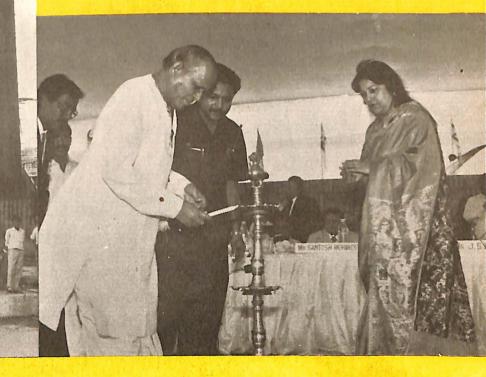
OP. 1996 ISSN 0970-8669

# Orissa Review



THE SECOND STEEL PLANT OF ORISSA AT DUBURI









Hon'ble Governor Shri G. Ramanujam is inaugurating the State level centenary celebration of Netaji Subhas Chandra Bose at the premises of Soochana Bhavan, Bhubaneswar on January 23, 1996



Hon'ble Governor of Orissa Shri Gopala Ramanujam is addressing a special meeting held in the premises of Netaji Seva Sadan, Cuttack on the occasion of the centenary Shri J. B. Patnaik, Deputy Chief Minister Shri Basanta Kumar Biswal and Shri B. Mahtab, Editor, the Prajatantra



Vol. Lll, No. 7 February, 1996

SHRI RAJ KISHORE MISHRA

Editorial Board

SHRI RAJ KISHORE MISHRA Editor

PRAHARAJ SATYANARAYAN NANDA Assistant Editor

SHRI BIBHU CHANDRA MISHRA

Editorial Assistance

Cover Design
Design & Lay Out Sec., OGP

SHRI SURASEN JENA Director, I. & P. R.

### In this issue....

4

Qualitative dimension in implementation of Poverty Alleviation Programmes and special Rural Employment Programmes.

Dr. L. Mishra

Agrarian system and tenancy legislations in South Orissa: A historical perspective.

Dr. Santosh Ku. Apata

Problem soils of Orissa and their management.

S. K. Sahu and S. C. Pani 7

Berbera Forest : Turning a new leaf.

Monalisa Jena 11

Some common poisonous plants of Orissa.

Dr. P. C. Panda 14

Consumer Education

Dr. (Mrs.) Manashi Mohanty 18

Contraceptive
Technologies—An
investigative approach.

Dr. Sandhya Rani Das 21

**Wood Carvings of Orissa** 

Bhaskar Parichha 25

Bhakti Movement and advent of Santh Kabir with special reference to Medieval Orissa.

Dr. Shiba Prasad Nayak 28

The Orissa Review aims at disseminating knowledge and information concerning Orissa's socio-economic development, art and culture. Views, records, statistics and information published in the Orissa Review are not necessarily those of the Government of Orissa.

Published by the Information & Public Relations Department, Government of Orissa, Bhubaneswar-751001 and Printed at Orissa Government Press, Cuttack-753010.

Two Rupees/Copy Twenty Rupees/Yearly

Type Setting by—
Phototypesetting System,
Oriona Government Press

### Orissa embarks upon AN ERA OF PROSPERITY

### An Investment of Rs. 1 lakh crore



#### Development of Agriculture:

Waiving of interest on agricultural loan, provision of Rs.2000.00 short term loan free of interest. Supply of seeds and agricultural implements at subsidised rate. Target fixed for providing irrigational facilities to more than 6 lakh hectares of lands.

#### Freedom from Hunger:

- Supply of rice at Rs.2.00 per Kilo to identified families under 143 Blocks.
- Supply of food free of cost to old, disabled and destitutes living under 20 Blocks.

#### **Education For All:**

- With the introduction of Mid-day Meal Scheme to all Primary School Students, attendance of the students has unexpectedly increased.
- Provision of setting up of an Additional Residential School in each Tribal Block.
- Decision taken to raise the stipend of 10,000 students.

#### Social Justice:

- Reservation of jobs ensured for women and backward classes.
- Construction of residential houses under Indira Awas Yojana increased to more than 5 times.
- Provision of financial assistance to distressed women.
- Old Age Pension ensured for agricultural labourers.

### **Unemployment Encountered:**

- Decision taken to fill up 35,000 government jobs lying vacant.
- Investment doubled self-employment to unemployed youths under provide the Jawahar R 'gar Yojana.

### **Boosting Mother-Tongue:**

Strict instruction issued to ensure Oriya language as the medium of all Government transactions

#### Industrial Scenario:

- New Steel Plants are in the offing: Bhusan Steel & Strips, Nilachal Ispat Nigam, Ganapati Exports, Asian Alloys, Brahmani Iron & Steel Company, TISCO, L. & T., National Steel Complex, MESCO Kalinga Steel Complex, Jindal Strips, Indian Seamless Steels & Alloys and Mid-East Integrated Steels.
- Decision taken to establish two Aluminium plants with the joint collaboration of Hydo (Sweden) Indal and Tata, and L & T & ALKOA.
- A Cement Plant with the joint collaboration of IDC and DLF.
- Decision taken to establish new sugar factories in the districts of Koraput, Boudh, Ganjam, Puri and Bhadrak with an investment of Rs.60 Crore.
- Oil Refinery at Paradeep with an investment of Rs.3000 Crore.

#### Power Generation:

- An agreement signed with SEPA Company of Hong Kong to generate 4008 MW Power in the district of Jharsuguda with an investmet of Rs.16,000 Crore.
- Management of power generation systematised and measures taken to rationalise distribution system of generated power.
- Decision taken not to disrupt power supply in the State.

### Accelerated Development of Gopalpur Port:

Action already taken to make Gopalpur Port a full-fledged one with an investment of Rs.1,000

Our Campaign towards prosperity shall remain unabated

GOVERNMENT OF ORISSA

Information & Public Relations Department

### Qualitative dimension in implementation of **Poverty Alleviation** Programmes and Special Rural **Employment Programmes**

Dr. L. Mishra

### Professionalism & functional capability:

This knowing basically implies understanding the rudiments and basics behind every development activity. To illustrate every house building programme has a foundation, walls, roof, doors and windows as essential components. It is necessary and desirable that every functionary who is vested with the responsibility of overseeing the quality of house possesses programme construction irreducable barest minimum technical knowhow and wherewithal by which a good stable and safe structure would be possible. In poverty alleviation and in particular in IRDP we have agriculture, horticulture, pisciculture, dairy, sericulture as few illustrative areas of activity. Each activity has a technical component or know-how. It is necessary and desirable that every field functionary has the requisite knowledge and understanding of this knowhow. To illustrate, in pisciculture the functionaries responsible for overseeing the functionaries) DRDA programme (including should have the rudimentary understanding of the following: difference between fry and fingerling, why fingerlings are preferred to fries, what type of nurseries we need to promote fingerlings, mode of transportation of the fingerlings from the nursery to the tank, the type and quantity of manure needed to enable the fingerlings to grow to the desired size, rudiments, of operations 

relating to storage, processing and marketing of fish etc. It is also necessary to have a basic understanding of the methodology of promoting acquaculture in waterbodies whereever they exist instead of going in for digging fresh tanks. Similarly in regard to plantations it is important to know and understand the type of plantations which are suitable for specific agro-climatic conditions, manner of raising nurseries for supply of needbased seedlings, ensuring their proper upkeep and maintenance (watering, manuring, pruning etc.) to enable the seedlings to grow to a desired size, the duration when a particular species can reach the matured size for commercial use etc. In sericulture it is necessary and desirable to understand the different types of sericulture, the manner of raising mulberry and rearing tassar cocoons, the process of reeling, weaving, obtaining the end product, innovating new designs to suit market requirement, pricing and marketing the end product.

Regretfully, however, it has been observed that this professionalism and functional capability has been largely wanting amongst the functionaries of development including those of the DRDAs. There is no gainsaying the fact that without professionalism and functional capability the DRDA as a Collective entity with a juristic personality cannot provide the leadership and direction (which it is expected to) in poverty alleviation and rural employment programmes. The DRDA will also find it extremely difficult to seek the desired technical cooperation from the line departments without this basic minimum technical wherewithal

Such wherewithal needs to be built up progressively i.e. step by step from the VLW level to the extention level at the Panchayat Samiti and from the latter to the district level through massive orientation programmes which could be organised by the DRDA. The basics of technical know-how could be imparted, shared and transmitted in such workshops. Since learning by sharing is a continuous process such orientation will have to be repetitive i.e. spread over a period of time till all DRDA functionaries at the District,

Block and G.P. level have acquired the minimum professional levels through such capacity building exercises.

#### Integrated approach to development:

Prior to 1980 the approach to development was generally insular or isolated. With launching of the integrated rural development programme, the need for building up an integrated approach to development was keenly felt. Integrated approach to development basically implies

- Creating a climate through functionaries of various development departments can think, plan and work together in close unison with understanding and good-will, cooperation and support.
- (b) Pooling resources from a variety of sources and integrating them imaginatively and skilfully so that expected results can be produced in less time and cost.
- (c) Combining certain activities like bee keeping and honey gathering with oil-seed farming where a symbiotic relationship exists between these activities which can produce the desired results.
- (d) Allowing the different development to follow each other in a sequence like post-literacy following basic literacy and continuing education following post-literacy. This entails lot of patience and fortitude as sequencing means one step after another and no level jumping can ordinarily be permitted.

Regretfully, however, we are yet to translate such an integrated approach to its optimal reality. Integrated development will be possible by (a) the functionaries of development treating the development process as an integrated syndrome (b) developing the humility to learn from each other (c) learning to share information with each other and seek cooperation of each other (d) understanding and that internalising functioning in isolation will be counter productive while thinking, planning and acting together will vield rich dividends.

10 per cent of the funds under IRDP was earmarked hitherto infrastructure for development. This has since been raised to 20 per cent. With the healp of this amount it should be possible to strengthen the infrastructure obtaining in different departments such as agriculture, horticulture, soil conservation, pisciculture, dairy, sericulture, animal resources development, forestry and agro forestry etc.

Representatives of concerned line departments should identify the gaps in infrastructure development as of now and suggest to the P.R. Department as to how these gaps can be bridged by an action plan in which funds can be made available by the P.R. Department under IRDP where 20 per cent of the funds have been earmarked for infrastructure development.

Watershed Planning Management development in dry land and drought prone areas is an important tool for scientific land and water management; it could also be an excellent model of integration of a number of inputs from different departments to produce desirable outputs like increase in water table, improvement of moisture content, arrest of runoff, prevention of formation of gullies and ravines and overall improvement of the landscape leading to improvement in production and productivity. Systematically planned and executed, it could be an excellent instrument of conservation as also integrated development.

#### Openness and transparency all transactions:

DRDA is an instrument of poverty alleviation, rural employment and development. Over the years there has been rural progressive increase in the number of schemes, umminimumminimum 2 minimumminimumini

and other resources. On an average a G.P. today gets Rs. 1 to Rs. 5 lakh, a Block gets Rs. 50 lakh to Rs. 1 crore and a district gets between Rs. 10 crore to Rs. 50 crore depending on the area and size of population. The DRDA should so plan and conduct its operations that they are visible on the surface and that there is an element of total openness in and transparency operations. This would mean an inventorisation of all the assets which have been created over the years under schemes like JRY/IJRY/EAS. The heavy responsibility with which DRDAs have entrusted also carries with been administrative and procedural propriety and financial discipline. This implies that all funds meant for a specific purpose are actually expended for that purpose, that there is no siphoning of funds from one scheme to another and from one region to another, that the expenditure incurred is properly accounted for by maintenance of a main cash book and subsidiary cash book and all other records and registers which are required to be maintained under relevant provisions of OGFR.

DRDA should also satisfy itself that the assets which have been created under JRY/IJRY/EAS as also under IRDP/TRYSEM/DWCRA that the assets created by the year are being increasingly put to productive use, do have a direct beneficial impact on the life and income of the poor for

whom they have been intended and that they have not outlived their utility.

### Sensitivity to the rural poor:

Poverty alleviation programmes and rural employment programmes are meant for the benefit of the rural poor. A proper implementation of these programmes necessarily carries with it certain special qualities on the part of the implementors such as empathy and sensitivity to the rural poor. The functionaries in charge of implementation of the programmes should put themselves in the position of the beneficiaries and should help them in exercise of their discretion for supply of productive assets as well as for selection of skills for the purpose of training under TRYSEM in such manner as would enable them to have sufficient incremental income and be able to cross the poverty line. This would also imply creation of a suitable public grievance ventilation and redressal mechanism. direct interphase between the bureaucracy and generation of a feeling amongst the rural poor functionaries the that in charage implementation of various programmes are one of them and are really concerned about amelioration of the plight of the poor and are carrying out their functions honestly, objectively and dispassionately.

> Additional Development Commissioner, Government of Orissa, Bhubaneswar.

### STATE AWARDS FOR 47 TEACHERS

28 Primary Teachers, 18 Secondary Teachers and one teacher from the Sanskrit Institute were awarded by the State Government for their contribution to the cause of education on the occasion of the Republic Day at a function held at Soochana Bhavan, Bhubaneswar, which was graced by Hon'ble Governor Shri Gopala Ramanujam.

