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**WE REMEMBER . . . .**



**BINODE KANUNGO (1912-1990)**

# Shree Shree Jagannathastakam



*Shri Shankaracharya*

KADACHIT KALINDITATA BIPIN - SANGEETI KABARO  
MUDAVIRI - NARI - BADANA KAMALA SWADA - MADHUPAH  
RAMA - SHAMBHU - BRAHMASURAPATI GANESHARCHITAPADO  
JAGANNATHAH SWAMI NAYANA PATHA GAMI BHABATU ME. (1)

BHUJE SABYE VENUNG SHIRASI SIKHI PUCHHANG KATITATE  
DUKULANG NETRANTE SAHACHARA KATAKHYANG - BIDADHATE  
SADA SHRIMAD BRUNDABANA BASATI LILA - PARICHAYO  
JAGANNATHAH SWAMI NAYANA PATHA GAMI BHABATU ME. (2)

MAHAMBODHESTIRE KANAKARUCHIRE NILASIKHARE  
BASAN PRASADENTE SAHAJA BALABHABRENA BALINA  
SUBHADRA MADHYASTA SAKALA SURASEBA BASARODE  
JAGANNATHAH SWAMI NAYANA PATHA GAMI BHABATU ME. (3)

KRUPAPARABARAH SAJALA JALADA SRENI RUCHIRO  
RAMA BANI RAMAH SPURADAMALA PADMA KHYAN MUKHOUH  
SURENDREI RAIRARADHYAH SHRUTI GANASIKHA GITA CHARITO  
JAGANNATHAH SWAMI NAYANA PATHA GAMI BHABATU ME. (4)

RATHARUDHO GACHHAN PATHIMILITA BHUDEBPATALEIH  
STUTI PRADURBHABAM PRATIPADA MUPAKARNYA SADAYAH  
DAYA SINDHUR BANDHUH SAKALA JAGATAM SINDHUSUTAYAH  
JAGANNATHAH SWAMI NAYANA PATHA GAMI BHABATU ME. (5)

PARABRAHMA PIDAH KUBALAYA DALOTPHULLANAYANO  
NIBASI NILADRU NIHITA CHARANOANANTA SIRASI  
RASANANDO RADHASARASAB PURALINGANASUKHO  
JAGANNATHAH SWAMI NAYANA PATHA GAMI BHABATU ME. (6)

NA BAIJATE RAJYAM NA CHA KANAKA MANIKYA BIVABAM  
NA JACHEAHAM RAMYANG SAKALA JANA KAMYANG BARA BADHUM  
SADA KALE KALE PRAMATHAPATINA GITA CHARITO  
JAGANNATHAH SWAMI NAYANA PATHA GAMI BHABATU ME. (7)

HARA TWAM SANSARAM DRUTATARA MASARANG SURAPATE  
HARATWANG PAPANAM BITATIMAPARANG JADAVAPATE  
AHO DINANATHO NIHITA MACHALAM NISHATAPADAM  
JAGANNATHA SWAMI NAYANA PATHA GAMI BHABATU ME. (8)

JAGANNATHASTAKAM PUNYANG JAHA PATHET PRAJATA SHUCHIH  
SARBA PAPA BISUDHATMA BISHNULOKAM SAGACHHATI. (9)





# GOOD GOVERNANCE





## **Activities of S.T & S.C. Development, Minorities & Backward Classes Welfare Department**

Orissa State occupies a distinct place in our country as it represents a unique blend of unity among various castes, communities and minority groups. There are 62 Scheduled Tribe communities, each one different from the other, and 93 Scheduled Caste communities in the State. The State has the privilege of having highest number (13) of Particularly Vulnerable Tribal Groups (PTGs). Both ST & SC together constitute 38.66% of the total population of the State (ST- 22.13% and SC-16.53% as per 2001 census).

The ST & SC Development and Minorities & Backward Classes Welfare Department functions as the nodal Department for the welfare and all-round development of Scheduled Castes, Scheduled Tribes, Minorities and Backward Classes. The basic objective of the Department is to formulate and coordinate policies, programmes, laws, regulations etc. for economic, educational and social development of these communities. The principal aim is to empower the principal stakeholders through their educational, economic and social development in order to build self-reliance, self esteem among them.

### **The Scheduled Area and Tribal Sub-Plan (TSP)**

About 44.70% of the area of the state has been notified as the Scheduled Area in accordance with the orders of the President of India, issued under paragraph 6 of the Fifth Schedule to the Constitution. The Scheduled Area in Orissa comprises the entire districts of Mayurbhanj, Koraput, Malkangiri, Rayagada, Nawarangapur, Sundargarh, and Kandhamal districts, R.Udayagiri Tahasil, Gumma & Rayagada Blocks, of Gajapati Soroda Tahasil, excluding Gazalbadi and Gochha Panchayats of Ganjam district, Kuchinda Tahasil of Sambalpur district, Telkoi, Keonjhar, Champua and Barbil Tahasils of Keonjhar district, Th. Rampur and Lanjigarh blocks of Kalahandi district and Nilagiri block of Balasore district.

### **Tribal Sub-Plan Approach**

The Tribal Sub-Plan (TSP) approach envisages integrated development of the Tribal areas, wherein all programmes irrespective of their sources of funding operate in unison to achieve the common goal of bringing the area at par with the rest of the State and to improve the quality of life of the Tribals. The original strategy was oriented towards taking-up family oriented income generating schemes in the sphere of agriculture, horticulture, animal husbandry, elimination of exploitation, human resources

development through education and training programmes and infrastructure development programmes. This tribal development strategy has been reoriented to cover the employment-cum-income generation activities thereto. The strategies more or less continue with refinement over the years with greater emphasis on tribal development.

### **Special Projects for Tribal Development**

The main instrument for achieving the constitutional objectives of welfare and development of Scheduled Tribes is the Tribal Sub-Plan, which is carried out through well planned out institutional mechanism. Besides, there are 21 ITDAs, which cover 55.46 lakh tribals (about 68% of the total tribal population) of the State. The remaining tribals live outside the Scheduled areas. Beyond the Scheduled area, there are 46 MADA pockets, 14 Clusters. The remaining tribal population of the State live outside the major project areas in the dispersed manner and are covered under the DTDP. In addition to this, 17 Micro Projects have been functioning for the all round development of 13 Particularly Vulnerable Tribal Groups. Of the total 17 Micro Projects, 13 Micro Projects are located within the Scheduled Area and the remaining 4 are located elsewhere.

### **Objective and Strategy**

The objectives of the TSP strategy are basically two fold, i.e. (i) socio- economic development of the Scheduled Tribes and their habitats, and (ii) protection of tribals from exploitation. It is envisaged to enhance the level of development of the Scheduled Tribes by adopting a multi-pronged strategy so as to minimize the gap that existed between them and the rest of the society.

Some of the broad objectives of the TSP approach that have been adopted in the State during the XI Plan period, including 2010-11 year are:

- To provide access to resource, to enhance employment opportunities and bring the income level of the impoverished and asset less tribal people in the TSP area at par with the general population.
- To ensure survival, protection and development of the Particularly Vulnerable Tribal Groups (PTGs) and bring them at par with the rest of the ST population.
- To strive and to secure for the tribal people their forest rights and for the development of forest dwellers and shifting cultivators.
- To bridge the critical gaps in communication and such other economic infrastructure as well as the social infrastructure in the tribal areas to support the developmental activities of the tribals.
- To provide the basic health services for improvement in health and nutritional standards of the Scheduled Tribes leading to enhancement of status of the health indicators of these sections, particularly reduction of IMR/MMR and control of malaria.
- To bridge the literacy hiatus between the Scheduled Tribes and the general population with thrust on literacy and more specifically on primary education of the Scheduled Tribes Low literacy and lack of primary education have resulted in inducing vulnerability among the tribal population.

The State Government, in its pursuit to bring about socio-economic development of the ST communities, have launched special programmes, which include legal aid, rehabilitation of victims, housing facilities, establishment of special employment exchanges, reservation in employment, establishment of residential schools and hostels etc. Some of the strategies, already adopted/ proposed by the State Government in this direction are as under:

- Education, being the most effective and critical instrument of empowering tribal groups, has been given priority.
- Efforts are being made to achieve universalisation in access and retention at the level of elementary education for the members of the Scheduled Tribes.
- Steps are being taken to provide hostel facilities, scholarships and other facilities to achieve substantial increase in enrolment and retention. In this regard, 1000 ST Girls Hostels have been opened.
- Special attention is also being paid to the implementation of employment and income generating programmes.
- Prevention of exploitation of tribal in respect of alienation of land, money lending, debt bondage, trade, collection and sale of minor forest produce etc. has also received due attention of Government.
- Regulation 2 of 1956 has been amended to prohibit transfer of lands to non-tribal and even to other tribal by the Scheduled Tribes with marginal land holdings except for some specific purpose.
- A watchdog role has been given to Gram Panchayats under the amended money lending regulation to enable the community to protect the individual tribal from exploitation by money-lenders.
- In all individual benefit oriented programmes like SGSY, adequate training to beneficiaries is ensured through close monitoring.
- In all income-generating activities, community/cluster approach is adopted to cover beneficiaries in group mode rather than single beneficiary to harness strong community feeling inherent in tribal society.
- Panchayati Raj Institutions (PRIs) are the primary vehicles for implementing development programmes for the tribals to ensure them social justice.
- Women Self Help Groups are vigorously promoted for ensuring both social justice and empowerment.
- Wherever necessary, missing infrastructure support for sustainable economic activities undertaken by Tribal beneficiaries has been provided through SGRY, I.T.D.A. programmes etc.
- Connectivity is being given high priority in respect of remote Tribal areas by development of rural roads and by construction of minor bridges. Culverts across hill streams to open up inaccessible pockets to ensure accessibility of Tribals to service delivery and marketing of their produce.

- Particular attention is being given for the development of Particularly Vulnerable Tribal Groups (PTGs), so that their mainstreaming is ensured. A new Central scheme for conservation-cum-development of Particularly Vulnerable Tribal Groups has been continuing since 2007-08.

## PROGRAMME UNDER IMPLEMENTATION

### SCA to TSP

The Special Central Assistance (SCA) is primarily meant for family oriented income generating schemes in sectors of agriculture, horticulture, sericulture, animal husbandry and cooperation and a part of SCA (not more than 30%) is permitted to be used for development of infrastructure incidental to such income generating schemes.



### Article- 275(1):

Article-275(1) of the Constitution of India guarantees grants from the consolidated fund of India each year for promoting the welfare of Scheduled Tribes. The objective of the scheme is promotion of welfare of Scheduled Tribes and raising the level of administration in Scheduled Areas.

### Integrated Tribal Development Agency (I.T.D.A.)

ITDAs as nodal Tribal Development Agency were set up during the 5th Five Year Plan. As many as 118 Blocks of Orissa State having 50% or more ST population have been covered by 21 ITDAs in the State viz: ITDA, Koraput, Jeypore, Malkangiri, Nowrangpur, Rayagada, Gunupur, Th. Rampur, Baripada, Kaptipada, Karanjia, Rairangpur, Sundergarh, Bonai, Panposh, Keonjhar, Champua, Kuchinda, Nilgiri, Parlakhemundi, Balliguda and Phulbani. Each ITDA has a Project Administrator, who is senior Class-I Officer of OAS/I.A.S. cadre. Besides, every I.T.D.A. is facilitated with an Engineering Cell with an Asst. Engineer, as the Technical head.

### MICRO PROJECT :

The Particularly Vulnerable Tribal Groups (PTG) are considered as a special category in view of their distinctly different social, cultural and occupational practices and traits. Primitive Tribes are distinguished from other tribal communities with regard to their pre-agricultural economy, extremely low level of literacy, isolated habitation etc. During the Fifth Five-Year Plan, it was decided by Government of India to plan and implement specific programmes focused on all-round development of the Particularly Vulnerable Tribes. The programmes were mainly addressed to deliver packages of services consistent with their cultural, social, educational and occupational background with a view to facilitate them to gradually align themselves with the mainstream of society and enhance their social and economic status. These programmes have expanded with the passage of time with greater thrust.



### **Conservation-cum-Development (CCD) Plan :**

In the parameters of the guidelines from MOTA, Govt. of Orissa in ST & SC Development Department has formulated a Conservation-cum-Development (CCD) Plan for 13 PTGs located in 17 Micro Projects of Orissa state. The CCD plan during the 11th plan period is a modest attempt for the holistic development of the PTGs. It aims at addressing the critical felt needs of the PTGs by improving infrastructure and provide basic facilities within their easy reach with a view to eliminate poverty, increase literacy level, ensure improved health status, overcome problem of food insecurity and above all bring improvement in the quality of life and conserve their traditional culture.



The CCD Plan for the development of the PTGs of Orissa prioritised activities in the areas like, education giving stress on pre-primary education by strengthening the existing Gyanmandirs and establishment of an Educational Complex for improvement of girls education, housing and connectivity and safe drinking water under Infrastructure, improvement of Agriculture and Horticulture and in the allied sectors, application of indigenous traditional technology blended with modern technology to ensure employment and food security for the PTG people. It is hoped that the Conservation-cum-Development Plan will be extremely productive and it will be result oriented and pave the way for sustainable development of the Primitive Tribal Groups in the state of Orissa during the 11th plan period, which is 2007-2012.

### **M.A.D.A**

MADA scheme has been operating since the Sixth Plan for the total development of the dispersed tribal population residing outside TSP area, which are contiguous smaller areas having a population of 10,000 or more, with 50% tribal concentration. 46 such MADA pockets in 47 blocks in 17 districts having 5.68 lakh tribal population (2001 census), are functioning in the State. The development programmes in these areas are implemented through the BDOs. In these pockets, IGS in group mode and community-oriented programmes are being implemented. There is a MADA Project Level Committee for each MADA pocket under the Chairmanship of the Sub-Collector and officials and non-officials including the local MLA and MP as members. The Committee draws up programmes and oversees their implementation.

### **CLUSTER :**

The cluster approach has been introduced from the middle of the 7 th Plan period in order to bring smaller areas of tribal concentration beyond the MADA pockets into the mainstream of development. Contiguous areas having a population of 5,000 or more with at least 50% tribal concentration are identified as clusters. 14 such clusters have been identified covering parts of 13 Blocks in 10 districts of the State covering 62,021 ST populations (2001 census). The administrative arrangement for these 14 clusters is similar to that of MADA pockets. For development of tribals in

Clusters, in addition to normal programmes, SCA is provided for implementation of IGS in group mode and community benefit-oriented programmes.

**D.T.D.P :**

As an extension of TSP strategy, the dispersed ST population of the state located outside the ITDA/ MADA/ Cluster Pocket/Micro Project areas, is covered under a special project for tribal development called, 'Dispersed Tribal Development Project (DTDP), Orissa Scheduled Castes and Scheduled Tribes Development Finance Cooperative Corporation Limited is the nodal agency that operates DTDP for the total development of dispersed STs. Tribal Development involves upliftment of a number of Tribal Groups, which are at different stages of socio-economic development.

The following activities are being implemented for which assistance is being provided to the Dispersed Tribal Population living below the Poverty Line:

- Provision of subsidy under various bankable Income Generating Schemes.
- Community Minor Irrigation Projects such as LIP, WHS, Check dam etc.
- Training Programme for self-employment, wage employment etc.
- Bankable income generating schemes consist of schemes in the areas of-
- Agriculture/Horticulture Development
- Minor Irrigation
- Animal Husbandry
- Fishery
- Small and Village Industry
- Vocational Trade and Small Business

**SPECIAL PLAN FOR KBK DISTRICTS (RLTAP)**

Ever since implementation of the Revised Long Term Action Plan (RLTAP) for KBK Districts in 1998-99, major thrust area of activity has been promotion of literacy among the ST & SC in general and promotion of female literacy in particular by way of providing scholarship to SC /ST students to pursue their studies, providing hostel accommodation from primary level, arranging amenities in these hostels and taking up special repair / renovation of existing school and hostel infrastructure. As a result of these efforts, 400 nos. of 40-seated ST girls' hostels were constructed in KBK Districts and provided with basic amenities from 1998-99 to 2001-02. Another 471 Primary School hostels have been repaired / renovated during the period from 2002-03 to 2007-08 with an expenditure of Rs.1582.50 lakh. Besides this, 246 nos. of hostels both for ST/ SC boys and girls have been constructed during the year from 2005-06 to 2007-08 and a total amount of Rs.3210.00 lakh utilized for the said work.

Keeping in view, the special development of KBK districts, as many as 364 nos. of 100 seated ST Girls hostel have been established during the year 08-09 out of 1003 established in the State. The trend has been maintained by proposing further 372 new 100 seated ST Girl's hostel during the year

2010-11 out of 1040 in the State as a whole. Construction of 120 boy's hostel in the KBK districts is also in progress out of 288 proposed for the State. Of the 250 seated 19 nos. of ST Girl's educational complexes, 8 nos are located in the KBK districts and in operation. In addition to the above, 19 Ashram schools out of 52 nos have also been operationlized in the KBK districts (Micro Project Area).

In order to provide Higher Education to ST & SC students of KBK Districts, up-gradation of 8 nos. of High Schools from among the existing High schools of KBK Districts to Higher Secondary School has been completed during 2007-08. Rs.480.00 lakh has been spent during the year 2007-08 for infrastructure development of the said Higher Secondary Schools.

Consequent upon introduction of the new scheme i.e. "Special Plan for KBK Districts" which is almost same as that of the RLTAAP scheme from the year 2007-08, an amount of Rs.35.50 crore has been allotted to the implementing agencies of KBK Districts during the year 2008-09. During the year 2009-10, funds to the tune of Rs.23.05 Crores have been released to different implementing agencies including Rs.3.00 Crores to the education complex at Hatamuniguda of Gunupur ITDA to R.K. Mission.

