of the programmes meant for providing employment opportunities in informal sector.

Similarly the cash transfer programmes like, National Old Age Pension Scheme (NOAPS), National Family Benefit Scheme (NFBS) and National Maternity Benefit Scheme(NMBS) have been implemented to

provide social security to the informal sector workers. Now the government has modified the NMBS to JSY (Janani Suraksha Yojana) for providing cash assistance and better diet to pregnant women who are below the poverty line.

Social Insurance Schemes

The social insurance schemes include several schemes launched by the Central and State Governments for the benefit of weaker sections through the LIC of India and GIC of India. There are schemes for the employees of shops and commercial establishments and for weaker sections like Janashree Bima Yojana (JBY 2000) and Universal Health Insurance Scheme (UHIS 2004). Former provides insurance protection to persons between 18 – 60 years old, living below or marginally above poverty line in rural areas and latter provides hospital care to poor persons and families other schemes like “Personal Accident Insurance Scheme” for poor families and “Group Insurance scheme” for Landless Agricultural labourers are grouped under this social insurance schemes.

Welfare Funds

Welfare funds represent one of the models developed in India for providing social protection to workers in unorganised sector. The various welfare funds have been constructed for different informal sector occupations to provide health care, housing and educational assistance for children and drinking water facilities to all. The welfare model of social security measures has been successfully functioning in the state of Kerala. The above mentioned insurance or pension scheme could not solve properly the social security issues of unorganised sector labour. So the Government has been giving more importance to social partners like insurance companies, employers, community organisations,

local bodies, SHG and the beneficiaries themselves for effectively implementing the programmes.

In February 26, 2010 at New Delhi, Union Finance Minister Mr. Pranab Mukherjee has announced three major initiatives for the unorganised sector in his budget speech for the year 2010-11.

The National Social Security Fund for unorganised sector workers is to be set up with an initial allocation of Rs.1000 crore. This fund will support schemes for weavers, toddy tappers, rickshaw pullers, bidi workers etc.

The Finance Minister stated that this has been done keeping in view the need for providing social security to the workers in the unorganised sector and as a follow up to the Social Security Act of 2008.

He also announced that the benefits of the Rashtriya Swasthya Bima Yojana (RSBY) will now be extended to all such Mahatma Gandhi NREGA beneficiaries who have worked for more than 15 days during the preceding financial year. The scheme provides health insurance cover to BPL workers and their families and so far more than one crore smart cards have been issued under this scheme.

A new initiative Swavalamban will be available for persons who join the new pension scheme (NPS) with a minimum contribution of Rs.1000 and a maximum contribution of Rs.12000 per annum during the financial year 2010-11. Government will contribute Rs.1000 per year to each NPS account opened in the year 2010-11. An allocation of Rs.100 crore has been made for this purpose. According to Unorganised Workers Social Security Bill, 2008, 34 crore workers will be covered in next five years.

State Level

In Odisha three schemes like National Old Age Pension Scheme (NOAP), National Family Benefit Scheme (NFBS) and Madhu Babu Pension Yojana are launched to ensure social security at State level. These programmes have been implemented in the State since 1995 to provide social security to the poor and destitute. It is a 100% central scheme supported under the National Social Assistance Programme (NSAP) and has been renamed as Indira Gandhi National Old Age Pension (IGNOAP) with revised selection criteria. Persons having 65 age or above and enlisted as BPL families in 2002. The surveys are covered under IGNOAP. The scheme covers 6, 43, 400 beneficiaries, each of which is entitled to a monthly pension of Rs.200/-.

The second component of NSAP at state level is known as NFBS and has been implemented since 1995. Under it, financial assistance of Rs.10,000/- is given to a BPL family on the death of its primary bread earner in the age group of 18 – 64 years. The schemes covered 33, 384 beneficiaries in 2008 – 09.

MBPY launched in 2008 is the mixture of two pension schemes like Old Age Pension Rules, 1989 and Disability Pension Rules, 1985. All beneficiaries of these schemes are covered under MBPY since 2008. During 2008-2009, their number was 12.08 lakh.

SAMPLE DESCRIPTION

Section-II deals with descriptive statistics of the survey. The results are obtained from 600 samples taken from three districts like Keonjhar, Mayurbhanj and Cuttack of Odisha. Around 100 per cent of respondents are interviewed with structured questionnaire. Around 60 per cent of women in informal sector were

interviewed at their workplace. Rest 40 per cent are contacted at their household. Information regarding social security measures and the availability of the measures has a dismal picture (Table –1).

Table - 1
Sample characteristics(percentage in parenthesis) of unorganized women worker

Criteria	Districts	Frequency
Literate respondents	Cuttack	43 (21.5)
	Keonjhar	15 (7.5)
	Mayurbhanj	08 (4.0)
Understanding of concept of social security measures	Cuttack	10 (5.0)
	Keonjhar	Nil (0.0)
	Mayurbhanj	Nil (0.0)
Awareness of social Security measures	Cuttack	08 (4.0)
	Keonjhar	Nil (0.0)
	Mayurbhanj	Nil (0.0)
Availability of any of the three social security scheme implemented in the state	Cuttack	02 (1.0)
	Keonjhar	Nil (0.0)
	Mayurbhanj	Nil (0.0)

Some respondents refused to reply at workplace. So they were contacted at the household with the expectation that they would respond freely. Respondents, in this survey were sensitized about the social security measures. Because first of all, they must understand the concept of social security. Then they could answer the questionnaire properly.

FINDINGS

It has been roughly estimated that only three per cent of informal sector workers are covered by some social security measures in India. Because there are some lacunae in implementing the programme.

- i) Identification of beneficiary – It is difficult to identify who are eligible to avail the social

security benefits since they are performing different types of job.

- ii) Formation of welfare fund – Regarding the formation of welfare fund the employer's contribution is not regular and sufficient. Because the fund is constituted from the cess collected from the employer/manufacturer/producer.
- iii) Inadequacy of resources – Some schemes have been closed due to inadequacy of resources. In 2001, scheme like Krishi Samajik Suraksha Yojana whose aim was to provide social insurance benefits to the farm workers in collaboration with LIC was closed in 2004 due to inadequacy of resources.
- iv) Lack of awareness - Women workers in the informal sector are ignorant about the Maternity Benefit Act, 1968, Minimum Wage Act, 1948, Factory Act, 1948 and the Interstate Migrants Worker Act, 1979 etc.

SUGGESTIONS

- i) There is a need of a comprehensive social security legislation for both organised and unorganized workers in the country.
- ii) There should be evolvement of a funding mechanism for various social security measures.
- iii) Government should take up the challenge of news dissemination media networking, out reach activities and media monitoring to reach the core of unorganised sectors.
- iv) Insurance industry should come forward to evolve health care management.
- v) Government should organise general awareness programme regarding their legal rights, health, nutrition and sanitation.
- vi) The government should issue individual identity cards for all categories of workers,

including self employed, unemployed and marginal farmers.

- vii) The law should not differentiate between BPL and APL workers. All unorganised informal workers should get social security.
- viii) Regarding the contribution towards welfare fund, it has been observed that in some cases the contributions are regularly collected and in some employers are unwilling to pay contribution, where they should be questioned in the court of law.
- ix) Government should constitute a tripartite committee every year at the state level to decide the rate of wages, the bonus and the incentives for these workers. Efforts should also be made to implement the recommendation of committees effectively.
- x) Social security components should comprise provident fund, gratuity and a monthly pension (when the workers are not covered by a state pension). The social insurance component should include compensation for ill health, accident and death. These two types of benefits should be incorporated in all welfare funds as common benefits. But the amount of common benefits depends on the rate of contribution. Where the contribution is insufficient state should come forward to provide financial assistance.
- xi) Role of trade unions and NGO is also significant. SEWA (Self Employed Women's Association) has made considerable achievement in promoting social security through the formation of co-operatives.

CONCLUSION

The quest for security in earlier times created a number of social devices to afford protection to the needy. Joint families of the bygone era used to be the most effective

institution for social security. But the socio – economic changes has withered away that source of security and expect that the state will be the umbrella of total protection against economic risk. Available data suggest that social security in the organised sector is steadily shrinking but the major concern is for informal sector which imposes a heavy cost on society in terms of jobs, income and health care. In this context, the Government's strategy is to utilise not only its own apparatus, but also non-governmental organisation and other concerned sections to design a credible comprehensive and workable social security package for unorganized women workers of India. Otherwise social security in informal sector will be a myth.

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Role of Information in Agricultural Development of Odisha

Dr. Rabindra Kumar Mahapatra

1. Introduction

Odisha is primarily an agriculture-dependent state, with 5.70 % of its population of total population of 36804660 engaged in farming (Census 2001). The agrarian nature of the state with both the agriculture and animal husbandry sectors together contributing to 20.19% to the Net State Domestic Product (as per quick estimates of 2009-10) at current prices and providing employment to 70% of the total work force (as per 2001 census) directly and indirectly (OAS, 2009-10). In spite of this large labour force, there is a food deficit in the state. The state has been continuing to purchase food grains and vegetables from the neighbouring states of Andhra Pradesh, West Bengal, Jharkhand and Karnatak. The successes of these states with large production of food crops have been linked to the proper agricultural system, technological innovations and right uses of agricultural information which have greatly helped in boosting agricultural production. Those states have recognised the potency of technological innovations in bringing increased agricultural production. Hence the establishment of several agricultural research institutions is believed that technological innovations are the outcome of research. The main objective of these research institutions is to ensure an increase in agricultural

production. A prominent factor identified as being responsible for this unacceptable situation is the unavailability of timely and appropriate information to users of agricultural information, *i.e.*, researchers, agricultural scientists, policy makers, planners, extension personnel, and farmers.

