



Speech of Shri Debasis Nayak, Minister, Information & Public Relations, Sports & Youth Services, Orissa on Right to Information

I consider it a rare privilege to address you all on an issue which affects the living condition of the common man. It is certainly a vital issue as with its arrival a new regime is being set out. Emerging slowly as the harbinger of change in the process of socio-economic development, the Right to Information Act provides a tool to the people by which they can exercise their power to get information under the control of any public authority.

2. Our Constitution guarantees to every citizen rights which act as the talisman against the possible tyranny of the State. Of all fundamental rights, articles 19(1) (a) of the Constitution guarantees freedom of speech and expression. Hon'ble Supreme Court has pronounced that Right to Information, which is implicit in this Right to Freedom, is already available in the Constitution of India. Democracy requires an informed citizenry and transparency of information for its proper functioning. In order to achieve these cherished objectives the Government of India has enacted Right to Information Act, 2005 on 15th of June, 2005 which was made fully functional w.e.f. 12th October 2005.

3. The right to be informed of public acts helps check the abuse of executive power. Data that forms the basis of decision making may at times be taken out of context and some may deliberately suppress certain view points to favour others. Openness in Government corrects these tendencies and raises the quality of decision making. The right to know also strengthens participatory democracy. Armed with information of Government programmes, citizens may influence decision making through representation, lobbying and public debates.

4. With such perspectives, let me pinpoint on the salient features of Right to Information Act.

All citizens shall have the right to information, subject to the provisions of the Act.

Public Authority has been defined under section 2(h) of the Act which means any authority or body or institution established or constituted by the State Government, local bodies etc.

5. The Act lays down the machinery for the grant of access to information. The Public Authorities are required to designate as many as officer as State Public Information Officers and Assistant Public Information Officers in all administrative units or offices under it as may be necessary to provides information to persons requesting for information under this Act.

Section 4(1) of the Act lays down the obligations of public authority.

6. A person who desires to obtain any information under the Act shall make request in writing or through electronic means accompanying such fees as has been prescribed in the Orissa Right to Information Rules to the Public Information Officer.

If the Public Information Officer fails to give decision on the request for information within a period of thirty days, the State Information Officer shall be deemed to have refused the request.

Certain categories of information have been exempted from disclosure.

7. The Act envisages creation of an independent State Information Commission comprising of Chief Information Commissioner and Information Commissioners to decide second stage appeal. The first stage appeals are to be made to the higher officers of the concerned Departments.

Appeal can be preferred within thirty days of the decision.

The State Chief Information Commissioner and the State Information Commissioners shall be appointed by the Governor on the recommendation of a Committee. The State Chief Information Commissioner shall be given the status as that of Election Commissioner and the State Information Commissioners, as that of Chief Secretary of the State Government.

The State Information Commission may impose a penalty of 250 rupees each day till application is received or information is furnished and the total amount of such penalty shall not exceed 25,000 rupees.

8. Hon'ble Chief Minister of Orissa has announced his firm commitment to the scrupulous implementation of the Right to Information Act, 2005. In order to carry out the various provisions of the Act, the Rules have been formulated and operational guidelines have also been issued.

9. In our commitment to provide transparent and responsive administration, we as the public representatives have moral responsibility to inform the people on the affairs of the government. Since we represent hopes and aspirations of the common man, implementation of this Act will surely explore many possibilities in fulfilling basic needs of the society. I am confident, orientation programmes like this will infuse a sense of urgency in us to attend queries of common man on priority basis.

Jai Hind.

Power-Point Presentation on Right to Information Act, 2005

Digambar Mohanty

The Right to Information Act, 2005

- ◆ A Central Act
- ◆ Extends to whole of India except J and K
- ◆ Came into force on 12th October, 2005
- ◆ All citizens have Right to Information

Objectives

- ◆ Decisions of Government affect lives of citizens in many ways - People who are the ultimate tax-payer and form the Govt. have a right to know of information that affects them. Right to Information Act, 2005 has been brought to increase openness, transparency and accountability in the working of Govt.
- ◆ Setting out practical regime of Right to Information
- ◆ To secure access to information
- ◆ To promote transparency and accountability
- ◆ To eliminate corruption

Comes into Force : Section-I

- ◆ Section 4 (I), Section 5 (I) and (II), Section 12, 13, 15, 16, 24, 27 and 28 came into force w.e.f 15.06.05
- ◆ All other provisions came into force from 120th day of Enactment (12th Oct' 05)

Definitions - Section-II

Appropriate Government means in relation to

- ◆ Public Authority which is established, constituted, owned, controlled or substantially financed by funds provided directly or indirectly by State Government -- the State Government.