## EDUCATION

Literacy and Education are the pre-requisites for the quality of resources of any society. Improvement in the level of this indicator reflects development in the society. The rate of literacy among the STs is 37.37% against the overall literacy rate of 63.08% in the State as per 2001 Census. The Tribal male and female literacy rates are 51.48% and 23.37% respectively. Over the last decade there has been a significant improvement in literacy level among the STs in Orissa, which recorded a jump from 22.31% in 1991 to 37.37% in 2001 Census.





## Binode Kanungo (1912-1990) - A Versatile Genius

Freedom Fighter, Gandhian, author of the Popular Oriya Encyclopaedia Jnanmandal, initiator of encyclopaedia movement in our country, erudite scholar, journalist, popularizer of science, social reformer, crusader against illiteracy and ignorance and the architect of a remarkable movement for spreading enlightenment among the people in the post-independence era.

Binode Kanungo was born on 6th June, 1912 in village Mallipur, Kisannagar P.S., Cuttack district of Orissa. He was the only son of Keshab Chandra Kanungo and Peera Dei. At the age of six only, he joined the family of his maternal uncle Prof. Artaballav Mohanty, an eminent Sanskrit scholar and had his primary education at Naganpur, Prof. Mohanty's village. In 1926 Kanungo came to Cuttack and studied at Ranihat High School of which he was the first student on its establishment. On passing his middle school level examination with a scholarship, he got himself admitted into the famous Ravenshaw Collegiate School which had Netaji Subhash as a student once upon a time. In 1930, when in class X, Kanungo heard the call of the Mahatma who, from that day, became his life's beacon. He deserted the school in April that year along with some of his fellow students and joined the Freedom Movement.

Between 1930-32, he was imprisoned twice. When lodged at the famous Patna Camp Jail, he came into contact with some of the leading figures of the Indian Freedom Struggle. Also, he

joined the 'Individual Satyagraha' after Congress was declared unlawful by the British Government. In May, 1934, Gandhiji started his, 'Harijan Padayatra in Orissa. It is of historic significance to record that he was appointed as a special correspondent of the Samaja to cover Mahatma Gandhi's famous Harijan Padayatra from Puri to Bhadrak in 1934. The translation of Binode's reporting in the Samaja on the Padayatra was being daily read out to Mahatma on a day-to-day basis. Gandhiji, the best known example of a journalist in the history of mankind, guided, advised and explained to Binode the ways and means of becoming a good reporter.

While filing reports on Mahatma's progress for the Samaja, Kanungo came into close contact with him at a personal level and that continued till Mahatma's death. By that time, Gandhi's indisputable credentials for goodness had deeply influenced and dazzled millions of his fellow countrymen and others throughout the world. Kanungo observed him from very close quarters and learned of the most valuable Gandhian lessons during that period. Since then, Gandhiji's guideline—one must do only that piece of work that will benefit the 'poorest of the poor' and pave the way for a society where every one could have the minimum needs of life—dominated Kanungo's thought and action process. Freed from the mimicry of formal colonial education, Kanungo took the plunge to self education. Mahatma's famous call 'no nation grows without

education' started ringing incessantly in the ears of youthful Kanungo.

Years that followed till India's independence, Kanungo had to undergo various jail terms. In the brief intervals out of the jail, he spent his time doing newspaper reporting, teaching adults and children and perfecting his own agriculture techniques. Gandhiji's emphasis on social reconstruction appealed to him greatly. That universalization of education was a must; he understood it perfectly. He already had his own plan of spreading education. Till his end, the dedication was complete. From 1934-38, on Mahatma's instructions, he worked at Bari Ashram in Jajpur district with 'mother Rama Devi and Gopabandhu Choudhuri, her husband and a close associate of Gandhi. Kanungo was also selected personally by Gandhiji to work in his all India scheme Samagra Gram Seva, in between he was engaged in organizing Congress Seva Dal Camps also. Binode had the distinction of holding the prestigious position of Assistant Editor of the Samaja during the 1940's and was entrusted with the responsibility of covering the Second World War. He was imprisoned by the British Authorities for his role as a journalist and freedom fighter. In 1939 he married Sashibala (d.1996). She chose to follow her husband's footsteps only—joined the Freedom Movement and became a security prisoner (1942-44) at Cuttack Central jail during the Quit India Movement.

Kanungo was last imprisoned in 1942 and was lodged at Berhampur Central Jail. During his quiet detention of more than three years, he deeply pondered over definite ways on how to make people free from ignorance and poverty of knowledge. All his later landmark literary achievements had their inceptions at Berhampur Jail only, where all important leaders of the State were interned as security prisoners. How to

democratize knowledge became an obsession with Kanungo. By that time he had already read hundreds of books on virtually every branch of human knowledge and taken thousands of pages of copious notes. It served him in two ways — first he made good the academic loss suffered because of leaving the school and secondly, it prepared him to write for the multitude with equal ease as for the enlightened. During this period, his first book titled as 'Saptastra'—on major weapon systems used in the Second World War, was published.

He was released from Berhampur Jail in 1945. Bowing to Gandhiji's wish, he retired to his village and engaged himself in constructive social work and doing agriculture for living. His success as a 'chasi' or farmer was unmatched and drew laurels from every quarter. He set up a Khadi Centre in his village Mallipur, which attracted national attention. During this period, Sashibala and he were blessed with their first child, a daughter. Meanwhile, in 1952, came the first general election of India. Kanungo contested it on Socialist Party ticket and lost. Stalwarts like Achuta Patwardhan and Jaya Prakash Narayan were his poll campaigners. This short stint in election politics was his first and last.

Came 1954 and Kanungo finally made up his mind that his priorities were lying somewhere else. He discussed it with Sashibala; left children (by then their second child, a son was also born) with her at Mallipur and started for Cuttack to begin work on the monumental Jnanmandal, the Oriya Encyclopaedia. He carried from his village 'a Rupee' only and a bicycle. But, this stubborn disciple of Mahatma had already set his goals—nothing on the way could prevent him. Alongwith raising a reference Centre for the future encyclopaedia project, he was writing excellent books for children and adults alike, was

editing a children's magazine 'Sishu Sampad' which was very popular at that time and was contributing to the social life of Orissa.

The first volume of Jnanmandal was released on 2nd December, 1960 by Chief Minister Dr. H. K. Mahatab. Jnanmandal literally means the circle of knowledge. From then on it has evoked the kind of enthusiasm which only a few other Oriya masterpieces have any parallel. It is referred to as a gift for those underprivileged who are hungry for knowledge. Moreover Jnanmandal is recognized as one of the pioneering popular encyclopaedias among all the major Indian languages. But publishing an encyclopaedia set was not an easy task in his State. Even against heavy odds, Kanungo's spirit was not to budge. Acute mental strength and will power propelled him to write volume after volume. Other than this voluminous work of his, he also authored more than 100 books on various subjects of human interest. Such diverse themes like Medical Science, Astrophysics, Nuclear Physics have become so lucid in his writings that they have become everyman's guide to a vast range of subjects. Einstein's dictum that mother tongue should be the only medium of learning' has been truly reflected in the success of Kanungo's 365 Days series of books. Each book in the series bears an imaginative title and attracts the young and the old alike. He was also a pioneer in adult education movement in India and worked closely with Maulana Azad. A comprehensive handbook on adult education was authored by him as far back as 1950. Some of Kanungo's books have been translated into different Indian languages.

Binode Kanungo was an institution by himself—Scholars have hailed his mission as a "national work", "fundamental work in language and literature and a "valuable contribution to human society". His single handed contribution to democratization of knowledge has few parallel

in India. The Film Division of Govt. of India made a documentary film on his life and work and ran it in all the cinema houses of the country in 14 regional languages in addition to Hindi and English versions. The national dailies and foremost periodicals of our country had extensive coverage of him and on his mission. In its Great Masters series Doordarshan has carried him twice even after his death. His reminiscences are preserved in the All India Radio's National Voice Archives. Kanungo was a recipient of Padmashri and numerous literary and other awards. He was awarded twice the prestigious Orissa Sahitya Akademi Award. On his death on 22nd June, 1990, the House of the Orissa Legislative Assembly unanimously resolved to pay the respect of the nation to him through State Honour, although Kanungo never had during his lifetime occupied any public office or had any governmental credentials.

Shri Biju Patnaik, who was Patron-in-Chief of the National Encyclopedia Centre and an intimate friend of Kanungo had said —

*"Kanungo was one of the most interesting and multi-faceted personalities of our times. In his endeavour to free people from the poverty of knowledge, he undertook the stupendous task of compiling 'Jnanmandal' which is regarded as one of the best edited encyclopaedias in Indian languages. Undoubtedly, his single minded devotion and insatiable urge for knowledge enabled him to accomplish this monumental work, despite heavy odds. I have no doubt that Binode Kanungo will be remembered for all time to come for his significant contribution to the field of human knowledge."*

While complementing Kanungo on the occasion of the publication of the 40th volume of the Oriya Encyclopedia Shri Rajiv Gandhi had said —

*“In every country, we have remarkable individuals, who have done much for the enlightenment of their fellow human beings. Shri Binode Kanungo is one such outstanding scholar. The Oriya people will long be beholden to him for this monumental Oriya Encyclopaedia”*

Distinguished personalities from all walks of life, who have visited Jnanmandal Reference Centre, have appreciated the stupendous effort that has gone into making it a remarkable centre for research, academic pursuit and dissemination of knowledge. Containing huge records of enduring value, this centre for research and learning had attracted scholars from all over the country. After visiting the Centre and meeting Late Shri Kanungo, Shri Pranab Mukherjee (Now Minister, Finance) had said—

*“No word is sufficient to express the state of mind when I entered into this hall, which is the storehouse of knowledge in the real sense of the term. Knowledge is stored here and that is why no word can express the achievements of the great organiser.”*

Noted Gandhian and former Governor Shri R.R. Diwakar had described the work as ‘Jnan Jajna’ when he visited the centre in early 1980’s—

*“I have seen encyclopaedias in many languages, but I had no occasion to meet at encyclopaedic man, who could not only understand but write on various subjects with, ease and felicity. This is a fundamental work in language and literature, just as there is fundamental work in science and applied science. The inspiration which is operating here is the urge to share his knowledge with his brethren and at present and with generations to come. I wish him full success in this “Jnan Jajna”— to noble work of spreading knowledge.”*

This is what Prof. Hiren Mukherjee said—

*“A visit to Jnanmandal today has been a remarkable experience, it is nothing short of amazing that one dedicated man, with a few equally devoted assistants can undertake and also perform a stupendous literary project. Shri Binode Kanungo has, it appears, only one aim in life and that is to bring all knowledge to every door in so far it is possible to condense the ever widening departments of knowledge. For this purpose work goes on and it is a sheer joy to see the numerous files on different subjects neatly stacked and being continuously added to and amended.”*

Shri Binode Kanungo was a pioneer in field of popularization of science. His Popular Encyclopaedia, 40 volumes of which have so far been published, contains hundreds of educative science articles. Besides these, Kanungo has made a valuable contribution to our Children’s literature and had written nearly a hundred small books for children. One is simple charmed with the treatment of very difficult subjects made intelligible to the young mind. Written with simplest Oriya, the treatment of the subject is such that it grips the interest of the readers and is certainly entertaining reading for the children. Original in its technique, each book, in its own imitable way removes a long felt need in this domain of children’s literature in Orissa. Even complicated scientific facts are explained vividly and rendered intelligible to young mind with allegorical description. The style and the illustration are at once attractive and instructive. With a view to making the story simple and within the grasp of children, Kanungo has used imagery from everyday experience with great success.

While celebrating the birth centenary celebration of this noble man, we the people of Orissa shall rise to the occasion of paying our utmost respect and remembering his invaluable contribution.

## Indian Culture

*Prof. Surya Narayan Misra*

Will Durant was an American philosopher. He once observed about India – Nothing should more deeply shame the modern student than the recency and inadequacy of his acquaintance with India. Here is a vast peninsula of nearly two million square miles two thirds as large as the United States and twenty times the size of great Britain, as impressive continuity of development and civilization from Mohen-jo-daro 2900 BC or earlier, to Gandhi, Raman and Tagore, faiths compassing from every stage from barbarous idolatry to the most subtle and spiritual pantheism; philosophers playing a thousand variations on one monistic theme from Upanishads, eight centuries before Christ, to Sankara, eight centuries after him, scientists developing astronomy three thousand years ago, and winning Noble Prizes in our own time, a democratic constitution of untraceable antiquity in the villages and wise and beneficent rulers like Ashok and Akbar in the capitals, minstrels singing great epics almost as old as Homer, and poets holding world audiences today, artists raising gigantic temples for Hindu Gods from Tibet to Cylon and from Cambodia to Java or carving perfect palaces by the score for Moghul kings and queens – this is the India that patient scholarship in now opening up, like a new intellectual Continent, to that Western mind which only yesterday thought civilization an exclusively European thing.

Dr Arnold Toynbee, the noted British historian commented – it is already becoming clear

that a chapter which had a western beginning will have to have an Indian ending if it is not to end in the self-destruction of the human race... At this supremely dangerous moment in human history, the only way of salvation for mankind is the Indian way.... Emperor Ashoka's and Mahatma Gandhi's principle of non-violence and Sri Rama Krishna's testimony to the harmony of religions. Hence we have an attitude and spirit that can make it possible for the human race to grow together into a single family – and in the atomic age, this is the only alternative to destroying ourselves.

Romain Rolland was particularly highly impressed with India and observed – If there is one place on the face of the earth where all the dreams of living men have found a home from the very earliest days when man began the dream of existence, it is India..., India has a strange genius for converting what it borrows and assimilating it.

Similarly E.B. Havell said – In India religions is hardly a dogma, but a working hypothesis of human conduct, adapted to different stages of spiritual development and different conditions of life.

For a common man to understand, we often say, that culture is that we are and civilization is what we have, but culture has been defined in various ways. But the meaning of culture advanced by British anthropologist Sir Edward Burnett Tylor was the most authentic. He defined it as that complex whole which includes

knowledge, belief, art, morals, law, customs and any other capabilities and habits acquired by man as a member of a society. A set of cultural traits adopted by a group to meet its needs and ensure its survival constitutes its culture. In the sense, culture could be associated with a nation, town, village or a tribe.

According to an Odia historian, Culture is a symbolic, continuous, cumulative and progressive process. In the words of Green, culture means – the socially transmitted system of idealized ways of knowledge, practice and beliefs alongwith the attracts that knowledge and practices, produce and maintain as they change times. According to Johann Von Herder, culture is the shorthand version of rules that guide the way of life of people. It is the Common learned way of life shared by the members of a Society. In a word, culture is the expression of finer aspects of lifestyle of a group. The culture of a people is the blood of its being.

India is a new nation but an old civilization. Its cultural heritage is worldwide known. Historian Toynbee in this context had said – civilization is a movement – not a condition; a voyage and not a harbour, this famous observation of the above historian is true in the Indian context.

India is old in civilisational terms. But it is a continuum. The ancient civilization has aided its modern incarnation to born, grow and stabilize. Indian civilization is continuous and unique. Further, Indian culture has integration in its approach. It has never been one - sided. A.L. Basham observed – “ in no other part of the ancient world were the relations of man and man and of the man and the state, so fare and humane. In no other early civilization were slaves so few in number, and in no other ancient law book are their rights so well protected as in the Arthashastra. Indian was a cheerful land, whose people, each finding a niche in a complex and slowly evolving

social system, reached a higher level of kindness and gentleness in their mutual relationship than any other nation of antiquity.”

Sardar K.M.Panikkar wrote on ‘outstanding facts of Indian culture and therein he identified five significant elements of Indian culture. Those are :

1. Tradition of tolerance, adding to the richness and variety of Indian life,
2. Sense of synthesis reflected in racial harmony, the primary institutions of village and the family, sculpture, architecture, music and painting, modes of worship, faith in democratic institutions etc.
3. Universal outlook as reflected in views such as - 'The world is one family, the world is one nest',
4. Philosophical outlook with its basis in the belief in the unity of creation,
5. Respect for the individual based on the philosophical equation of Atman and Brahman, the soul and the over soul.

Each culture is bestowed with some fundamental values. When the fundamental values of a culture cease to inspire the life of the dominant minority in a people, the culture dies. If the values persist from generation to generation, the culture continues to give vitality to social order and individual growth.

According to famous historians, the Indian culture has survived because in every generation the best among us have lived by some fundamental values. For instance, sensitive souls in each generation from Sankara to Gandhi (from 8th to 20th century) have found self-fulfilment in living up to the values taught in the Bhagavad Gita.

Faith in the supremacy of the moral and spiritual order happens to be the first fundamental value of our culture. During the Vedic era it was

called 'Rita' and later it was named 'Dharma'. Though refinement of the concept has been made ages after ages, yet the faith as fundamental essence continues to be the primary value of our culture. Satya or truth is the personal aspect of the order. To live up to it through, knowledge, devotion, and action becomes a paramount demand on the sensitive individual who finds fulfilment by living upto it. Satya in the sense of absolute sincerity, unity of thought, word and deed is not to be cultivated in a cave or in the place of pilgrimage. It has to be lived in every action, in every relationship and in every occasion.

Dedication, surrender of the ego to God is the next value. By living a life full of dedication, the individual recaptures the values for his own generation and passes them on as a legacy to the next generation.

The third prominent value is the consecration of life. Rigid ascetism is not consecration. Giving up life to find personal salvation is not consecration. In order to realise consecration, one needs to live full life in which every act comes to be consecrated as an offering to the God.

Further, in order to live up to these values in individual and collective life, desire, greed, malice and anger have to be transformed into noble objectives.

Religious tolerance and love of peace are the legacies of these values and they have been upheld to be the strength of our culture.