### NETAJI JAYANTI

Deputy Chief Minister, Shri Basanta Kumar Biswal, who addressed the Birth Centenary Meeting of Netaji Subhas Chandra Bose organised by Makhanlal Haldar Smruti Samiti at Netaji Chhak, Puri on January, 23 last called upon the youths to emulate the ideals of patriotism. President, Smruti Samiti Shri Harihar Bahinipati gave introductory remarks.

### **Agrarian System and Tenancy Legislations** in South Orissa: A **Historical Perspective**

Dr. Santosh Ku. Apata

The importance of the study of regional history at the micro-level is being increasingly felt both in India and abroad which has encouraged the modern research scholars to work on this field. Consequent upon this a number of works have come into existence throwing much light to our historical knowledge. Keeping that trend in view this pioneering attempt is meant to explore and exploit the hidden land tenures and tenancy legislations in South Orissa which had its separate entity before the formation of Orissa in 1936.

The Southern part of modern Orissa comprising the present districts of Ganjam, Gajapati, Koraput, Rayagada, Malkanagiri and Nowrangpur and the Baliguda Subdivision of the Phulbani district formed a part of the Madras Presidency till Ist April 1936 when Orissa was carved out into a séparate state on linguistic basis. Therefore, the revenue laws of the Madras Presidency were applicable to this part of modern Orissa. The Madras Estates Land Act, 1908 was the first tenancy legislation passed by the British Government to protect the rights of the tenants of this region. This further accelerated the process of development of agrarian legislations finally leading to the abolition of the Zamindari System in Orissa.

There were four types of land tenures in South Orissa during the British rule, such as: (a) Zamindari Tracts, (b) Ryotwari Tracts, (c) Inam Lands, and (d) Agency Tracts.

### ZAMINDARI TRACTS:

The Zamindari Tracts of the Northern Sircars of Madras Presidency were brought under the Permanent Settlement as per the Madras Permanent Settlement Regulations, 1802. This Act conferred proprietary rights in the soil on the zamindars in perpetuity. The ryot was at the mercy of the zamindars for the occupation of land. Under this system the assessment was being fixed at 50 per cent of the gross produce which appears to be too exorbitant. There was no chance of any remission of revenue even if crop failed due to natural calamities. In no way this permanent settlement took any correct account of the real miseries to which the tenants were exposed while the zamindar and the company had nothing to lose in this revenue bargain.

The undivided Ganjam district had 54 main estates during the British period. Similarly, the district of Koraput then comprised 4 permanently settled estates, namely : Jeypore, Kotpad Pargana, Salimi Mutha and Pachi Penta. All these estates were held by a single zamindar, the Maharaja of Jeypore. The Madras Estates Land Act of 1908 was in force in all these estates till the merger of these districts with the state of Orissa on Ist April 1936. All these estates were taken over by the Government of Orissa after the passing of the Orissa Estate Abolition Act, 1951. In 1955 the Government passed the Orissa Tenants Relief Act. Again an amendment was made and the Orissa Land Reforms Act, 1960 was enacted. Finally, the Orissa Land Reforms (Amendment Act 13) Act, 1965 was passed which brought about many changes in the tenancy legislations of Orissa.

#### RYOTWARI TRACTS .

Under the ryotwari system the state dealt with the cultivators and collected revenue from them directly without the intervention intermediate agent such as the zamindars. Its object was the creation of peasant proprietors. A ryotwari proprietor enjoyed an absolute ownership over the soil and could deal with it or use it in any manner he liked subject to the payment of revenue. The ryotwari settlements were temporary settlements which led to the periodical revision of the land revenue.

The permanent settlement which was first introduced in the Northern Sircars of the Madras minimum minimum minimum (Aymminimum minimum mi

Presidency in 1802 received a check in 1806 because Lord William Bentinck who became the Governor of Madras was not in favour of this settlement. Hence, the further extension of the permanent settlement to any other part of Madras was prohibited. Finally in 1812, the Court of Directors ordered that in all areas that had not come under the permanent settlement, the ryotwari settlement should be introduced. In this way about half of the area of Ganjam plains came under the ryotwari system.

#### INAM LANDS:

Inam is a Persian word which means reward. Inam is of two types: (I) it is either a grant of land revenue or (II) rights in land. The origin of the Inam tenure can be traced to grants made by Hindu Rajas for the support of temples and their servants and charitable institutions, for the maintenance of holy and learned men or for rewards for public services. The practice of continued during granting Inams Muhammadan Rule. During the earlier years of the British Rule, the Government, following the ancient custom of the country, adopted the practice of rewarding meritorious services by granting of tenures and thus many villages were alienated. In this way numerous inams were created in the districts of Ganjam and Koraput. These are called the Pre-settlement Inams because the introduction of the permanent settlement these inams were granted.

The practice of granting inams involved large sacrifice of state revenue which persuaded the British Government to impose restrictions on it. The Court of Directors by their despatches of 1822 and 1829 substituted the grant of land for money pensions. But in spite of these restrictions, generally in zamindaries held by successors of ancient Rajas, the practice of granting inams Such inams are known continued. Post-Settlement Inams. In order to prohibit grant of such Inams, the Madras Impartible Estates Act, 1902, the Madras Impartible Estates Act Continuance Act, 1903 and the Madras Impartible Estates Act, 1904 were passed. But despite of these prohibiting Acts, grant of lnams continued, though in a liberal manner. 

The Inams were divided into two broad categories namely: Major and Minor. The major inams consisted of the grant of whole villages. The minor inams consisted of grants of isolated plots. The inam villages were not considered as estates under the Madras Estates Land Act 1908. Only Inam villages were considered as estates where the grant was of land revenue alone. In 1933 the Madras Legislature tried to include all major inam village under the definition of Estate, Finally, the Madras Estate Land Act (3rd Amendment) was passed in 1936. Section 3 (2) of the Act declared a major inam as estate. This Act conferred occupancy rights on the tenants. But in most of the villages the tenants could not derive the benefit of this amending Act. Hence, this Act was amended by Madras Estates Land (Amendment) Act, 1945. All inam estates. however, have been taken over by the Government of Orissa by the Orissa Estate Abolition Act, 1951.

#### AGENCY TRACTS :

Another striking feature of the agrarian system in South Orissa was the system of Agency. The major portion of this region was of wild nature and was chiefly inhabited by the tribals known as the Khonds and Savaras. These hill-tribes were stubborn and irresistible in nature and the British Government found it difficult to control them. To effectively deal with emergencies and to introduce an uniform system of administration in these tracts, the Madras Government passed the Ganjam and Vizagapatam Act, 1839. According to this Act, these areas were put under the special control of the Collectors as 'Agents' to the Governor and these areas were called the Agency areas. But the new administration was soon opposed by the Adivasi community who rose in rebellion. So, again the system was changed in 1874 and the local administration in the Agency areas was carried on according to the Mutha-head System.

The Muthahead System, however, proved to be ruinous to the interests of the tribals because it led to the origin and growth of varieties of illegal exactions such as Gothi, Bethi and Mamools. The Madras Government paid no attention to

abolish such evil practices in the tribal areas. It was only after the formation of the separate province of Orissa in 1936 that some steps were taken in this direction. In 1947, U.N. Pattnaik, a Senior Officer, enquired into the systems of Mamools and Bethi and on the basis of his enquiry the Government in their Order No. 12021—R., dated 22-10-1949 abolished all bethi for Government construction. Finally on 31st October 1966 another step was taken to abolish the practices of mamools and bethi.

In 1948, the Government passed the Orissa Debt Bondage Abolition Regulation, 1948 in order to abolish the practice of Gothi in Orissa. Further, the Bonded Labour Abolition Act, 1976 was enacted which helped a lot to end this practice.

Thus, the above agrarian structure and tenancy legislations existed in South Orissa. It is clear from the description of above agrarian system and enactments that the British Government never bothered to cater the needs of the tillers of the soil. The British land revenue policy in this region was targetted on land revenue collection alone. Therefore, they always tried to satisfy the zamindars. Because of excessive land revenue demand, illegal exactions such as Gothi, Bethi and Mamools by the Muthadars (Mutha Officers ) and rigid manner of collection of revenue, the material condition of the peasants deteriorated rapidly. There prevailed deep and wide spread discontent among the people.

### KISAN MOVEMENT:

In 1938 the peasant uprising emerged to protest against all categories of oppression. The agitation became serious in Athagada and Khallikote estates. In Sheragada zamindary a public meeting was organised under the leadership of Smt. Malati Choudhury. Thousands of peasants from different zamindaries like Dharakot, Badagada, Sanakhemundi, Badakhemundi, Chikiti, Athagada, Khallikote and Sheragada attended the meeting. Govinda Pradhan took the leadership of the movement. Prominent leaders like Biswanath Das and Surendra Nath Dwivedi also attended the meeting. The fire of discontent spread all over the district. In 1943, when Govinda Pradhan was the President of the Ganjam District Kisan Sabha, a number of public meetings were organised.

In 1945, a 'Pada Yatra' was organised from Aska to Cuttack. This peasant movement spread from zamindary to zamindary. At Aska the peasant movement was attended by thousands of ryots. In 1946 the movement was organised at Takarada. In 1947 another conference was held at Berhampur. All these movements aimed at the abolition of the zamindary system and Mustadari practices in this region which were ultimately achieved through different legislative measures.

> Lecturer in History, N. B. C. College, Kendupadar, Ganjam

### C. M. INAUGURATES FIRE STATION

Chief Minister Shri Janaki Ballav Patnaik inaugurated a Fire Station at Pipili and a Police Outpost at Delang on Frbruary 1 last. Addressing a Public Meeting at Delang, he stressed the need for concerted efforts on the part of police and public to quell violence. Local MLA Shri Yudhisthir Samantary was in the

Shri Patnaik also laid the base of Luna Bridge estimated to cost Rs. 1.5 crore.

### YOUTHS REMINDED OF CONSTRUCTIVE ROLE

Deputy Chief Minister Shri Basanta Kumar Biswal, who attended as the Chief Guest at the valedictory function of the Week-long Netaji Jayanti Celebration organised jointly by Orissa Yuva Kalyan Parishad and Purvanchal Sanskrutik Kendra, Calcutta on January 18 last called upon the youths to play an effective role in the making of nation and translating new social reforms into reality. Secretary, Culture, Shri Rajendra 

# Problem Soils of Orissa and their Management

S. K. Sahu & S. C. Pani

The soils posing constraints on sustainable agriculture production are called problem soils. The problem soils of Orissa are classified into following 5 categories. They are—

- I. Acid soils
- II. Coastal saline soils
- III. Drought prone black soils
- IV. Waterlogged soils
- V. Iron toxic soils
- VI. Wasteland soils

Characteristics and management practices of each problem soil are mentioned below:

#### I. Acid Soils:

#### (i) Characteristics:

Nearly 70 per cent of upland and medium land soils belonging to red and lateritic, red and yellow, brown forest and alluvial are acidic in nature having pH between 5.0 to 6.5. The main features of these soils are light texture, porous and friable structure. The soils are highly permeable with low water holding capacity and susceptible to drought. The acid soils are free from lime kankar and CaCO3.

Low productivity of crops in acidic soils are associated with fixation of applied soluble P, deficiency of Ca, Mg, S, B and Mo, low status of organic matter, low available N, P and K, low cation exchange capacity, toxicity of Fe, Mn and Al and poor emergence of seedlings due to crusting of red and lateritic soils.

### (ii) Management:

The acid soils can be made productive through application of organic manure and lime. Organic manures include compost, farm yard manure and green manuring. Organic manures increase the water holding capacity, improve soil aggregate, prevent soil crusting.

Liming corrects soil acidity, improves physical properties of soil, increases availability of phosphate, sulphur and molybdenum both from the native and applied sources, increases efficiency of applied nitrogen and potash, creates congenial environment for increasing the activities of microbial population of the soil and detoxifies excess aluminium, iron and manganese.

Liming should be done on the basis of soil test. Application of lime at 1/4th of lime requirement is economic. Lime sludge from papermills, ground lime stones from local lime quarries and powdered basic slag from steel factories are the best sources of liming materials. For sustaining productivity liming should be done once in two years. In absence of soil test the farmer can be advised to apply 1.25 t/ha of paper mill sludge to groundnut and other pulse crops.

On nonavailability of liming materials, mixture application of rock phosphate and single superphosphate at 50: 50 ratio of recommended dose of phosphate or of 100 per cent rock phosphate alongwith FYM at 5 t/ha would benefit the crops in acid soils. The rock phosphates should be analysed for its content of Cd and fluoride.