Competent Authority

- ◆ Speaker of O.L.A

- ◆ Chief Justice of High Court
- ◆ Governor in the case of other constitutional Authority

Information Means

- ◆ Any material in any form including records, documents, memos, e-mails, opinions, advices, press releases, circular, orders, logbooks, contracts, reports, papers, samples, models, data material held in any electronic form, but does not include "file notings".

Right to Information Means

- ◆ Right to inspect works, documents, records
- ◆ Right to take notes, extracts or certified copy of the documents or records
- ◆ Right to take certified samples of materials
- ◆ Right to obtain information in form of printouts, diskettes, floppies, tapes, video t h r o u g h printouts.

Public Authority Means

- ◆ Any body or authority or institution of Self-Govt. established or constituted by or under the constitution or by any other law made by State Legislature.
- ◆ Anybody constituted by a notification issued or order made by State Government and includes -
- ◆ Any body owned, controlled or substantially financed by State Government
- ◆ Any N.G.O. substantially financed directly or indirectly by State Government

Record Includes

- ◆ Any documents, manuscript and file
- ◆ Any microfilm, microfiche and facsimile copy of document
- ◆ Any reduced portion of image embodied in microfilm
- ◆ Any other material produced by computer or any other device

Third Party Means

- ◆ A person other than requester for information and include a public authority.

Public Authority - Duties

Proactive Disclosure - Section-4

- ◆ Shall maintain data in a catalogued and indexed form and computerize all appropriate records and facilitate access through a country-wide network on different system.
- ◆ Shall publish within 120 days (12th Oct. '05)

- ◆ Particulars of its organization, functions and duties
- ◆ Powers and duties of its officers and employees
- ◆ Procedure followed in decision making channels of supervision and accountability
- ◆ Norms prescribed for discharge of function
- ◆ Rules, regulations, instructions, manuals and records
- ◆ Categories of documents held / available with the public authority
- ◆ Existence of any arrangement for public consultation in policy formulation
- ◆ Advice given by Board, Council, Committee and other bodies consisting of two or more person
- ◆ A directory of its officers and employees
- ◆ Monthly remuneration received by them
- ◆ Budget allocation, particulars of plan, proposed expenditure and actual expenditure
- ◆ Details of Subsidy programme and beneficiaries thereof
- ◆ Particulars of recipients of concessions, permits, authorization granted
- ◆ Details of information available, reduced in an electronic form
- ◆ Working hours of library, reading room
- ◆ Particulars of facilities available to obtain information
- ◆ Names, designation and other particulars of Public Information Officers and Appellate Authority
- ◆ Updating at regular interval
- ◆ Disclosure through notice boards, newspaper, public announcements, media broadcasts, Internet etc.
- ◆ PIO must be designated immediately if not done
- ◆ Asst. PIO may be designated
- ◆ PIO to decide if disclosure of information is in public interest or not
- ◆ All concerned Authorities to assist PIO when necessary or asked for
- ◆ Apply in writing or through electronic means in English or Oriya
- ◆ Reason need not be given
- ◆ Pay prescribed fee
- ◆ B.P.L - no charge
- ◆ Application to P.I.O./A.P.I.O.
- ◆ 30 days from the date of application
- ◆ 48 hours for information concerning life and liberty of a person