India, the name itself is derived from the great river Sindhu which was the life line of her earliest civilisation. The Persians could not pronounce Sindhu, instead they called Hindu. The Greeks followed the Persians and they called it 'Indu'. Subsequently, this land was called Hindusthan and its inhabitants as Hindu. The Greek version Indu/Indus gave the name India. But Indians call it Bharata, after the legendary son of Dushyanta and Shakuntala.

The Indian civilisation has a rich past. The civilisation that were existing in Egypt, Babylonia and Assyria were the contemporaries and later Persian, Greek and Roman civilisation had linkages. Continuity has been the keynote of the Indian culture. Indian civilisation is different from the civilisation mentioned above because traditions have been preserved from the ancient to the present in the Indian case, whereas these are visibly absent in other civilisations.

India is a country with sub-continental features. Today, it has the credit of being home to all the eight prominent religions of the world. The largest subscribing faith, Hinduism is not a religion. It is 'Dharma'. Duty and righteousness are the prescribed principles of Hindu faith.

Further, India has seven cultural zones and fifty-eight sub-cultural zones. Language makes India a polyglot state. Language changes every twenty miles in this country.

The configuration of India is primarily divided into three distinct regions with sharply differentiated features. The regions are the Himalayan region, the Indo-Gangetic Plain and Deccan Plateau. The Great Himalayas are holy place for devout Hindus. They were taken as the abode of gods, goddesses and sages. It houses the famous Manosarovar, one of the holiest places for the Hindus. Goddess Parvati was the daughter of the Himalayas. Lord Shiva's abode is Kailash, a part of the Himalayas.

The Indo-Gangetic plain figures prominently in the pages of history for being the seat of many principal empires. This region is thickly populated. The plain has great religious and political importance. The Vedic culture, literature and religion originated and flourished here.

The Deccan Plateau is the peninsular India. The mountain range, the Vindhya separate it from the Indo-Gangetic Plain. The Deccan is

flanked by the Eastern Ghat and the Western Ghat and the Nilgiri Hills. This region is known as 'Dakhinatyā' and its inhabitants were called the Dravidians. This region enjoyed centuries of peace due to its homogeneity and isolation. Important dynasties like Chola, Chalukya and Hoysalas had most visible rule and contribution.

Unity in diversity is the distinctive feature of India. An outsider is puzzled when he watches India as home to many languages, regions, caste and cultural features. Apart from vastness with threefold natural division its variety is partly due to its geography and physical features. The physical division has caused differences in flora, fauna, animals and vegetables.

Racial diversity is amazing in India. India contains a large variety of human types. The three primary broad types of mankind such as the Caucasian, the Mongolian and Ethiopians are settled here. Colour-wise they represent white, yellow and black respectively.

The ethnological differences gave rise to a large number of languages. Survey of India has documented 179 languages and 544 dialects. Among the Dravidian languages Telugu, Tamil, Kannada and Malayalam are popular. Among the North Indian languages Hindi, Bengali, Punjabi, Gujrati and Urdu are premier languages. In the eighth schedule to the Indian Constitution 22 languages are accepted as languages of the Union.

The religious diversity is equally praise worthy. All the major religions are found here. All of them have grown freely alongwith other sects. The Indian belief system is peculiar. Sikhism is the youngest Indic religion. The primitive tribes have their own religion. Various kinds of fairs and festivals are observed in India.

The variations in climatic conditions, land structure and ruling processes have resulted in considerable differences in dress, food habits and social customs and practices.

India has accepted secular path. The central issue for modern India is to bring about reconciliation between its past traditional values of Indian culture and the ideals of modern secular state. The Indian social life is a type of its own. It is required that it should have integrated outlook on life and religious toleration can heighten India's image in the outside world. Dharma happens to be the main infrastructure of Indian Social Living. If it continues to be our ideal, according to one perceptible writer, man instead of becoming a tool of Science and Technology, will use them as instruments for the moral and spiritual regeneration of mankind. It is to be remembered that both Buddhism and Jainism evolved out of reforming attitude. Further, the various socio-religious movements from the 12th century down to the present day including the reform movements of the 19th century which arose out of dual challenge coming from Christian missionaries on the one hand and science and technology on the other, have contributed immensely for the consolidation of Indian Culture.

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## Celebration of Raja : True Manifestation of Woman Empowerment

*Bikram Maharana*

Celebration of festivals is an inseparable part of Indian society. To the purpose, there is a saying that in Orissa there are 13 festivals in 12 months. Certain divine powers and mottos are linked in celebration of any kind of festival. People also get some sort of respite and refreshment during the celebration of these festivals getting aside from monotonous life.

Celebration of Raja is one of the oldest traditions in Orissa. Though celebrated all over the State it is more enthusiastically observed in the coastal districts of Orissa. Festivals reflect the culture, tradition and history of a particular race. Festivals are generally associated with seasonal phases of the sun, the moon, birth of divinities and agricultural operations. In today's society we all feel shortage of time because of our never-ending quest for materialistic pleasure. This unhealthy mentality eventually leaves us away of our customary practices.

The younger generation is said to have been the harbinger of change in social, political and economic spheres but surprisingly they are not so interested in any of the religious celebrations. Rather, they prefer to waste their valuable time in watching television and playing mobile games though the country expects more from the youths. The self-centered younger generation is not aware of their hoary past and glorious traditions. These traditions safeguard the

mind-set of its followers upkeeping the moral values of a community. In the context of degradation of morality, it is the high time to remind our youths on the importance and justification of celebration of religious festivals where the glowing tradition of our society and virtuous life of the people prevail. Festivals undoubtedly promote a common cause, develop social solidarity, fellow feeling and mutual co-operation. They are also intended to self-discipline and spiritual value by which one makes himself pious and well-wisher of the human society.

The most important festival of Orissa, Raja is commonly associated with the farming community and celebrated during the onset of the monsoon. The Raja Sankranti also known as Mithun Sankranti, falls on the first day of the month of Asadha (June) from which the rainy season starts, thus moistening the summer parched soil and making it ready for productivity. The first day is named as 'Pahili Raja' (prior Raja), second day is 'Raja' (proper Raja) and third is called 'Shesha/Basi Raja' (past Raja). In some places however there is a custom of celebrating the fourth Raja known as the "Basumata Puja" or the bathing of Mother Earth.

Raja is considered as one of the main festivals of the damsels or the potential mothers. They are forbidden from all kinds of manual works during these three days of Raja festival. They don't

walk bare-foot, do not scratch the earth, do not grind (Shila-the grinding apparatus also called as Shathi Buddhi- the shaper of creatures, Who sanctions span of life and considered as Mother also wears vermilion and Kajjal spending time in leisure with Pua), do not tear anything apart, do not comb hair, do not sweep the house, do not sew clothes, do not cut and do not cook. During this festival Mother Earth or 'Basumata' is considered to be a menstruating woman. According to popular belief as women menstruate, which is a sign of fertility, so also Mother Earth menstruates. In our Hindu tradition during menstruation period women need to take rest and don't perform any ritual at home and don't visit temple to have a Darshan of the deities. Likewise digging of soil or tampering it in any way is strictly prohibited. The Mother Earth is said to undergo pollution due to menstruation and given rest just like a woman. In this Raja festival women and girls used to enjoy a lot by having new sarees/dresses, new bangles and they used to visit the friends and all friends just used to spend time by moving up and down on improvised swings with famous songs- "*Banaste dakila gaja, Barasake thare asichi raja, asichi raja lo gheni nua saja baja...*" "*Raja doli rata rata; Mo bhai mundare suna mukut lo, Disuthai jhatajhata....*" These songs are full of jolly spirit of girlhood days. Songs specially meant for the festival speaking of love, affection, respect, social behaviour and everything of social order and sometimes impromptu songs are also sung. Special swings prepared for women and girls are tied to the branches of huge mango and banyan trees. The swings are of different varieties, such as 'Ram Doli', Chakri Doli, Pata Doli, Dandi Doli and Bamboo Doli etc. The rope of the swing,



branches and trees are decorated with garlands of different flowers. The virgins of the village gather there on this festive occasion and one of them is selected as Doli Rani (Queen of the Swing). During this festival young men also keep themselves busy in various types of country games including Kabadi, Pasa, ludo, playing cards etc. while girls spend their time in Chita (Rangoli) competition, Puchi Khel etc. The girls and women like to chew 'Mitha Pan' (sweet betel) during this occasion.

This occasion creates an opportunity for a 'Get Together'. The very first day of Raja, women and girls get up early before the dawn, anoint their bodies with turmeric paste and oil, then take the purification bath in the nearby river or tank. They get ready with their new sarees/dresses alongwith Tikili, Alata, Kajjal and Vermilion. Special varieties of cakes (Poda Pitha/Burnt cake) are prepared out of ingredients like rice-powder, molasses, coconut, camphor and ghee. Cakes and other Odia delicacies are also exchanged among relatives and friends. Young girls and women do not take rice at night. All the domestic works are attended by the men. Complete rest is given to the women and girls as they remain themselves busy in hard routine work throughout the year.

Although the freedom of women is confined to only 4 days still it makes the humanity remember the importance of the fair sex in the society. So we can term this Raja festival as true manifestation of woman empowerment. Where respect is given to the women, there lives gods.

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## The Role of FDI in Economic Growth : A Study About Odisha

*Dr. Rashmita Sahoo  
Soumendra Patra*

The name Orissa is derived from Sanskrit word “Odra Vishaya” or “Odra Desa”. The ancient province of “Odra Desa” or “Or-Desa” was limited to the valley of the Mahanadi and to the lower course of the Subarnarekha River. The Orissa State, which was once a land of Kings and Kingdoms, now boasts of being rich source of natural resources. Its people, temple architecture, classical dance, religions, fairs and festivals, unique handlooms and handicrafts, green woodlands, rock caves, charming blue hills have always attracted historians, tourists and travellers from all over the world.

Orissa is one of the important states of India which is endowed with varieties of mineral resources. The mineral resources of Orissa have reputation for being qualitative for industries. The mineral resources of Orissa include Iron ore, Manganese, Coal, Bauxite, Dolomite, Tin, etc. Mineral resources have played an important role to make Orissa hot destinations for industries. Because of mineral resources big industries, like Rourkela Steel Plant, National Aluminum Company, National Thermal Power Corporation, have established their positions not only in India but also in world market. Besides those, reforms in infrastructure in recent years have created an atmosphere conducive for major industries of the world to look forward to Orissa as an epi-centre

for industrial growth. In Eastern India, Orissa is really growing in real sense to become an industrial hub in the coming years.

Orissa one of the coastal states of India, comprises 4.74% of the landmass and accounts for 3.58% of the population of the country (2001 census). Nearly 85% of its population live in the rural areas and depend mostly on agriculture for their livelihood. The State has abundant mineral resources and as percentage of all India resource stock, there is fairly heavy concentration in respect of Bauxite, Chromites, Graphite, Nickel, Coal and Iron-Ore. The rate of cumulative exploitation has remained low. However this has not provided a sufficient condition for the establishment of metallurgical and non-metallic mineral based industries on a large scale in the State. Even the value addition within the State has remained relatively low. Paradoxically, Orissa continues to remain poor among plenty of resources.

Government of Orissa aims at creating an industry-enabling and investor- friendly climate in the State with a view to accelerating industrial developments, employment opportunities and economic growth. IPR-2001 and Orissa Industries (Facilitation) Act, 2004 incorporate the above objectives. Govt. Orissa has already emerged as a major investment destination for national as well as transborder national investors,

especially in steel, aluminium, petrochemicals, power, IT and ITES, food processing industries, tourism and other such sectors.

### The Role of Foreign Direct Investment

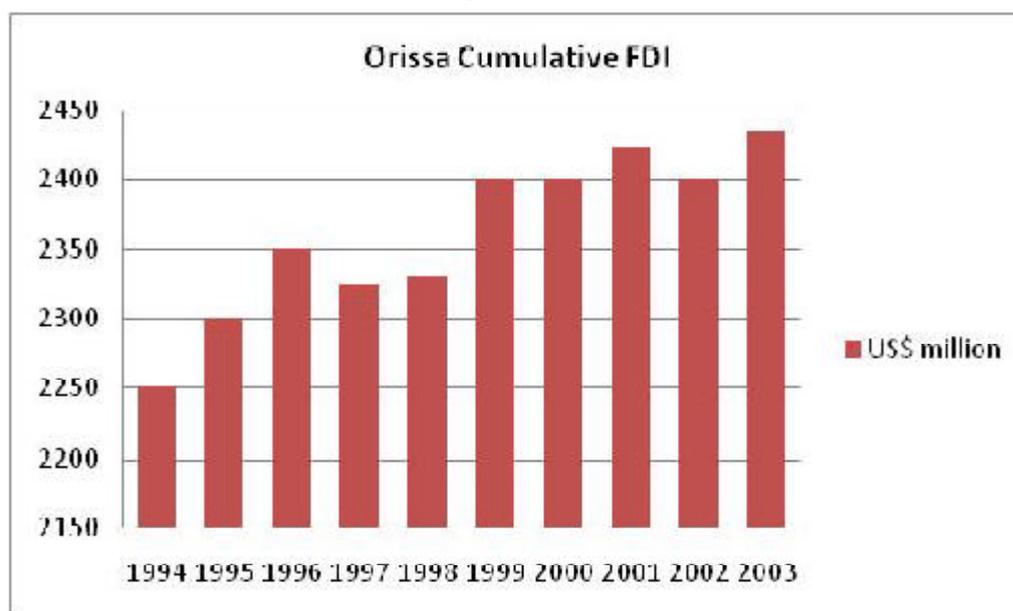
The role of Foreign Direct Investment in an economy goes beyond simply easing financial constraints. FDI inflows are associated with multiple benefits such as technology transfer, market access and organisational skills. Consequently, there is an increasing and intense competition between countries to maximize the quantity of FDI inflows. Any successful policy for attracting FDI has to keep this competitive scenario in mind.

The benefits of FDI inflows can be broadly identified as:

- ◆ Bridging the financial gap between the quantum of funds needed to sustain a level of growth and the domestic availability of funds.
- ◆ Technology transfer coupled with knowledge diffusion that leads to improvement in productivity. It can, thus, fasten the rate of technological progress through a ‘contagion’ effect that permeates domestic firms.
- ◆ The transfer of better organisational and management practices through the linkages between the investing foreign company and local suppliers and customers.

In the context of a developing country like India, the role of FDI in easing financial constraints becomes critical. According to the Planning Commission, at current levels of efficiency in the economy, the increase in investment needed to achieve a percentage point rise in the overall growth would be 6 percentage points. Since this addition to investment cannot come entirely from domestic sources, a substantial portion will have to be funded by FDI.

Fig.-1



Source: Directorate of Industries, Government of Orissa

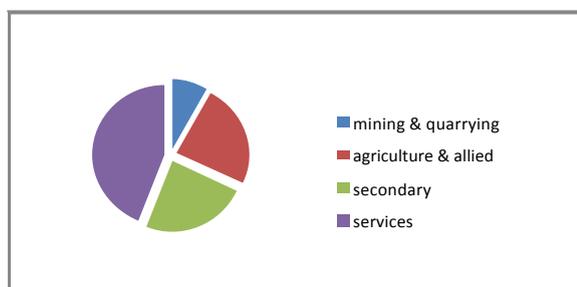
The key industries in Orissa are primarily basic metals (including iron & steel, aluminium) and chemicals & chemical products. Between 1991-2004, Orissa attracted 0.9 per cent of India's investment, aggregating to nearly US\$ 370 million. Currently, investment worth US\$ 20 billion are in the pipeline in Orissa and a sector-wise break-up of these projects indicates that a majority of the investment are in electricity generation and mineral-based industries including aluminium and steel. Orissa can emerge as a hub for metals business in India and has the potential to attract investment up to US\$ 30-40 billion over the next five years if it focuses on utilising the opportunity presented by the current global metals cycle. With its locational advantage, and the current up trend in global market, the State can become the metals, mining, and manufacturing hub of the country. Though Orissa accounted for only 6.3 per cent of projects under implementation as on January 2005, its share of India's aggregate outstanding projects 'announced' has risen to 17 per cent. Its share in manufacturing sector projects announced in India is higher at 38 per cent and the investment value of projects announced in Orissa has shot up over four times to US\$ 24 billion as on January 2005 from US\$ 5.5 billion in January 2004 (Centre for Monitoring Indian Economy).

During 1991 to 2003, Orissa approved over US\$ 2.3 billion of foreign direct investment. The key sectors attracting FDI in Orissa are electricity, metals and metallurgical products, chemical and chemical products. It now seems that there has been a turning point in the last few years and the economy of Orissa has witnessed acceleration in terms of the gross state domestic product (GSDP). Orissa's real GSDP has grown by an average annual rate of 4.8% on a long term

basis during 1980-81 to 2006-07 compared to 6% for the same period for the nation as a whole. The index number of GSDP (with 1980-81 = 100.0) nearly doubled over the 20 years period 1980-2000 and has further increased by another 60 per cent since then. In particular, there has been a sharp rise in the index after 2002-03. The average GSDP growth rate of 8.6 per cent per annum during the period 2002-03 to 2006-07 compares very well with the national level. The per capita income of Orissa was about Rs.7700 at 1999-2000 prices in the year 1980-81. It nearly doubled to Rs.15100 in 2006-07 (Figure 2). Per capita income at the national level has grown by 160 per cent from about Rs.8600 to Rs.22700 during the same period. Orissa thus continues to remain behind the national average considerably. There have been attempts to bridge the gap and the growth rates noticed in recent years is the first major indicator of a move in that direction.