With the emergence of information system and services, worldwide uses of Internet and application of information and communication technologies the focus has been changed to effective dissemination of information to a larger audience in different sectors of the economy. The agricultural authorities have emphasized the flow of information from the lab to land so that the farmers as the end users may get the direct benefit. The ultimate motto of the research and education is to improve the agricultural system in producing more the good and services. All the resources and services are directed towards the improvement of crop production to meet the growing need of the population. Hence, attention has been focused on the provision of agricultural information to all the agricultural information user population. The provision of agricultural information to extension officers and farmers by agricultural libraries is neglected, and this also hinders increased agricultural production in the country. Some studies have, however, revealed that extension officers and farmers need

information just as much as research scientists and policy makers. The present paper aims to discuss areas of information needs of various stakeholders in agricultural sector in a developing state in Odisha.

2. Information Problems in Agricultural Sector

Agricultural sector has variety of information user community. According to Kaniki, (1995) and Adimorah (1995) agricultural information user populations are basically researchers, extension workers, farmers, educators, students, agribusiness personnel, bankers, industrialists, policy makers and agricultural librarians/documentalists. All those uses have different types of information needs. The researchers primarily need information to make them aware of new information that will increase yields, produce resistant seedlings to the latest information on the new frontiers of knowledge. The educators also share the information needs of researchers. In addition, they require information that will improve their teaching. The academicians and students are also interested in the agricultural information required for education purpose. Scientists need current information in their concerned subjects to keep them abreast of the latest development in agriculture so as to improve the quality of their research work. In addition, they need information that is factual, current and any information that will improve learning.

The extension workers scope of needing information is confined to serving the farming community and making them empower with latest information on improving the farm productivity. However, information on variety of needs such as of resistant seedlings, control of major pests, credit sources etc. as well, as providing information on farmers' problems to the

researchers. The agribusiness personnel are interested in product information that will increase farmers' output, current information on various agricultural products that will improve agricultural productivity. The industrialists require information on export commodities, up-to-date world markets rates and prices of commodities. The bankers on the other hand, are interested in lending rates as it affects agriculture, current world markets and prices of commodities, feasibility studies on various aspects of agricultural production and loans and credits (Aina, 2008).

The farmers need information to know the procedure of increasing output, the use of fertilizers, useful pesticides, high yielding seeds, testing needs of soils, access to credit facilities, marketing of their products, etc. Policy makers require information on global trends in agriculture and competitive prices of commodities, legislation that will improve agricultural production etc. With such a wide spectrum of the various information needs of agricultural stakeholders, it is very clear that information professionals need to develop a strategy of information provision so as to satisfy the information needs of those information users in agriculture.

3. Information Requirement of Extension Professionals

Extension officers engaged in agricultural sector are treated as successful intermediaries between the agricultural knowledge and the farmers. Those extension officers occupy a strategic position in the agricultural production cycle due to the fact they are directly related to the field and meeting farmers to solve their problems. They liaise between the farmers and research scientists on the one hand, and between farmers and policy makers on the other hand. A constant supply of timely and appropriate information to this group of agricultural information

users will enhance the quality of information they provide to farmers, researchers, and policy makers. Providing information only to research scientists without making it available to agricultural extension officers will negate desirable integration. In Odisha, the ratio of agricultural extension officers to farmers is far too small. Therefore, an adequate supply of information will lighten the burden of extension officers. Since those professionals are primarily be empowered with the information base in agricultural sector so that they will certainly be enable to disseminate the required information to the farmers. There is a greater need for providing training and awareness programme for those extension officers about the agricultural information system and services so that they will improve their knowledge base and work in furtherance of the information dissemination. In order to accomplish the task it is essential on the part of the government to identify the information needs of those extension workers. The librarians are those professionals engaged in such work to take up a study to identify the information needs of the extension officers of the state working in the agricultural department. After identifying the real information needs of the extension workers, the library professionals will determine the strategy of information dissemination process that will greatly empower those persons so that they can give necessary advice to the farming community who can derive benefits.

4. Need for Libraries

Libraries play vital role in dissemination of right information to the right agricultural users of the state. As a normal practice libraries used to collect different types of documents and provide information services to different types of users to suit their information needs. There is no specific agricultural library in the state owned by the Government to meet the information needs of the

agricultural stakeholders. The only library of Agricultural University is unable to meet the information needs of the agricultural academic community due to very paucity of funds, as its budget is very inadequate. There are five agricultural research institutes under ICAR which have special libraries meant for those internal users. The state has not a special library devoted to agriculture at par with other special libraries. In this scenario, the state of agriculture library in the state is nonentity. Till today nothing has been written nor devised to provide any information to the farming community in the state. It is, however, felt that a study is required to be conducted to determine the information needs of the farmers and accordingly the system approach to farming information system may be developed in the state. Moreover, there is a greater need for establishing a special library in the state which will be totally devoted to providing information services to different stakeholders of agriculture. Its role will be to collect needful agricultural information resources, customize to meet individual as well as farming community information needs. There should be adequate fund provision of the library so that required documents both print and electronic formats be procured to develop a good resource base for the users. The library should provide information services primarily in documentary form to different district agricultural offices so as to empower/make them aware those officers about the information available on their subject of interest who in turn can be able to provide the needed information to the farmers. In addition to this, institutions outside the agricultural stream like study centres of traditional universities, local colleges, public libraries, village libraries etc., hold agricultural information that may be considered useful in similar situations. They can be strengthened without much financial commitments to serve such requirements of the farmers and public. Again such institutions hold

agricultural information, which is rare, like the traditional knowledge. All these resources outside agricultural stream appear to be very much important for agricultural development of the state (Nair, 2006).

5. Role of the Librarians

There is no doubt that the information professionals constitute a significant sub-group in the agricultural sector. Their main duty is to provide up-to-date, current, appropriate and timely information to all the other stakeholders in the agricultural sector, with the aim of increasing agricultural productivity. While libraries, information centres and documentation centres have played a leading role in supplying information to these stakeholders in the past, it is becoming apparent, that these centres are no longer in a position to provide all the necessary information as efficiently as one would expect. The changing needs of agricultural information specialists are tied closely to the changing needs of the stakeholders they are supposed to serve. As mentioned above there are various types of agricultural information users who used to significantly contribute towards development of agriculture in a state. These sub-groups have different types of information needs. Given the complex information needs of the agricultural information user populations, it is becoming apparent that the skills of the new information professionals must change in order to meet these changing needs. For example, the services which hitherto had been restricted to researchers and educators must be broadened to take care of the other stakeholders.

It is also clear from the various information needs of the agricultural information users population that libraries and information centres may not possess in their collections all the information required by their stakeholders. Yet the trend in the training of the information professionals

is to be able to supply information needed from its collections and the collections of other libraries. For the new information professional to function effectively in the provision of information to agricultural stakeholders, the curriculum for the training of information professionals will have to be greatly radicalized. There are rapid changes in the agricultural sector in under-developed areas. For example, the role of agriculture, as the main foreign exchange earner is declining; farmers are abandoning the rural farms for the urban cities, there is a low funding of agricultural institutions which were hitherto exporters of food items have become net importers. Thus, there is a need for the information professionals to re-assess their functions in the agricultural sector, in order to be more relevant in the new directions of agricultural growth. Solutions that will greatly enhance the contribution of the information professionals in reversing the current negative changes must be proffered. Therefore, the role of the information specialists is expected to be pro-active.

6. Communicating Strategy for Information Empowerment

Farmers are normally placed in remote rural areas who do not know the use and value of information. The information professionals must be very visible to farmers and extension workers in rural areas. Thus, the new information professional in disseminating information must work in tandem with local public libraries that are nearest to farmers, extension workers and the various community organizations. Agricultural information can be transferred to large number of farmers through mass media simultaneously and at a lower cost per farmer than other extension methods (group or individual). However, the availability of these sources limits the farmers' access, and hence their usefulness. In addition, the mass media has weaker feedback potential than other conventional extension methods and

the capacity of these sources at the stage of adoption of agricultural innovations is limited (Demiryurek 2006). Posters and leaflets issued by the respective ministries of agriculture on how to combat pests, apply fertilisers, obtain loans and credits and selling of their products at competitive prices must be made available to farmers. The use of audio-visual gadgets-radio, video, television, overhead projections etc need to be used during farmers' meetings for the purpose of disseminating information on the latest findings in agriculture. Although radio and television programmes are broadcast over certain channels, these do not make direct benefit to the farming community. The extension professionals should carry publicity materials and distribute success stories in agriculture so that it may make great impact upon farmers with needed information.

7. Conclusion

Agriculture is a prime sector for development in an agrarian economy. The rural livelihood in the state primarily depends upon the agricultural development. Among other instruments of development of agriculture the provision of right information to the agricultural stakeholders has yet to be designed. Access to right information and its proper utilisation for the farming community is the order of the day which need to be practised in the state. One of the roles of government is to make the provision of information to increase efficiency and improve the performance of the agricultural economy. There is a greater need of assessing the information needs of the agricultural stakeholders in the state so as to know their information requirements. Extension professionals working in agricultural sector should develop better liaisoning and empowering the farmers with latest technology and farming practices. The information system and services in the agricultural sector in the state is not up to mark. Libraries in agricultural institutes

are to be developed with adequate print and e-resources and provide services tailoring to the needs of the farming community. A regional agricultural information system may be developed so as to disseminate the required information to the farming community, extension officers, and researchers in agriculture as well as scientists engaged in agriculture in Odisha.