- ◆ 5 days to be added in case application given to A.P.I.O.
- ◆ The period intervening between the dispatch of requirement of further fee and actual payment of fee shall be excluded from 30 days period
- ◆ If third party involved - 40 days
- ◆ If no action on application for 30 days - deemed refusal.
- ◆ Information affecting sovereignty, integrity, security, scientific or economic interest and relation with a foreign State
- ◆ Information received in confidence from foreign Government
- ◆ Which would lead to Commission of offence
- ◆ Which endangers life and safety
- ◆ If impedes investigation and prosecution process
- ◆ If confidential information for security and law enforcement purpose
- ◆ Cabinet papers including deliberations of Ministers, Secretaries and other officers
- ◆ Forbidden by Court / Tribunal
- ◆ Personal and Private information - PIO to decide
- ◆ Commercial and Trade secret, intellectual property
- ◆ Cause a breach of privilege of legislature
- ◆ An infringement of copyright provision
- ◆ Partially accessible portion be severed from exempt portion and allowed
- ◆ If third party involved - he be consulted
- ◆ SIC - One State Chief Information Commissioner and a maximum of
- ◆ 10 State Information Commissioners
- ◆ Selected by a Committee comprising of
- ◆ Chief Minister
- ◆ Leader of Opposition
- ◆ Cabinet Minister nominated by Chief Minister
- ◆ Must be eminent person in public life with wide knowledge and experience in Law, Science, Technology, Social Service, Management, Journalism, Mass Media or Administration and Governance
- ◆ No M.P. or M.L.A - No political party connection
- ◆ No office of profit

- ◆ Must not carry on any business or pursue any profession
 - ◆ Tenure
 - ◆ S.C.I.C - 5 years or 65 years of age
 - ◆ S.I.C - 5 years or 65 years whichever is earlier
 - ◆ For salary and allowance
 - ◆ S.C.I.C. - Election Commissioner
 - ◆ S.I.C - Chief Secretary
 - ◆ May resign
 - ◆ May be suspended/removed by Governor
1. The State Information Commission has a duty to receive complaints from any person -
 - a) who has not been able to submit an information request
 - b) who has been refused information that was requested
 - c) who has received no response to his/her request within the specified time limits
 - d) who thinks the fees charged are unreasonable
 - e) who thinks information given is incomplete or false or misleading; and
 - f) any other matter relating to obtaining information under the law
 2. Power to order inquiry if there are reasonable grounds
 3. All records covered by the law (including those covered by exemptions) must be given to SCIC during inquiry for examination
 4. The Information Commission will have powers of Civil Court such as -
 - a) summoning and enforcing attendance of person, compelling them to give oral or written evidence on oath and to produce documents or things
 - b) requiring the discovery and inspection of documents
 - c) receiving evidence on affidavit
 - d) requisitioning public records or copies from any Court or Office
 - e) issuing summons for examination of witnesses or documents
 5. Power to secure compliance of its decision from Public Authority includes -
 - a) providing access to information in a particular form
 - b) directing the Public Authority to appoint a PIO / APIO where none exists.
 - c) publishing information or categories of information
 - d) making necessary changes to the practices relating to management, maintenance and destruction of records

- e) enhancing training provisions for officials on RTI
- f) seeking an annual report from the Public Authority on compliance with this law
- g) require it to compensate for any loss or other detriment suffered by the applicant
- h) impose penalties under this law; or
- i) reject the application (see 18 and 19)

6. The State Information Commission will send an annual report to State Govt. who in turn will table the same before the Assembly

- ◆ Internal Appeal - First Appeal to the officer immediately senior to P.I.O within 30 days
- ◆ External Appeal - Second Appeal to the State Information Commission within 90 days
- ◆ FPIO liable for fine of Rs.250 per day upto maximum of Rs.25000/-
- ◆ FS.I.C. may recommend appropriate authority for taking disciplinary action against recalcitrant P.I.O. - for
 - a) Not accepting application
 - b) Delaying information release
 - c) Malafiedly denying information
 - d) Giving incomplete, incorrect, misleading information
 - e) Destroying information
 - f) Obstructing furnishing of information

Protection of Action Taken in Goodfaith Section-21

- ◆ No suit, prosecution, legal proceeding for anything done in good faith

Overriding Effect - Section-22

- ◆ Act has got overriding effect on any existing law inconsistent with Act

Jurisdiction of Courts - Section - 23

- ◆ Courts are barred from entertaining suits, application against any order made under this Act.

Who is Excluded ? Section - 24

- ◆ IB, RAW and other 16 organisation listed in second schedule
- ◆ Similar agencies established by the State Government like State special branch, special intelligence wing, special operation group, crime branch, DIB functioning under S.P.