#### II Coastal saline soils:

#### (i) Characteristics:

инивишининининининининининин Ганининининининининининин

The saline soils in the state have been formed by the deposits of marine, lake and the creeks connected to them. These soils are alluvial having total soluble salts of electrical conductivity greater than 4 dS/m and pH values between 6.0—8.0. The salts are of chloride and sulphates of sodium and magnesium and to lesser extent of calcium and potassium. The Orissa Remote Sensing Application Centre has reported 254100 ha of saline soils stretching 432 kms along the sea coast in the districts of Balasore, Jajpur, Jagatsinghpur, Kendrapara, Cuttack, Khurda, Puri and Ganjam.

Failure of crops in these soils mainly occurs due to plasmolysis of germinating seeds and roots and death of seedlings and reduced uptake of Ca, Mg and K due to presence of excess Na.

#### (ii) Management:

The management practices of saline soils include:

- 1. Construction of salt embankments along the sea coast would prevent entry of tidal water to agricultural field.
- 2. Construction of sluice gates across the creeks to check the entry of saline water during tidal period.
- 3. Improvement of drainage system to flush out the soluble salts.
- 4. Saline soils either acidic or with high exchangeable Na% could be amended with application of lime sludge for better availability of nutrients.
- 5. Cropping on the sides of alternate ridges of irrigated furrows with intermediate furrows left fallow and frequent light irrigation.
- 6. Application of organic amendments such as FYM, rice husk, paddy straw and green manuring.
- 7. Application of calcium ammonium nitrate as nitrogenous fertiliser and use of BGA as biofertiliser.
  - 8. Raising shelter belts to prevent cyclone.
- 9. Growing salt tolerant rice varieties like SR-26B, Mohan, Lunishree, Pateni and Sola.
- 10. Other salt tolerant crops like safflower barley, cotton, sugar beet, linseed, mustard and vegetables like cabbage, radish and chilli can be grown successfully.

### III. Drought prone black soils:

### (i) Characteristics:

Black soils in the state occupy nearly 0.96 m.ha. in the districts of Kalahandi, Nuapada, Malkangiri, Bolangir, Bargarh and Puri. These soils contain calcium nodules and free calcium carbonates in the profile. The texture is clay and the structure is angular blocky. Upon drying, the soils crack and on wetting clay swells. Ploughing is difficult under both dry and wet conditions. Water infiltration rate is slow and so erosion is severe. Waterlogging causes wilting of seedlings while ploughing clay sticks to the ploughshare. The soil has neutral pH and rich with Ca, but deficient with N, P, K, S, Zn, Fe and B. Organic matter status of the soil is also low.

#### (ii) Management:

Ploughing operations should be taken up at right moisture consistency. Growing green manure crops, application of organic manures, recycling of rice straw, incorporation of saw dust, rice chaffs and husks improve soil aggregate and increases water infiltration rate. Application of DAP, single super phosphate, zinc as zinc sulphate, iron as ferrous sulphate and boron as borax corrects the nutrient deficiency. Crops like bengalgram, sunflower, safflower, cotton, castor, maize, jowar, ragi and minor millets can grow well under residual moisture.

### IV. Water-logged soils:

#### (i) Characteristics:

The State possesses nearly 60,000 ha of typical water-logged soils which occur due to low lying lands in the coastal districts, rise of ground water table in the Hirakud Command area and occurance of valley lands in the inland districts. These lands always remain swampy and in kharif water depths may go above 100 cm height. The soil remains under reduced conditions causing drastic change in physical and chemical properties. The land cannot be ploughed. There is accumulation of toxic substances like organic acids, methane, ethylene, sulphides and hydrogen sulphides. Fertiliser application is not feasible.

Rice is the only possible crop in this type of land. Direct sowing of long duration rice should be taken up during April and May. Provision of surface drainage is the only solution for converting paddy lands into aerable lands.

### V. Iron toxic soils:

### (i) Characteristics:

Medium and lowland rice soils receiving washings of iron rich constituents from the adjacent acidic red and lateritic uplands suffer from iron toxicity. Nearly 25,000 ha of such paddy lands have been reported in the districts of 

Puri, Khurda, Cuttack, Jajpur, Bhadrak, Ganjam, Koraput, Malkangiri, Rayagada, Sambalpur, Bargarh and Dhenkanal.

The affected paddy lands show a scum of iron compound having brackish red colour on the surface standing water. Rice grown in these soils shows tiny brown spots starting from the tips of the lower leaves after 25 days of transplanting. The spots spread towards the base of leaves and coalesce to give bronzing appearance. The colour of the leaves become purple reddish brown giving the entire leaves a scorched appearance. Tillering and growth of the plants are very much reduced. Short panicles appeared with unfilled grains and yield is drastically reduced.

#### (ii) Management:

- 1. Provision of deep drains around the affected fields.
- 2. Application of lime either through papermill sludge or basic slag at 1.0 to 1.5 t/ha alongwith recommended fertilizer.
- 3. Application of 80 to 100 K<sub>2</sub>0/ha alongwith 80 kg N and 40 kg P<sub>2</sub>O<sub>5</sub>/ha.
- 4. Cultivation of iron toxic tolerant rice varieties such as Mahsuri, Rajeswari, Samalai, Phalguni, Anamica, Tulsi and IR-36.

#### VI. Waste land soils:

The remote sensing agency, Hyderabad centre has estimated 24.18 lakh ha. of waste land soils in Orissa. These soils include (i) Hill soils, (ii) Aeoline soils and (iii) Minedout over burden soils.

Characteristics and Management of the soils:

#### (i) Hill soils:

These soils developed under rolling topography are found in the districts of Phulbani, Boudh, Koraput, Malkangiri, Bolangir, Sonepur, Kalahandi and Nuapada. The vegetation of these soils are destroyed by the tribal farmers through the practice of podu cultivation. The exposed

soils, after podu are washed out by erosion. The soils though well drained suffer from moisture stress during summer. Available nutrients and bases are lost by surface run off. These soils are mostly acidic and low with organic matter. Application of compost or FYM at 5t/ha to each crop alongwith recommended NPK would sustain productivity of acid soil.

The management practices of these soils include discourage of podu cultivation, forest plantation, pasture development, silvi-pasture, agroforestry, agro-horticulture and silvi-horticulture, soil conservation practices such as strip cropping, cover cropping, terrace bunding and contour cultivation should be adopted.

#### (ii). Aeoline soils:

These soils are developed by the deposits of sands along the sea coast in the districts of Ganjam, Puri, Kendrapara, Jagatsinghpur and Balasore. Aeoline soils are composed up of pure sands of coarse and finer fractions. These soils are poorly fertile. These soils are lost by wind erosion. Casuarina, eucalyptus, accacia, palm, date palm, coconut can grow well in these soils and act as shelter belts against wind erosion.

#### (iii). Minedout over burden soils:

These are man made soils created by opening of mines of iron ores in districts of Keonjhar and Sundergarh, of bauxites in the districts of Koraput and of nickel in the district of Cuttack at Sukinda. These soils contain toxic metallic elements of Fe, Al, Mn, Cr., Ni, Pb and F. Plants cannot grow in these soils due to excess absorption of toxic elements. These soils can be amended through liming and selecting suitable species of plants tolerant to these toxic elements.

Department of Agricultural Chemistry, Soil Science and Biochemistry, Orissa University of Agriculture and Technology, Bhubaneswar—751003

## SECOND STEEL PLANT OF ORISSA Commissioned at Duburi

Orissa's Second Steel Plant, the Mideast Integrated Steel Ltd., was commissioned by the Chief Minister of Orissa, Shri J. B. Patnaik at Duburi in Jajpur district on 2-2-1996. Speaking on the occasion, the Union Minister for Steel, Shri Santosh Mohan Deb said that the 1.2 million tonne plant built with Chinese collaboration, by the private firm MESCO, was an important step towards rapid industrialisation of the State and the country at large. The liberalised economy and the progressive unshackling of the steel industry has attracted a sizeable amount of investment in this sector. Already proposals for 17 private sector steel plants, with a total capacity of 9.2 million tonnes have been cleared by financial institutions in the country. The investment is of the tune of Rs.16,234 crore. In the next few years, we can hope to raise our per capita steel consumption from the meagre 25 Kg to somewhere closer to the world average of 80-100 Kg. The Minister also informed that the projected demand for steel by the end of the 9th Plan would be 37 million tonnes. Of this, 31 million tonnes would be domestic demand and 6 million tonnes of export demand. The Government is trying to promote export of steel for which a High Power

Referring to the question of compensation to the persons displaced by this newly commissioned plant, Shri Deb urged the Chief Minister of Orissa and the management of the MESCO group to settle the issue expeditiously. Conveying the concern of the Prime Minister in his regard, Shri Deb said that the persons whose land has been taken over should be given full compensation. One person of each displaced family should be provided employment in the Steel Plant. The local people also should be given preference in matters of employment. Shri Deb has urged the Chief Minister of Orissa to depute an official to look into the settlement of this vital issue.

Later Shri Deb also laid foundation stone for the blast furnace of the 2.5 million tonnes Kalinga-MESCO Steel Plant, coming up nearly. This will be a 100 per cent export-oriented project.

The Union Minister of State for External Affairs, Shri Salman Khursid and China's Ambassador to India who were present on the occasion, hailed the setting up of this plant as an important and very encouraging step in Indo-Chinese relations. Shri Khursid said that industrialisation will not country. The Minister offered his help for the setting up of a branch of Delhi Public School, in Jajpur district.

In his inaugural address the Chief Minister of Orissa. Shri Patnaik announced that compensation at the rate of Rs.1 lakh per acre will be given to the people whose land has been taken by the steel plant. He disclosed that 13 steel plants are on the anvil in the State and as per the developed with full civic amenities.

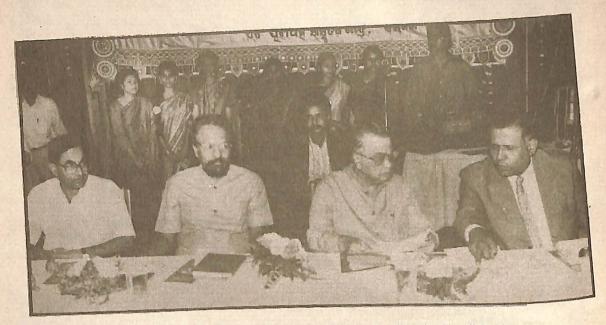
Among others present on the occasion were Shri Giridhar Gomango. Union Minister of State for Mines; Orissa Revenue Minister, Shri K. C. Lenka; State's Industries Minister, Shri Niranjan Patnaik and the Chairman and Director of the MESCO Group, Shri J. K. Singh and Smt. Rita Singh.



Chief Minister Shri J. B. Patnaik, inaugurating the Munduli Bridge on river Mahanadi on 30-1-1996.



Minister of State, I. & P. R. Shri Netrananda Mallick; Minister for Transport, Shri K. C. Lenka, Freedom Fighter Shri Bijoy Pani and Secretary, I. & P. R., Shri A. K. Tripathy, addressing the public on the State Level Jayanti of Freedom Fighter Chakhi Khuntia on 20-1-1996 at Bhubaneswar.



Deputy Chief Minister Shri Basanta Kumar Biswal attending the Netaji Subhas National Youth Programme at Soochana Bhawan on 18-1-1996.



Shri Netrananda Mallick, Minister of State, I. & P. R. is visiting the Orissa Consumex '96" Exhibition on 3-2-1996 at Hotel Kalinga Ashoka.



Hon'ble Governor of Orissa Shri G. Ramanujam administering oath to the 7 newly appointed Ministers in swearing-in-ceremony held at Rajbhavan on 14-1-1996.



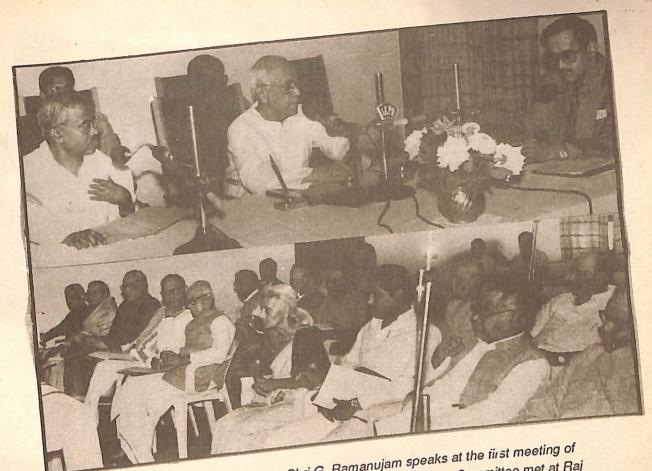
Chief Minister Shri J. B. Patnaik inaugurating the Fly over bridge at Bapuji Nagar—Mausi Maa Temple on 14-1-1996. Deputy Chief Minister Shri B. K. Biswal and Minister, Works Shri Harihar Swain are present in the function.