Like other developing economy, the economy of Orissa has been going through structural changes away from agriculture in favour of industry and services. Primary sector accounted for most of income generated in the State in 1980-81. It has reduced to 32% in 2006-07. It might be noted that mining and quarrying sector plays a more important role in Orissa and income generated in this sector forms about 8% of total income. About 24% of State income is produced by agriculture and allied sectors. Share of secondary sector has increased from 17% to 23% and that of services from 30% to 44%. Compared to the all-India level, primary sector's share is about 12% more in Orissa and service sector's share is about 10% less. Share of the secondary sector in Orissa is nearly similar to that for all states taken together.

**Fig.-2**  
**Percentage Composition of GDP**



*Source: Directorate of Industries, Government of Orissa*

### Conclusion

India's rising growth trajectory requires rapidly expanding infrastructure facilities to support it. The Government recognises the fact that domestic resources alone may not be adequate to sustain the required expansion in infrastructure. Thus, it has followed a strategy to create incentives for Foreign Direct Investment. India, today, has an extremely liberal regime for FDI in terms of entry norms. As Odisha is a hub of mineral resources the Government has taken systematic initiatives to address these problems largely through comprehensive reforms in sectors like power, iron and steel. The combination of

domestic private foreign investment and multilateral investments is likely to propel Odisha's economic growth momentum in future.

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# Black Soils of Orissa and their Management

*Dr. Antaryami Mishra,  
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D. Das*

The soils, which are very dark in colour and turn extremely hard on drying and sticky and plastic on wetting are called as black soils. In Maharashtra, Gujarat and Madhya Pradesh these soils are termed as black cotton soils due to extensive cultivation of cotton crop in these soils. In India, different members of black soils occupy an estimated area of 74 million hectares (Sehgal, 2002). As far as their colour is concerned, these soils are comparable with the *Chnozems* of Russia and the *Prairie* soils of the cotton growing areas of the USA, but differ in their physico-chemical properties. Such soils are locally termed as *Regur* in Central India, *Karail* in the lower Gangetic basin in UP and *Bhal* in Gujarat (Sarkar, 2003). These soils are commonly observed in Maharashtra, western parts of Madhya Pradesh, Gujarat and some parts of Andhra Pradesh, Tamil Nadu, etc.

There is no regular occurrence of black soils in Orissa. These soils occur sporadically in the following areas.

Sl. No.	Name of Districts	Name of Blocks
1	Angul	Angul, Atthamallik, Kishorenagar
2	Bargarh	Attabira
3	Bolangir	Patnagarh, Bolangir, Agalpur, Puintala,

		Deogaon, Loisinga, Bangamunda, Titlagarh, Tureikela.
4	Cuttack	Chowdwar
5	Deogarh	Riamal
6	Ganjam	Buguda, Chikiti, Hinjilikatu, Polasara, Purusottampur, Seragada
7	Kalahandi	Bhawaniapatna
8	Khurda	Banapur
9	Malkangiri	Kalimela
10	Sambalpur	Dhankauda, Maneswar, Kuchinda, Rengali
11	Sonepur	Dunguripali, Tarabha
12	Sundergarh	Kutra and Bargaon

Black soils cover an area of 0.96 million hectares of land in Orissa which is around 6% of the total geographical area of the State (Sahu and Mishra, 2005)

**Genesis:** The landforms over which the black soils occur vary depending on the geological formation and climate (Pofali *et al.*, 1998). Black soils of Orissa are mostly formed from granite gneiss, basic granulites, pyroxenes, charnokites,

calcic-plasioclases, biotite and schists (Sahu, 1978, Mishra 1981, Parida, 2000).

The soils developed on gneisses and schists are moderately shallow (50-80cm) to moderately deep (80-120cm). They have uniform colour (black) throughout the depth. The black colour of the soil is due to the presence of titaniferous magnetite, humins, bitumins etc (Sehgal, 1996). These soils are formed due to weathering of basic rocks in low lying areas.

**Major Characteristics:** These soils are highly argillaceous (particles smaller than 0.06mm in diameter) with clay content more than 30 per cent. The clay is dominantly montmorillonitic in nature with high coefficient of expansion and contraction setting up a steady churning process within the soil. The process of churning causes vertical mixing and leads to the development of typical features such as;

- (a) Undulating soil surface with sunk holes and ridges. This type of micro topography of the land surface is called as *Gilgai microrelief*.
- (b) Wide and deep cracks. The cracks are of more than one centimeter wide and they extend upto the depth of one meter or more.
- (c) *Intersecting slickensides*. In this feature one ped (soil mass) face slips over the other due to churning process of soil taking place for hundreds of years. As a result polished ped faces are observed.

The soil reaction is neutral to alkaline having free calcium carbonate nodules at some depth in the soil profile. The soils have high cation exchange capacity (CEC). Although the soils have high moisture holding capacity, yet water is not available to the plants because of their very fine texture. Permeability of these soils is low which results in severe surface erosion.

### Classification of Black soils:

In Oriya language the black soils are called as '*Kala Chikitia Mati*' or '*Kala Matala Mati*'. As per the modern system of soil classification 'Soil Taxonomy', all the black soils of Orissa are placed under the Order *Vertisols* and under the sub-order *Usterts*. Three great-groups of Usterts are found in Orissa namely; *Chromusterts*, *Pellusterts* and *Haplusterts* (Sahu, 1975, Mishra 1981, Sarkar *et al.* 1998, Sarkar *et al.* 2005). Under these three great-groups, soils of eight sub-groups are found in Orissa which are as follows;

**Order:** *Vertisol*

**Sub-Order:** *Usterts*

**(i) Great-Group:** *Chromusterts*

- (a) Sub-group: *Typic Chromusterts* (Black soils of Angul district, Bolangir district, Jamankira Block of Sambalpur district, Tarabha Block of Sonepur district, Chowdwar Block of Cuttack district)
- (b) Sub-group: *Entic Chromusterts* (Black soils of Ganjam district, Rengali and Kuchinda Blocks of Sambalpur district and Riamal Block of Deogarh district)
- (c) Sub-group: *Udorthentic Chromusterts* (Black soils of Maneswar Block come under both Udorthentic Chromustert and Entic Chromustert)

**(ii) Great-Group:** *Haplusterts*

- (a) Sub-group: *Typic Haplusterts* (Black soils of Banapur Block of Khurda district)
- (b) Sub-group: *Vertic Haplusterts* and (c) *Chromic Haplusterts* (Black soils of Kalahandi district). Some soils of Kalahandi are also classified under Typic Haplustert.

(d) *Entic Haplusterts* ( Some soils of Bolangir Block of Bolangir district)

**(iii) Great-Group: *Pellusterts***

(a) Sub-group: *Ustalfic Pellusterts* (Some black soils of Bhawanipatna Block of Kalahandi district and Luisinga Block of Bolangir district).

**Management and Uses:**

The main constraint of crop production in black soils (*Vertisols*) are due to their narrow workable moisture, low infiltration rate, poor drainage and moisture stress. They are generally rich in calcium but are deficient in nitrogen, phosphorus, sulphur, zinc and boron. The calcareous nature of these soils affect the availability of many micronutrients. Because of high water holding capacity, these soils can be utilized for rainfed agriculture particularly for growing minor millets and pulses like horsegram. Upland rice suffers from iron deficiency. Groundnut, mustard are found to respond to application of sulphur. Ammonia volatilization is high in paddy fields.

Soil moisture stress conditions set early under drought. Either at low or high moisture conditions the soils can not be ploughed. Tillage operations should be completed at right moisture consistency. Application of farm yard manure (FYM), compost and green manuring help in increasing water infiltration rates. Recycling of rice straw improves the physical conditions of these soils.

The construction of 15cm high ridge on black clay soils reduces the bulk density and increases non-capillary pores indicating a better aeration and drainage capacity of soil (Jena, 2010). Grain yield of soyabean, maize and sorghum increases significantly by planting on 15 cm high ridges. The soils are suitable for growing rice, jowar, bajra, maize, bengal gram, safflower, mustard and cotton.

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# Malkangiri — The Treasure of Tribal Tourism and Culture

*Dasharathi Patra*

Tourism is a highly complex phenomenon and several academic, deserving are involved in its study. Tourism is a basic and most desirable human activity industry concerned with attracting people to a destination, transporting them their housing, feeding and entertain them upon arrival and returning them to their homes. It deals for the most part with consumer tourists, the money they spend and the people and means which provide them with goods and services (tourism products). Tourism is not only an economic activity of importance to national development but also an important medium of cultural changes among Nations of the World.

Tourist is temporary exodus population who normally travels to predetermined destination for whatever purposes: they consumed tourism products while travelling and return home after a short period independently of whether their envisaged purpose is achieved. Tourists are normally divided into two categories viz. Domestic and Foreign tourist.

## **Domestic Tourist :**

As per the definition of Department of Tourism Govt. of India, a person will be considered a domestic tourist, who travels within the country to a place other than his usual place

of resident and stays at hotel or any other commercial establishments run on commercially basis on paying room rent for a duration of not less than 24 hours or one night and not more than 12 months at a time for any of the following purposes:-

1. Pleasure (Holiday, Leisure and Sports etc.).
2. Pilgrimage, religion and social function.
3. Business, Conference and Meeting.
4. Study and Health.

## **Foreign Tourist :**

As per the definition of Department of Tourism, Govt. of India, a foreign tourist is a person visiting India on a Foreign Passport staying at least 24 hours in India and the purpose of whose journey can be classified under one of the following purposes:

1. Leisure (Recreation, holiday, health, study, religion and sports).
2. Business, family, mission and meeting.

## **Types of Tourism :**

As per the Orissa Tourism Policy, 1997, Tourism in Orissa are divided into 9 types for promotion of tourism in State. They are as follows:

1. Archaeological and Pilgrimage Tourism.
2. Convention Tourism.
3. Beach and Lake Tourism.
4. Cultural Tourism - Fairs and festivals.
5. Cultural Tourism - Handicrafts, Handloom and Tribal Arts.
6. Holiday and Leisure Tourism.
7. Wildlife Tourism.
8. Sports & Adventure Tourism.
9. Reservoir Tourism.

Now steps are being taken for Eco-Tourism Development in States.

#### **TOURISM CENTRES OF ORISSA :**

There are 320 identified Tourist centres in Orissa as on 1st May 2010 declared by Govt. of Orissa. Out of which 6 tourist centres are in Malkangiri district. The names of such tourist centers along with their importance are given as under:-

<b>Name of identified centre</b>	<b>Importance</b>	<b>Distance from Malkangiri in Kms.</b>
Balimela	Hydro electricity power project	30
Chitrakonda	Dam reservoir	60
Malkangiri	Dist.Hqrs.	0
Motu	Scenic spot Kanyakumari of Orissa.	100
Rajarani Bandha	Scenic spot	3
Satiguda	Dam reservoir, Eco-Tourism park	5

Orissa in the Eastern Coast of India attracts thousands of Domestic and Foreign tourists everyday to visit the various places of tourist interest. As per the Statistical Bulletin of Department of Tourism, Govt. of Orissa 63,58,445 Domestic and 43,966 Foreign tourist totalling to 64,02,411 have visited during the year 2008. It will be better to reproduce the tourist arrival of Malkangiri district beginning from 2005 to various places to witness the Tribal Tourism and Culture.

#### **Year-wise tourist visit to the identified tourist centres of Malkangiri district**

<b>SI No.</b>	<b>Name of the Tourist Centre</b>	<b>Year 2005</b>			<b>Year 2006</b>		
		<b>Domestic</b>	<b>Foreign</b>	<b>Total</b>	<b>Domestic</b>	<b>Foreign</b>	<b>Total</b>
1.	Malkangiri	30,000	-	30,000	33,390	18	33,816
2.	Balimela	74,000	-	74,000	76,190	-	76,190
3.	Chitrakonda	77,000	-	77,000	78,875	32	78,907
4.	Motu	38,000	-	38,000	40,535	-	40,535
5.	Satiguda	37,300	-	37,300	42,227	-	42,227
6.	Rajarani Bandha	-	-	-	3,600	-	3,600

Sl No	Name of the Tourist Centre	Year 2007			Year 2008		
		Domestic	Foreign	Total	Domestic	Foreign	Total
1.	Malkangiri	42,429	-	42,429	28,036	-	28,036
2.	Balimela	67,267	-	67,267	38,300	-	38,300
3.	Chittrakonda	69,677	-	69,677	36,542	-	36,542
4.	Motu	32,688	-	32,688	13,445	-	13,445
5.	Satiguda	37,116	-	37,116	27,858	-	27,858
6.	Rajarani Bandha	4,100	-	4,100	4,020	-	4,020

**Source:-** Statistical Bulletin, 2008 produced by Department of Tourism & Culture (Tourism) Govt. of Orissa.

It has come to know that the tourists who are coming to Orissa firstly prefer to visit the sea beach and Jagannath temple, Puri, Sun temple and sea beach at Konark, Cathedral town Bhubaneswar with Lingaraj temple, Rajarani temple, Mukteswar temple, Khandagiri and Udaygiri Caves later to Nandankanan Botanical Garden and Zoological park etc. If they are arriving during the festive occasions they will sure prefer to see the Car Festival of Puri, Bali Yatra of Cuttack, Buddha festival at Lalitgiri and Konark Dance festival etc. The next alternative tour to spend their leisure, business and Tribal Art, Culture is at Malkangiri of Koraput tourist circuit to enjoy the flora and fauna and mostly the Tribal Tourism and Culture. Koraput region mainly refers to undivided Koraput district namely Koraput, Nabarangapur, Malkangiri and Rayagada districts during the year 1992. The undivided Koraput district was one of the largest districts (second in rank) in the country. With an area of 27,020 Sq Kms. Koraput region (i.e. undivided Koraput district) is bounded in the north by Kalahandi dist. of Orissa and Raipur of Chhatishgarh and in south by Godavari and Vishakhapatnam of Andhra Pradesh and Ganjam

undivided (Gajapati district of Orissa) in the east by Srikakulam district of Andhra Pradesh.

#### **Other Attraction of Malkangiri District :**

This region has picturesque natural scenery with rolling mountain. meadows, roaring rivers, rapid waterfalls, lakes, water reservoirs about 3000 feet plateau, valleys and primitive and colorful inhabitants tribals like Paraja, Kandha, Gonda, Bonda, Durua, Koya and Santala. The tribals here enjoy varieties of living in different seasons with its misty marring of the monsoon month, golden autumn winter, the thrilling spring and moderate scorching summer. The geographical location still keeps this territory isolated from the coastal area. One enters the elevating Ghat roads spirally ascending the lofty hill and ascending the steps valleys passing through many sophisticated 36 railway tunnels from Rayagada to Koraput and 52 railway tunnels from Koraput to Vishakhapatnam enroute. The name of such unidentified tourist centre need to be identified by the District Administration in near future. They are as follow :

Name of the unidentified tourist centres	Importance	Distance from the Malkangiri district Hqrs. (in kms.)
Mudulipada	Bonda tribal village.	65
Mundiguda	Weekly market of Bonda tribes	55
Sitakunda	Pauranika Bath Pond of Sita Devi	70
Mathili	Place of freedom fighter	35
Amakunda	Perennial stream and scenic place	55
Chalsaguda	Bouddha Pitha	100
Bonda hill	Scenic spot & restricted Bonda tribes place	65
Manyam Konda	God Badyatra Pitha	75
Kiang	Udayagiri waterfall	65
Bheema Ghumpha	Cave near Gumpha Konda of Kalimela block	65
Tulasi Pahad	Scenic spot	55

#### Tourist Traffic during Malyabanta Utsav since 2002 :

Year	Foreign	Domestic	Total
2002	-	30,000	30,000
2003	-	50,685	50,685
2004	-	60,660	60,660
2005	-	70,660	70,660
2006	-	70,690	70,690
2007	-	73,300	73,300
2008	-	70,950	70,950

#### Tourism Project

No such Tourism Project is implemented in this district.

#### Local Tourist Guides :

Looking to the tourist potentiality and tourist flow in the district Department of Tourism in collaboration with the District Administration have trained 17 candidates as trained guides to facilitate the visiting tourists in the district.

#### Tourism Approved Hotels :

To provide better accommodation to the visiting tourists in the district, the following private hotels are available in the district:

Name of the Hotel / Lodging house	Contact Phone No.
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Hotel Malyabanta, Near Bus Stand	06861-230230
Hotel Basanti, Main Road	06861-230996

Hotel Rock Hill,  
R.C. Colony, Malkangiri 06861-230317

### **Travel & Excursion Agency :**

In order to provide better facilities to the tourists there are no such Travel and Excursion Agency approved by the Department of Tourism in Malkangiri district.

### **Sustainable Tourism Development in Malkangiri District :**

As Malkangiri has got rich potential in tribal culture, historical site, wooden handicrafts, colourful Malyabanta Utsav and Bada Yatra and Patakhanda Yatra, Eco-Tourism as well as Agriculture base tourism, water reservoir tourism

have got future prospectus for sustainable tourism development in the district.

Even though, it has got its own attraction to draw large number of tourists. The main drawback is road and transport facilities as well as infrastructure development and naxal activities. Therefore, incentive to private entrepreneurs is very much essential to promote tourism in this area.

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*Hon'ble Chief Minister Shri Naveen Patnaik reviewing on PMGSY at Secretariat on 25.4.2011.*

## Odisha and Climate Change Action Plan

*Gurukalyan Mohapatra*

Climate change, not only is the increase in temperatures, but its impacts, has been associated with a number of changes which have serious implications for the life on this planet. However, the 15th meeting of the Conference of parties (Cop 15) to UNs Framework Convention on climate change, held from 7th to 18th December 2009 at the Bella Centre in Copenhagen, Denmark was attended by 150 global leaders. The Conference attempted to increase the emission-reduction targets for the developed nations during the second commitment period of the Kyoto Protocol, which starts in 2012, next year.