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Rural Development Through Microfinance, MGNREGA and Women Empowerment

Madhusmita Kanungo

Rural development is an integral process of economic growth and social progress. It implies the development of rural sector which has many dimensions. The role of microfinance and women empowerment in this context is important because it provides an environment of sustainable improvement in the quality of life of rural womenfolk enabling them to form S.H.Gs, and providing them equal opportunities in decision making process and participation in community life.

On the other, microfinance is a broad category of services which include micro-credit and provision of financial services to the poor and low income groups who traditionally lack access to banking services. This paper discusses the concept and framework of microfinance. Microfinance and micro credit are used as synonyms. Absence of formal employment of the poor make them nonbankable as a result of which banks seldom lend to low income families and women headed households. This forces them to borrow from local money lenders at a high rate of interest. This paper analyses the role of microfinance in context of rural development. The access of the poor to bank services will break the vicious circle of poverty and removal of poverty is an effective instrument of rural development. Micro finance is community based.

Poor people not only need loans but also savings, insurance and money transfers. Community saving banks, SHGs is community based micro finance institutions which provide these services to the rural poor to undertake productive activities for rural development. Micro finance is one of the most effective poverty reducing strategies for rural development. It plays the vital role because subsidies from government are scarce and uncertain and micro finance can reach large number of poor and weaker sections and thereby promotes inclusive growth. It is different from charity which prevents cash flow. Once charity is given to a destitute family it does not come back again. But micro finance promotes cash flow by way of granting micro credit to the poor and weaker sections for self employment and recovery of loans.

Development of Micro Finance:-

This is an age old practice. In ancient times money lenders were lending money to the poor and were charging high rate of interest. Modern micro finance developed in 1970s with a strong orientation towards private sector. It became popular in India after the institution of Grameen Bank by Md. Yunus in Bangladesh. In recent times micro finance and micro credit are instruments of rural development. It is more

popular in rural sector due to the financial needs of the poor. These needs of the poor include life cycle needs such as weddings, funerals, childbirth, education, widowhood, old age, sickness, and injury etc. These needs are being met by commercial banks and non banking financial institutions, NGOs and village co-operatives in rural areas. Micro finance is no doubt a poverty alleviation and rural development strategy like MGNREGA.

Mahatma Gandhi National Rural Employment Guarantee Act is a landmark legislation for employment guarantee to the poor and weaker sections of our country. It is a special programme for livelihood support for the rural poor and vulnerable groups.

In this paper there is an humble attempt to include MGNREGA and micro finance for the rural poor and weaker sections as two sides of rural development. MGNREGA is no doubt a landmark legislation for employment guarantee to the poor for their sustenance and implementation of micro finance schemes for upliftment of weaker sections, SCs, STs and the vulnerable groups in rural sector of the district and state is the other side of rural development.

MGNREGA with its right based framework was implemented first in 2006–07 in 200 districts of India is a paradigm shift from all development programmes that were traditionally supply led. It is a path breaking legislation that entitles guaranteed employment of 100 days to rural poor household as a means of sustenance. The implementation of this programme is supported by central budget and based on demand for employment. Apart from providing livelihood to millions of households over the last five years (2006 – 11) the Act has played a significant role for the inclusion of marginalized

and rural poor at the grassroot level in its employment guarantee scheme to eradicate poverty, hunger and unemployment. MGNREGA as an endorsed employment programme and cash transfer to marginalized section of the society is a step forward for capacity building of rural poor and empowerment of women. Its provisions are par with millennium development goal of “Eradication of Hunger and Poverty through employment generation”.

Table : 1 Employment generation across the states under MGNREGA.

Year	Employment demanded by households	Employment provided to households
2006 – 07	2,11,88,894.00	2,10,16,099 (99.19%)
2007 – 08	3,43,26,563.00	3,39,09,132 (98.79%)
2008 – 09	4,55,18,907.00	4,51,15,358 (99.99%)
2009 – 10	5,29,20,154.00	5,25,85,999 (99.37%)
2010 - 11	5,57,56,087.00	5,49,47,068 (98.54%)

Sources : www.nregs.nic.com in H.H. Households.

MGNREGA, Women Empowerment and Rural Development :

Women empowerment is a social process that seeks to neutralize oppression of women and achieve equity in the society. It is a state without oppression of women, an environment of freedom, equity and respect for individual and a life with dignity. Realization of full identity of women folk is an important aspect of rural development. It is the expansion of assets and capabilities of women who constitute nearly half of our human resources, to participate and control the institutions that affect their life. The role of MGNREGA and micro finance in this context is important because it provides an

environment of sustainable improvement in the quality of life of rural women folk for equal opportunity in decision making process and to participate in community life by forming SHGs and MFIs. In our society there is wide range of prejudices and social taboos and women have been neglected to the status of a second class citizen. The women as a class continue to be at the losing end. The role of MGNREGA and microfinance can reduce inequality and gender bias and it is a contributory factor for rural development.

The Employment Guarantee Act has contributed tremendously to women empowerment in Odisha by providing them independent income earning opportunities to foster and expedite rural development. The act provides that out of the total employment provided

- (i) 30% should be given to women workers. The priority for women in the ratio of one third of total workers. (Schedule – II(6) of the Act).
- (ii) The work is organized by women group.
- (iii) Equal wage to be paid to men and women workers (Schedule – II (34) of the Act).
- (iv) Crèches for the children of women workers (Schedule – II(28) of the Act)

Besides these provisions of the Act, others include work within a radius of five kms. From the house, absence of supervisor and contractor and flexibility in choosing the period and month of employment. All these provisions have attracted rural women folk to the MGNREGA and women participation in work has increased significantly across the states. It is a true measure of rural development.

Table : 2 – Participation of women under MGNREGA.

Year	Total mandays	Women	Percentage
2006 – 07	9050.54	3679.01	40.65
2007 – 08	14367.95	6109.1	42.63
2008 – 09	21632.86	10357.32	47.87
2009 – 10	28359.57	13640.51	48.16
2010 - 11	25715.23	12274.21	47.72

Sources : www.nregs.nic.co.in

Table - 2 shows that participation of women in MGNREGA has increased from year to year. It is a employment generation and poverty alleviation scheme for rural development.

There has been a significant dent in poverty in rural sector by increasing proper wage disbursement and increasing employment opportunities through the implementation of MGNREGA. It has increased significantly the socio-economic status of the weaker sections and particularly the rural women. The following table explains the employment opportunity created and poverty removed in rural household sector since the time of its implementation (2006 – 07) across the country.

Table : 3 - Household employment scenario under MGNREGA.

Year	Household employed (in crores)
2006 – 07	2.10
2007 – 08	3.39
2008 – 09	4.51
2009 – 10	5.29
2010 - 11	5.49

Sources: www.nregs.nic.co.in.

Table : 3 - reveals that MGNREGA has played a positive role in increasing the employment in the country and it has contributed significantly to rural development by providing adequate employment to the rural households who are below the poverty line.

Besides MGNREGA microfinance have also helped the weaker sections and rural women folk to cross the poverty line and stay put above the line. Both MGNREGA and microfinance have improved the quality of life of rural people, particularly life of rural women covering their health, education, literacy, social justice, formation of SHGs, MFIs and many other.

Conclusion :

MGNREGA is the policy and programme commitment of our country to help the rural poor and weaker sections to achieve inclusive growth. Micro finance is a step forward and micro model towards eradication of poverty and rural development. Therefore, micro finance and implementation of provisions of MGNREGA are two sides of inclusive growth and rural development.

The women participation in MGNREGA is increasing significantly and it is no doubt a positive aspect of women empowerment. Our society is gradually becoming women friendly.

Micro finance and MGNREGA have played their vital role for the capacity building and skill up-gradation of rural women for inclusive growth both at the district and state level. Therefore MGNREGA and Micro finance are right based framework at the grass root level to generate income and employment for the rural poor and support and sustain rural development.

MGNREGA is a special programme for livelihood support for the poor and vulnerable, aimed at directly increasing their income earning capabilities and at mainstreaming them in the overall inclusive growth process in order to reduce economic dualism and inequalities in socio-economic set up. MGNREGA, Micro Finance and Women Empowerment seem to be a panacea in rural sector to reduce poverty and unemployment by redistributing income more equally in favour of the weaker sections and marginalized groups. Implementation of MGNREGA and Micro Finance schemes have given rise to alertness among the rural poor and rural women on a continuous basis for their all round development to support a faster and sustainable growth of rural sector in our State.

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The Marketing Strategy of Economic Development in Kalahandi

Dr. Digambara Patra

INTRODUCTION

Development may refer to various forms of growth and progress. However, when development is referred in the social context by large it is understood to economic development. Economic development is nothing but enhancing the living standard in a nation's population with sustained growth from a simple low income economy to a modern high income economy. This is mainly important for any society as quality of life increases with increase in economic development. Developed nations are considered as economically advanced nation. Although India's economy is among the 11 largest, it is considered as one of the poor nations in the world. Many international organizations put 1 in every 3 people in India as poor; this figure comes to 1 in every 2 among Odisha people and 3 in every 4 among Kalahandi people. This means Kalahandi is an economically poor region in the nation.

India followed socialist inspired policies for its economic development immediately after independence. Many sectors included state ownership, extensive regulation and red tape which isolated India from rest of the world economy for which Indian economy grew only by 1% growth rate for next three decades after independence. This could be one of the many

reasons for which India remain a poor nation even after 60 years of independence. In 1980s, India slowly opened up but in 1990s fundamental reforms were brought through economic linearization. In 2000s India has progressed towards a free market economy and poverty in India is slowly declining.