Some Do's for the State Govt. - Section - 26

- ◆ Develop education programme for public
- ◆ Encourage Public Authority to participate in such programme
- ◆ Promote timely dissemination of accurate information

- ◆ Train PIO/A.A and develop training materials
- ◆ Compile and disseminate User Guide in English and Oriya
- ◆ Publish names, designation, postal address of PIO/AA

Rule Making Power - Section 27, 28, 29

- ◆ State Government and Competent Authority to make Rules for implementation of Act
- ◆ Every rule under this Act be laid, as soon as may be after it is notified before State Legislature

Power to Deal with Implementation Difficulties - Section - 30

- ◆ Central Government - Competent

Repeal - Section - 31

- ◆ Freedom of Information Act, 2002 repealed.

Queries and Responses :

Q. 1. We will be overwhelmed by applications and not be able to cope

Res. In Delhi, in almost four years, about 7000 applications received in 120 Departments. Average of 1.2 per month, per Department. Highest no. (MCD) were 29 per month (for 25 Departments) again about one per month per Department

- ◆ In Maharastra about 15,000 in three years.
- ◆ Much less everywhere else.
- ◆ Besides, progressive suo motu disclosure will lessen pressure.

Q.2. The Information will be misused and Officers will be blackmailed.

Res. The RTI Act will only provide the truth. How can the truth be misused ?

One can only be blackmailed if information is privileged. Here the information will be available to all and even put up on the web.

Besides only those who have done something wrong can be blackmailed. RTI will be a deterrent for wrong doing.

Q.3. There will be a lot of frivolous applications. People should only be allowed to ask for information regarding themselves.

Res. This has not been the experience. Besides, there is a cost that would discourage these.

In a democracy, every individual has a right to know how the government is functioning. Besides as tax payers they have a right to know how their money is being spent.

Q.4. The RTI Act will be very costly to implement.

Res. If we recognize this as a fundamental right, then it is a necessary cost.

Besides, if the act is successful in raising accountability, then the financial and economic savings would be many times greater than the costs.

In the long run the law must become a deterrent rather than a post-facto weapon.

Q.5. The Civil Servant has to make decisions under many pressures and the public will not understand this.

Res. The possibility of exposure will inhibit illegitimate pressures.

Q.6. Government records are not in a State where RTI applications can be serviced ?

Res. One side benefit of RTI is that record keeping will have to drastically improve.

Q.7. Shall PIO be held responsible for the delays caused at the level of other officers ?

Res. Any officer, whose assistance has been sought under the Act by the PIO, shall be treated as PIO for the purposes of any contravention of any provision of the Act.

Q.8. Where will the State Govt. find the money for meeting all obligations under this law ?

Res. Admittedly proactive disclosure, training of officers, setting up the State information commission, spreading awareness among public will require a lot of resources and all of this cannot be done in 120 days. However, a beginning can be made with existing State resources to show that the Govt. is committed to implementation.

Q.9. If a PIO has touring duties as well, then he will not be physically present to receive application in the office. Will his absence amount to refusal to accept information request ?

Res. The best way out is for the PIO to authorise a subordinate to receive applications and put this in writing for the sake of avoiding confusion in his absence. This will ensure that citizen's applications are received even in the PIO's absence and action is taken on the same. By putting the request for assistance in writing, the PIO will also protect him against any action for penalties if the processing of the application is delayed.

Q.10. Periodical weeding of files results in destruction of many records which are not important enough to maintain for as long as 20 years or more, so it will not be possible to give such information after they have been destroyed. Will the PIO be penalised for this ?

Res. If a record has been destroyed legally, the question of penalisation does not arise. But this Act will require a review of all weeding practices in existence to ensure that information which could be requested under the Act is not destroyed.

Q.11. If the file notings are to be given under the Act, this will discourage officials from noting their opinion on controversial matters freely.

Res. The law is a weapon for the honest bureaucrat who need not fear. Only corrupt persons who have something to hide will resist disclosing such information. The Central Govt. DOPT website advises that file notings don't need to be disclosed. It remains to be seen whether Information Commission and Court agree with DOPT's interpretation of law.

The die is cast. No scope for dilly-dallying.