Three years back, in June 2008, the Government of India's National Action Plan on Climate Change (NAPCC) was announced. It was a comprehensive strategy for dealing with both the inevitable impact of climate change, which required adaptation measures in several critical areas as well as mitigation of emissions of Green House Gases (GHGs). The Union Government has eight different missions, they are solar, energy efficiency, water, sustainable habitat, Himalayan eco-system, forests and sustainable agriculture and strategic knowledge. Besides, India is estimated as the fifth largest emitter of green house gases. The first solar Mission involves an ambitious target of 20,000 MW of solar capacity

in the country to be established over the next 12 years.

Odisha Government, seems one of the leaders in formulating the State Climate Change Action Plan (2010-2015) under the leadership of our Chief Minister Shri Naveen Patnaik. In August 2009, our Prime Minister Dr. Manmohan Singh had urged each State to create its own State level action plan consistent with strategies in the national plan. This was re-emphasized by the Union Minister of State, Environment and Forest, subsequently at the meeting of the Chief Secretaries in February 2010.

In the meantime, our Chief Minister Shri Naveen Patnaik has appointed a high level coordination committee, headed by the Chief Secretary of our State. The Committee consists of the following members under the chairmanship of the Chief Secretary B.K. Patnaik. The other members are - (1) Development Commissioner (2) Agriculture Production Commissioner (3) Principal Secretary, Finance Department (4) Principal Secretary, Housing and Urban Department (5) Principal Secretary, Fisheries and A.R.D (6) Principal Secretary, Steel & Mines Department (7) Commissioner-cum-Secretary, Agriculture Department (8) Commissioner-cum-Secretary, Commerce and Transport

(9) Commissioner-cum-Secretary, Health and Family Welfare Department (10) Commissioner-cum-Secretary, Revenue and Disaster Management Department (11) Commissioner-cum-Secretary, Energy Department (12) Commissioner-cum-Secretary, Industries Department (13) Commissioner-cum-Secretary, Water Resources Department (14) Principal Secretary, Forest and Environment Department. (Convenor) (15) Managing Director, OSDMA.

Odisha Govt.'s fiscal policy has been applauded by the Union Govt. as Odisha Government has adopted a rule based fiscal policy with medium term fiscal Responsibility and Budget Management Legislation. The State's economy was expected to grow at an average of 8 % per annum in real terms and 13 % in nominal terms during the Eleventh Plan Period. Since last year State Government felt that growth is to be inclusive yielding broad based benefits and equality of opportunity for all. In order to achieve high growth economy, the State proposed several initiatives, but climate change has the potential to derail the current growth strategy and deeper poverty in our State, as has been predicted.

Odisha, no doubt, is one of the first Indian States to develop a State Climate Change Action Plan. In the meantime, Govt. of Odisha has initiated climate change scoping study. Most of the Government of Orissa Departments that contribute carbon dioxide emissions or will need to adopt the climate change were consulted during the scoping study, which has done between November 2009 and February 2010. Subsequently, Government of Orissa has established 11 different sectors which are relevant to climate change. They are (1) Agriculture, (2) Coastal Zones and Disasters (3) Energy (4) Fisheries and Animal Resources (5) Forestry

(6) Health (7) Industries (8) Mining (9) Transport (10) Urban Planning (11) Water Resources.

Odisha is one of the most vulnerables to climate change. It has 480 kms. long sensitive coast line, which is a periodic recipient of climate risks such as cyclones and coastal erosion. Odisha is also rainfall dependent for its most non-irrigated land. Rice, a water dependent crop is the mainstay food for Odias. Our agriculture sector is vulnerable to vagaries of climate-induced weather changes. The vector-borne disease malaria is rampant in most of the tribal areas of our State due to many reasons. Poverty and malnutritions sometimes are hindering our way to development. Climate change as predicted, may impede poverty alleviation programmes in our State directly and indirectly compromising the current growth strategy. The direct impacts may be loss of life, livelihoods, assets, infrastructure etc. from climatic extreme events. So also, the indirect impacts could be the lagging behind in economic growth path etc. However, there should be more discussions on this topic for public awareness to save our State as well as our Country.

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## Development and Cultural Change Among the Kandh Tribals of Kandhamal

*Raghunath Rath*

Development means — to advance from a lower to a higher state or grow. It is a continuous process. Due to this process cro-magnon man reached to the present stage as we see now. But here development means that development of a human society from bad to lead a better life. The meaning of development is now divided into developed, developing and undeveloped categories. The so called developed societies look other two categories inferior to them. Likewise we the so called elite group of our society feels superior than the downtrodden mass.

Now development measured according to GDP growth rate at national level. But there is no indicator to measure the development at ground level. Tribals and rural mass at lower level of our society are enjoying the fruit of development in lesser degree in comparison to GDP growth rate. But if they look behind they feel developed from their forefathers and the least development in them is able to change their society and culture.

The term tribe has been derived from a middle English term Tribuz which has a Latin root. The term means three divisions into which the early Romans were grouped. The meaning of the term thus varies from nation to nation. For example Roman conceived the term as a political division,

while the Greeks seemed to have created the term with fraternities and in Irish history the term means families or communities having the same surname (Bagchi : 1992)

In Vedic period — A section of Dravidians who escaped defeat and did not surrender to the Aryans, continued to maintain their independent existence in the remote hills and forests. They are believed to be the forerunners of the various tribes in India. (Verma 2002 : 6). They were called as Sudras in Rig Veda and later renamed as Jana in Buddhist, purimic and secular literature of early medieval period, just to designate many communities whom we often refer to as the tribe (Bagchi : 1992).

So many definitions are also found to denote the term tribe. The Oxford Encyclopaedic Dictionary Vol.3 (1983) gives the meaning of a tribe is that — group of primitive or barbarous clans under recognized chief. The dictionary of Anthropology (1948) defined tribe that — tribe is a social group usually with a definite area, dialect, cultural homogeneity and unifying social organization. It may include several sub-groups, such as sibs or villages. A tribe ordinarily has a leader as have a common ancestor and patron deity. The families or small communities making up the tribe are linked together through social,

religious family or blood relation. The Imperial Gazetteer in 1891 gave the meaning that — A tribe is a collection of families bearing a common name, speaking a common dialect, occupying or professing to occupy a common territory and is not endogenous, though originally it might have been so.

Many scholars also attempted to define tribe according to their own observation in Indian context. Some of them are mentioned below : -

1. Distinctive tribe language and segmentary social structure (Baily, 1960)
2. Low level of techno-economic development (Dube, 1960)
3. Distinctive political mechanism and tribal solidarity (Orans 1965)
4. Habitat in a contiguous geographical territory (Naik — 1968)
5. Educational backwardness (Vidya : 1972)
6. Lack of specialization and least functional inter dependence (Bhoumik — 1980)
7. Predominantly rural, overwhelmingly illiterate, abjectly poor and depressingly malnourished and unhealthy (Singh, 1987) (Bagchi : 1992)

Government of India adopted following criteria to identify communities as the scheduled tribe.

1. Traditional occupation of a definite geographical area.
2. Distinctive culture which includes whole spectrum of tribal way of life, i.e. language,

customs, traditions, religious beliefs, arts and crafts, etc.

3. Primitive traits depicting occupational pattern, economy etc.

4. Lack of educational and techno-economic development (Verma 2002:9). Some scholars hesitate to accept the term Tribe for Scheduled Tribe people in Indian context. They used some other terms for them. Risley (1915) designates as aboriginal i.e. man of the soil. Hutton (1933) coined the term primitive tribe, while Shoober (1933) designated the tribe as a true aboriginal community. Ghurey (1959) referred the tribe as backward Hindus as according to him, the tribes of central India are neither isolated from the Hindu caste of the plains in the terms distribution and tradition, nor are they true autochthonous in their present habitat. They are imperfectly integrated with the caste system. The tribe is also termed in different names, viz, Adivasi (first settler or autochthonous) Bhumiputra (son of the soil), Janajati (folk people), Adimjati (original people), Vanabasi (inhabitants of forest), Vanyajati (Caste of forest), Upajati (sub-caste), Anusuchita Janajati (Scheduled tribe), Girijan (hill dwellers) and so on. But none of the term except the term Adivasi seems to be appropriate (Bagchi : 1992). Although, after long discussion by scholars the term tribe is widely used to denote Adivasis or aboriginals.

India adopted liberalization economic policy in 1991. This process opened the door for globalization. As such multi-national companies rushed to India and established heavy industries in tribal areas causing displacement of tribals from their beloved homeland and deprived of their culture. No doubt industrialization developed the surrounding area but tribals loose rights from natural resources which are exploited by the

company. Hence they became poorer to poorer. On the other hand modern market facilities increased in the area allured the Adivasis to drag from their culture and changes occurred very fast. But, though no heavy industry has been set up in Kandhamal district it is also not free from the effect of globalization as it influences every nook and corner of the country. As such changes could be witnessed in every sphere of Kandha inhabitants of Kandhamal district.

I feel it better to put here some demographic data of Kandhas of Kandhamal for better understanding of the tribe by the readers. Kandha tribe is the highest figured tribe in Odisha having a population of 11,04,037 as per 1991 census. The population of Scheduled Tribe in Kandhamal district is 3,36,309 as per 2001 census which is equivalent to 51.96% of the district population.

Scholars divide Kandhas broadly in three sub-tribes i.e. Kutia Kandha, Dongria Kandha and Desia Kandha. Dongria Kandha and Kutia Kandha are classified as primitive tribes. Desia Kandhas and Kuttia Kandhas are inhabiting in Kandhamal district. Kutia Kandhas form a small group having a population of about 10,000 who concentrate in Belghar hill ranges of Tumudibandha Block and some Gram Panchayats of Kotagarh Block area. Desia Kandhas are more developed than their counterparts and live in foot hill ranges and plain areas of all over the district.

Kandhas are settled agriculturists. They practise shifting (Podu) cultivation. Having a very little, most of them are marginal farmers or landless persons. Hence they are poor and comes under the category of below poverty line. Literacy rate of Scheduled tribes is 27.49% against 37.03% of total population of the district as per 1991

census. In 2001 census literacy rate of total population of the district increased to 52.68%. As literacy rate of S.T. is not available, it may be 37%. The literacy rate was 11.82 in 1961, 12.37 in 1971 and 18.59 in 1981 census. So literacy growth among S.T. community is very slow and most of the population is suffering from illiteracy.

Although, as the country is marching ahead through developmental programmes, tribals are also influenced by it and changes are witnessed in their every walk of life. We can find changes in their social, political, cultural, economic and religious spheres. Now it will be discussed in detail in following paragraphs.

### **Social Changes:**

Now Kandha boys and girls are going to schools and some educated individuals have been employed in good jobs also. But they hesitate to identify their tribal origin at their service place as they feel shame. Dr. Manmath Kundu, former Director, Academy of Tribal Dialect and Culture, Bhubaneswar narrated his experience about a tribal Bank employee of Phulbani placed at Cuttack and one Minister of tribal origin - how they tried to hide their tribal identity before him. According to him — what Gandhi said about then English knowing people is true of educated tribals. They are foreigner in their own land and among their own people x x x. Thus education is deculturising tribal society and poor illiterate tribals are the true carrier of their culture. I have also experienced during my field visits about this. Half educated Kandha youths are fond of viewing cinema and composing Kui songs in cinema song style. Now they are using fullpants, shirts, boots and shoes, wrist watches, spectacles etc. Some tribals are riding bicycles and two wheelers also. They are also using bathing soaps, scented oils etc. which were not known to them before one

or two decades before. Kandha youths are also chewing pan, smoking bidi and cigarettes, drinks foreign liquor at times. They also take meals, tiffin and tea in hotels when they came outside their village, but the older generation hesitate to do this. Kandha girls are now wearing imitation jewelleries leaving traditional ornaments. Students of both the sex are wearing modern garments now a days. Need of footwears are increasing among the Kandha youths.

Deforestation is a big problem in Kandha area now. Forest was the rice bowl of Kandhas. They collect root, tubers, fruits from forest and materials for constructing houses as well as collect minor forest products also. But deforestation brings the Kandhas a big setback. So now they are searching for wage earning, which is not the culture of Kandhas.

Kutia Kandhas were liking to remain unexposed to outside world. I have noticed a house in 1996-97 at a little distance from the main road to Belghar. The house was not visible from the road as a small jungle was in front of it. To my astonishment in 2003 I found there the house from the road and the jungle was cleared up. This shows the change of their belief system. N.G.Os and govt. agencies are able to create awareness among the Kandhas about their rights by constant touch. Another factor is that time to time ethnic disturbances also make the Kandhas aware about their rights instead of adverse effect. In 1996-97 I with a research scholar for doctoral degree went to a Kutia Kandha village surrounded with thick forest near village Matrugam in Mundigarh G.P. of Tumudibandha Block and heard songs from a tape recorder. There is no electric facility in that village. The owner of the tape recorder replied to my question that an A/C battery is used to activate the instrument and at intervals the battery is being charged at Mundigarh. We also found that a family also used modern cot. Now radio, television is

widely found in Desia Kandha villages which enhanced communication facility.

### **Political Change :**

There was a village council in every Kandha village headed by a Head man (Deri loku). Except the Headman the priest (Jani) the medicine man (Disari) etc. are the main members. One adult male member from every household is selected as member of the council. All disputes with families in the village, land disputes, divorce, other problems regarding marriage relations, functioning of religious institutions were discussed and decisions made in the council unanimously.

But introducing of voting process after independence of the country enhanced power of village council. Adoption of Panchayati Raj system caused a great loss to the village council. Village council in Desia Kandha villages almost all are defuncting and Ward Members, Sarapanch, Samiti Members took the place of village council. As regards land dispute and marriage problems Kandhas now take shelter of police station and court.

There were oneness with all the families in every Kandha village. All the members spread helping hands for the needy family in the bygone days. But the party politics system of election created enmity with each other which causes a great loss to their oneness concept and Kandhas became self centered gradually. The party politics system deculturised the Kandhas from their original culture.

An example may be cited here regarding construction of a Gram Panchayat office building which divided some villages to create vote bank with the motivation of non-tribals. A new Gram Panchayat has been created under reorganization scheme in Kutia Kandha area. The office building also constructed at the headquarter village of the

G.P. But some other party members succeeded to influence some villagers that the G.P. headquarter is distant to their area. Hence they pointed out a village to construct the G.P. office to facilitate them. As such, the problem dragged the notice of the Secretariat and the knowledge of minister also. Whatever the result may be the tussle broke peace and brotherly relations among tribal villagers which is a great cultural loss to tribals.

### **Cultural Change :**

Dormitory system was prevalent in Kandha society for unmarried girls. Girls attaining the age of ten and above were permitted to sleep in the dormitory. Boys from other villages visit dormitory and the girls entertain the boys with country cigar and then they dance with the boys. This dance is known as Dhangada Dhangidi dance and they choose life partner from it.

Dormitory was the cultural centre of the Kandhas. Dormitory was the birth place of folk literature like songs, tales, riddles etc. Moreover it was the place to learn social behaviour and social laws.

But since some years past the system has been stopped. So the stream of folk literature has totally dried-up and learning of social behaviour and social law also disturbed. This is a great cultural setback to Kandha society.

Tattooing was practiced among the Desia Kandha females. That was their clan identity. But tattooing on the face makes the female ugly. The system has been stopped. Though it may not be a cultural loss but Kandha women lost their clan identity mark.

It is the custom in Kandha society that bride price is given by the groom to the father of the bride. Dowry system was not known to Kandhas. But now a days employed educated

mass are taking dowry like motor cycle, cycle, wrist watches, radio, television and other modern accessories. Marriage is solemnized by Brahmin priests in Hindu pattern and earthen platform (bedi) also constructed for the purpose. Last year I have invited to such a marriage of a Kandha friend. I do not find any tribal element there, rather I felt that it is a Hindu marriage. Invitation cards are now printed and distributed to the friends by the Kandhas for different ceremonies. Brahmin cooks are also engaged for feasts. Some educated Kandhas solemnized birthday of their children by lighting candle and cutting cake just like English men. They are also naming their children in modern names instead of traditional name.

### **Effect of economic growth :**

Systematic attempts were made in all the five year plans for all-round development of tribals of the country. So different projects were implemented in tribal areas including some micro projects for primitive tribes. Loans on subsidized rate are also given to tribals. So contractors were created by village committees and Gram Sabhas. The contractors tried to get self benefit by cheating their own people in wages and otherwise. He tries to finish the contract work possibly in low cost and low quality. But the economic condition of the person concerned increases and his behaviour and life style began to be changed mixing with officials. Hence he felt proud and began to hate others of his village. So a gap between the contractor and other people of the village has been increased and he became a foreign member within his own people. So also the educated people who are employed in different jobs and got monthly salary could be able to increase their economic condition.

The half educated youths became lazy, idle and felt ashamed to their day to day traditional work. They are allured towards modern

civilization. Hence their economic condition deteriorated day by day. Those who availed loan from Banks also lose their mortgaged lands due to non-payment of loans and became poorer. An example may be cited to understand the fact. During 1996-1998 district administration of Kandhamal decided to launch road transport scheme to improve communication facilities to every corner and to improve the economic condition of tribals. Accordingly a group has to be formed consisting of more than twenty members to form a society with President, Secretary, Treasurer according to the norms of Society Registration Act, 1860 and the society should be registered. Then the society has to purchase a jeep or commander or a tractor with the availed loan from a nearby Bank. The Bank financed to many societies and they also purchased the intended vehicle. But the business failed with loss within a year or two. Then Bank authorities took legal action and the poor tribals lost their lands or crops.

The reason behind loss is that tribals never carried any business and they do not have any idea of business. Very often the Secretary of the society was a non tribal mostly belonged to Pana caste and he misappropriated the income derived from the business. So it incurred loss from the very beginning and the tribals compensate the loss with the value of their property. But one thing happened here that tribals were aware about cheating of nontribals and they began to disbelieve them.