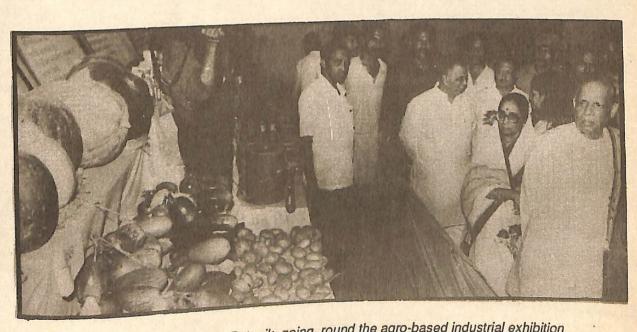
Chief Minister Shri J. B. Patnaik inaugurating the MESCO Steel Plant at Duburi on 2-2-1996. Union Minister for Steels Shri Santosh Mohan Dev, Union Minister of State for External Affairs Shri Salman Khursid, Union Minister of State for Mines Dr. Giridhari Gomango, Industries Minister Shri Niranjan Patnaik, Revenue Minister Shri K. C. Lenka, H. E. Ambassador of China Mr. Wang Ing are present.



Sk. Matlub Ali, Minister, Rural Development addressing the District Level Republic Day Celebration at Baripada. Among others present are Collector Shri S. N. Tripathy and S. P. Shri R. P. Singh.



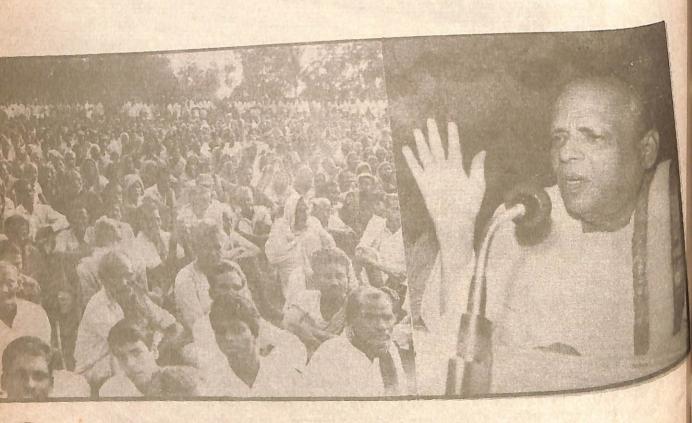
Hon'ble Governor of Orissa Shri G. Ramanujam speaks at the first meeting of Netaji Subhas Chandra Bose Birth Centenary Celebration Committee met at Raj Bhawan, Bhubaneswar on 12-1-1996.



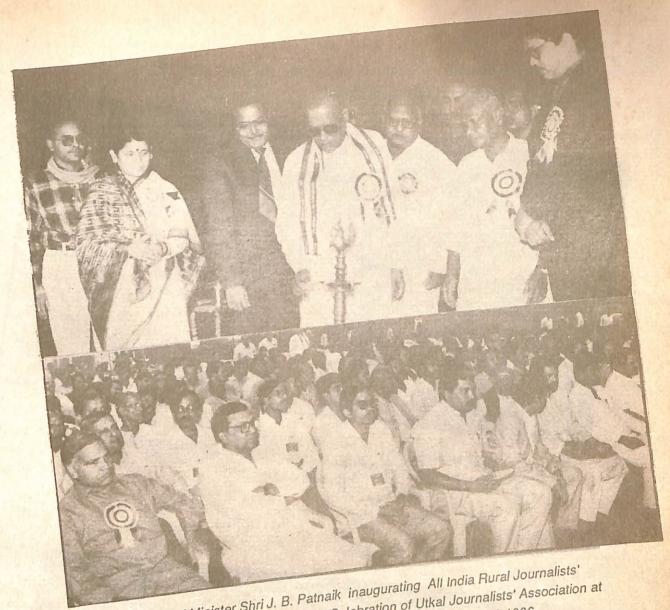
Chief Minister Shri J. B. Patnaik going round the agro-based industrial exhibition held at Gandhi Memorial Peetha at Telengapentha on the Martyrs' Day.



Shri J. B. Patnaik, Chief Minister of Orissa is inaugurating the Adivasi Exhibition at Bhubaneswar on 26-1-1996.



Chief Minister Shri J. B. Patnaik addressing a huge gathering at Delang in Puri district after laying the foundation stone of a bridge on river Luna on 1-2-1996.



Chief Minister Shri J. B. Patnaik inaugurating All India Rural Journalists' Conference and Golden Jubilee Celebration of Utkal Journalists' Association at Jawaharlal Nehru Indoor Stadium, Cuttack on 12-2-1996.

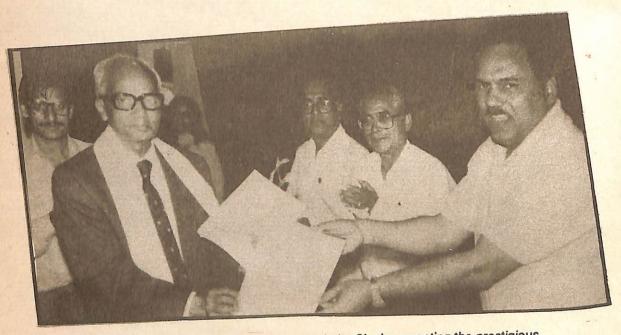


Minister of State, I. & P. R. Shri Netrananda Mallick addressing the State Level Birth Minister of State, I. & P. n. Shiriyanana Sai at Soochana Bhawan on 22-1-1996.

Anniversary celebration of Veer Surendra Sai at Soochana Bhawan on 22-1-1996.



Chief Minister Shri J. B. Patnaik inaugurating the Annual Function of the Shailabala Women's College Union at the premises of Shailabala Women's College, Cuttack on 12-2-1996.



Minister, Tourism & Culture Shri Bhupinder Singh presenting the prestigious
Chalapatha Award to Shri G. K. Das, Vice Chancellor, Utkal University at the State
Level Chalapatha Writers' Conference on 10-2-1996.

### Berbera Forest: Turning a New Leaf

Monalisa Jena

For decades the famous Berbara Reserve Forest, called the 'Treasure Island' of Khurda Forest Division was being systematically looted and ravaged by timber smugglers out to make a fast buck

Even as the treasure was being plundered, people living in the 33 villages inside the forest area of 10,000 acres were equally neglected. The fruits of development did not reach them and from generation to generation they eked out a miserable life depending mainly on the forest for their livelihood.

The forests are situated 130 kilometres south of Bhubaneswar and the villagers mostly are scheduled castes and scheduled tribes. With the human element being ignored and the forests being rapaciously denuded the situation seemed bleak.

However, a change is now being seen. As an experiment, in 1993 a platoon of CRPF was deployed in these forests. It was a great step forward towards the protection and preservation of the forest areas. Constant vigil and patrolling by the para-military forces, alongwith the forest officials reversed the situation and the pilferage of valuable timber came to an end. When the smugglings stopped, the role of foresters changed and emphasis was shifted from law-enforcing to conservation and protection.

In mid-January, in the year 1995, Co-ordination Committee was convened by the DFO, Puri Division at Berbera (Balugaon Forest Range) which was attended by representatives from H. & W., Horticulture, Panchayatiraj, R. W. S. & S. The meeting was chaired by the District Collector, Khurda. It was decided to community integrated umanamanamani manamanamanaman (manamanamanamanamanamanamanamana) operationalise

development project which would include primary health care, nutrition, and drinking water and sanitation improvement. The situation after the deployment of CRPF in the area also called for a long term solution—adequate opportunities for alternative income generation to be created for the people who were engaged earlier in the timber smuggling trade.

Demiaberbera and Niladriprasad under Banpur block were the two Grama Panchayats covered by the project. These Grama Panchayat's are characterised by high S.C./S.T. population, low literacy level and large dependance on forests. Outbreak of malaria is frequent and is further aggravated by inadequate health facilities. The Niladriprasad total population of and Demiaberbera is 5,649 and 4,148 respectively. Out of 77 villages under these two Grama Panchayats, only 33 villages are inhabitated now. These villagers are very poor. Living inside the deep, inaccessible forests, they do not have employment opportunities.

Barely two years ago, when 'brain fever' struck there, they would merely desert the village. If a patient needed medical treatment, it was a kilometres journey through 12 strenuous dangerous forest roads, and very often the patients would succumb mid-way. Even though the areas are prone to malaria, no preventive measures were taken. The nearest PHC with a doctor is 45 kilometres away by road, the shorter route through the forest is 12 km.

When one CRPF Jawan and four forest officials died of brain fever, precautionary measures were launched and immediate medical attention was provided. Records are unavailable of the pre-CRPF period, but foresters did suddendly disappear and news of their death reported months later. It was assumed that they had succumbed to brain fever, and/or malaria.

A visit to one of the Grama Panchavats. Niladriprasad, was an eye opener. A Health Camp was organised there in the small dilapidated forest guard's building, barely 100 feet from the local PHC. About 150 patients turned up for medical treatment. The Health Camp was the fifth and was held after four months. The local PHC is in shambles.

There is no electricity. Poor road facilities disrupt the communication network. Dr. Surendranath Das, 50, was brought in from Gambharimunda block, 45 kilometres from the area, on popular demand, for the health camp. He is a private practitioner, and was roped in by the DFO, Shri Ajit Kumar Patnaik, 38, who is visibly involved with all the projects taking shape in the area. These two men are held with absolute respect in these areas because of their dedicated interaction. When the DFO was away in Switzerland on a three months' tour, the project went into limbo but immediately, after his return, Shri Patnaik started off from where he left. Steps like ensuring availability of chloroquine tablets, examination of blood samples, conduction of immunization and health camps were taken up. An immunization clinic to be set up on a fixed date based (20th of every month) on which all children could be immunized from the two panchayats had been discontinued. The Forest Department has taken the responsibility of maintaining immunization cards and mobilizing mothers and children for immunization. ORS depots have been established with the help of foresters. UNICEF has agreed to provide blood-testing equipment for malaria parasité, kits like audio-visual equipment support, training and communication materials in health and sanitation, which has come as a blessing. But the project gets jeopardised because of the absence of a doctor. The new Forests Act which stresses on greater state control over the forests to the exclusion of local communities and boost conservation as well as the creation of new forested areas deprives the people living in and around reserved forests of their rights over their products. If the state feels such forests are being exploited beyond their capacity, it can step in and prevent villagers from getting their fuelwood and fodder. So, a conflict between conservation and people's right is obvious. The problem could be solved if people accepted the joint forest

management schemes for production development of degraded forests. The poor and illiterate villagers of these areas go away to far away places to work as 'bonded labourers'. Most of the people starve when they can not procure forest products for their livelihood. A total outlay of Rs. 65 million has been proposed for the integrated eco-development component within a total project cost of Rs. 1,600 million in the proposed forest sector development project.

The Forest Department has undertaken several income generation activities. These include introduction of mechanised leaf plate pressing, organised apiary, systematic collection and primary processing of non-timber forest produce (i.e., bamboo/cane/other fibre weaving etc.), for women, leaf plate stitching, basket weaving. These schemes are supported by DWCRA, ICDS, Rashtriya Gramina Vikash Nidhi, MADA, JRY etc.

Systematic cultivation of green leafy vegetables which is rich in Vitamin A, and other short duration crops like fruit crops, bananas, mangoes, growing of ginger, turmeric, arrowroot, sweet potatoes etc. are being introduced encouraged. These products can be collected and transported to the neraby towns through the forest vehicles and can be marketed directly so that the poor villagers are not exploited.

The rural people and mainly the forest dwellers depend on wood for fuel. At these places, the houses have very low ceilings and there is no arrangement for the smoke to rise. Ill effects of wood smoke cause a heart disease called corpulmonade, which is inter-related to the disorder in lungs. Similarly a number of pulmonary diseases are also reported. It is said that during the cooking for meals for one day, a woman inhales obnoxious gases equivalent to the effect of smoking 20 packets of cigarettes. So smokeless chullahs would be introduced with the support from DRDA, through the B. D. O. The OREDA, is willing to subsidise the installation of ummunummunummunumna 2 vinammunummunummunummunummunummin

The Forest Department will provide funds for mobilisation of 13 new drinking water points in co-operation with the R.W.S. & S. The funds made available by the World Food Programme to the Forest Department will be utilised for this purpose. UNICEF will provide the hand pump maintenance kits required.

The winds of change have begun blowing and if the project does not fall by the wayside, as generally happens with all good things, the survival and development of the forest and its

people is ensured. With assured sources of livelihood, illicit felling of exotic trees and consequent smuggling of timbers will become a thing of the past. Conservation will be ensured and the people will surely be able to increase and improve their levels of living. All that remains now is to see whether the project will be continued with the zeal and dedication with which it was started or will become one more dusty file.

> Mukund Prasad. Khurda-752057.

### CALL TO SET UP SANSKRUTI BHAVAN

Revenue and Transport Minister Shri Kanhu Charan Lenka, who addressed the 236th birth Anniversary function of Abhimanyu Samanta Simhar at Bhubaneswar on January 27 last stressed the need for setting up a Samskruti Bhavan at Bhubaneswar to disseminate information about illustrious sons of Orissa and project the culture of Orissa outside the State.

Speakers, including Prof. Khageswar Mahapatra; Shri Surasen Jena, Director, I&PR. and Shri Ghanasyam Mishra highlighted the lyrical grace in Abhimanyu's writings. Shri Barendra Krushna Dhal was in Chair. Artistes Pankaj Das and Arjun Samal were honoured on the occasion.