The Civil Servants should see the Act in positive spirit; not as a draconian law for paralyzing Govt., but as an instrument for improving Govt.-Citizen interface resulting in a friendly, caring and effective Govt. functioning for the good of the people.

Shri Digambar Mohanty, IAS is presently working as Commissioner-cum-Secretary to Govt. in I & P.R. Department and the Nodal Officer for implementation of Right to Information Act, 2005 in Orissa.

ORISSA RIGHT TO INFORMATION RULES, 2005

GOVERNMENT OF ORISSA
INFORMATION & PUBLIC RELATIONS DEPARTMENT

NOTIFICATION

The 1st October, 2005

No.27163/I&PR. In exercise of the power conferred by Section 27 of the Right to Information Act (No.22 of 2005), the State Government do hereby make the following rules, namely: -

- 1. Short title and commencement.** - (1) These rules may be called the Orissa Right to Information Rules, 2005. (2) They shall come into force on the date of their publication in the Orissa Gazette.
- 2. Definitions.** - (1) In these rules, unless there is anything repugnant in the subject or context -
 - (a) 'Act' means the Right to Information Act, 2005 (No. 22 of 2005);
 - (b) 'BPL Card' means a card issued to any citizen who is below the poverty line;
 - (c) 'fee' means amount payable by the applicant for obtaining any information under the provisions of sub-section (1) of section 6 and sub-sections (1) and (5) of section 7 excluding the cost of providing information;
 - (d) 'form' means a form appended to these rules;
 - (e) 'identity' means an evidence to show the citizenship like an electoral photo identity card, a passport or any other document which can satisfy the authority about the citizenship of the person;
 - (f) 'Nodal Officer' means the Commissioner-cum-Secretary to Government, Information & Public Relations Department;
 - (g) 'Public Information Officer' means the State Public Information Officer designated under sub-section (1) of section 5 of the Act and includes an Assistant Public Information Officer designated as such under sub-section (2) thereof;
 - (h) 'Schedule' means a Schedule appended to these rules; and
 - (i) 'State Government' means the Government of Orissa(2) Words and expressions used but not defined in these rules shall have the meaning as assigned to them in the Act.

3. Appointment & Obligations of Public Information Officers.-

(1) A public authority, if it is a department of State Government, shall designate as many officers as it deem proper, not below the rank of Under Secretary as Public Information Officers.

(2) In each sub-ordinate office of the Department of Government including the Heads of Department and offices in the district and Sub-divisional level the head of such offices shall designate as many officers as they deem proper as Public Information Officers and Assistant Public Information Officers.

(3) Every public authority other than those mentioned in sub-rules

(1) and (2) of the said rule 3 shall designate one or more Public Information Officers in all administrative units and offices under such authority:

Provided that every such public authority shall, while designating such officers as Public Information Officers so designated, ensure that an officer higher in rank to public Information Officer, is available to be specified as Appellate Authority.

(4) If, for any reason beyond the control of Public Information Officer furnishing of information is delayed, he shall record reasons with justification thereof and shall communicate the Head of the office about such delay.

4. Procedure to obtain information. - (1) A citizen desirous of any information may apply for information in form A to the Public Information Officer, with the required fee in shape of Treasury Challan or cash as specified in the Schedule under the appropriate head of Account:

Provided that application fee shall not be payable in case of a person whose name appears in the latest list of persons below poverty line for which he has to produce BPL Card.

Provided that a citizen seeking information through electronic means has to submit evidence regarding deposit of prescribed application fee.

(2) The Public Information Officer or any other officer authorized by him shall furnish the acknowledgement and after being satisfied with the identity of the applicant shall also intimate in form B as soon as possible the amount of cost for providing information required to be paid by the applicant in cash, as mentioned in the Schedule.

(3) The applicant may deposit the said amount within a period of fifteen days from the date of receipt of such information, failing which the application shall stand rejected.

5. Information regarding rejection. - (1) Where a request has been rejected under sub-section (1) of section 7, the Public Information Officer shall intimate the applicant, the reasons for such rejection in form C.

(2) Wherever information applied for is available in electronic means, the Public Information Officer

may advise in form C to the applicant to obtain the information from the appropriate website to be specified by the Public Information Officer.