### **Religious Change :**

Religious faith depends upon belief system which is the binding force of a society. Accordingly Kandhas have their own belief system. But that belief system also changed during the course of time. Some Kandhas converted into Christianity

and they abandoned their tribal belief system. Some of them also initiated in Sanatan pantheon of Hindu ideology. They do not eat meat or fish and gave up drinking. They also adorn with sandal wood paste on their forehead and wears purple cloth and worship Hindu gods. But they do not give up their tribal belief system. They also wear thread like Brahmins. Nam Sankirtan is spreading in northern Kandhamal from last three decades. Kandhas originally believed that suffering is caused by evil spirit and they called Jani, Disari to appease the evil spirits to cure the patient. But now they take the help of hospital and modern allopathic medicines for curing diseases. Traditional worships and festivals are found decreasing among the Kandha society day by day also.

Developmental plans introduced by government to uplift the tribals make changes in the life of Kandhas. No doubt the aim of the government to bring the tribals to the mainstream is a good sign. But the effect of development causes negative. The tribals are deculturised from their own culture. The reason behind it that development plans made in the A/C rooms at capital city are not suited to tribal environment. So developmental programmes are felt to them as burdens.

In Chapter-III of the 'Report of Special Multipurpose Block Committees' headed by Verrier Elwin the great anthropologist suggested in 1860 that —

1. People should develop along the lines of their own genius and should avoid imposing anything on them. We should try to encourage in every way their own traditional art and culture.
2. Tribal rights in land and forests should be respected.

3. We should try to train and build up a team of their own people to do the work of administration and development. Some technical personnel from outside will no doubt, be needed, specially in the beginning. But we should avoid introducing too many outsiders into tribal territory.

4. We should not over-administer these areas or overwhelm them with a multiplicity of schemes. We should rather work through, and not in rivalry to, their own social and cultural institutions.

5. We should judge results, not by statistics or the amount of money spent, but the reality of human character that is evolved. (Elwin : 1960)

It is a matter of regret that when developmental activities implemented in tribal territories suggestions of Elwin Committee are overlooked and greatly neglected. So the very aim of the Committee to keep tribal areas unexposed for conservation of tribal heritage in fact has been totally failed. The process now adopted by government agencies to bring the tribals into the mainstream through developmental work deculturised them. So programmes may be drafted in such a manner, that tribals will come to the mainstream without harming to their colourful heritage. If not, we cannot deny negative impact of the developmental schemes and we have to lose the valuable tribal heritage very soon. So also the peer group may lose tribal identity within coming fifty years.

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## NGOs and the Development of the Tribal People – A Case Study of Keonjhar District

*Subhrabala Behera*

Development is a dynamic and multifaceted phenomenon. The correct philosophy of development like equity participation, gender equality, sustainability and empowerment of the weaker sections cannot be incorporated in the process of prosperity by Governmental Organizations or Non-Governmental Organizations alone but by their collaboration. As a result of which, the voluntary sector gains momentum for accelerating development in the socio-economic field. Being familiar with the conditions of people voluntary organizations really makes things viable, communicable, and accessible to them and tries its very best for the re-establishment of their attitudes, aspirations, accomplishments and abilities in a proper way. Developmental role of NGOs is preparing the people for a change which is basically an advocacy role, viz. development of education, incorporating self-sustainable development philosophy, and form public opinion about govt. policies or social issues, consciences for environmental problem, literacy, health, use of appropriate technology for family planning and empower the poor to overcome psychological inhibitions and opposition of appraisers. NGOs work in relief and delivery of public goods as direct suppliers and majority of the development by NGOs are

involved directly in productive activities. Role of direct supplier or implementer is relevant where bureaucracy is indifferent or inefficient, programmes lack flexibility and cost effectiveness, poor are ignorant, elites are ambitious, success and services are reconditions for motivation, etc.

As Keonjhar district with 5.33% of the state area and 4.35% of the state population occupies the 12<sup>th</sup> position in respect of both population and area of the State. But more than half of population that is 56% of its total population is tribals. It is a tribal concentrated district of Orissa.

The tribes are mostly seen in Baripal, Telkoi, Harichandanpur, Ghatgaon, Keonjhar, Patna, Sahanpur Block of Sadar Sub-division and Joda and Champua Blocks of Champua Sub-division. The Scheduled Tribes of Keonjhar district which totalled 4,99,657 in 1981 Census increased to 5,95,184 in 1991 Census thus registering a growth of 11.90% in a decade (1981-1991). As per 1991 Census there were 46 scheduled Tribes in the district. Out of these the principal tribes were Bathudi, Bhuyan, Bhumij, Gond, Ho, Juang, Kharwar, Kisan, Kolha, Kora, Munda, Oram, Santal, Saora, Sabar and Sounti. These 16 tribes constituted 96.12% of the tribal population of the district.

The concentration of Scheduled Tribes is the highest in Keonjhar and lowest in the Anandpur Sub-division. The majority of the STs are in agricultural occupations or in mining, quarrying and other services. The literacy among the STs was 15.25% in the 1981 Census but it was increased to 24.89% in the 1991 Census. The percentage is higher than the state average of 22.31%. Changu, Chhau, Juang, Ho etc. are some of the important dances of tribes. On festive occasions dancing is indispensable. Most tribal villages have Akhara where men and women assemble together to dance to the tune of indigenous music. The tribes of the district observe a number of festivals all the year around. These festivals are Sarhul, Sohrai, Karmapuja, Bodam, Chaitra Parab or Uda Parab, Makar Sankranti, Nuakhai, etc.

## CASE STUDY

### Organisation Profile:

I had visited a no. of NGOs which are working for the development of the people particularly for the tribal people of Keonjhar district as it is a tribal concentrated district.

Among them, Wosca, AVS, SWASTIC, BAITARANI are some of the NGOs which are working in Keonjhar District. These are non-profit, non-political and non-governmental organizations, which are the outcome of the long interaction between some committee, educated youth and the deprived and neglected; belonging to the weaker sections, women and particularly to the tribal people as Keonjhar is a tribal concentrated

**Table**

### Block wise STs population in Keonjhar (1991 and 2001 Census):

Sl. No.	Blocks	1991 Census			2001 Census		
		Person	Male	Female	Person	Male	Female
1	Anandpur	38658	19387	19271	45542	22721	22821
2	Bansapal	56013	27743	28270	67215	33231	33984
3	Champua	37601	18567	19034	45419	22781	22638
4	Ghasipura	23693	12066	11627	25125	12674	12451
5	Ghatagaon	55122	27464	27658	63618	31903	31715
6	Harichandanpur	55333	27945	27388	66779	33765	33014
7	Hatadihi	20673	10513	10160	25833	13159	12674
8	Jhumpura	40438	20156	20282	48112	24098	24014
9	Joda	52426	26106	26320	61713	31061	30652
10	Keonjhar	58036	29017	29019	67264	33787	33477
11	Patna	41972	20772	21200	47752	23847	23905
12	Saharapada	29732	19521	20211	44652	22057	22595
13	Telkoi	37915	19178	18737	44518	22413	22105

district. The Non-Governmental Organizations have motto to carry out any sort of action which will improve the economic, rural, social and environmental standards of the people with human dignity and to provide the needy with legal assistance as far as possible free of cost.

#### **Location and Legal status:**

The registered office of WOSCA (Women Organisation for Socio-Cultural Awareness) is located at/po-Mandua, Dist.-Keonjhar, PIN-758074. WOSCA was registered under Societies Registration Act XXI, 1960, bearing Registration No. XYR-2308-316, dated 20<sup>th</sup> April, 1993.

The registered office of AVS (Anchalika Vikasa Samiti) is located at/po- Dhangadadiha, via-Ghatgaon, Dist. Keonjhar, PIN-758023. AVS was registered under Societies Registration Act XXI of 1960, bearing Registration No. KJR-2455-356/1995-1996, dated 25<sup>th</sup> March, 1996.

The registered office of SWASTIC (Centre of Social Welfare and Awareness for Strengthening Tribal Inhabitants) is located at-Kamargoda, College Road, Keonjhar-758001. SWASTIC was registered under Societies Registration Act XXI of 1860 in 2004.

The registered office of BAITARANI is located at – Bhattasahi, po-Keonjhar Bazar, Dist-Keonjhar, PIN-758002. BAITARANI was registered under the Societies Registration Act XXI of 1960, bearing Registration No.KJR-4616/92, Dated 15<sup>th</sup> November, 2003.

#### **Area of Operation:**

The operational area of all these organizations are all over the geographical jurisdiction of Keonjhar district which may

likely to be extended in course of time as per the need and demand of the people. But for the time being, WOSCA is working in Keonjhar Sadar, Patna, Ghatagaon, Hatadihi, Joda, Harichandanpur, Jhumpura, etc. blocks. SWASTIC is working in Keonjhar Sadar, Jhumpura, Harichandanpur, Banspal, Ghatgaon, etc. blocks. AVS is working in Ghatagaon block. BAITARANI is working in Keonjhar Sadar, Banspal, Saharpada, Patna, etc. blocks.

#### **Aims and Objectives:**

All the organizations are having the same aims and objectives to bring social change, economic reformation and to make the people self reliant in their individual life. The organizations plan to work out the following aims and objectives-

- Improving the economic, social, environmental etc. standard of the people.
- To stimulate self-help and self-reliance through various field training programmes.
- To provide health and education to women and children.
- To carry out environment promotion programme through safe drinking water among the needy, establishment of latrine in the school campus and in common places.
- Publishing of news, letters, booklets, periodicals, leaflets, etc. with the aims of creating awareness among the people.
- To facilitate free boarding and lodging to the SCs and STs School children for higher education.
- To organize sports competition among the school children and the village youths to

- represent in the state, national and international level.
- To provide employment guarantee by implementing various income generating programmes.
  - To organize work committees, to fight against dowry deaths and women atrocities.
  - To bring out the community wastelands and individual lands under plantation programmes to make land green and ecologically balanced.
  - To arrange irrigation facilities and other facilities to the lands of small and marginal farmers for production of more food grains.
  - To take up infrastructure development like construction of village connection roads, excavation of tanks for pisciculture, construction of ring bond, etc. for the development of the people.
  - Strengthening local governance at grassroots through PRI initiatives.
  - Sustainable development of livelihood of under-privileged marginalized oppressed groups.
  - Women's empowerment, promotion and strengthening of Selp-Help Groups.
  - To provide environment education and promote village sanitation.
  - To develop human resource and literacy.
  - Provide employment through establishment of technical, non-technical and vocational training institute.
  - To provide awareness programme on STDs/HIV/AIDS.

- Handicraft promotion and development of rural artisans.
- Revamping of culture for better living.
- Marketing of rural agricultural and handicraft products.
- Land development and natural resource management activities.

#### **FINDINGS OF CASE STUDY:**

The organizations are planning to take up various developmental projects with the active support of Government in the years to follow. Till date, the organizations assistance to take up various developmental projects, lack of adequate funds has of course stood as a great hindrance. But this hindrance has not been able to differ the organization from its determination. They hope to serve the people more and more with the active support and financial assistance of the Government of Orissa, India and also from other Foreign Funding Agencies.

My chief purpose therefore, at this point is to make a study of the functions of the non-Governmental organization for the development of the people particularly for the development of the tribal people. In this regard I have probed into the initiative, interest, involvement and innovativeness of the above said NGOs for the socio-economic development of the people.

Thus, I have analyzed on the basis of the answers given by 100 sample respondents which have collected from the people of different villages of the Keonjhar District. As far as practicable, I have tried my best to penetrate into the life of the villagers for my field study through questionnaire and chosen 60 male and 40 female as sample of the total

population, the reaction of whom to a large extent reflect the workings of these NGOs which have worked in their area. Since most of the sample respondents taken are illiterate, I personally interviewed them and their responses have been recorded correctly and honestly.

### Respondent's Profile:

To have an upto date information in general awareness and overall implementation of various development policies in their area, I asked them about the various policies of the Government. Their responses are recorded in the following Table-I.

**Table-I**  
**Awareness of Respondents towards the Development Policies.**

Sl. No.	Variables	Total No. of Respondents	No. of Respondents attributed to the Variables	% of the Total No.
1.	MGNREGS	100	90	90
2.	Indira Avas Yojana	100	89	89
3.	NRHM	100	50	50
4.	Rajib Gandhi Gramin Vikas Yojana	100	40	40
5.	Antodaya Anna Yojana	100	85	85
6.	Annapurna Yojana	100	85	85
7.	Gopabandhu Grameen Yojana	100	40	40
8.	Mo Kudia Housing Programme	100	45	45

*Source:* Computed from the data collected through the Questionnaire.

It is found from the above table that majority respondents i.e., 90% know about

MGNREGS and Indira Avas Yojana. 85% have awareness about Antodaya Anna Yojana and Annapurna Yojana. 50% are aware about NRHM, 45% aware about Mo Kudia Housing Programme, 40% aware about Rajib Gandhi Gramin Vikas Yojana and Gopabandhu Gramin Yojana.

Hence, it is very clear that to my foremost questions in order to know their general awareness on various developmental policies. They responded very affirmatively. Their awareness, therefore, reveals that they are conscious and anxious about socio-economic development of their area.

Table-II shows that the media and agencies bringing awareness among the people about the various policies.

**Table-II**  
**Agencies and Media bringing awareness among the people.**

Sl. No.	Variables	Total No. of Respondents	No. of Respondents attributed to the Variables	% of the Total No.
1.	Newspaper	100	40	40
2.	TV	100	50	50
3.	Radio	100	40	40
4.	Fleeted Representatives	100	45	45
5.	Educational Institutions	100	35	35
6.	NGOs	100	75	75
7.	Any other	100	30	30

*Source:* Computed from the data collected through the Questionnaire.

The above table presented clearly that a noticeable number of respondents, i.e., 75% are practically equipped and stimulated by NGOs about such policies. While 50% people among the villagers know from TV, 45% from

elected representatives, 40% from newspapers and radio, 35% from educational institutions and 30% from other sources.

My next task was to make to probe into the consciousness of the respondents about the implementation of various policies through various bodies and sectors. To find this, I put them the questions- who have implemented such policies in your area ? The table-III below shows their responses.

**Table-III**  
**The respondents' consciousness about the implementation of policies.**

Sl. No.	Variables	Total No. of Respondents	No. of Respondents attributed to the Variables	% of the Total No.
1.	Government Authority	100	45	45
2.	NGOs	100	75	75
3.	Local Leaders	100	40	40
4.	MPs	100	20	20
5.	MLAs	100	25	25

*Source:* Computed from the data collected from the Questionnaire.

The aforesaid table clearly mentions that, out of the 100 respondents 75% people go in favour of the NGOs, while 45% for Government Authority in the field of implementation of the policies. 40% of the respondents states that as the local leader is in direct touch with the area, so they promote the policies. 20% supported MPs, while a further 25% viewed that the Municipality is also working in the field.

The analysis make in the preceding paragraph clearly manifests that the chief source of initiative for the implementation if various developmental policies comes from the NGOs.

After analyzing degree of awareness, interest and consciousness of the respondents about the developmental policies, the next point of my enquiry is to know that the respondents of the villages came to know about the NGOs. This has been displayed in the following table-IV.

**Table-IV**  
**Respondents' awareness about NGOs.**

Sl. No.	Variables	Total No. of Respondents	No. of Respondents attributed to the Variables	% of the Total No.
1.	Personal Contact	100	35	35
2.	Members of the NGOs often came to your area	100	55	55
3.	NGOs provide service in your area	100	80	80
4.	NGOs adopt development projects in your area	100	80	80

*Source:* Computed from the data collected through the Questionnaire.

The aforesaid statistical data reveals that a vast majority of the respondents i.e., 80% state that the NGOs provide service and developmental projects in their area. So that they came in contact with the organization. 35% bears a personal contact with the members of the organization. Quite a sizeable portion of the village i.e., 55% are satisfied with the organization, because its members often came to them for fulfilling and solving their day-to-day necessities and problems.

A study of the socio-economic development through the NGOs would be known only by analyzing the awareness, interest and perception of the respondents about the development policies, without a probe into the functioning of the organization and the level of satisfaction of the respondents. I, therefore, at this stage enquire into the aspect by putting the questions-Are you satisfied with the various development programmes undertaken by the NGOs in your area ?

**Table-V**

**Level of satisfaction of the Respondents by various developmental programmes undertaken by the NGOs.**

Sl. No.	Variables	Total No. of Respondents	No. of Respondents attributed to the Variables	% of the Total No.
1.	Health Programme	100	75	75
2.	Environmental Awareness Programme	100	65	65
3.	Educational Programme	100	70	70
4.	Family welfare Programme	100	65	65
5.	Anti-Drug Abuse Programme	100	60	60
6.	Child Survival Programme	100	70	70
7.	Employment Guarantee Programme	100	90	90
8.	Cultural Activities	100	55	55
9.	HIV/AIDS/STD Awareness Programme	100	50	50
10.	Women problem solving Programme	100	70	70
11.	SHG and IG Activities	100	90	90
12.	Vocational Training Programme	100	80	80
13.	Micro Finance	100	90	90

14.	Agricultural and Farmer's Training Programme	100	55	55
15.	Legal Awareness Campaign	100	65	65
16.	Awareness Generation Programme	100	70	70

**Source:** Computed from the data collected through the Questionnaire.

It is clear from the above table that respondents in a large number i.e., 90% are satisfied with employment guarantee programme, SHG and IG activities, micro finance activities of the organizations. While 80% are satisfied with vocational training programme, 70% with health programme, educational programme, women problem solving programme, awareness generation programme whereas 65% with environment awareness programme, family welfare programme, legal awareness campaign. 60% with anti-drug abuse programme, 55% with cultural activities and agricultural and farmers training programme and 50% are satisfied with HIV/AIDS/STD awareness programmes.

My next step is to know the respondents' view about the kind of development they achieve through the functions of the NGOs.