The economic progress of India in post independence period was not uniform among various regions. Some of the states had seen much more economic development compared to other states. States that encouraged industrialization, commerce and human resource development along with agriculture performed better than those states which were largely dependent on agriculture only. Odisha is one of the poorest states in India as per economic development. The poverty in Odisha is even more than some of the African countries *such as Malawi*. The population of Odisha is largely dependent on agriculture where substantial number of Odisha's population is poor. Despite a long coastline and rich mineral resources, since decades Odisha was unable to explore its industrial activity except few cases like SAIL Rourkela, Paradeep Port, and HAL Sunabeda etc. Such industrial development largely helped to establish modern towns like Rourkela, Paradeep, Sunabeda, etc whereas growth of some of the oldest municipalities in Odisha such as

Bhawanipatna was sluggish due to lack of any industrial and/or major commercial activity in the region. Within the state of Odisha, again the economic development was not uniform. The development was largely confined to coastal districts such as Cuttack, Bhubaneswar, Berhampur, Balasore etc and Sambalpur, Rourkela and Angul region. Regions without any major industries and totally dependent on agriculture like undivided Kalahandi district remained as backward during this period, though in pre-independence period Kalahandi region used to be considered as a rich land.

IMAGE OF KALAHANDI

Presently Kalahandi is a well established name not only in Odisha but across the nation as most backward pocket in the country. During 1965-66, 1974-75 and 1980s Kalahandi name got national newspaper for repeated drought situation that broke the economic backbone of the cultivators. Kalahandi name stroke front page of the national newspaper for *starvation death, child selling and acute poverty* in 1980s. Since then Kalahandi name became associated with backwardness and **Kalahandi Syndrome** was defined by social scientists for “starvation in plenty”. Kalahandi name further got highlighted when late Prime Ministers Indira Gandhi and Rajiv Gandhi visited the region and gave few nationally popular quotes. Rajiv Gandhi’s popular quote “*when a rupee is sent from Delhi, people in Kalahandi receives only 10 paisa*” is still use to measure the corruption level in the nation. Similarly, very recent quote of Rahul Gandhi as the “*sipahi (or soldier) of Kalahandi at Delhi*” and comparison of Pururlia with Kalahandi received lots of media attention. There are many writers, philosophers, social workers, journalists, politicians, etc. at the national level still continuing to use the name of Kalahandi in literature, articles,

journalism and reviews to showcase backwardness and/or starvation death.

The image of Kalahandi is such that people think twice before making their judgment. For example, once the author was asked by Professor in a reputed cancer institute in Chennai that “*how do people like you survive when there is no water in Kalahandi*”. Even one time the author astonished when an army commander commented that “*he was not looking like a person coming from Kalahandi rather from Delhi*”. The media impact on image of Kalahandi among general mass is so bad that common people relate Kalahandi very often with the image they have seen in newspaper or TV channel. The backward part of Kalahandi has been so much exploited in the media that the rich and positive part of Kalahandi is put aside. Life of middle class people in Kalahandi is hardly understood in the national level. On the other hand many awards have been conferred to various people who have done literary work, journalism and movie taking into account of backward and starvation image of Kalahandi. In 2000s, Kalahandi name also got associated with controversial project by Vedanta Aluminum Limited (VAL) in Lanjigarh for breaking forest law, tribal right and environment. Despite different opinions VAL project have been going through rough weathers. However, the positive and rich aspects of Kalahandi in terms of agriculture, forest resources, culture, music & dance, history etc were rarely received media attention at the national level.

LOCAL INVOLVEMENT IN ECONOMIC DEVELOPMENT

Just like Roman built Rome, Kalahandi could ONLY be economically developed by people of Kalahandi. No foreigner comes to build

the nation except its citizens, so the expectations of local people of Kalahandi should be clear that the region will never prosper without the participation and vision of local people. This has been proved in many occasions. All the major projects such as Indravati Irrigation Project, Lanjigarh road – Junagarh railway lines, NH 201 & 217 passing through Kalahandi, Government College of Engineering, Kalahandi and Agriculture College at Bhawanipatna etc. at the local level were possible only by local initiatives, participation and strong public demands at the local level. In a democratic structure of Governance, participation of people plays the most important part. Perhaps lack of general awareness among local people cost negatively towards economic development of any region. Though backward image of Kalahandi was fruitful to get some special benefit on poverty eradication at the Government level, private investors were largely discouraged and skeptical on Kalahandi due to the same.

In today's world marketing and business environment is highly desirable for the economic development of any region. Different nations in the world and various states in India are trying their best to attract private investment by making their respective regions business - friendly. In the past few decades developing countries like China, Egypt, Vietnam, Russia, etc have revised their policies to attract investment and make a good investment atmosphere in their respective countries and found to be successful. Although India has adopted the same trick lately, due to democratic and social structure of the nation the progress has been relatively slow in comparison to country like China, but the nation has still achieved a higher growth in 2000s which is helping India to build its infrastructure and reduce the poverty. Though growth rate of poor states like Bihar, Odisha etc in last couple of years has been good, it is the states like Gujarat, Karnataka, etc

who are much ahead than states like Odisha, West Bengal etc in generating investment atmosphere and business climate in the country during past decades, thus poverty level in these states are much less compared to Odisha and Bihar. Despite adopting mining, metal and service based policy recently, Odisha is facing stream opposition due to lack of understanding business climate among local people because of it's poor education and poverty, thus making reform and open market policy hard to implement time to time.

In this respect Kalahandi do suffer as there are only 1-2 major companies who have really shown interest to invest in Kalahandi, out of which VAL's investment in the region has been a controversial project in the nation and progress has been slow. The company is losing instead of making profit which put a question mark on industrialization of Kalahandi. Indeed there are justified issues among local people against VAL project but at the same time the project brought many national and international headlines spoiling the image of Kalahandi for private investors as per many business analysts in the country. In one side the environmental, forest law and tribal right associated with the project is understood, on the other side it has already given a negative business climate for outside potential investors to invest in Kalahandi when Kalahandi is still in need to overcome its backward image to attract private investors. Private companies are always excited by positive atmosphere rather than negative & backward image. Most of the private business houses in India are concerned that if they will invest in a backward place like Kalahandi they may not get their money back. Such concern is not true, especially in Kalahandi having rich resources; however, backward image of Kalahandi makes everyone outside the region feel that the whole region has nothing to offer except drought and poverty. The image of Kalahandi is

though beneficial for implementing Governmental poverty eradication program, it is simultaneously discouraging private investor to come here when the local investors are usually limited to establishing rice mill. This is the greatest challenge Kalahandi has been facing since 1970s while attracting industrialization and conducting business and commerce.

Kalahandi has plenty of resources which can be its strength for attracting investors to the region. It has rich history, culture, dance & music, and strong agriculture & forest resources. However, one has to accept the fact that only agriculture has never made any region prosper whereas small scale farming may help to make a starving person to be marginal poor. To overcome starvation and acute poverty Kalahandi needs directly agriculture & horticulture supported by animal husbandry and indirectly industries to make the region prosper in education, health, infrastructure and commerce that will boost employment opportunity for the poor and middle class people. For the development of Kalahandi the rich resources in the region can be marketed to get private investment whereas the weak poverty part can be sold to get Governmental aid.

MARKETING THE STRENGTH

1. Strength in Agriculture

Kalahandi is an example of disparity and contrasts which also exist in many part of developing/underdeveloped world. It is famous for famine and starvation deaths whereas the same district is rich with agriculture. Basically Kalahandi region is agriculture based society since centuries. In pre-independence period Kalahandi was substantially producing rice, pulses and food grains apart from forest resources. Rice, pulses, cotton, oilseeds, meat and forest products from Kalahandi

is historically well known in Odisha. Undivided Kalahandi was the second largest food surplus district in Odisha after independence of India. Dharamgarh sub-division was historically known for rice production in Odisha. During Bengal famine Kalahandi alone had sent 100,000 tons of rice. After implementation of Indravati Irrigation Project in 2000s, most part of Dharamgarh sub-division is witnessing rapid agricultural growth. The irrigation project not only boosted rice production in the region but also encouraged highest number of rice mills in Kalahandi among the districts in Odisha.

Presently the world and India faces various challenges in agriculture. The demand of food will increase as the population is ever increasing and the agricultural land is decreasing. In India population is ever increasing and cultivated area remains the same. Indeed, with ongoing industrialization the forest and cultivated area may further decrease. The demand of food grain will not only increase due to population growth but also pressure on yield grains from cultivated area would enhance. India's food grain production doubled from 1973 to 1999 more due to yield grains rather than expansion of cultivated area. Farmers in India need to produce more food grains from less cultivated area in future making farmers largely depending on proper irrigation, modern technology, instruments, fertilizers, pesticides, etc in addition to marketing, storage, food processing etc. The challenges are also in disaster management such as floods, droughts, cyclones, earthquakes etc. Increasing demand for large food and agriculture products arising due to high population and income growth requires agricultural intensification. This would not only boost yields but also the income of farmers but also increase the private investment in this sector. Agricultural intensification can be achieved by

giving better attention to (a) Intensive Irrigation, (b) Diversification of Agriculture and (c) modern Technology and Research.