6. Meeting of the recommending Committee. - For the purpose of appointment of the State Chief Information Commissioner and the State Information Commissioner under sub-section (3) of section 15, the Nodal Officer shall, in consultation with the State Government, convene the meeting of the Committee for their recommendation.

7. Memorandum of appeal. - (1) An appeal under sub-section

(1) of section 19 shall be filed in form D to the officer as designated by the Public Authority to hear such appeal.

(2) The Memorandum of appeal shall be accompanied with such fee as specified in the Schedule which shall be paid in the shape of court fee stamp.

(3) Any person aggrieved by the decision under sub-section (1) of section 19, may prefer a second appeal before the State Information Commission under sub-section (3) thereof in form E which shall be accompanied with such fee in the shape of court fee stamp as specified in the Schedule.

(4) The appeal preferred under sub-rules (1) and (3), if not accompanied with the required fee, shall be rejected by the concerned Appellate Authority, but no fee is payable by the applicant holding a BPL Card.

(5) Every order of the Appellate Authority shall be communicated to the appellant concerned and to the Public Information Officer where such appeal is from the order of the Public Information Officer and to the first Appellate Authority in case it is a second appeal.

8. Guidelines by the State Government. - The State Government shall have the power to issue guidelines not inconsistent with the provisions of the Act and these rules for smooth implementation of the provisions of the Act and the rules.

9. Penalties. - In the event of imposition of penalty under section 20 on the Public Information Officer concerned, such penalty may be deposited by the said officer by Treasury Challan under the appropriate receipt Head of the State Budget within a period of thirty days, failing which the amount shall be recovered from the salary of the officer concerned.

10. Calculation of cost of damage. - If any damage is caused to the public property in the course of giving any information in the form of samples of materials, the damage caused to such property shall be included while calculating further fees representing the cost of providing the information.

11. Maintenance of Register. - (1) The Public Information Officer shall maintain a register in form F for recording the details of the applications received and the information supplied by him and keep the Head of Office informed after furnishing any information and it shall be the duty of the Head of office to

ensure required assistance if any, as would be sought for by the Public Information Officer to facilitate providing information.

(2) The Public Information Officer shall maintain a cash register in form G for recording the details of money received by him relating to providing information and deposit the money in such head of account or in any Scheduled Bank in the name of such officer as the concerned Head of Office decides.

12. Deposit of expenditure. - The expenditure to be incurred for production of witness or documents before the State Information Commission shall be deposited before the Commission by the party at whose instance the witnesses or the documents are to be produced.

13. Realisation of penalties or damages. - Any penalty or damage or any other sum payable under the Act, if not paid within thirty days of the date of receipt of the order for realization of the same or cannot be recovered, it can be realized from such person as arrears of land revenue.

By Order of Governor

Sd/-

(Digambar Mohanty)

Commissioner-cum-Secretary to Govt.

FORM - A

See Rule - 4 (I)

Application for Information under section 6 (1) of the Act

To

The Public Information Officer
(Name of the office with address)

1. Full name of the applicant
2. Father / Spouse name
3. Permanent address
4. Particulars in respect of Identity of the applicant
5. Particulars of information solicited
 - (a) Subject matter of information
 - (b) The period to which the information relates
 - (c) Specific details of information required
 - (d) Whether information is required by post or in person
(The actual postal charges shall be included in providing information)
 - (e) In case by post (ordinary, registered or speed)
6. Address to which information will be sent & in which form

- 7. Has the information provided earlier
- 8. Is this information not made available by the Public authority
- 9. Do you agree to pay the required fee
- 10. Have you deposited application fee
(If yes details of such deposit)
- 11. Whether belongs to BPL category, have you furnished the proof
of the same

Place _____ Full Signature of the applicant
Date _____ Address

Office of the Public Information Officer

Received the application from _____
_____ address _____
_____ on _____ seeking
information.

Place : _____ Full name of Public Information Officer
Date : _____ Designation & Seal

FORM B

[See Rule 4 (2)]

Information for Payment

From _____
Name & Designation of the Public Information Officer
To _____
Name of the applicant -
Address

Sir,
Please refer to your application dated _____ addressed to the undersigned requesting
information on _____. I am to inform
you that the following amount towards cost for providing information may be deposited in cash, to
enable the undersigned to furnish information sought for.