### MINI-ITI PLAN APPROVED

A proposal mooted by Panchayati Raj Department to impart technical training on different trades in rural areas at an estimated cost of Rs. 2 crore for setting up 7 Mini-ITIs was approved at a high-level Committee meeting held at the State Secretariat recently.

### TRIBUTES TO ADIKAVI SARALA DAS

Deputy Chief Minister Shri Basanta Kumar Biswal who addressed as the Chief Guest at the death anniversary function of Adikavi Sarala Das held at Kanakpur on January 26 last described Sarala as the national poet. He was the first poet to compose the Mahabharat in a regional language, he added.

Additional Police D. G. Shri Banabehari Panda was the Chief Speaker while Prof. Ratnakar Panda was in Chair.

### ACCENT ON LOVE FOR MOTHER TONGUE

Conferring the Sarala Samman on Dr. Janaki Ballav Mohanty (Bharadwaj) at a meeting organised by Sarala Sahitya Samsad at Sahid Bhavan, Cuttack on January 27, Chief Minister, Shri Janaki Ballav Patnaik called for developing love for one's own mother tongue. Eminent Hindi litterateur Shri Gangaprasad Bimal urged the authorities to launch a special drive for encouraging Indian culture. Samsad adviser Shri Sahadev Sahu gave introductory remarks. TRIBUTES TO CHAKHI KHUNTIA

Glowing tributes were paid in memory of Chakhi Khuntia at a meeting jointly organised by I & P R Department and Puri Chakhi Khuntia Smruti Samiti on January 20 last. Speakers, including Revenue Minister, Shri Kanhu Chanran Lenka, Dr. Subhas Misra, Shri Bijay Pani, Shri Harihar Bahinipati and Shri Krushna Chandra Mahapatra, highlighted the inspiring facts of Chakhi Khuntia's life, his commitment to culture and social reforms.

Commissioner Shri Ajit Kumar Tripathy gave an introudctory remarks. The meeting was chaired by Minister, I & P R. Shri Netrananda Mallick.

# Some Common Poisonous Plants of Orissa

Dr. P. C. Panda

#### Introduction:

The knowledge of poisonous plants is perhaps as old as the human race itself. Primitive man in his quest for food must have come across plants containing poisonous substances, and by accident and by experience must soon have learnt to avoid them as a ticles of diet. He must have also soon begun to make use of them for his own purposes, for example, for procuring food for himself from the animal kingdom and to get rid of his enemies by their means. It is well known that even at the present time many of the forest-living tribals of India, use them to "fill their pot". Some of them have not been effected by civilization and, although they have started tilling the soil, they do not take to agriculture but live chiefly by hunting wild animals with their bows and poisoned arrows. To catch fish they employ a number of plants which stupefy or kill them. There is no doubt that this mode of obtaining food has been practised by man from time immemorial. In addition to their uses for procuring animal food and destroying enemies, the poisonous plants were harnessed by the ancients for the amelioration of diseases.

According to popular poisonous plant is one which will cause death or impairment of bodily functions, when taken in relatively small doses. This definition does not satisfy a critical mind in the light of the modern researches. The definition of Chopra et al. (1949) that "A poisonous plant is one which, as a whole or a part thereof, under all or certain conditions, and in a manner and in amount likely to be taken or brought into contact with an organism will exert harmful effects or cause death either immediately or by reason of cumulative action of the toxic property, due to the presence of known or unknown chemical substances in it, and not by mechanical action" embraces all plants

that are deleterious to health and satisfy all the criteria. Depending on the mode of action, the poisonous plants can be broadly grouped into (1) Plants poison to man and livestock (2) Plants Poison fishes and (3) insect repellent plants.

By the metabolic activity of plants are produced not only the food materials so essential for life, but also certain other substances, such as alkaloids, glucosides, toxalbumins, essential oils, resins, bitter principles etc. Many of these are harmful to animal life, at least under certain conditions and the plants containing these principles which are capable deleteriously are popularly known as poisonous plants. Many hypotheses have been advanced to explain the physiological significance of the toxic principles produced in plants. They have been thought to be (i) stages in the process of metabolism in the plant (ii) as waste products, and (iii) produced in plants to protest them against being eaten by man and animal. It seems likely that one or more of these may be responsible for the production of toxic substances in plants, but first mentioned suggestion appears to be the most plausible and the last the least acceptable of the three (Thothathri et al., 1985). Recent advances in phytochemistry have enabled many Indian plants to be screened for active principles and their poisonous properties have been ascertained. Some 28 common plants poisonous to man and livestock available in Orissa are enumerated below with their botanical name, local Oriya name, short botanical description and poisonous properties. The objective is to make people aware of such plants so that their harmful effects can be avoided.

### **Enumeration of Species:**

### 1. Abrus precatorious (Fabaceae):

Oriya name : Kaincha, Gunja

organism will exert harmful effects or cause death either immediately or by reason of cumulative of known or unknown chemical substances in it, and not by mechanical action" embraces all plants and trembling of hands.

It is a climbing shrub with pinnately compound leaves, pink or pale violet flowers and red/white seeds with black eyes The seeds contain a chemical called 'abrin' and chewing of the seeds is fatal. It causes gastro-intestinal irritation, nausea, and trembling of hands.

### 2 Alstonia scholaris (Apocynaceae)

Oriya name: Chhatiana

It is a tree with oblong—elliptic whirled leaves and greenish-white, odourous flowers. Intake of its latex causes toxic effect and it is reported to cause blindness, if gets into eyes.

### 3. Anacardium occidentale (Anacardiacea):

Oriya name : Kaju Badam

Cashew plant is a tree having obovate leaves, pinkish flowers; fruits drupaceous with enlarged fleshy peduncles. Juice of the plants and pericarp of the fruits, the oil of which contains cardol and anacardic acid is poisonous. The oil is corrosive, causing blister on skins and inflammation of eyes. The juice is also injurious to eyes.

### 4. Argemone mexicana (Papaveraceae) : Oriya name : Agara, Kanta Agara

It is the common Mexican prickly herb with pinnatifid leaves and yellow flowers. Intake of its raw seeds causes spitting and vomiting, diarrhoea followed by oedema of feet and legs and intense pain all over the body. Cattle avoid the plant.

### 5. Calotropis gigantea (Asclepiadeae)

Oriya name : Arkha, Arka

The plant is a shrub with obovate, powdery, thick leaves and purplish, violet or white flowers. The latex contain gigantin and resinols and its intake is fatal. The latex is injurious to eyes and also poisonous to fishes.

### 6. Casearia elliptica (Flacourtiaceae) (Syn C. tomentosa):

Oriya name : Khakara

Khakara is a small tree with greenish-yellow flowers in axillary fascicles. Fruits are orange in colour. Intake of juice of fruits of this species is poisonous and it causes breathing trouble and unconsciousness. The fruits are also used for poisoning fish.

### 7. Catharanthus roseus (Apocynaceae) (Syn. Vinca rosea)

Oriya name : Sadabihari

This is a undershrub with rosy/white flowers, common in gardens and waste places. The whole plant contains an amorphous alkaloid which acts

as a poison to heart and intake of plant juice is poisonous.

### 8. Cleistanthus collinus (Euphorbiaceae) Oriya name: Karada

Usually this is a small deciduous tree with ovate leaves and trilobed capsules. Intake of its roots, leaves and especially fruits and barks is poisonous and acts as violent gastro-intestinal irritant. Most tribal people take root-bark for suicidal purpose and also for poisoning their arrow blades.

#### 9. Cuscuta reflexa (Cuscutaceae)

Oriya name : Nirmuli

This plant is a rootless and leafless parasitic climber with yellowish fleshy stem, pinkish flowers and capsular fruits. Intake of juice of the plant causes depression with nausea and vomiting, followed by abortion incase of females.

#### 10. Datura metel (Solanaceae)

Oriya name : Dudura

Datura metel is a shrub with tubular white flowers and spiny fruits. Intake of seeds of this plant is highly toxic. Effect of toxicity can be removed by taking juice of Oxalis corniculata.

### 11. Dioscorea hispida (Dioscoreaceae)

Oriya name : Kanta Alu

This wild yam is a twiner with globose tubers and prickly stem. The tubers contain dioscorine which is a toxic substance. Intake of tubers in large quantities causes paralysis of the respiratory system and even death, it also creates severe irritation in mouth.

### 12. Dioscorea pentaphylla (Dioscoreaceae)

Oriya name : Karaba

It is a twiner with a single tuber, 3-5 foliolate leaves. The tubers are acrid and cause inflammation of mucous membrane of mouth.

### 13. Euphorbia neriifolia (Euphorbiaceae)

Oriya name : Patra Siju

This is a succulent plant with thorny stem and fleshy laticiferous leaves. The latex is acrid, purgative and liable to cause dermatitis and is also injurious to eyes.

### 14. Euphorbia tirucalli (Euphorbiaceae)

Oriya name: Khadi Siju

This succulent shrub has cylindrical green stems and scaly leaves. Intake of its latex is poisonous and it acts as a purgative in small dose but in large doses it is acrid, irritant and emetic. It is also injurious to eyes.

### 15. Gloriosa superba (Liliaceae)

Oriva name: Pancha Angulia

The species is a perennial climber with tendrillar leaves, reddish green flowers and capsular fruits. Intake of tubers of the plant is fatal. It causes gastro-intestinal irritation, vomiting and purging. The tribals use the tubers for poisoning their arrow-blades.

### 16. Jatropha gossypifolia (Euphorbiaceae)

Oriya name: Baigaba, Gaba

It is a very common shrub with palmately lobed leaves, deep red flowers and capsular fruits. Intake of its seeds causes severe vomiting.

### 17. Laportea interrupta (Urticaceae) (Syn. Fleurya interrupta)

Oriya name : Gacha Bichuati, Nali Bichuati,

This species is an annual shrub with irritant hairs, ovate leaves and greenish-white flowers. Contact of this plant causes dermatitis and acute burning sensation in the body. Such an effect lasts for several days and it aggravates when water is applied. In flowering season it causes violent sneezing, sleeplessness and fever.

### 18. Mucuna pruriens (Fabaceae) (Syn. M. Prurita)

Oriya name : Baidanka

The plant is a twiner with trifoliate leaves, axillary long racemes of purple flowers and 'S' shaped fruits beset with brown bristles-like hairs. The hairs on contact with skin produce intense itching and sometimes causes blister dermatitis.

### 19. Nerium indicum (Apocynaceae)

Oriya name : Karabira, Karabi

It is a cultivated shrub with lanceolate, whirled leaves and pink/white flowers. The roots, barks and seeds contain neriodorin, neriodrein and Karabin. Of these, karabin is a powerful cardiac poison, acting on the heart. It also acts on the spinal cord in more or less the same way as strychnine.

### 20. Parthenium hysterophorus (Asteraceae)

Oriya name: Congress Ghasa

This is an exotic weed with dissected leaves and white flowers; gregarious in waste places. Contact of hairs and pollen cause allergy followed by erruption of skin. Seeds and plants cause serious outbreak of eczema and allergic dermatitis. Calves fed on this weed develop itching and diarrhoea and die within 8-30 days with severe ulceration in the liver, gastro-intestinal tracts and kidney.

### 21. Plumbago zeylanica (Plumbaginaceae):

Oriya name: Dhala chitaparu, Chintamani

Plumbago zeylanica is a shrub having white flowers and glandular fruits. The roots of this plant contain plumbagin, which is a toxic substance and possesses abortifacient vesicant properties. The juice of the plant has also been reported to cause blister on skins.

### 22. Plumeria rubra (Apocynaceae)

Oriya name : Katha champa

It is a moderate-sized tree with white latex and white scented flowers having yellowish centre. The milky juice of the plant containing plumieric acid and root-bark are drastic purgative. The latex is also injurious to eyes.

### 23. Ricinus communis (Euphorbiaceae)

Oriya name : Jada, Gaba

It is a shrub with large lobed leaves and spiny fruits. Intake of seeds of this plant is fatal with symptoms like vomiting, colic, gastroenteritis, oedema, and circulatory collapse.

### 24. Semecarpus anacardium (Anacardiaceae)

Oriya name : Bhalia

It is a tree with large obovate-oblong leaves, greenish yellow flowers and drupaceous fruits. 

The juice of the pericarp is a powerful vesicant and causes eczematous vesicles on body and blister on skin. In summer if anybody rests under the shade of this tree, it causes inflammation of eye-lids.

### 25. Strychnos nux-vomica (Loganiaceae)

Oriya name: Kochila

Kochila is a very common tree having greenish-white flowers and globose berries, which turn red when ripe. The seeds, barks, leaves and wood contain strychnine, brucine and strychnicine, intake of which is fatal. Large doses produce tetanic convulsions and death. In lesser doses it may result in mental derangement. Seeds are used by tribals for poisoning their arrows and powder of seeds is used for killing wild animals like jackal, cat etc.