**Table-VI**

**Respondents' view about the kind of development they achieve through the functioning of the NGOs.**

Sl. No.	Variables	Total No. of Respondents	No. of Respondents attributed to the Variables	% of the Total No.
1.	Social Development	100	80	80
2.	Political Development	100	65	65

3.	Economic Development	100	85	85
4.	Legal Development	100	60	60
5.	Environmental Development	100	75	75
6.	Psychological Development	100	50	50

**Source:** Computed from the data collected through the Questionnaire.

It can be well educated from the above table that 85% of the total respondents are satisfied with economic development initiated by the organization. 80% of the total numbers are of the opinion that they achieve a credible development in the social field through the functioning of the NGOs, 75% are capable of broadening them prolifically and environmental horizon and 65% are sense of participatory attitude towards politics. And further 60% are satisfied with the legal development and 50% psychological development undertaken by the organizations.

Respondents are the centre, around which not only the organizations but also the morals, motivations and functions of the organizations revolve round.

My objective of the study i.e., the development of the tribal people by the NGOs as analysed in the above paragraphs brings to the conclusion that NGOs are capable of initiating and bringing developmental programmes in the village areas of different Blocks of the Keonjhar district especially for the tribal people, along with full cooperation and collaboration of the people.

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*Hon'ble Chief Minister Shri Naveen Patnaik inaugurating Dr. Harekrushna Mahtab BDA Park at Bhubaneswar on 27.4.2011.*

# Protection of Plant Varieties in India :

## An Overview

*Dr. Baburam Singh*

In compliance to its obligation under section 27.3 (b) of the Trade Related Aspects of Intellectual Property Agreement (TRIPs), India enacted Protection of Plant Varieties and Farmers' Right Act (PPV&FR Act) in the year 2001 and its Rules in 2003. The Protection of Plant Varieties and Farmers' Right Authority was established in the year 2005. The Authority invited applications for registration of Plant Varieties belonging to first set of 12 crop species from November 2006 and formal registration of varieties started from 20th February 2007. In the meanwhile 4 years have passed since the registration of varieties started in our country and it needs assessment and introspection.

Data published in the PPV & FR Authority website (1) indicates that by the end of the year 2010, 2118 applications were received in the Plant Variety Registry for registration. Out of these 1222 applications belong to extant variety category; 841 from new variety category and remaining 55 were from farmer's variety group. Relative contributions of different categories to total application filing reveals 57.29% from extant category, 39.7% from new variety category and only 2.50% from farmers' variety category respectively. Looking to the number of applications filed over last four years, the filing figure appears

to be quite disappointing and more specifically in case of filing from farmers' varieties.

In November 2006, the Authority notified 12 crop species (Rice, Bread Wheat, Pearl Millet, Sorghum, Maize, Pigeon Pea, Chick Pea, Green Gram, Black Gram, Kidney Bean / French bean, Lentil and Field Pea / Garden Pea) and opened their registration. Later four species of cotton and two species of Jute were included to this list. As of now as many as thirty species are opened for registration under PPV & FR Act 2001 in India. The species which were opened for registration in third phase are Sugarcane, Ginger, Turmeric, Black Pepper, Small Cardamom, Sun Flower, Soya bean, Indian Mustard, Rape seed. Potato, Tomato, Brinjal, Garlic, Onion, Okra, Cabbage, Cauliflower, Rose and Mango are included in the fourth phase for registration.

In the PPV & FR Act there is a provision of registering of extant varieties within three years from the date the species is notified and opened for registration. However, in case of farmers' variety the Government of India has extended the time period to five years instead of three years stipulated for extant varieties looking to poor progress in registration of farmers' varieties. New varieties are to be registered within one year of

its release or before the first commercialization of its propagating materials in the country of origin.

By the end of year 2010, the PPV & FR Authority has completed registration of 217 crop varieties (2) and issued registration certificates in favour of the applicants. Out of the 217 registrations made, 187 were in favour of Indian Council of Agricultural Research (ICAR), New Delhi, 11 were in favour of State Agricultural Universities, 16 in favour of private seed companies and only 3 in favour of farmers and farming communities. Of the 11 varieties registered from State Agricultural Universities, 7 were in favour of Orissa University of Agriculture and Technology (OUAT), Bhubaneswar; 2 in favour of Birsra Agricultural University (BAU), Kanke and remaining 2 in favour of Dr. Punjab Rao Deshmukh Krishi Vidyapitha, Akola in Maharashtra.

Of the 16 certificates which were issued to private seed companies, 6 were in favour of New Nandi Seeds Corporations, Gujarat, 3 in favour of J.K. Agri-genetics Limited, Andhra Pradesh; 2 each in favour of Maharashtra Hybrid Seeds Company Limited, Maharashtra, Vikram Seeds Limited, Gujarat; Ajit Seeds Limited, Maharashtra State respectively and 1 in favour of Ankur Seeds (P) Limited, Nagapur, Maharashtra State.

Of the 3 farmers' varieties registered in the country by the end of 2010, two (Tilak Chandan and Hansraj) were in favour of farming community and 1 (Indrasan) in favour of an individual. In 2009 as many as 168 registrations were completed by the PPV & FR Authority and in 2010 only 49 registrations were made.

A crop wise break up of plant variety registration scenario till 2010 is presented in

Table-I. The highest number of plant variety registration was made in crop Bread wheat followed by Maize and Pearl Millet.

Table: Plant Varieties Registered till 31.10.2010 in India

Sl.No.	Crop	No. of varieties
1.	Rice	11
2.	Bread Wheat	48
3.	Pearl Millet	29
4.	Sorghum	13
5.	Maize	45
6.	Black Gram	9
7.	Field Pea	15
8.	Green Gram	20
9.	Lentil	9
10.	Kidney Bean	3
11.	Garden Pea	5
12.	French Bean	2
13.	Chick Pea	2
14.	Cotton	7
<b>Total</b>		<b>217</b>

Of these 217 registrations, 146 belong to cereals and 64 belong to pulses and only 7 varieties belong to commercial fibre crop cotton.

By the end of 2010 only 2 new varieties were registered and they are W6001 and W6301 of bread wheat crop.

Registration of crop varieties under PPV & FR Act 2001 confers legal ownership on the breeder over his developed variety and grants him exclusive commercial right for a limited period of (15-18 years depending type of crop species) of time (3). Breeder can exploit his exclusive right (known as breeder right) to derive financial benefit

from the commercialization of his protected variety. This provides scope of getting back his investment in plant breeding research and to generate some profit. Registration of a variety also helps in checking bio-piracy and mis-utilisation by unauthorized users.

Like institutional varieties, farmers' varieties can be registered in the name of farmer, a group of farmers or community and the farming community can be benefited from the commercialization of the protected varieties and benefit sharing provision in the Act.

Grant of legal ownership for a limited period over the developed variety will encourage both public and private investment in plant variety research and widen the availability of superior variety in the market. This will facilitate rapid growth in agriculture and improve economic condition of our farming community.

In an era of globalization and intellectual property regime where the biotech industries will play a greater role in development of plant variety the gene trade across boundary is likely to go up in coming days. There is tremendous scope for gene rich countries to derive benefit out of gene trade.

Therefore whole hearted efforts need to be made to register all our plant varieties including farmers' varieties within stipulated time frame set by authority to acquire legal ownership over plant varieties and to derive economic benefit out of their commercialization. Our country has rich biodiversity and huge potential for plant variety research and development to take full advantage of various provisions of the PPV & FR Act 2001. Let us join our hands to make this mission a successful one.

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# Enriching Technology Communication in Mass Media

*Basanta Kumara Das*

**AIM** – The main aim of this paper is to thrust upon the technology communication in general and development in particular. India leads the world in creating better technologies for reaching ordinary people and the grass roots. The main aims and objectives of this paper is how to use those technologies for the common good and national development. For this purpose technology should be well communicated to the masses through different media. Technology communication is not equal with Communication technology. Communication technology is creating a worldwide linkage for sharing the knowledge across the globe. Whereas “Technology communication” means technological literacy and technological temper transmission from classes to masses that is common people.

## **Definitions of technology :**

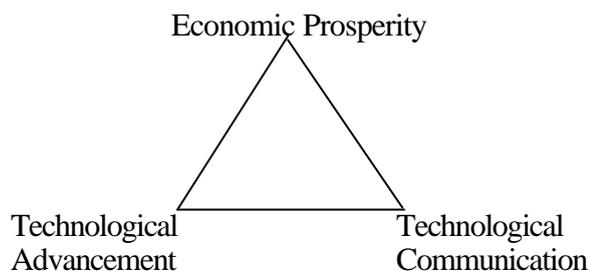
1. It is the application of practical or mechanical science to industry for commerce in which scientific methods are used in a particular field.
2. It is a nonlinear tool that can affect the most fundamental chains in the ground rules of economic competitiveness. It is the confluence of multiple scientific disciplines tested and proved and put to use for nation's prosperity.
3. It can be stated as the maturity of scientific discovery for multiple applications.
4. It can be defined as application of science and is believed to have descended in

man's world earlier than science. The quest of public for science design from their urge to master technology.

5. It involves in-depth scientific and engineering knowledge and understanding of man made things such as machines, engines, gadgets equipments, instruments etc. Obviously it involves knowledge and usage of scientific and engineering terms.
6. It is the application of knowledge to the practical aims of human life or for changing and manipulating the human environment. Technology includes the use of materials, tools, techniques and sources of power to make life easier for more pleasant and work more productive. Whereas science is consent with how and why things happen, technology focuses on making things happen. Technology began to influence human endeavour as soon as people began using tools. It accelerated with the industrial human labour. Accelerated technological development has also had costs in terms of air and water pollution and other undesirable effects.

**Types of Technology :** Sunrise Technology, Information Technology, Bio-technology, Nano-technology, Bio-informatics, Mass addition technology. ICT, Engineering and Technology, Aviation Technology, Aeronautical Technology, Plastic Technology, Food Technology etc.

**Output of Technology :** Technological advancement gave rise to revolution and better quality of production in the country that is Green, White, Pink, Blue and Brown revolutions in the country.



**Communication :** It is derived from the “Communis” means common participatory information and its transformation. It can be defined as the interactive transformation of message, information, knowledge, fillings though meaningful signals or symbols from one person to another individual or individuals.

**Technology Communication :** Technology communication can be define as the application of practical or mechanical science to industry for commerce in which scientific methods are used in a particular field and the interactive transformation of message, information, knowledge, filling through meaningful signals or symbols from one person to another individual or individuals.

**Dimensions of Technological communication :** There are two major dimensions of technological communication which may be reflected in print and electronic media in simple manner that is

1. Economic prosperity –
  - a) For example chemical technology for fertilizer (high yield crops)
  - b) Rocket Technology for atmospheric research helped in launching satellites for remote sensing and communications.
  - c) Aviation technology important for passenger and cargo jet.

d) Disaster management.

2. National Security –

- a) For development of missiles with specific defence needs for the security of the country
- b) Aviation technology for fighter and bomber aircraft.

**Technology communication vs. Technological Disaster in Mass Media :**

- a) Bhopal gas tragedy (1984)
- b) Space shuttle challenger exploded on take off (1986)
- c) Skylab disaster in 1979.
- d) Nuclear reactor malfunction in three mile island (USA)
- e) Chernobyl disaster.
- f) Challenger disaster (2004).
- g) Mobile battery disaster (2007)
- h) Hazards in different industries

**Technology Communication for different noble causes through media**

- 1) Energy efficient technology (CFL)
- 2) Community Radio/Narrowcasting
- 3) Gramsat/Rural technology
- 4) Traditional and indigenous technology for temples, houses, palaces, toilets, monuments, Jantar Manter, sun clock, irrigation etc.
- 5) Indigenous Technology of Rural/Tribal people across the country.
- 6) Through Blog.
- 7) Through Print & Electronic Media.

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## Postage Stamps on Jayadev and Geeta Govinda's Dasavatar

*Nrusingha Dash*

The celebrated saint poet Jayadeva as a devotee of Madhaba, Krishna and Jagannath developed the Indian classical Sanskrit literature by his immortal and noted writing of Geeta Govinda Kavya (piece of art), which is divinely decorated. Most probably the Kavya was composed in the first half of the twelfth century. The Geeta Govinda created sensational impact in the minds of the then people throughout India and also abroad all through the ages.

Geeta Govinda by saint poet Jayadeva is a unique work in Indian classical Sanskrit literature and has been a great source of literary and artistic inspiration for the last nine centuries. Composed in Sanskrit in the 12th century A.D. it has been translated into most of the modern Indian languages and many foreign languages like English, French and German as well people have enjoyed singing its melodious lyrics and

have danced to the tune of the Geeta Govinda in all classical dances of India like Odissi, Manipuri and Bharatnatyam and in Palas and Kirtans. The Geeta Govinda surpasses almost all preceding works of Sanskrit literature in the composite appeal of its music, poetry and mystical content. It has enormously charmed,

enraptured, feasted and charged the mind and the soul of people of India since 12th century A.D. The great Geeta Govinda has been sung, danced and enacted at Puri Jagannath temple and in several other temples throughout India.

Geetinatya or song drama is the earliest type of

traditional Sanskrit drama in India. Geeta Govinda marked the transition stage between pure lyric and pure drama. It has the unique advantage of a poem, which could be enjoyed simply by having it recited or sung and could also be adopted in dance form and dramatic



presentation. It has influenced the art, music, dance and literature of India to such an extent that it is almost impossible to find school of thought in India in the fields of literature, philosophy, visual and performing arts without the magic touch of Geeta Govinda. The Geeta Govinda painted on paper, palm leaf, Pattachitra and textile designs are available in abundance in many parts of India. The pictorial traditions of Geeta Govinda extend from east to west, touching Orissa, Bihar, Bengal, Himachal Pradesh, Kashmir, Rajasthan, Gujarat and even in Nepal. Geeta Govinda singing has a very long tradition in Andhra Pradesh, Karnataka, Tamilnadu, Kerala and Manipur.

Jayadev, the author was not only a great singer and a poet but above all a great saint whose devotion for Radha and Krishna and Jagannath left an indelible lustre on the canvas of time. His influence on the Vaishnav Bhakti cult has been one of the most profound. Vaishnavism, which spread the message of social harmony and united people all over India cutting across narrow class, language and caste boundaries, took Geeta Govinda as one of its major inspirations and instruments. The Bhakti cults of Radha, Madhav and Dasavatar gradually implanted and entrenched in the Indian soil.

Jayadeva was born on Akshaya Trutiya i.e. on the third day of bright fortnight in the Hindu month Baishakha (April-May) at village Kenduvilwa situated on the bank of river 'Prachi'. This area in Toshali was part of Utkal, famous from ancient times. Every year people of Orissa remember this great soul and commemorate his birth day on this day with much display and pomp.

There was a debate and dispute on the birth place of this great poet, who wrote Geeta Govinda some time in twelfth century. The difference of opinion is now settled and the birth place of Sri Jayadeva is established. Unquestionably, this great man was born in the village Kendubilwa / Kenduvilva or popularly known as Kenduli Sasan in Balipatana Block of Khurda district. It is a Brahmin dominated village located near Prachi river.

Sri Jayadeva had spent most of his life at 'Srikshetra' or 'Jagannath Dham', the abode of Lord Jagannath. At that time, enchanting Padmabati (daughter of a Brahmin named Debasharma from Southern India) was the 'Devadasi' or 'Mahari' i.e. the temple dancer at Shri Jagannath Temple, Puri. 'Devadasi' or 'Mahari' is the woman who is dedicated and devoted to the deity in the temple for performance of dance and music. The celebrated poet was captivated by this charming lady artist. He married her and spent his life at the feet of Jagannath Mahaprabu. It is believed that, Jayadeva has institutionalised the 'Devadasi' tradition in Sri Jagannath Temple, Puri though this tradition was introduced much earlier from the time of Somavamsi kings. The great Geeta Govinda is not only sung in the temple of Jagannath Mahaprabu but also devotedly read by the rural folk in the villages throughout Orissa.

The 'Geeta Govinda' (a lyrical poetry) acquires a distinctive and exceptional place in the list of the celebrated religious scriptures on this earth. It consists of twelve chapters or cantos. Each chapter is further sub-divided into twentyfour divisions called Prabandhas and each Prabandha contains couplets grouped into eights. So it is called 'Astapadi'. As a lyrical poem, it depicts the love story of Radha and

Krishna. It is a devotional romantic poetry. It was composed mainly for dance performance during the night ritual of Lord Jagannath. The Geeta Govinda was composed so beautifully that it was easily fitted to the foot movements of the danseuses. It was the first of its kind to be included in the ritual service of Lord Jagannath as an essential component of worship.

Jayadeva's father was Shree Bhojadev and mother was Smt. Bamadevi. Bhojadeva was a reputed scholar in Sanskrit. With his father's guidance, Jayadeva acquired a vast learning in Sanskrit literature and theology in a very short time. It was from Jagannath temple, Puri that the melodious music of Geeta Govinda reverberated to the distant corner of India and then fascinated people all over the world. Jayadeva's devotional songs, including the famous one describing the Dasavatar, have inspired choreographers. Padmavati, wife of Sri Jayadeva performed those dances in the Puri Jagannath Temple to the tunes of Gita Govinda. The Talas and Ragas are such that they were meant for dance performance. It is believed that the Geeta Govinda as a dance drama was first enacted in the Puri temple of Sankha Kshetra during the reign of Kamarnava Deva. It is also believed that Narasingha Deva-II had for the first time introduced singing of the Geeta Govinda in the service of Jagannath Mahaprabu. We may, however, avoid such difference of opinions regarding introduction of the Geeta Govinda in the Puri temple because, there is no denying the fact that the Geeta Govinda was a divine grace. It is extremely popular not only in 'Srikshetra' but also throughout the country. As per the tradition, Devadasi of Srimandira at Puri used to sing the 'Geeta Govinda' and perform dance at different times of the auspicious day and on other special

occasions like 'Chandan Jatra', 'Rukmini Bibaha', 'Niladree Bijje', 'Solaha Puja' of Bimala and during the period of Baladhupa in the month of Kartika.