In Kalahandi diversification of agriculture can be accomplished through cash oriented farming. Beside rice, cultivation of other agricultural products should be encouraged. Such agriculture products may include Cereals, Coarse grains, Sugarcane, Cotton, Pulses, Oilseeds for bio-fuel production, Soybean, Sunflower, Maize, Vegetables, Spices, Garden spices, Ginger, Garlic, Mustard etc. Horticulture may also provide alternative to agriculture. Fruits varieties having good commercial values could be encouraged for national and local markets. The suitable fruits varieties for Kalahandi climate are Mango, Guava, Banana, Lemon, Sweet lime, Pomegranate, etc. The climate of some part of mountainous region such as Thuamul Rampur, Lanjigarh etc could be suitable for Orange, Apple, Grapes, Strawberry, etc. In today's world flowers have great demand for export market and many developing countries are exporting flowers. This may bring cash to farmer. Beside that Kalahandi was known for high quality animal products, which has declined a bit recently. Odisha market has good demand for poultry as the state imports egg & chicken from Andhra Pradesh for daily consumption. This could be good opportunity for the farmers to develop local market. Though piggery is not popular in India, this market is internationally very attractive for export. Pack animals has good domestic demand. Livestock could be of local and domestic demand.

Private party can be encouraged to come forward and invest in Kalahandi to develop agriculture and food processing industries. Private investment is also in need to establish fish seed farm for fisheries, develop fisheries cooperative

society and train local farmers. Similarly silk farming or sericulture has also good potential for development in the region which can be done by encouraging farmers and developing the market through private investment. India has great potential for dairy products. In coming years, package dairy products will be of great demand in domestic market as the market has just started growing. Kalahandi region needs to introduce best breed for better milk production and support dairy farming through cooperatives whereas private investment is required for setting up processing and packaging industries for Yogurt, Butter, Cheese, Packaged Milk etc.

2. Opportunities in Food Processing Industries

Large crop and material base in Kalahandi region offers a vast potential for agro processing activities. Setting up of food parks for providing added incentive to develop Greenfield projects in large part of the district is possible which will increase the income levels and change consumption patterns by favorable helping demographic profile and changing lifestyles. Kalahandi is an agriculture land and has enormous potential in agriculture and food processing. Completing upper Indravati and other irrigation projects will put Kalahandi in agriculture map of state as well as in the nation. Kalahandi is among the top three rice producing districts in Odisha. Kalahandi tops in Cotton production in Odisha. It also tops in a varieties of pulses. It is rich in forest resources and fruits. Local enterprises should be encouraged for small scale industrial growth such as pickle, can packaging, sealed packaging etc whereas the region has also potential to attract large scale investment from outsiders such as:

2.1 Agriculture Park: Dharamgarh sub-division is emerging as major rice and pulses producer in the region. An agriculture park should be established in Dharamgarh sub-division.

2.2 Sugar Factory: Reviving Sugar Factory in Junagarh block and Bhawanipatna.

2.3 Pulse Processing Industry: Soil of Kalahandi is good for pulses which can be explored in industrial scale. A pulse processing industry could be set up in the region.

2.4 Cotton Processing Industry: Kalahandi, Balangir and Rayagada are top cotton producers in Odisha. As Kalahandi is located in the central place of above three districts, it could be an attractive place to establish cotton processing industry.

2.5 Oil Processing Plant: Sunflower oil has great potential in the domestic and international market. With increase in growing sunflower in KBK region, private party may be encouraged to establish such plant.

2.6 Corn Processing Industry: Recently there is an increase in corn production in the region. Corn is second largest produced crop in the world and has a great market.

2.7 Bio-fuel Industry: *Mahua, Jatropha and other oil rich seeds in Kalahandi* can be used for bio-fuel or bio-diesel production. Such industry can be possible if farmers would go for cash oriented farming for bio-fuel.

2.8 Textile Park: Kalahandi is one of the major producers of good quality cotton, a Textile park for cotton processing may be established in Kalahandi.

2.9 Storage & Market: Many of the agriculture products can be made sealed and/or

can package during cold storage and could be sent for export or national market to give local farmer maximum benefits in the national market. This will generate an export oriented market for local farmers like happening in Punjab such as processing and packaging should be done by establishing local enterprises for national and international market. These package products might include Can Corn, Rice Noodles, Basmati Rice, Sunflower Oil, Mustard Paste, Turmeric Powder, Chili Powder, Garlic packet, Tomato Puree, Tomato Catchup, Frozen products such as cabbage, green peas, Rice and pulse packets, Fruits Juice Packets, Vegetable Juice etc.

2.10 Central Processing Centre: Kalahandi tops in the state of Odisha in producing cotton and pulses. It is among the major three rice producing districts in Odisha. However, due to unavailability of proper storage facilities and marketing, the poor farmers bear a huge loss every year. A Central Processing Centre with need based common infrastructure required for integrated cold chain, value assessed center, processing and packaging center, environmental protection systems, quality control labs, trade facilitation centres, etc are required in Kalahandi through Ministry of Rural Development, Govt. of India.

2.11 Mega Food Park Schemes: As Kalahandi is major agriculture producing district in KBK and is the central district among all KBK districts, a Mega Food Park Scheme should be allotted to Kalahandi for KBK region in the line of North Eastern state and hilly region. KBK region is considered at par with hilly states and north eastern states in irrigation. Therefore, Kalahandi region should also be considered at par with North Eastern states and Hilly regions in the country while implementing various schemes under Ministry of Rural Development.

3. Strength in Forestry

Though investment is for long term which small farmers may not be able to afford, plantation of forest wood for industrial purpose may give a handsome return to long time investors in this sector. Forest based products like Mahua, Kendu leaf, wood, timber and bamboos are also contributing local economy largely. Kalahandi supplies substantial raw materials to paper mills in neighboring Rayagada and Jeypore. KBK and Kandhamal region is famous for forest and forest products. Bhawanipatna is situated centrally among KBK-Kandhamal districts and it may afford forest and wood based industries in the region.

3.1 Wine or Food Processing Industry:

Mahul flower is often used to prepare local liquor. Since liquor brings social troubles at the local level, producing local liquor should be stopped and a food processing or wine industry should be established in Kalahandi for export market which will give employment and better price for those poor people who collect *Mahul* flower from the forest. Since selling in local market will not be allowed, it will not affect society negatively rather those poor tribal people who collect *Mahul* flower would be benefited so are the youth for employment. Experts believe wine produced from *Mahua* could give a better taste and appeal international market.

4. Opportunity in Gemstone

Kalahandi has rich gemstone deposit which includes cat's eye, sapphire, ruby, garnet, crystal, topaz, moonstone, diamond, tourmaline, aquamarine, beryl and alexandrite etc. The distribution and occurrence of precious and semi-precious gemstones and other commercial commodities of the region have found place in

accounts of Panini (5th century BC), Kautilya (3rd century BC), Ptolemy (2nd century AD), Wang Chuang (7th century AD) and Travenier (19th century AD). Till recently Kalahandi along with Balangir supply gem stone for handicraft work that can be found in Delhi Haat. Jiligndara in Kalahandi has one of the largest ruby deposits of Asia as per Geological Survey of India. This can be exploited for handicraft and to set up private and government Gemstone polishing center and Jewelry industry in the region.

5. Strength in Industrial Potential

Bhawanipatna as potential business hub in KBK

KBK region has been in news for last four decades for all round underdevelopment in India. Kalahandi, Nuapada, Balangir, Subarnapur, Koraput, Malkangiri, Rayagada and Nawarangpur Districts of Odisha is officially known as KBK districts, however, recently it is found that the adjacent districts to KBK region like Kandhamal, Boudh, Gajapati and Bargarh (Padampur sub-division only) districts are also equally underdeveloped. Since the whole cluster is a multi-facet backward region, both central and state government have been trying to improve the region for last four decades, but the region still lagging behind the mainstream. Since years our social scientists have been debating it, but it's the fact that only agriculture would never solve all these social problems and both industrialization and agriculture are required for KBK region to come out from this black hole. State government has offered special tax benefits for industrialists to establish industries in KBK. However, it is not enough to bring investment to a backward region like this.

Odisha was ignorant about business opportunity by/from common man's commercial

activities. Visakhapatnam provides health care and education facilities not only for eastern Andhra Pradesh but for the whole Southern and South Western Odisha. Majority of the revenues generated in Visakhapatnam in health comes from Odisha fuelling growth in medication and hospitality sectors in the local community, thus it expands the VAT and other revenues for the concern state government and increase employment opportunity for the local community there. Similarly Raipur is the common man's commercial center in textiles, home, agricultural appliances and machineries for the whole KBK and part of western Odisha regions. Money earned in Odisha is finally spent in neighbouring states for medication, education, textiles, home and agricultural appliances and machineries making Odisha a big loser.

The amount of business done by Odisha people in these two neighbouring cities may relatively look a small portion compared to the whole state, however, when counted in total common Odisha people in the bordering districts of Andhra Pradesh and Chhattisgarh do spend a large sum directly or indirectly in Visakhapatnam or Raipur for above reasons. Raipur and Visakhapatnam could establish themselves as commercial centres for common man in last two decades largely by fulfilling the requirements of people living in the bordering districts of Southern and Western districts of Odisha. Its also true that major bordering towns of Odisha like Berhampur, Sambalpur, and Rourkela could make a mark but it was only up to the district level without impacting largely on the inter district or inter state commercial success. In fact in health sector Visakhapatnam became so popular among Odisha people that popularity of Sambalpur and Berhampur medical college hospitals among common man degraded in last decades. This was

further helped by poor health services in these medical colleges during this period.