### 26. Thevetia peruviana (Apocynaceae) (Syn. T. neriifolia) :

Oriya name: Kaniar

These are a small tree with white latex, funnel-shaped yellow/orange/white flowers and drupaceous fruits. Intake of milky latex, bark and seeds of this plant is fatal with symptoms such as burning sensation in the mouth, tingling of the tongue, vomiting, purging with drowsiness etc. The seeds are eaten with molasses for committing suicides.

### 27. Tragia involucrata (Euphorbiaceae):

Oriya name : Lata Bichhuati

This is a twining herb with hispid stinging hairs. Contact of this plant with the skin produces severe irritation.

### 28. Trichosanthes bracteata (Cucurbitaceae):

Oriya name: Mahakala Phal

It is a common climber with palmately-lobed leaves, white flowers and globose bright red berries when ripe. The root of this plant has violent purgative properties and used as a cattle poison.

#### REFERENCES:

Chopra, R. N.; Bhadwar, R. L. & Ghosh, S. (1949). Poisonous Plants of India, Vol. I., ICAR, New Delhi.

Thothathri, K.; Sen, R.; Pal, D.C. & Molla, H.A. (1985). Selected poisonous plants from the tribal areas of India, Botanical Survey of India, Calcutta.

Scientis<mark>t,</mark> Regional Plant Resource Centre, Bhubaneswar—751015



Chief Minister Shri Janaki Ballav Patnaik inaugurating a health centre at Nalagaja
in Mayurbhanj district on 22-1-1996

### **Consumer Education**

Dr. (Mrs.) Manashi Mohanty

Quality goods at a fair price and in right quantity and clean environment are the fundamental rights of every citizen. The saying that 'Consumer is the King' is ironically true these days. They are the largest economic group in any country. They are the central point of all our economic activities. But the very same consumers are the most voiceless group, especially in India. Consumer is being exploited to a very great extent. A survey indicated that Indian consumers are cheated to the tune of Rs. 20,000 million a year. Whether it is by way of quality (poor) or quantity (less) or overcharging—the poor chap is always at the receiving end.

Consumer is facing a number of problems like adulteration, black marketing, misleading labels, hidden pricing etc. Many of us agree and have experienced several other problems and are not happy with what we have purchased.

### Who is a consumer?

A consumer is a person who buys any goods, or hires any service for personal or household consumption and not for commercial use or re-sale. A person using the product for earning his livelihood by means of self employment, is also treated as consumer.

### The need for Consumer Education:

The main purpose of consumer education is to give a better standard of living to all citizens. It is the process by which every consumer can learn the best method of using his resources for the satisfaction of his needs. Lack of consumer education is the root cause for many consumer problems. In other words consumer education is a preparation for everyday living because it helps people to make intelligent choices. When consumers have proper knowledge informations, they are able to buy wisely for their usefulness rather than for their status, learn to enjoy things without owing them, use money intelligently and reject anything that will encourage the appreciation of others. Consumer education not only develops the skills for wise

buying or for protection of consumer against fraudulent trade practices in the market place, but also the skills for active participation of the consumers in the economic, social and political decisions that affect them.

Legal education is becoming more and more essential to the youth of the day in the context of complex socio-economic problems of modem era. Most of the problems are rooted in the consumer world. Today legal education is mostly confined to the knowledge of various written laws and lacks a more practical approach. Problem oriented studies in the legal faculty could be more useful and lasting to the youth of the day. On most occasions an educated youth allows himself/herself to be cheated just because he is ignorant of the possibilities of redressal.

In toto, the consumer education helps :—

- —to develop skills, build confidence and apply their consumer skills effectively;
- —to develop a person's ability to choose goods and to become a discriminating buyer who can distinguish needs from wants;
- -people to move from responsibility of self and family towards a wider social responsibilities to the community;
- —the consumer to develop value based judgements;
- -to teach youngsters to make a renewed appraisal of advertising and other pressures to
- -to provide knowledge about existing laws and standards for the benefit of consumers;
- to guide and advise the ignorant consumers in the use of consumer protection services;
- -to make consumers be aware of agencies which can help them to take appropriate action in a problem situation;
- -to make people aware of their rights and responsibilities in the society.

### Rights of a Consumer:

Every year, the 15th of March is observed as "World Consumer Rights Day". It was on this day, 

then President of the U.S.A., declared four basic consumer rights in his special message to the congress on consumer protection. He said 'Consumers are the largest group in the economy, affecting and affected by almost every public and private economic decisions'. He at first declared four basic rights available to consumers.

- —The right to safety
- —The right to be informed
- —The right to choose and
- —The right to be heard

The International Organisation of Consumer Union (IOCU) has strengthened the list by adding three more rights. These are :

- -Right to seek redressal
- -Right to consumer education
- -Right to a healthy environment

The consumer rights declared and recognised internationally add new dimensions to consumer protection. Each of these rights tries to widen the scope of consumer protection.

### The Right to Safety:

It refers to the right to be protected against products, production process and services which are hazardous to health or life. Safety matters not only to the individual but also to the community at large. It includes a concern for the consumers' long-term interests as well their immediate requirements.

### The Right to be informed:

This means the right to be given the facts needed to make an informed choice or decision. Consumer should be provided with adequate information enabling them to act wisely and responsibly. They must also be protected from misleading or inaccurate publicity material, false claims made through advertising, labelling, packaging or by other means.

### The Right to Choose:

It means the right to have access to a variety of products and services at competitive prices and in the case of monopolies, to have an assurance to satisfactory quality and services at a fair price.

It means the right to have access to a variety of and private offices, hospitals, schools, public distribution agencies and other services. The basic problem of Indian consumers are adulteration,

Consumer satisfaction is ultimately the fulfilment of these services.

#### The Right to be heard:

It refers to the right to advocate consumer's interest with a view to their receiving full, prompt and sympathetic consideration in the formulation and execution of economic and other policies. It includes the right of representation in governmental and other policy making bodies as well as in the development of products and services before they are produced or set up.

#### The Right to get redressal:

It means the right to a fair settlement of just claims. It includes the right to receive compensation for mis-representation or shoddy goods or unsatisfactory services and the availability of acceptable forms of legal aid or redressal for small claims where necessary.

#### The Right to consumer éducation:

It means the right to acquire the knowledge and skills to be an informed consumer throughout life. The right to consumer education incorporates the right to acquire knowledge and skills needed for influencing factors which affect consumer decisions.

### The Right to a healthy environment:

It refers the right to a physical environment that will enhance the quality of life. It includes protection against environmental dangers over which the individual has no control. It acknowledges the need to protect and improve the environment for the present and future generations.

#### Consumer problems:

Every person—poor or rich—expects a fair return for the money he spends in buying anything, be it a small candle or a car. But the question is that whether there has been a fair deal. Does the consumer receive a fair return? No, Never. He is fleeced by the manufacture, faces problems in markets, banks, government and private offices, hospitals, schools, public distribution agencies and other services. The basic problem of Indian consumers are adulteration,

sub-standard quality of product, artificial scarcity, consequent high and unreasonable prices, malpractices, lack of distribution at times of real scarcity, use of short weights and measures, duplication of products, avoidable high prices, deceptive labelling and advertising.

A consumer can launch complaints against the trader, manufacturer and the supplier of services. He or she can move either the District Forum, the State Commission or the National Commission. A complaint can be made by any consumer or her association or any one of the following grounds<sup>2</sup> where:

- (1) the goods bought or agreed to be bought by any consumer suffer from any defect. For example if a texture of a textile is inferior to the one stamped on it, she can file a complaint or if dry cleaner damages the garment because of use of inferior chemicals or due to negligence, it is her right to seek a redressal.
- (2) the services hired or availed to suffer from any deficiency;
- (3) the price charged for the product is in excess of the price fixed by the Government or the price displayed on the product or its packing;
- (4) any trader has adopted an unfair or restrictive trade practice,

(5) any hazardous product is being offered for sale, without displaying the requisite information regarding the contents, manner and effect its use,

So, an efficient consumer is one who plans with care, is more discriminatory, acquires and uses more information, does comparative shopping, is aware of sources and time of good bargain, knows when and what to buy in bulk quantities and does not permit himself to be cheated in any manner. For this, they require knowledge of consumer problems with regards to marketing and utilization of commodities. Consumer education could best be provided through various mass communication media like T.V., Radio etc.

### REFERENCES

- 1. Singh, J., Consumer Forums, Social Welfare, 1990, Vol. XXXVII, pp. 6.
- 2. Verma, D.P.S., Consumer Protection in India, Employment News 1994, Oct, 22-28, pp. 1.

Lecturer. College of Home Science, OUAT, Bhubaneswar-3



Chief Minister Shri Janaki Ballav Patnaik inaugurating Farmers' Package Policy launched by National Insurance Company Limited in Soochana Bhavan on 5-2-1996 

### Contraceptive Technologies—An Investigative Approach

Dr. Sandhya Rani Das

At the end of this century our nation's population will cross the one billion mark. But our country adopted population policy as a leading nation among the world community since its inception. Despite decades' effort, five-year plannings and crores of rupees in financial outlays; the country is still having a population growth rate over 2 per cent. In addition to this deteriorating feature the country is witnessing birth rate of 30 per 1,000 population. Undoubtedly it can be said that family planning programme has scored very lowly in India and so also in Orissa.

The study of correlates of contraceptive methods is not only a question of family economy but also that of nation's. Some of the reflections of this study may help to reformulate the national family planning programme for a successful result. It is a concept which not only promotes individual and family welfare but also the welfare of the country in a holistic sense. Though this paper gives a very regional and micro picture but can be taken as a symptom of back water effects that the programme has overflown throughout India

The study was conducted in Bhanja Bihar (Berhampur University) campus through a structured questionnaire-cum-personal interview method. The size of the sample was limited to 100 respondents. They were selected randomly, but the categories were selected purposively from two contrasting groups; one was educated middle class and the other was less educated/uneducated poorer class.

The level of fertility depends on a variety of factors such as social, economic, cultural, 

psychological as well as structural. Knowledge of these correlates is essential for policy and consideration programme introducing contraceptive methods.

Religion is one of the important socio-cultural factors which may influence the fertility level and thus accepting the contraceptive methods. Our study encompasses only one i.e. the respondents from Hindu religion who are still conservative to talk about their family planning methods freely in comparison to less educated and lower class respondents. Highly educated and upper class people are bit open and expressive so also their attitude towards acceptance of contraceptive methods. Broadly they are two types. One is permanent which covers the important methods vasectomy. tubectomy. laproscopic sterilisation, IUD or CuT; the other is temporary one which starts from oral pills upto the use of condoms. Study from various parts of India confirms that women are eager to adopt mainly two methods i.e. tubectomy and laproscopic sterilisation and it seems as if males are out of the reproductive responsibility because they do not want to shoulder the burden of contraception.

As on 31st March 1993, 43.5 per cent out of 148.43 million eligible couples were using contraceptive methods in India. The relative share of each method was sterilisation 30.3 per cent. tubectomy 24 per cent, CuT 6.3 per cent vasectomy 5.6 per cent, oral pills 2.2 per cent and condoms 4.7 per cent.

Our study is based on Bhanja Bihar because of the investigator's acquaintance of this area. Analysis of our findings speaks that women in their latter fertility age have responded to the adoption of contraceptive methods. 50 per cent respondents belong to 30-40 year age group, 30 per cent are in the 40-50 age group. And only 20 per cent belong to 20-30 year age group. It indicates women within the most effective years of fertility do not show much interest in accepting family planning methods. One of the major defects of the system is that any new method of

contraceptive is pushed aggressively without bothering to evaluate and learn from the failure of previously propagated methods. This ultimately brings discredit to all the contraceptive methods of the whole family planning programme. This discredit began with loop and continued with abdominal tubectomy followed by vascectomy, oral pills, CuT, laproscopie and tubectomy. Now the ones waiting in the line for large scale introduction are Norplant, Ry 486 and a contraceptive vaccine.

Table-1 INCOME GROUP OF THE RESPONDENTS

|                                       | O. IDEIVIS      |  |
|---------------------------------------|-----------------|--|
| Income Group                          | Frequency       |  |
| Higher Income Group<br>(6,000—12,000) | 50              |  |
| Middle Income Group<br>(3,000—5,999)  | 15              |  |
| Lower Income Group (1,500—2,999)      | 35 <sup>M</sup> |  |
| Total                                 | 100             |  |
| T-11 -                                |                 |  |

Table 1 shows the class character of the respondents. Upper class people constitute 50 per cent from the total sample. This proves development in the best contraceptive whereas respondents from lower income group constitute 35 per cent. Of course middle income group is the last category to respond to family planning policy. Here not only economy of the family but also an apathetic middle class culture is responsible for the low acceptance of contraceptive method. Economic status of a person or of a family may affect fertility negatively. Higher income group is generally associated with better occupation, education and training. Most of the studies associated in India highlighted this inverse relationship between economic status and use of contraceptive. It is obvious for the upper class to spend for the post care on the contraceptive adoption; whereas for lower class those who have accepted the methods, it is a pure question of economy beyond which they cannot afford. At the cost of their ill health, neglected health care, suppressed

pleasure they afford to the contraceptive methods. Middle class is always structurally they are not free to take decision for them. But middle class women are the worst sufferers from many points of view.