The first chapter of the Geeta Govinda may be called 'Dasavatara Stotra'. It describes the ten Avatars or incarnations of Lord Vishnu. After that, the poet portrays the spring season with feelings of Radha and her desire to meet Krishna. Subsequently, the poet describes the delightful dance of Krishna with Gopis in Brundabana. He was expert on 'Hindu Sastra' and 'Puranas'. He had also authority over music and dance. In this work, Sri Jayadeva has narrated the love scenes passionately. Krishna is waiting Radha on the bank of river Jamuna restlessly. Depiction of the scene of Krishna embracing Radha and madness of Radha to meet Krishna etc. are matchless. In fact Jayadeva has introduced and popularised the cult of Radha and Krishna in Odisha through this divine composition, the Geeta Govinda. This is considered as an important text in Shakti movement of Hindusim.

The Dasavatar Shlokas are chanted as Mantras in honour of Vishnu temples all over India.

The cycle of bither and death is an integral part of Hindu philosophy, which also reaffirms the notion of the Dasavatar. This concept of the Avatars reestablishes the idea that God has time and again taken a human form to rid the earth of suffering and evil. The Avatars incarnate at a juncture when the world is in a crisis and when evil, injustice and inequality prevail. He removes negativity and inequality from this world and anchors in a positive new change creating a whole new world order - a Golden Age.

The concept of Dasavatara of Vishnu is a significant contribution of Sri Jayadeva,

Krishna as an Avatar is not included in the Dasavatara hymns. The enumerated list of Avatars varies from four, six, ten, twentyfive and thirtynine. The poet narrates only ten Avatars which is universally accepted.

The concept of Vishnu's Avatars dates back to the Mahabharata age spread sporadically either in individual form or in group (the number of Avatars varying from period to period and from author to author). Historically, archaeologically and literarily the Avatar Vada of Vishnu became an integral part of Vaishnava faith from the early centuries of Christian era. Following the earlier Dasavatara tradition Sri Jayadeva made the cult more popular in the society in his lucid description. People irrespective of caste, community, sect, sex and creed continuously chant the Dasavatara Slokas devotionally in the temples, shrines and even in their own houses, very often not knowing the meaning of hymns and the songs. By the time Sri Jayadeva appeared in the socio-religious arena of Odisha, the idiom of Dasavatara had already flourished in Odisha. The ending version of each Avatar 'Jaya Jagadisha Hare' is meant to invoke Sri Jagannath. The inscription of Avatars ranging from 7th century A.D. onwards reveals the sculptural depiction of the Avatars in the Vaishnava temples with high concentration in Prachi valley. The images of Avatars so far come to light in Odisha are too numerous to allude here. Undoubtedly the cult had a great influence on the mind's eye of the saint poet devotee Sri Jayadeva, who made it more popular and more acceptable in his lucid and lyrical description.

## DASAVATARS

In the first section of the famous Geeta Govinda the poet writes about the ten

incarnations (Dasavatar) of Lord Vishnu and he evokes Vishnu as Krishna Keshava.

O' Krishna, I offer my obeisance to you who appear in ten incarnations. In your appearance as Matsya, you rescued the Vedas, and as Kurma, You supported the mount Mandara on your back. As Varaha You lifted the Earth with your tusks, and as the Narasimha, You tore open the chest of the demon Hiranyakashyapu. In the form of Bamana, You subdued Bali by asking him for three feet of land and then you took away the entire universe from him by expanding your steps. As Parshurama, You annihilated all the wicked Kshatriya kings and as Ramachandra, You killed the demon king, Ravana. In the form of Balarma, You drew the river Yamuna towards You. As Lord Buddha, you showed compassion towards everyone and at the end of Kaliyuga, You appeared as Kalki to slay the (mlechhas) low-class men.

## Matsya Avatar



The fish incarnation of Vishnu "*Pralaya Payodhi jale dhruvabanasivedam, vihitavahitra charitama khedam keshava dhruva minasarira, Jaya Jagadisha Hare.*"

Oh Keshava (Vishnu) ! In the form of fish (minasarira), holding the Vedas like a vessel undeflected from its course in the deluge to preserve the knowledge of Vedas, you took the incarnation of fish ! Praise be to Jagadish ! Lord of the Universe !

### Kurma Avatar

The Tortoise incarnation of Vishnu "Kshitiratibipulatara Tabatistati prusthe, Dharanidharanakina Chakra Gariste Kesavadruta Kachhaparupa, Jaya Jagadisha Hare."



Oh Keshava (Vishnu) ! In the form of Tortoise (Kachhaparupa), on your broad and vast back the world rests, creating circular marks. Praise be to Jagadish ! Lord of the Universe !

### Varaha Avatar

The Boar incarnation of Vishnu "Vasati Dasanashikhare Dharanitaba lagna Sasini kalanka kaleba Nimagna keshava dhruta sukararupa, Jaya Jagadisha Hare."

Oh Kesava (Vishnu) ! In the form of the Boar (Sukara) ! Fixed on the tips of your



tusks the earth did dwell peacefully, resembling the digit of the moon. Praise be to Jagadish ! Lord of the Universe !

### Narasimha Avatar

The Man-Lion incarnation of Vishnu "Tabakara kamalabare Nakhamadbhuta Shringam Dalita Hiranyakasipu Tanu Vringam Keshaba dhruta Naraharirupa, Jaya Jagadish Hare."



Oh Keshava (Vishnu) ! In the form of Man-Lion (Naraharirupa) ! Your lotus hands

with sharp nails became wonderful claws that tore and shredded the body of demon Hiranyakashyapu protecting your devotee Prahallad. Praise be to Jagadish ! Lord of the Universe !

According to Padma Purana Narashimha is white in colour complex and wears red garments with suitable ornaments and a Karanda Mukuta.

### Vamana Avatar

The Dwarf incarnation of Vishnu "Chhalayasi Vikramane Balimadbhuta Vamana Padanakha Nirajanita Jana Pabana Keshava Dhruta Vamanarupa, Jaya Jagadisha Hare."



Oh Keshava (Vishnu) ! In the form of the Dwarf (Vamana) You cleverly deceived the king of the world Bali, the egoist by pressing your lotus feet. Praise be to Jagadish ! Lord the Universe !

### Parsuram Avatar

"Kshyatriyarudhira maye Jagadapagata papam Shwapnayasi Payasi Samitava tapam Keshava Dhruta Vrigupatirupa, Jaya Jagadisha Hare."



Oh Keshava (Vishnu) ! In the form of the Lord of Bhrigus - Parshuram You have rid the earth of its tyrannous rulers, thus purifying it of sin and destroying the suffering of the world. Praise be to Jagadish ! Lord of the Universe !

### Rama Avatar



"Bitarasi dikshyurane dikpati kamaniyam dasamukha mouli balim ramaniyam keshavadhruta Ramasarira, Jaya Jagadish Hare."

Oh Keshava (Vishnu) ! In the form of Lord Rama to uphold Dharma or righteousness, You prorated ten heads of Ravana in the ten directions, rendering the guardians thereof resplendent ! Oh Keshava ! You assumed the form of Rama ! Praise be to Jagadish ! Lord of the Universe.

### Balarama Avatar

*"Bahasi bapushi Bishade Basanam  
Jaladnavam Halahati Vitimilita  
Yamunabham Keshava Dhruta  
Haladhararupa, Jaya Jagadish Hare."*



Oh Keshava (Vishnu) ! In the form of Balarama, the plough bearer ! You wear on your glowing body garments the colour of the cloud, blue like the river Yamuna flowing because of the fear of Your plough ! Oh Keshava ! You assumed the form of Balarama. Praise be to Jagadish ! Lord of the Universe.

### Buddha Avatar

The enlightened one *"Nindasi Yangya  
vidheraha rashruti Jatam Sadayahrudaya  
Darshita Pashughatam Keshava Dhruta  
Buddhasarira, Jaya Jagadish Hare."*

Oh Keshava (Vishnu) ! In the form of Buddha, the enlightened one ! Out of compassion in your



heart you have condemned the ritualistic fraction of Vedas proclaiming the killing of innocent animals. Praise be to Jagadish ! Lord of the Universe.

### Kalki Avatar

*"Mlechha Nibahanidhane Kalayasi  
Karabalam Dhumaketumiba Kimapi*



*Karalam Keshava Dhruta Kalkisarira, Jaya  
Jagadish Hare."*

Oh Keshava (Vishnu) ! In the form of the severe Kalki to destroy the wicked, You carry a comet like sword in your hand, trailing a succession

of disasters upon the wicked and evil. Praise be to Jagadish ! Lord of the Universe.

### **Stamps on Jayadev and Dasavatar**

As a mark of utmost respect to this great poet of Odisha and his fine work Geeta Govinda Dasavatara, the Department of Posts, Government of India released a set of eleven commemorative postage stamps on Jayadeva and Geeta Govinda 'Dasavatar' (Ten incarnation) on July 27th, 2009. This was indeed a historic and memorable moment for each stamp collector and philatelist and also for India Post. Because in this stamp issue programme India Post / Department of Posts released for the first time a maximum (eleven) number of commemorative stamps at a time which was a record break event. Designing style of these stamps was very nice. This design style was based on Pattachitra painting, which is a famous folk art of Odisha.

The stamps and the first day cover of this issue are depiction of Jayadeva's imaginary image composition on Dasavatara. On this occasion the Department of Posts / India Post have printed and issued total number of ten lakh stamps from each (Jayadeva and Geeta Govinda Dasavatar). Denomination of each stamp was Rs.5/-. Including it India post / Department of Posts had issued ten lakhs miniature sheet on Jayadev and Geeta Govinda Dasavatar also. The cost of each miniature

sheet was Rs.55/-. Each stamp sheet of this issue comprises sixtysix stamps, which cost Rs.330/- and each sheet of stamps of this issue consists of six sets of stamps and each set of stamps also consists of eleven number of different stamps. Similarly each miniature sheet was furnished by a set of eleven number of different type of stamps. There were total eleven number of stamps issued in a single issue programme. So it was unique event in history of India Post. The stamps were depicted on Jayadeva's imaginary image and Geeta Govinda's Dasavatar (Ten incarnation). That is to say one stamp was on legendary poet Jayadev and rest ten were incarnation of Lord Vishnu known as Dasavatar in Hindu scripture. Each stamp of this issue was prepared and decorated on Jayadev and Geeta Govinda Dasavatar narrating and furnishing a relevant Shloka / Strotra. The printing process of this issue was photogravure and the stamps were printed in India Security Press.

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# Site Specific Nutrient Management for Rice

*Sushanta Kumar Jata  
Dr. M. Nedunchezhiyan  
Dr. K. Laxminarayana*

Nutrient management is a major component of a soil and crop management system. Knowing the required nutrients for all stages of growth and understanding the soil's ability to supply those needed nutrients is critical to profitable crop production. Site specific nutrient management is applying those concept to areas within a field that are known to require different management from the field average.

Site specific crop and soil management is really a repacking of management concepts that have been promoted for many years. It is basically taking a systematic approach to applying sound agronomic management to small area of a field that can be identified as needing special treatment.

The component of site specific management may not be new but we have the capability with new technology to use them more effectively. Site specific management include practices that have been previously associated with maximum economic yield management, best management practices as well as general agronomic principles. The systematic implementation of these practices in to site specific systems is probably our best opportunity to develop a truly sustainable agriculture system.

At present the site specific nutrient management for rice crop is developed and adopted by the farmer all over the world.

## **What is Site Specific Nutrient Management**

Many of nutrients required by rice plants come from soil. But the supply of nutrients is typically insufficient to meet the nutrient requirements for high rice yields. The use of fertilizer is consequently essential to fill the gap between the crop needs for nutrients and the supply of nutrient from soil and available organic inputs.

## **Principle of SSNM**

Site Specific Nutrient Management (SSNM) is an approach to feeding rice with nutrients as and when needed. The application and management of nutrients are dynamically adjusted to crop needs of the location and season. The SSNM approach aims to increase farmers profit through -

- (i) Increased yield of rice per unit of applied fertilizer.
- (ii) Higher rice yields, and
- (iii) Reduced disease and insect damage.

The features of Site Specific Nutrient Management are :

1. Optimal use of existing indigenous nutrient source such as crop residues and measures.
2. Application of Nitrogen (N), Phosphorous (P) and Potassium (K) fertilizer is adjusted to the location and season specific need of the crop.

(a) Use of the leaf colour chart ensures that nitrogen is applied at the right time and in the amount needed by the rice crop which prevent wastage of fertilizer.

(b) Use of nitrogen omission plots to determine the P & K fertilizer required to meet the crop needs. This ensures that phosphorous and potassium are applied in the ratio required by the rice crop.

3. Local randomization for application of zinc, sulphur and micronutrients are followed.

4. Selection of most economic combination of available fertilizer sources.

5. Integration with other integrated crop management (ICM) practices such as the use of quality seeds, optimum plant density, integrated pest management and good water management.

### **Why use Site Specific Nutrient Management**

(a) Nutrient use efficiency :

Under current management practices, the rice crop takes up only one bag in three of nitrogen (N) fertilizer applied to the rice. Additionally, farmers often fail to apply Nitrogen (N), Phosphorous (P), and Potash (K) in the optimal ratio to meet the need of rice plants. Site Specific Nutrient Management (SSNM) provides an approach for feeding rice with nutrients as and when needed.

(b) Increase Profitability :

The major benefit for farmers from improved nutrients management strategy is an increase in the profitability of rice cropping. SSNM eliminates wastage of fertilizer by preventing excessive rates of fertilizer and by avoiding fertilizer application when the crop does not require nutrient inputs. It also ensures that N, P, K are applied in the ratio required by the rice crop.

### **When to use SSNM :**

Suitable target areas for the introduction of improved nutrient management strategy is likely to have one or more of the following characteristics. Insufficient or imbalanced use of fertilizer, resulting in the low attainable yield despite high yield potential find out about local fertilizer use from farmers' fertilizer suppliers and extension worker.

### **Occurrence of nutrient deficiency symptoms:**

Occurrence of pest problems link to nutrient imbalance or over use of fertilizer (N) (e.g. sheath blight and rice blast) Inefficient fertilizer (N) we because of high total (H) rates or inadequate splitting and timing of application fertilizers. Evidence of strong mining of soil indigenous park.

### **Implementing SSNM**

Once we have determined that implementing Site Specific Nutrient Management (SSNM) will be beneficial in a particular area, we should follow three main steps to carry out a successful extension campaign.

#### **Step -1**

Select an economic yield target. This is essential to determine the required application rate of N, P and K nutrients only if we know that yield increases we are targeting. We can determine appropriate nutrient application rate. Select an economic yield target base on the following criteria. As a general rule, select our yield target i.e. based on the average yield of the past 3-5 crops (same season) pulls to 20% achievement as visible yield increase.

Select an yield target of not more than 75-80% of the potential yield determined at experimental stations. If such information is not available, use the highest yields reported from farmers' fields. Yield target that are too close to the potential yield may require excessive amount

of fertilizer inputs and increase the risk of crop failure.

Select a high yield target in the high yield season favourable climate conditions and a moderate yield target in lower yield seasons less favourable climate conditions and greater risk of the crop failure because of pest and disease.

### **Step - 2**

Estimate soil nutrient supplies using nutrient omission plots only if we know that nutrients are deficient, as evidenced by given yield. Appropriate nutrient application rate will be calculated by subtracting the yield attained in nutrient deficient plot from the target yield for a crop identified in step-1, omission plots visually demonstrate to farmers the nutrient deficit in their fields. The required rate of 'P' & 'K' fertilizer can be calculated in area with no nutrient limitation. The use of omission plots consequently helps ensure that 'P' & 'K' are applied in the ratio required by the rice crop. Farmers themselves establish small omission plots embedded within their fields. In 'P' omission plots, in 'K' omission plots no K fertilizer is applied. But other nutrients are adequately supplied. The supply of soil nutrient can be estimated from yield in omission plots. Because the deficient nutrient not supplemented with fertilizer limits plant growth and yield.

At crop maturity, major grain yield from a central 2m x 2.5m area in each omission plot. Cut all panicles and place them in a plastic sheet to prevent yield loss. Strip all the spikelets carefully, remove unfilled spikelets and spread the grain on the plastic sheet, dry the grain in full sun light for one whole day to reach grain moisture content of about 12.6%. It may take 2-3 days to sundry the grain fully in a rainy season express grain yield (GY) in t/ha.

Average the yield estimates obtained from 10-20 farmers' fields for each omission plot type to obtain the average 'N' - limited yield (yield in F - plots) the average 'P' limited yield (yield in O

'P' plots) and the average 'K' limited yield (yield in O K Plots).

94 yield measurements in the omission plots indicate large differences in soil nutrient supply within particular area of your recommendation domain, consider dividing the domain into two or more areas as a rule of thumb. The average rule of omission plots should differ consistently by at least t/ha to justify two separate domains.

### **Step-3**

Manage N, P and K nutrient inputs based on fertilizer rates calculated from data gathered in steps-1 and 2. Once we have selected any yield target (Step-1) and estimate soil nutrient supply (Step-2) you can begin to manage N, P and K nutrient inputs. The management of N uses visual indicators of deficiency while the management of P and K primary involves preventing deficiency in the soil rather than treating observable deficiency symptoms in the crop.

### **Advantages of SSNM :**

Site specific nutrient management is a concept that can be applied to any field or any crop, while most often use of computer and satellite technology in the site specific nutrient management does not require special equipment and does not require a large farming operation. The technology tools certainly expand the capabilities for using site specific management.

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