Please make payment within a period of fifteen days from the date of receipt of this intimation failing which the application shall be rejected.

Fee _____

Yours faithfully

Place:

Public Information Officer

Date:

Seal

FORM C

[See Rule 5 (1) and (2)]

Intimation of rejection

Sir,

The undersigned regrets to express his inability to furnish the information asked for on account of the following reasons-

- (i) It comes under the exempted category covered under sections 8 and 9 of the Act.
- (ii) Your application was not complete in all respect.
- (iii) Your identity is not satisfactory.
- (iv) The information is contained in published material available to Public.
- (v) You did not pay the required cost for providing information within the prescribed time.
- (vi) The information sought for is prohibited as per section 24 (4) of the Act.
- (vii) The information would cause unwarranted invasion of the privacy of any person.
- (viii) The information as sought for by you is available in our Website _____
_____ you may download the information.
- (ix) For any other reason please see overleaf.

However, if you feel aggrieved for the above said refusal you may file an appeal before the _____ within 30 days of the receipt of this letter.

Place:

Name & Designation of

Date:

Public Relations Officer

To

Sri _____

FORM - D

[See Rule - 7 (1)]

Form of Memorandum of Appeal to the first Appellate Authority under Section 19 (1) of the Act
From

(Applicant's Name & address)

Before
The First Appellate Authority

- 1. Full name of the Appellant :
- 2. Address :
- 3. Particulars of Public Information Officer :
- 4. Date of receipt of the order appealed against :
- 5. Last date for filing the appeal :
- 6. Particulars of information :
 - (a) Nature and subject matter of the information required :
 - (b) Name of the office or Department to which the information relates :
- 7. The grounds for appeal :
(Details if any to be enclosed in separate sheet)

Verification

I, _____ Name of the appellant, son of/ daughter of/ wife
of _____ hereby declare that the particulars furnished in
the appeal are to the best of my knowledge and belief, true and correct and that I have not suppressed
any material fact.

Signature of the Appellant
Place :
Date :

To

Name and address of Appellate Authority

FORM - E

[See Rule 7 (3)]

Second Appeal under Section 19 (3) of the Act

From

(Applicant's Name & address)

To

The State Information Commission

1. Full name of the Appellant :
2. Address :
3. Particulars of the first Appellate Authority :
4. Date of receipt of the order appealed against :
5. Last date for filing the appeal :
6. Particulars of information
(a) Nature of subject matter of the information required :
- (b) Name of the office or Department to which the information relates :
7. The grounds for appeal :

(Details items to be enclosed in separate sheet)

Verification

I, _____ (Name of the appellant, son of/ daughter of/ wife of _____) hereby declare that the particulars furnished

in the appeal are to the best of my knowledge and belief, true and correct and that I have not suppressed any material fact.

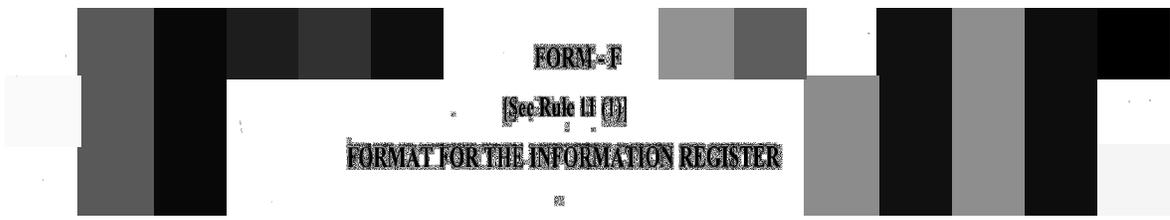
Signature of the Appellant

Place :

Date :

To

Orissa State Information Commission



Sl. No.	Date of application.	Name of the person requiring the information	Address of the person	Nature of information	Whether all formalities have been complied by the person requiring the information	Name of the authority which the information are to be collected	Date on which the information shall be supplied	Date on which the authority/authorities concerned requested to supply the required information.	No. & date of reminder issued	Date on which the information are received by the I.O. from the authority/authorities concerned.	Date of supply of information to the person concerned requiring the information	Reasons in brief for not supplying information	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14

FORM G

[See Rule 11 (2)]