The main reason of the failure of Odisha towns to be commercial centres was due to poor infrastructure as there is no direct and proper railway and road connectivity to the state capital from the KBK and other bordering regions and secondly failure of service centres and downstream industries in Odisha. In a positive development recently state government has taken initiatives to establish many private engineering & medical colleges and universities in Odisha, revive the SSI sector of Odisha, promote ancillary and downstream industries in the metal as well as non-metal sectors, and propose various clusters like engineering, pharmaceutical, rice, cashew, kewda, textile etc in Odisha. Beside all these initiatives it would be wise and visionary to establish a commercial business hub at Bhawanipatna, a central location on South Western Odisha comprising KBK and Kandhamal districts, keeping common man's commercial requirements in health, education, textiles, home appliances and machineries, agricultural machineries, construction hardware, etc in KBK-Kandhamal region and connecting it directly by road and railway with the major commercial business centres at Cuttack-Bhubaneswar, Raipur and Visakhapatnam having direct access to International Airport and Port.

5.1 Mining and Metal: KBK has abundant bauxites, graphite, manganese, limestone, quartz, etc., but these resources are limited and not in the scale of Odisha's North-Western region that has huge deposits of coal, chromites, iron ores, and other minerals. Coal is the basic need for most of the mineral and mining based industries as well as for common man's use, for which India is in great need of coal. Therefore, most of the proposals coming to Odisha in mining and mineral

based industries are either in the coal rich North-Western region or in the costal region which is proxy to port for export market. KBK which has neither coal deposits nor proxy to any port in Odisha have unimpressive industrial proposals in mining and mineral based industries. The government has enough proposals for steel for a state like Odisha, so now onwards it should focus on their proper implementation and make a new rule that any new proposal in steel industry will be considered only if it would be located in KBK-Kandhamal region. For downstream industries NALCO, Vedanta Alumina Ltd, and Utkal Alumina Ltd should be encouraged to establish industrial park in the region. Vedanta Alumina Limited (VAL) has made major investments by establishing an ONE MTPA Alumina Refinery and 75 MW Captive Power Plant at Lanjigarh. Though this project has received criticism from environmentalists and Union Ministry of Forest and Environment (MoFE) in August 2010 rejected earlier clearances granted to a joint venture led by the Vedanta Group company for mining bauxite from Niyamgiri hills, the company's proposal for expansion of the refinery to 6 MTPA, which would have made it one of the largest refinery in the world, was lately being again positively discussed by MoFE. The issue is presently in the court. In such case VAL could be encouraged for establishing downstream and manufacturing industries in Kalahandi region. Other possible industries could be Ferro Silicon Industry, Steel Plant, Granite and Graphite plant and Thermal Plant. Many industrial houses are interested to establish thermal plant in Odisha, especially when Angul, Jharsuguda and Dhenkanal regions are already saturated with such industries. The focus is now on Sonepur, Balangir, Boudh, Naygarh, Kendrapada, Bhadrak, Cuttack etc. Kalahandi has free land, available water and railway link for such project such as around Junagarh,

Dharamgarh, Karlapada, Kesinga etc. A barrage on Tel River near Dharamgarh region may help to establish a large thermal plant in Dharamgarh in the line of proposed thermal plants in Titilagarh/Sonepur region.

5.2 Knowledge Based Industries: Higher Education is primary requirement for developing knowledge based industries. The possibility for establishing higher educational institutions in Kalahandi has been already discussed earlier^[1]. The state and central government could establish at least IT park in Bhawanipatna for the whole KBK region for IT, BPO and KPO.

5.3 Biotechnology Park: Integration of development in contemporary technologies such as electronics, material science, bio-technology etc. offer vast scope for rapid improvement and progress. As such for biotechnology KBK region has great potential. Government and private parties should be encouraged to set up industries based on forest (plant) and agriculture biotechnology in this region. KBK region could be a very good source of ethanol from its forest product, for example, Mahul (a local name forest flower) from which wine is cooked locally could be a source to make wine and beer in brand for export market. This also can be a source for ethanol for bio-diesel application.

5.4 Manufacturing Industries: As Odisha and Chhattisgarh are metal and mineral rich state, downstream industries for machinery parts could be possible when Kalahandi is close to Raipur region and Gopalpur port. Auto parts industry, Auto and Car manufacturing industries, Chemical industries, and Pharmaceutical industries, Polymer industries and Fertilizer industries are few possibilities.

5.5 Paper industry: The straw after harvesting paddy could be used as raw materials for paper industries instead of traditional forest

based raw materials. JK Paper mill or any other concern, which are already depending on Kalahandi region for raw materials, may be invited to establish paper industry.

6. Exploring Tourism Potential through Rich History, Tribal Culture & Beautiful Nature

A well civilized, urbanized and cultured people inhabited Kalahandi region around 2000 years ago^[2-3]. In Kalahandi World's largest celt of Stone Age and largest cemetery of megalithic age have been discovered. The pre-historic site and painting of Gudahandi^[4] is well known in the state and national level. This proves the region had cradle of civilization since the pre-historic era. Asurgarh in Kalahandi was one of the oldest metropolises^[2] whereas other one was Sisupalgarh. Sisupalgarh located near to Bhubaneswar is being well marketed by the local people there and State Government to attract many tourists, but Asurgarh rarely received any such special attention. Kalahandi is also boosted with other historical forts and urban town such as Budhigarh (ancient period), Amthagarh (ancient period), Belkhandi (ancient to medieval period) and Dadpur-Jajjaldeypur (medieval period). This region has contributed greatly towards the Indian culture and temple architecture. Temple of Goddess Stambeswari at Asurgarh, built during 500 AD, is a perfect example where the first brick Temple in Eastern India was built. Sanskritization in Odisha was first started from Kalahandi-Koraput region. Earliest flat-roofed stone temple of Odisha was built at Mohangiri in Kalahandi during 600 AD. Temple architecture achieved perfection at Belkhandi in Kalahandi and then traversed to Ekamra, present Bhubaneswar, along with the political expansion of the Somavamsis during the 1000–1100 AD. These famous historical sites in Kalahandi could be renovated and rebuilt to attract tourists like being done in

developed countries. The rich tribal culture, Ghumura, local dance and music along with natural beauty in Kalahandi would add the ingredients for tourism industries.

MAKING WEAKNESS AS ADVANTAGE

The negative side of backward image of Kalahandi is that it may kill its tourism potential and discourage private investment; however, the positive side it has is to get sympathy from Government initiated developmental projects, NGOs and activists work.

1. Developing Irrigation Infrastructure and Hydroelectricity Project

Lack of proper irrigation and natural calamity like drought in 1980s and subsequent period made this region infamous for starvation death, child selling etc in and outside the nation. Kalahandi and Nuapada have 101,448 hectare and 21,455 hectare irrigated area respectively. Both the regions have much less irrigated area in percentage wise compared to coastal Odisha districts such as Bhadrak, Balasore, Cuttack, Jajpur, Khordha, Puri and Ganjam districts. At the same time Upper Indravati Irrigation project was visualized much earlier in late 1930s (before the Hirakud dam) but could not be implemented due to political apathy towards this region. If Upper Indravati Irrigation project would have been implemented in 1950s then nobody would have known Kalahandi for starvation death as this region already had a strong agriculture based economy. This should be argued to get benefit from other Governmental irrigation project. For example now only 40% upper Indravati irrigation is completed. This should get prior importance to be completed by 2015. Similarly Koksara lift irrigation project should be expedited to be completed by 2014. A joint construction of new

dam in Tel river in Nabarangpur district by Odisha and Chhattisgarh Governments may also irrigate lands in Koksara blocks as well as parts of Chhattisgarh. Major Irrigation Projects in undivided Kalahandi that should be constructed are: Lower Indra Project, Ret Irrigation Project, Roul-Uttai Multi-purpose Project, Upper Udanti Dam Project (near Gorle in Sinapali block), Lower Udanti Barrage Project (near Sinapali), Barrage in Udanti near Kegaon, Upper Sandul Irrigation Project near Sirpur, Lower Sandul Irrigation Project near Duta, Upper Tel Barrage near Chandahandi, Lower Tel Barrage near Kesinga, Upper Jonk Irrigation Project, Sundar Irrigation Project, Saipala Irrigation Project, Kharkhara Irrigation Project, Biswanathpur Irrigation Project, Sahajat Irrigation Project etc. Kalahandi region has the high potential for generating electricity through hydroelectricity project and it needs construction of new dam. The state and central governments should encourage establishing dam for hydroelectricity and irrigation purposes through various schemes.

3. Benefiting from Government Aid for Poverty Eradication

Being a backward location various central and state Government programmes such as IAY (Indira Awas Yojana), MGNREGS (Mahatma Gandhi National Rural Employment Guarantee Scheme), RGGVY (Rajiv Gandhi Grameen Vidyutikaran Yojana), IAP (Integrated Action Plan), Biju KBK Yojana, KBK Project etc should be properly implemented and initiated in the region. The schemes may also include World Bank and other private funding through NGOs.

4. Infrastructure Development

Infrastructure is key to economic development as it not only brings basic

development in the region but also provides huge number of employment and generates business in the local level. Special effort could be made to get maximum benefit of constructing new bridges, roads on PMGSY (Prime Minister Gramya Sadak Yojana), Railway link, and state and National Highways.

5. Educational Institutes

Education is basic fundamental thing in generating human resources development. Technological excellence and human resources development are the main *mantra* towards prosperity in modern days^[5]. Many of the local problems in health (doctors & hospital) and education (lecturer & teacher) are largely due to lack of human resource in the region. Solution to problems in Kalahandi is to establish more number of higher educational institutions in Kalahandi which will bring effectiveness to the local education, bring opportunities and make Kalahandi as a hub for the higher education in KBK and South-Western Odisha. Development of higher educational institutions will also help to boost service and knowledge based industries in the region, such as health and hospital industries, IT and ITES industries etc. The possibilities have already been discussed earlier^[1]. Emphasis could be given to establish University (state and/or central), Horticulture College, School of Animal Husbandry, School of Forestry, Central Agriculture University, Rural/Regional University, Indian Institute of Forest Management, branch of IIT/IIM, Cotton Research Centre in Bhawanipatna, Branch of Rice and Pulse Research Center, Apparel Training and Design Centre etc in Kalahandi. In higher and technical education Central Government sponsored Food and Craft Institute (which is being upgraded to a Hotel Management Institute) is established in undivided Balangir district and Central University in

undivided Koraput district, whereas nothing has been established in Kalahandi so far.