Table-2 METHODS OF CONTRACEPTIVES USED

| Methods of Contraceptives | Number of<br>Respondents |
|---------------------------|--------------------------|
| Tubectomy                 | 60                       |
| Vascectomy                | 4                        |
| Laproscopy                | 10                       |
| Condoms                   | 10                       |
| Oral pills                | 3                        |
| CuT /                     | 3                        |
| Self-control              | 10                       |
| Total                     | 100                      |

Table—2 gives a clear picture that 60 per cent of the respondents have adopted tubectomy as a method of family planning. The respondents adopting laproscopy and condoms are 10 per cent each. Respondents under self control constitute 10 per cent. The uses of oral pills and CuT are very less among the respondents i.e. only 3 per cent. Most interesting point is that out of 100 respondents, only four males have taken up the vasectomy or a permanent method of family planning. It reflects a mockery of the situation as if the entire planning method is meant for women. This is an extra responsibility for her family she has to bear up with the policy makers.

Table—3 EFFECTS OF CONTRACEPTIVES

| training. Most of the studies associated in India  | Effects  | Respondents                              |
|--|--|--|
| economic status and use of contraceptive. It is obvious for the upper class to spend for the post care on the contraceptive adoption; whereas for lower class those who have accepted the methods, it is a pure question of economy beyond which they cannot afford. At the cost of their ill health, neglected health | No problem (Unidentified) Weight gain Weakness Back-pain, Head-ache Drilling Body pain Loss of vision Abdominal pain | 40<br>10<br>30<br>10<br>1<br>1<br>1<br>8 |
| nealth care, suppressed  | Total  | 100                                      |

To understand the root cause of low score of adoption of contraceptive methods; let us have a look on Table—3 which speaks various side effects of different contraceptive methods used by our respondents. This Table says 60 per cent of the respondents are some way sufferer of the ill effects of various contraceptives. Only 40 per cent who mostly belong to upper class do not feel acute problem.

From all the above selected tables analysed it is clear that most of the women from higher income group are having less/no problem with tubectomy. According to them they have no health problem. But most of the women from lower income groups complained that they are feeling weak, body pain and back pain after the operation. The women who are using CuT method are marking irregular and excessive menstruation and after 3 years they are victims of infection. One woman taking oral pill mentioned that she has no problem, at the same time some said that they feel weak and chest pain. Weakness is an all encompassing term. It is physical, mental and sexual weakness.

Most of the women in India suffer from gynaecological diseases which are chronic by nature. Infections on the genital tract accounted for more than 50 per cent of these illness. This has a bearing on contraception in two ways. When a CuT is inserted or tubectomy is performed in these women without treating their gynaecological diseases, it results aggravation of diseases, pain or menorrhea. As a result women discontinue to use the CuT and spread the message that contraception leads to suffering. We also found that women who used female methods of contraception; a significantly higher proportion of them suffer from gynaecological diseases, suggesting that contraception might have introduced or predisposed the women to gynaecological diseases. The relationship between contraception and gynaecological diseases is important both from the point of view of women and of the health care providers. The efforts and resources expanded by the health care system to promote wide spread use of contraceptive methods are futile as long as certain basic requirements of women are not met. All the problems associated with various contraceptives are such as women frequently end up having unwanted pregnancies and abortion remains the only solution, which means another health hazard. At present legalised abortion services are provided on the condition that women accept CuT or sterilisation.

#### FINDINGS:

Acceptance of contraceptives was low in the past days because of its bad effects; which has not been able to wipe out the tears of the ladies of present generation. Flaw not only lies with the method but with all (provider and user) who do not care to treat the old gynaecological diseases. poor health infrastructure, physical and mental weakness, their lack of nutrient diet and availability of rest hours. May be it is a method for upper class ladies who can at least afford for the health care and certainly not a good method for poorer women who wake first in early morning before all and goes to bed late in the night after all sleep. Males should give a rethink on the use of contraceptive methods to cooperate their lifepartner, to help the nation and world not to explode the population bomb.

#### SUGGESTIONS

Family planning has to be propagated every where in urban slums where people breed like flies under sub-human conditions and it has to be popularised in villages too. The mass media have to continue to play their role of increasing the awareness and creating a climate for the acceptance of the programme. But they cannot make the people change their ways. They can take at best the horse to water but can't make it to drink.

ишиништиништиништиништини 23 ишиништиништиништиништи

#### REFERENCES:

- Bhatia, J. H., Dynamics of Contraceptive Use: A Study in the Karnataka State, India, Bangalore. Indian Institute of Management, 1991.
- Khandelbaum, D.G., Human Fertility in India, University of California Press, London, 1974.
- Mukherjee, B. N., Studies on women as Related to Family Planning, Journal of Population Research, II, 1973.
- Socio-Economic Returns of Family Planning Programmes (Report of an Expert Group Meeting), Thailand: Economic Commission for Asia and the Far East, 1972.

- Facts and Fancy about Birth Control, Sex Education and Family Planning, Canada; Authority of the Minister of National Health and Welfare, p. 47.
- Operation Research Group—Family Planning Practices in India: Third All-India Survey, New Delhi, Ministry of Health and Family Welfare, 1991.
- Rani Bang Abhay Bang, and Contraceptive Technologies. Manushi, No. 70, May-June, 1992, p. 26.

Lecturer in Economics, Berhampur University, Berhampur-760007

### THE FUTURE OF OUR NATION RESTS ON THE SUCCESS OF OUR TEACHERS

"We are a society with diverse tradition and customs. To preserve the unity and integrity of our nation, we need to understand each other and varying customs and manners of our people in different region. It is only by this process that we can live in harmony and help each others to take ourselves as well as our nation to the pinnacle of prosperity. Teachers have a vital role in teaching us to understand each other's way of life and thus enabling us to cooperate in the pursuit of common national goals", said Orissa Governor Shri G. Ramanujam at the ceremony of State Awards for Teachers organised by Department of Education,

Conferring State Awards to 47 teachers of the State on this occasion, the Orissa Governor said by honouring them "We, not only recognise their individual excellence, but also the vital role played by teachers in the process of nation building". As we are marching towards 21st century the teachers have great responsibility to instil scientific temper and technical knowledge in the minds of our young, he said.

Presenting the welcome address, Shri Jayadev Jena, Minister for School and Mass Education said that the Government have adopted effective methods to spread education.

Among others Shri D. N. Padhi, Commissioner-cum-Secretary, Mass Education, Prof. G. C. Patnaik, Director, Secondary Education, Orissa and Prof. D. K. Ray, Director, Elementary Education, Orissa

### RS. 10 CR KANUPUR IRRIGATION PROJECT

Deputy Chief Minister Shri Basanta Kumar Biswal, who surveyed the project construction site for rehabilitating the evacuees of Kanupur Irrigation Project on January 28 last said the Government would allocate Rs. 10 crore for the implementation of Kanupur Irrigation Project in the ensuing financial year.

### PUCCA ROADS IN RURAL AREAS

Addressing a public meeting at Japakud-hat in Salepur Constituency Minister, Rural Development Sk. Matlub Ali said on January 28 that all the roads in rural areas would be converted into permanent roads and roads from a village to Panchayat would be converted into pucca roads. MLA Shri Rabindra Kumar

### SCOUTS AND GUIDES TRAINING CENTRE

A district-level Bharat Scouts and Guides Training Centre would be set up at Jagatsinghpur, said Deputy Chief Minister, Shri Basanta Kumar Biswal while addressing the valedictory function of the B.S.G. 

## Wood Carvings of Orissa

Bhaskar Parichha

THE GROVES WERE GOD'S FIRST TEMPLES

-BRYANT, (a forest hymn.)

Handicrafts are the visible symbol of our cultural behaviour. The artisans and craftsmen around us who work with their skill and aesthetics are the great masters of a still greater tradition. The distinct shades of life are cast upon the works of these masters, the spiritual aspirations notwithstanding. The varying images of our tradition are mirrored through these manual crafts no matter whatever the form and shape the emotive urge of the craftsmen takes.

Handicrafts of Orissa, evolved over centuries of disciplined effort, combine in them beauty and utility. Not only that the traditional values, the charm and the freshness have been maintained with cautious optimism, Orissa has also been a fabulous market for the keepsakers. The items come in a variety of hues and forms.

From time immemorial the artistic expression of the craftsman has been possible through a vast media at his disposition: stone, metal, bark, fibre and a plethora of such other natural endowments. Obviously, wood too has been, for its abundant availability in forests, a powerful medium of satisfying the creative impulse of the craftspersona. On the other hand, religious tradition, folklore, philosophy, belief, superstition and last, but not the least the intellectual prepossession have combinedly influenced the inheritors of art and craft.

Wood works of Orissa, as they have come of age, have their foliages into Ivory-allay, toys and real carvings. In unison, they constitute a single tradition.

Profession-wise the carvers are all accomplished Chitrakars or painters. In a

restricted sense, they are differently called MAHARANAS to denote skilled carpenters. In as much as the present day wooden works are classified into carpentry, joinry and cabinet-making, such a schism was few and far between in the olden days.

Making of the objects—whether they are of wood or any other medium—are usually based on myths and legends. The vast contingent of temples and their abodes, the recurring festivals and fairs which are the characteristic features of the art and culture of this region, have provided a strong basis to the handicrafts of Orissa and wood carvings are no exception to this general rule.

Religion apart the history of Orissa's ancient maritime trade too throws light upon the tradition of wood carving. The seafarers of Orissa in the hoary past rolled down their boats to far off islands of Java, Sumatra and Bali on the South-East Asian islands. The boats were invariably made of wood with iron support at vulnerable points. In their making a highest degree of skill and a remarkable magnitude of precision went into, which sufficiently demonstrates the skill and perfection of the hand.

Three distinct and broad styles of wood carving are found in Orissa. One is the classical style, the other one is what is known as the folk style. The classical style involved a higher degree of technical skill specimens of which are present in old buildings, temples, porches and door jambs etc. Marvels of the creation are also to be found in the decorated doors, bedsteads and other household furniture. The carvers while deploying their expertise derived inspiration chiefly from medieval temple carvings which were set in a definite pattern. The expertise was a process in continuity. Indeed the wood carvings found in the temples of Orissa are so wide and colourful that they have no probable counterparts elsewhere in India.

The folk style, on the contrary, is proximate to the tribal art form of Orissa. These forms are usually lucid and frugal with a very few rudimentaries not so delicate in dispensation. The presumptous forms are at once suggestive and aim at structural charm rather than exactitude.

Surely, this sort of conceptual manifestation is extant on the wall paintings of the tribal huts and their ALAPANA at large. Wood carvings of Orissa pursuing the folk pattern, however, are a rarity.

The classical wood works of Orissa have more often than not spiritual themes in them. It is a common sight in the villages of Orissa the marching of the village deities seated on magnificent VIMANAS (palanquins) to the festive congregations held round the year. These "vimanas" are usually carved with motifs of damsels, peacocks, ducks and parrots. The surrounding flora and fauna which occupy the minds of the artisans find potent depiction in the wood works.

Wood carvings of Orissa have an indigenous charm in them. What adds to the amulet is, however, the bright colours used in the painting of these sculptures. The colours used are : red, blue, white, black and yellow. Their vivacity and brilliancy are beseeching to the eyes.

The colour scheme adopted in the PATTA CHITRA of Orissa is stretched to the painting of wood carvings too. The wise application of colour resulting in the warmth and harmony is truly exceptional. The colours are derived from natural sources. The tools and implements for applying colour on the carvings are apparently similar to the ones used for pattas, their luminous look notwithstanding.

Interestingly, there is a marked distinction between the wood carvings and paintings of the older times and the ones of today. Previously the wood carvings were mostly painted with the natural colours except a few items of household use. Not only that production of wood carvings have been infinitesimally low today the practice of painting too has been on the wave.

The maharanas of Orissa used a variety of wood : GAMBHARI, KURUMA and MARGOSA. The varieties of wood requiring less time to mature, durable and coniferous were used in preference. Shellac whether dissolved in wax or other organic solvents such as tarpine oil was used for veneering. This mix also helped in preparing the colour and it often gave the carving a soft hue.

Wood carvers of Orissa make a wide-range of decorative and utilitarian objects—toys depicting birds and animals, dowry boxes and bows, figurines of Gods and demons, puppets and human figures, furniture and bedsteads et al. There are a few localised objects which are captivating and an extra dose of skill goes into their making. These items are exclusively done for ritualistic use.