6. Health & Hospital

Similar efforts should be made to set up Medical College & Super-Speciality Hospital, Pharmacy College, Nursing College etc through various Government initiatives.

7. Public Sector Establishments

Due to industrial and infrastructure growth, many small places emerged as urban city centers in past decades in Odisha such as Bargarh, Jharsuguda, Brajarajnagar, Rayagada, Barbil, Rourkela, Jeypore, Sunabeda, Paradeep, Bhubaneswar, etc. Kalahandi had been lacking for any such major industrial development since decades by Government as well as private sectors. Among major KBK districts undivided Koraput has central government funded industries likes NALCO & HAL where as undivided Balangir has got Ordinance factory, where as undivided Kalahandi has not received any Central Government funded industries. Perhaps Central Government would take positive step to establish the long standing demand of a Railway Wagon Factory. A East Coast Railway division is also needed at Bhawanipatna/Kesinga/Lanjigarh road for the railway development of KBK-Kandhamal region. State Government may build a convention center, national stadium, Information Technology Park, KBK headquarter, Engineering and Medical divisions, Regional Divisional Commissioner office, new RDC at Bhawanipatna (Kalahandi is central district in Southern RDC), DRM office in Bhawanipatna, FCI sub-regional center, Paramilitary and military organization center, up-gradation with full staff for Doordarshan and Radio centers and Mini-sachibhalaya in Kalahandi.

CONCLUSION

Kalahandi is a rich land despite the fact that poverty is one of the serious concerns in the region. For the economic success and prosperity of this region, the people need to be proactively involved by generating a favorable market, strategy and policy for economic development and upliftment of the region and its people. This can be achieved by strengthening the positive image and exploiting the resources to attract private investors, while the weakness of Kalahandi & its starvation image may help to get Governmental aid. Boosting investment in the region is primary and utmost important for economic prosperity and reducing poverty in Kalahandi.

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Role of Media in Disaster Reduction

Hemanta Kumar Nayak

National Meteorological and Hydrological Services (NMHSs) have a unique responsibility in Early Warning System (EWS) of States. Their responsibility is mostly concentrated on forecast and warning services both for natural and some of the manmade disasters. In any case, NMHSs should always work in a close co-operation with other organizations involved in a wider state EWS. The role of NMHSs could be demonstrated on the most typical case of EWS in the region-flood forecasting and warning. The state EWS involves, besides NMHS, parts carried out by other authorities such as river basin, civil defence outfits, fire brigades and local administration at various levels. Besides the “professional way” of dissemination of warning also media, especially of electronic type, can play important role in dissemination of warnings to the public. This contribution will concentrate on the role of media in Early Warning leaving their importance in other parts of general disaster management and prevention e.g. giving general information to people about the danger of disasters, how to prepare to be able to face disasters etc.

In many countries rather detailed schemes of an overall disaster management have been released often without stressing the importance of “switching on” of such systems by issuing the first warning. Such warning alerts all responsible bodies in the state EW System. If the first warning is sufficiently accurate and timely then a successful alert and response of responsible

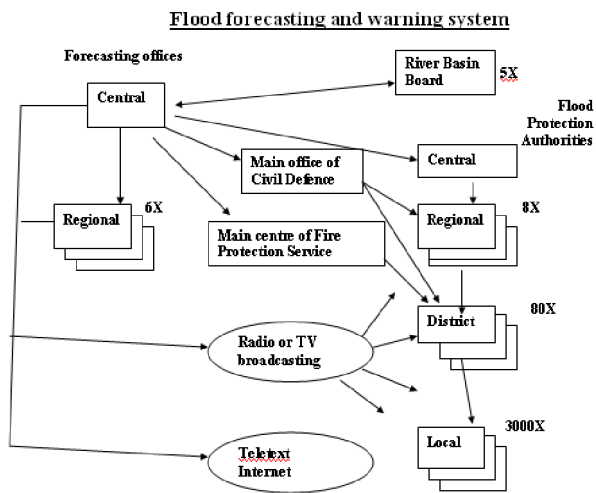
authorities and of the population can be achieved. Moreover, the follow-up dissemination by the media and the mitigation run usually smoothly. On the other hand, an inaccurate or delayed first warning could lead to a panic and increase the damages and losses caused by disaster. As a result, the credibility of an NMHS could decrease significantly. Good preparedness and functioning of NMHS is always critical as “nobody” alarms NMHS!!!

Dissemination of flood warnings

Warnings issued mostly by NMHSs are in all cases disseminated to the public via “professional” part of distribution system (covered by a 24 hour/day service) by means of Civil Protection and/or Fire Protection Services, flood protection authorities, regional and local administrations. NMHS should always be in a direct contact with dispatchers of river basin boards.

However, in some cases, when rapid dissemination to public is urgent, electronic media (TV, Radio, Internet) can advantageously be used for warning dissemination from NMHS directly.

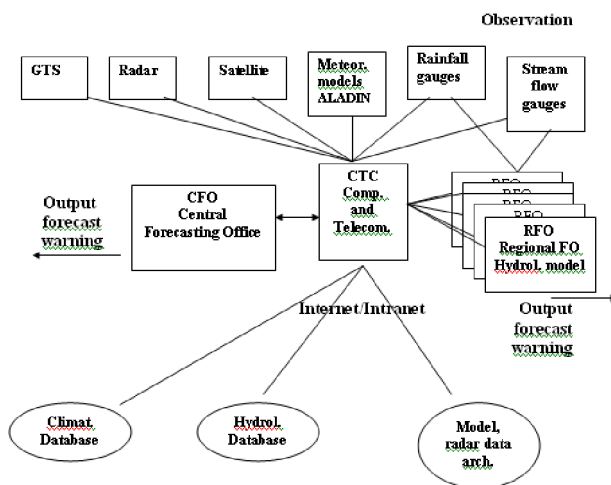
A continuous contact and cooperation of NMHSs with national and local TV and radio stations as well as newspapers should lead to a smooth functioning of the EW System. Detailed conditions for direct broadcast of warning from forecasting offices in Radio and TV should preferably be included in an agreement between



NMHSs and media. These problems have been discussed many times.

It is rather difficult to issue warnings in media in the case that the threat to affected communities is imminent only. At the same time, so-called under warning should also be avoided. In many countries, the concept of a “watch”, “alert” or “advice” has been employed preliminarily to the issuance of warnings.

Very important is the use of a single official issuing authority for warning (single voice principle) to avoid public confusion-it is recommended that NMHSs should always act as such official authorities. Then, warnings and



forecasts issued publicly by commercial providers would be consistent with those issued by NMHSs.

When warnings should be disseminated quickly then electronic media like Radio and TV have to be preferred.

Radio Broadcast

The Indian meteorological Institute can interrupt current radio broadcast and present fresh warning message. Other possibility is to utilize standard broadcasting sequences delivered directly from forecasting room of IMI several times in morning broadcast. During some disasters also extended news showing the situation and warning for further development of the disaster and direct talk with meteorologist from forecasting office could also be used. Any way, an active involvement of professionals and specialists in a field connected with disaster (meteorology, hydrology, seismology, etc.) should be recommended.

Television

With Indian TV another possibility for dissemination of warnings consisting of so called scroll with a brief warning appearing on the TV screen during a current TV programme could be applied in urgent cases and quickly approaching disasters. Before and during a disaster TV could advantageously show more sophisticated graphical products like radar and satellite images, precipitation forecast from numerical weather models in the form of images, maps in GIS showing flooded areas and predictions from hydrological models etc. Also interviews of meteorologists and hydrologists dealing with a current disaster and actual situation have always been very beneficial. Anyway, all presentation of warnings in TV and other electronic media should be done very carefully with precise wording. As big damages of property and especially losses of lives could often occur media reporters should be very careful and keep a certain standard in their presentations.

Internet

Finally, modern telecommunication and information means like Internet, Internet via mobile phones (W@P), SMS messages and warnings should also be applied. There might be a problem that users should be “active” and open “specific pages” first themselves to get warning or other urgent information. On the other hand, these modern means can be used with advantage for graphical presentation of warnings and other useful information not only for public but also for professionals involved in the whole EW System. In some cases also Teletext (accessible by more people than Internet) should be used for warning dissemination. Printed media like newspapers can be used to supply more detailed additional information-but they are generally too slow for direct warning in urgent and quick events.

Conclusion

It can easily be seen the role of media before and during disasters can often be important and very helpful. However, there have been occurring some drawbacks and mistakes which should be avoided whenever possible. For instance, the above mentioned and strongly recommended “single voice” principle have been violated many times especially by small media companies like local radios, TVs etc. Some media often present warnings not issued by NMHS but “produced” by reporters and their information suppliers !!!

Other problems might be connected with wrong timing of warning dissemination or very vague or incorrect localization of the event. Sometimes, graphical images have been incorrectly presented and explained to the public. Also wording itself plays very important role and should be done very carefully by taking into account not only technical and scientific aspects but also estimation of possible psychological effects on people in areas facing disaster. It occurs

very often that during important time media people present lot of irrelevant and temporary unimportant information instead of efficient use of time for better warning and more detailed explanation of the event.

It has always been recommended to prefer a presentation of positive aspects and side of the event showing good performance of rescue teams and other people involved instead of looking for sensations and pinpointing some drawbacks and errors in disaster warning and prevention. Such discussions should be left for later time after the event. Other problem might be connected with warnings and forecasts prepared by “amateurs” or unreliable sources and, as it has been stressed several times, “single voice” principle and use of warnings originating from NMHS should be used.

However, also NMHSs should care about proper and “up to date” forecasting and warning service capable of dissemination of warnings not only to official channels but also, when necessary, directly to media. In any case, efficient and well-defined crisis management system within a state including involvement of media should be used and backed up by related legislation. Precise definition of the role of NMHS in a state EW System and connection to a crisis management by a law and related norms should be preferred. However, NMHSs should be very active in this direction to find its place in a state Early Warning Systems. Only then, a sufficient financing of such services and technical and scientific progress of NMHSs can be ensured.

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Vignettes of Odisha in the Nineteenth Century: Bipin Chandra Pal's "Memories of My Life and Times"

Amiya Kumar Rout

Bipin Chandra Pal, "one of the mightiest prophets of Indian Nationalism," architect of Bengal renaissance, strode the country like a giant in the last quarter of nineteenth century and the first two decades of twentieth. Through the written word and the spoken, through a long life of suffering and sacrifice, an unrelenting adherence to principles he professed, and with a rare clarity of vision he awakened his countrymen to a consciousness of inner strength. Pal was conscious of the interdependence between society and the individual, and looking at his attempt as a reflection of the contemporary history beginning with the period immediately after the first war of independence of 1857. His autobiography reflects the impressions of a young perceptive mind of a transitional period, tremendous political upheaval and unprecedented wide turmoil led to total transformation of Indian life and thought.

The life of Bipin Chandra Pal reads like a fascinating realistic version of a political pilgrim's progress in the winding and unpredictable paths of our nationalist movement. If we shift our sight from general theoretical problems and sometimes hasty and sweeping generalizations about B.C.Pal, we realize that his ideas were not wholly patternless and that our notions about him are inexact. One may surmise that we can find clues to an understanding of Pal's ideas in his autobiography which reads like an open book with no embroidery of silken phrases. The melange of his memory was not written with any rhythmic

glory, though it reveals the solitary pain that gnawed his heart at the crossroads of his life and also glimpses into the contemporary social and political history. It is extremely hard to escape the dilemma of understanding Pal's Life's mission, his ideology, close to sympolitical (the term coined by Benedetto Croce), and the political waves raised by him at the regional and national level.

Every individual has a debt to his history – his family, socio-economic roots and political arithmetic of his times. B.C.Pal has remarkable sense of history and he believed, as he stated, in a discovery and in "a process of re-explanation, re-interpretation and readjustment". The autobiography of B.C.Pal is no doubt a unique composition and evidence of so many untraceable occurrences of the country in general and Odisha in particular. Inclusion of so many known and unknown facts, social happenings and events of remarkable importance connecting to urban and rural life under one platform is striking. The autobiography furnishes lively pictures of Odisha during 1879. Pal has depicted his compelling journey to Odisha owing to sharp differences of views with his father. He writes, "the breach between father and son had become by this time too strained for any reconciliation. I could no longer depend upon him for my expenses. I had, therefore, no option but to look out for some employment".

The first appointment which Bipin Chandra received was in 1889 as Headmaster

of the Cuttack Academy at Cuttack owned by a local Brahma gentleman. In his autobiography Pal has given a vivid description of Odisha, as well as of the city of Cuttack with photographic honesty.

“Odisha had not as yet been connected with Bengal by rail. People had during my boyhood and early youth to walk all the way from Bengal to Puri along the old pilgrim way mentioned in 16th century Bengali literature. In the seventies of the last century steamer communication had however been opened between Calcutta and the part of Chandabali in Odisha. My first trip to Cuttack was made on board the ill fated S.S. Sir John Lawrence, which was lost a few years later in the Bay of Bengal. It was a rickety old thing hardly seaworthy, and no one who had any experience of it had any cause for surprise when it went down with a full complement of passengers during the pilgrim season and not a sign could be traced of either its men or its materials. That was my first experience of the sea, and though it was winter time and the sea stood calm and placid almost like a lake, I did not entirely escape the discomforts of crossing the black water. We left Calcutta early in the morning and reached Sagar, the mouth of Ganges, at about sunset. It took about six hours to cross from here to Chandabali, which stands at the mouth of the delta of the Mahanadi.”

After twenty four hours of hazardous journey by canal boat Pal reaches Cuttack. Cuttack stands at the junction of the Mahanadi and its tributary, the Katjuri. Cuttack was the ‘Chief town’ of Odisha under Hindu rule. Commenting on the social life in Odisha, B.C.Pal remarks “when I went to Cuttack fifty years ago, neither the classes nor the masses there had developed any separatist provisional consciousness. Odisha formed then a part of Bengal Administration”. Pal tells us that the educated Bengalis had no conceit of provinciality

and looked upon Odisha “as much as their own mother country as they did upon Bengal proper”. Together with this, the rising generation of Odisha was also eager to study the Bengali Language and literature as they cultivated their own mother tongue. In 1841 the city of Cuttack had an English school. It was raised to a High School which was affiliated to the Calcutta University in 1868. In 1876, Cuttack was endowed with a full fledged college up to M.A. degree examinations of the University of Calcutta. The college was named after Mr. Ravenshaw, who had been popular commissioner of Odisha.

Pal’s Memories of my Life and times reflects all shades of activities of the Odia and Bengali societies i.e. art, culture, literature, religions and religious activities, social rights and festivals. Pal nostalgically echoes about the process of inter provisional fusion between Bengal and Odisha for more than five hundred years. Constant flow of pilgrims from Bengal to Odisha helped to spread the culture, literature and religion and religious temper. The movement of Shree Chaitanya exerted perhaps deeper and wider influence among the people of Odisha than even Bengalis themselves. The element of protest against Brahminical caste and ritualism of Chaitanya’s movement was soon overwhelmed by the influence of Bengal Brahmins, who captured even during the life time of Chaitanya, the leadership of the movement. The old process of interprovincial union or fusion was further advanced under British rule by the establishment of a common Administration over these two provinces. Regarding Odia language and literature Pal opines “my contact with Odia language and literature created the impression upon me that these represented only an ancient and archaic type of Bengali language and literature itself. The rising generation of Odisha were as eager to study the Bengali language and literature as they were to cultivate their own mother tongue.

B.C.Pal’s reminiscences of life at Cuttack and the vivid description of the city is quite

interesting. Cuttack was the nerve centre and principal city of all activities of Odisha under the British administration. It was the centre of intellectual and cultural life of the province. Ravenshaw College was the educational hub of the province. The most prominent public man in Cuttack was Babu Gouri Sankar Roy, the editor of Odia weekly "Utkal Darpan" and the Secretary of the Cuttack Printing Company. This company not only owned a printing press and the weekly newspaper, but also built a public hall, the Cuttack Printing Hall, in which was located a public library. This Printing Hall was a great influence in those days in the cultural life of young Odias; and it was here B.C.Pal became closer with the representatives and leaders of the new intellectuals and national movements in Odisha.

The school in which B.C.Pal was appointed as Headmaster was a private school. The private schools were springing up almost all over country to meet the demand for English education for our people. During that time the Government schools were comparatively more expensive than the private institutions. Public spirited young men, who had themselves received a fairly high education and who were moved by the 'new spirit of patriotism and public service', set the private schools among the educationists. One of the pioneers amongst the educationists was Babu Peary Mohan Acharya who had founded the Cuttack Academy. Babu Peary Mohan Acharya was a Brahmo. In inviting Bipin Chandra who too was a Brahmo, Babu Peary Mohan must have been moved by the desire to get a Brahmo worker in his town. Pal, being an ardent Brahmo, quickly picked up connections with other Brahmo leaders as well as people of social prominence. B.C.Pal writes, it was here at Cuttack that he entered public life as minister of the local Brahmo Samaj and went on lecturing on both social and political subjects.

As a Headmaster, Bipin Chandra was entrusted with the task of selecting students from his school for the Entrance Examination of

Calcutta University. Normally all Headmasters would do, Bipin Chandra also held the examinations test and certified only four candidates for appearing at the said examinations. After completing all formalities, B.C. Pal came to Calcutta for his Puja vacations. When he went back after the vacations, to his surprise he found that, his orders had been reversed by the proprietor. The candidates, who had been rejected by Pal, were recommended by the proprietor. To this Pal strongly reacted. He writes as 'it was a denial of my right and my authority as Headmaster which I could not possibly submit to. Immediately upon my return to Cuttack, I tendered my resignation and came to Calcutta'. With this resignation of Pal from Cuttack Academy, ended his first phase in his professional career, a school master "short as it was", wrote Pal, it was my first stepping stone to public life.'

Each age is a dream that is dying or one that is coming to birth. Everyone is a child of transitional period and embodies ideas of the past groping towards the future. B.C.Pal was a man of great intellectual force and high character, 'a born rebel' as maintained by an academic historian. He was indeed a born rebel, whether at home or in public life, with his uncompromising spirit he rebelled with his family, society, colleagues and friends for his cherished ideas. In the words of Dr. Rajendra Prasad, 'he was one of those pioneers whose life long efforts created the climate in which the struggle for freedom could be waged successfully, leading to the desired consummation, our political emancipation.' Posterity will judge and evaluate the extent of success of B.C.Pal achieved in his political life and in the freedom battle.

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