Jagannath, Baladeva and Subhadra—the triad of the Puri temple—installed in miniature wooden temples, the icons of the trinity rendered in Isolation, the DASAVATARA dolls, Radha and Krishna on circular hangings are some of the much sought after items by the common folk and actually there is an abundance in production of these items

The portrayal of the Gods is an important segment in the folk tradition of Orissa. In conception as well as in execution the religious fervour is abounding. Puri has therefore, the exclusive privilege of producing these iconic images. Puri's temple deities who constitute the starting point of all cultural endeavour themselves are made of wood and as such the tradition of carving originate and culminate with the heritage of Puri. The huge images apart, the massive wooden cars built every year on the eve of Rath Yatra, singly point out to the prevalence of an old tradition

Meaningfully, since the deities of Puri have a tribal origin and primitive tribes mostly used wood for carving the images and other physical images of religious imagination, the tradition of wood carving is thus anthropomorphic origin of considerable importance.

Besides Puri proper and Khandapara a few other selected centres in the district of Puri, Sambalpur and Cuttack have earned encomiums annonnamentalista de la compania del la compania de la compania de la compania del la compania de la compania del la compan

common place-they are found in almost all places of craft concentration.

Particularly in the district of Ganjam one would come across the pulsating tradition of wood carving. Some of the earliest evidences of high quality wood work in temples could still be seen in the southern part of the state: the Kalika temple in Jeypore and the Biranchi Narayan temple in Buguda.

Bargarh had an examplary tradition associated with the making of wooden toys. For their folk appeal, these toys with wheels at their basements are used on ritualistic occasions. The practice of first propitiating the Gods and Goddesses on the day of Prathamastami with these toys and subsequently presenting them to the children as a token of divine gift is particularly interesting.

Puppetry of Orissa also owes greatly to the tradition of wood carving. While the traditional puppeteers used a light and soft medium for the puppets, wood puppets duly lacquered also came their ways specially when the intent was durability of the items.

The tradition of wood sculpture reached the pinnacle of glory in the 18th and 19th centuries

when royal patronage was most assured. The artiste was given a free hand to work with his skill. Not only that provisions were made for his upkeeping, but incentives in form of grants, awards and citations came through in recognition of his hand. Innovation was the order of the day and this resulted, naturally in the manifestation of some of the classics which however are found in a state of decadence today. Unfortunately, in less than a hundred years, the excellence of the hand has had to give berth to the superiority of the machine! Sadly, modern decor gave a death blow to this ancient craft.

The concentration, sincerity, devotion and subtlety—with which the skilled carver was once identified—have come to be treated as things of the past. The wood carvers of Orissa now have been turned to banal carpenters. The creator of the object of art today seems to be finding a meaning in the pittance of sustenance through carpentry rather than playing a loosing game of carved-painting.

Freelance Journalist
A/16, Barmunda
Housing Board, Bhubaneswar-3



Hon'ble Governor of Orissa Shri G. Ramanujam speaks at the 28th Annual Conference of Orissa Economics Association at Paradeep on 6-1-1996

### **Bhakti Movement and** advent of Santh Kabir with special reference to Medieval Orissa

Dr. Shiba Prasad Nayak

The Bhakti movement progressed in north India with Santh Kabir in the 15th century. Kabir was one of the twelve chief disciples of Ramananda, and was himself a Muslim by birth. Early in life however, he came under the influence of all that was best in the philosophic and tolerant creed of Hinduism and especially the semi-mystical teaching of bhakti, devotion of heart and life to the supreme. It is hardly probable that he ever really professed the Vaisnavite faith; but in his teaching he essayed to combine the pure elevated monotheism of Islam with a liberalism and breadth of view that has its nearest parallel perhaps in the Buddhist creed, and according to some authorities was not untouched, though indirectly by Christian influences. Eclecticism has always found a congenial home in Indian ground.

Kabir while rejecting idolatry and the various superstitions that had been engrafted on the Vaisnavite faith, taught that the essence of all religion was devotion to one God to whom Hindu and Muhammadan alike pay homage under

Moreover, the Kabir-panthis, the modern followers of Kabir's teachings, observed a sacramental ceremony where bread and water are distributed and this is followed by a common meal

He had no preference for either Hinduism or Islam, but gave teaching that was appreciated by the followers of both. He spoke out his mind fearlessly and never made it his object merely to

This short account describes a man who had no great sympathy with Brahmanical teaching

who believed in a personal God and in salvation by faith, rather than good work, and who delivered a message as God's message to Hindus and Muhammadans alike. 1

The Kabir-panthis of northern and central India recognised two main divisions of the Panth one with headquarters at the Kabir Chaura in Benares and a branch established at Maghar and a second founded by Dharma Dasa with headquarters in the Chattishgarh district in the central provinces. The former is known as BAP (Father) and the latter as MAI (Mother). The relation between these two divisions has at times been strained. The Kabir math at Puri is respected as a place of pilgrimage.

Out of the teaching of Kabir a religious order or panth was formed in his name. The Kabir panthis may be found all the way from Orissa and Bihar to Punjab. Some panthis are ascetics living in religious houses (but occasionally keeping concubines), others follow trades (e.g. especially as weavers), abstaining from meat and intoxicants (Census Reports for 1911, Bengal, Bihar and Orissa, p.243, Punjab, p.122).

Further, he made no distinction between the two religions and considered them as two pots of the same clay. Setting aside all theological discussion he concentrated on Bhakti as the true means for attaining salvation. Similarly, he vehemently denounced caste and creed and asked people to worship God with all the purity and sincerity of heart.

Sankaradev, the greatest poet of Assam had noticed the popularity of Kabir's songs in Orissa and Banares. Sankaradev came to Orissa most probably in 1541 A.D. and Kabir died near about 1518 A.D. The teachings and poems of Kabir became popular in Orissa within twenty-three years of his death.

A monastery called after his name exists at Puri at the present day and it is probably this to which Tavernier referred in his account of the Jagannatha temple, in which he said "Near the pagoda the tomb of their prophets called Cabir, 

However, Kabir can rightly be called the originator, of the medieval school of Nirguna bhakti. Although the process of popularisation of the Nirguna ideology had started long before Kabir through the Natha-pantha in the 11th and 12th centuries it was he who gave it the form which we know as the medieval school of Nirguna bhakti. The beginnings made by Kabir were carried further by Nanak, Dadu, Raidas etc. Kabir is very often accepted as a Vaisnava because of the false identification of bhakti and Vaisnavism.<sup>2</sup>

Kabir's name lives in the memory of the people and pilgrims who come to Puri from northern India. They take a spoon-ful of rice-water with reverence from the Kabir monastery at Puri. The followers of Kabir's sect are to be found principally among the lower castes but the sage is highly venerated by all Vaisnavas of various castes.

Kabir was the great Indian saint who preached equality between man and man and despised the distinction between the Hindus and Muhammedans. Consequently, both the sects adore him. On his death the shroud contained only flowers. The Hindus cremated some of it whereas the Muhammedans buried the rest, so goes the legend.<sup>3</sup>

Obviously, the Govardhana and the Sankarananda Maths situated in the sandy tract near Swargadwara, Puri are Saiva and the Kabir Chaura math located in its vicinity belongs to the followers of Kabir.

To Kabir, Lord Jagannatha was both Nirguna and Saguna Brahma. The relationship of Santha Kabir with Lord Jagannatha is based on the following practices:

- (a) Mahaprasad of Lord Jagannatha is taken by all irrespective of caste, creed and religion.
- (b) The place where Santh Kabir sat down to restrict the flow of sea-water towards Jagannatha temple is known as Kabir Choura.

  It only remained for him to compose hymns which his followers could sing. This he did, and up to the present day his bhajanas enjoy great popularity.

(c) The devotees who come to this Kabir Choura are offered fermented gruel Tanka Torani prepared out of Mahaprasad of Lord Jagannatha.

Obviously, there are many Kabir maths in Orissa out of which Gada Sahi math of Nemal, Badagaon math of Kendrapara and Kabir math of Berhampur are of importance. The birth ceremony of Santha Kabir 'Kabir Jayanti' is observed all over India in the full-moon-day of the month of *Jyestha* i.e. the bathing festival day (Snanotsav) of Lord Jagannatha.

Dharam Dasa the beloved disciple of Santha Kabir selected 'Kabir Choura' at Puri as his centre of accomplishment or 'Sadhanapitha' which stands now as a monument of devotion. 'Kabir Choura' at Puri is the oldest of all. The devotees of Santh Kabir belong to Pancha Ramanuja Sampradaya of Vaisnavism. Acharya Natabar Das, the present old abbot of Kabir Choura at Puri greets all devotees coming over there. He puts a broomstick on the head of the devotees and offers fermented gruel Tanka torani prepared out of Mahaprasad of Lord Jagannatha.

Thus in the middle ages every socio-political movement had taken a theological form. The sages had attached theology to every form of ideology<sup>4</sup>.

Saint Kabir who flourished during the reign of Sikandar Lodi (1488—1533 A.D.) has respectfully referred to Jayadeva, the famous poet of Gitagovinda as a great devotee.

Guruprasadi Jaideu nama Bhagatiki<sup>5</sup> Premi in hi Jana. (Rang Gaudi, 36)

In the medieval structural change, Kabir had contributed his share for the awakening of the people against oppression of any kind. He was a poet of no mean order. He knew that religious instruction given in the form of poetry was easily remembered, and also knew that the singing of BHAJANS (HYMNS) was an occupation in which the people of India took peculiar pleasure. It only remained for him to compose hymns which his followers could sing. This he did, and up to the present day his bhajanas enjoy great popularity.

#### REFERENCES :-

- 1. G. H. Westcott, Kabir & the Kabir Panth, Kanpur, 1907, p. 19.
- 2. K. Sharma, Bhakti and the Bhakit Movement, New Delhi, 1987, p. 163.
- 3. R. K. Das, Legends of Jagannatha, Puri, 2nd ed., Bhadrak, 1981, p. 128.
- 4. R. Pandey, "The social context of the Bhakti Movement, A study in Kabir", in Indian History Congress, Amritsar, 1985, p. 231.
- 5. K. N. Mohapatra, "Influence of Sri Gitagovindam on the Regional Literature of India", Orissa Historical Research Journal, vol. xxiv, xxv & xxvi, Bhubaneswar, 1980 p. 12.

Research Scholar, P.G. Department of History, Utkal University, Bhubaneswar.

### FERVENT CALLS TO BUILD UP PATRIOTIC FAITH

Netaji needs no introduction in Orissa in particular and India in general. He was a leader of great legacy of sacrifice and patriotism, said Orissa Governor Shri G. Ramanujam while inaugurating the Centenary Celebration of Netaji Subhas Chandra Bose at Netaji Seva Sadan, Cuttack on 23rd January, the Birth Day of Netaji. Paying tributes to the great leader and distributing prizes to the students, who ranked themselves in different competitions like essay, debate and art organised by the Nehru Centenary Celebration Committee, on the occasion Shri Ramanujam said Netaji was a practical man. The greatest weakness within us that "we know, we don't practise". Gandhiji told nothing new. But he was experimenting with Truth. That was the greatness with him, he added. Expressing his deep gratitude to Netaji, the Governor described and underlined Netaji as a great revolutionary leader. A leader of courage and convictions, he was the inventor of the great patriotic mantra "Jai Hind" he said and called upon the masses, particularly the youths of to-day. to become ardent disciple of real patriotism.

"Netaji is no more. Should we ask is he in or out of India? He wont live in disguise so far, traced Chief Minister, Shri J. B. Patnaik, the Working President of State Level Netaji Birth Centenary Committee. Netaji, a brave, fearless and a great patriot who scarificed his life for our country's sake, would be our memorable, venerable and worthy of being saluted, he said. The three major proposals adopted by Government of Orissa were to convert Netaji's Birth Place to a National Museum, recognise Cuttack Collegiate School where Netaji was first educated, as a national school and to establish a School of Adventurism in his memory and these were cleared by the Central Government.

Shri Basanta Kumar Biswal, the Deputy Chief Minister of Orissa in his speech said, Netaji was a great patriot, man of great sacrifice and courage and we all feel proud of him as he was born in Orissa, at Cuttack, a city of hundred years. Paying homage to the departed leader, Shri Biswal also urged the historians to highlight facts about the early life of Netaji and to place his birth place in the golden pages of history. Chairman, Celebration Committee, Shri Srikanta Panda, Working President, Netaji Seva Sadan, Shri Bibhudhendra Mishra, former Union Minister and Chairman of the Netaji Jayanti Committee addressed the gathering. Md. Yussuf Ahmed, General Secretary of the Celebration Committee and Dr. Asutosh Debata, Member, Netaji Centenary Celebration Committee presented Annual Report and a

### C. M. LAYS BASE OF NEW PROJECT

Chief Minister Shri Janaki Ballav Patnaik laid the foundation stone of Rs. 15 crore Orissa Lighting Limited at Chandaka on January 22.

### IDC POISED FOR ACHIEVING A BREAK-THROUGH

Speaking as the Chief Guest at the IDC Oficers' Association meeting held at Soochana Bhavan on January 21 last Chief Minister Shri Janaki Ballav Patnaik pinned hopes on the IDC's leading role in achieving a break-through in trade and commerce. Industries Minister Shri Niranjan Patnaik laid stress on work culture to build up the organisation as an ideal and lucrative one. IDC Chairman Shri Sudhanshu Mishra presented a