CASH REGISTER

Name & Address of the Applicant	Date of application	Date of deposit of amount	Particulars of fee/ with Challan / Bank draft/ Cash	Refund, if any	Remarks
1	2	3	4	5	6

Schedule

(See Rules 4 and 7)

Fees / Amount to be charged for providing information

PART - I

(A) Application fee	Rate to be charged	Mode of deposit
(i) Application fee seeking information	Rupees twenty per Application	Treasury Challan/ cash
(ii) Application fee for 1st Appeal	Rupees forty	Court fee stamp
(iii) Application fee for 2nd Appeal	Rupees fifty	Court fee stamp

PART - II

(B) Amount to be charged for Providing information		
(i) Inspection of documents	Rupees fifteen per each hour or fraction thereof	By cash
(ii) A4 size paper for each folio		
(a) Typed copy/photocopy per page	Rupees five	By cash
(b) Print out from computer per page	Rupees ten	By cash
(iii) CD with cover	Rupees one hundred per CD	By cash
(iv) Floppy Diskette (1.44MB)	Rupees one hundred per Floppy	By cash
(v) Maps & Plans	Reasonable cost to be fixed by P.I.O. depending upon the cost of labour and material and equipment and other ancillary expenses	By cash
(vi) Video Cassette/Microfilm/Microfiche	- do-	By cash
(vii) Certified sample of material	-do-	By cash

N.B: Proper and authenticated money receipt to be issued for all cash payment

The office is to state the cash receipt No. on the application Form 'A'.

Operational Guidelines for Implementation of Right to Information Act, 2005

1. All PIOs are expected to receive application fees either in shape of Treasury Challan or in cash. The PIO shall give separate money receipt to the applicant for depositing the application fees in cash and amount towards cost for providing information in the form appended to at Annexure - 'A'.
2. PIOs are required to open a subsidiary Cash Register and Cash Book as prescribed in form appended to as Annexure - 'B'.
3. The PIOs shall open a Zero Invest Bank A/c in his designation in the nearest scheduled Bank and deposit the total amount received towards application fees in cash as well as amount towards cost for providing information in a day in the Bank account in the very next day.
4. The amount received towards application fees in cash during the month and deposited in the Bank A/c shall be calculated at the end of the month. The amount so calculated shall be deposited through treasury chalan in the Treasury in the receipt head of A/c in the 1st week of the succeeding month. The receipt Head of A/c is "0070-Other Administrative Services-60-Other Services-101-Receipt from Central Government for Administration of Central Acts and Regulations-9916710-Fees & Fines under Right to Information Act, 2005". The treasury chalan shall accompany with a cheque issued against the deposit of the Bank A/c of the concerned P.I.O.
5. Standard procedures for maintaining cashbook may be followed. Two pages of the cashbook facing each other will reflect the receipts on one side and the expenditure on the other.
6. PIOs shall weekly verify the Bank A/c and Cash Book regarding the correctness of transaction of money between Cash Book and Bank Account.
7. All receipts and expenditure should be reflected in the cash book, with full particulars.
8. The Information Register in form 'F' of the Rules maintained by the PIO should be placed before the Head of Office at least once in a month for his perusal. However he may ask to peruse the Register as and when he feels necessary.
9. If the information is not available with the Public Information Officer and has to be brought from other Officer with whom it is available the Public Information Officer should immediately send a copy of the request to the concerned Officer with the request to furnish the information expeditiously.

10. The Public Authority/Head of Office shall consider to create a cell to deal with these matters and ensure that the Public Information Officer of his Office gets all assistance to discharge his duties properly. All logistic support along with the manpower should be placed at his disposal for smooth discharge of his assignment. The initial expenditure shall be provided by the Head of Office which will be reimbursed by the P.I.O. subsequently from the receipt deposits.

11. All the orders passed in the file by the Public Information Officer either providing the information or rejecting the application must be clear, unambiguous and self-explanatory.

12. On receipt of the application a file has to be opened and entered in the file Register as prescribed in the Orissa Record Manual.

13. The Public Information Officer will be the custodian of these records and on his transfer he will handover the charge to his successor. The Public Information Officer and his successor will sign in the Register as token of handing over and taking over of the charges.

14. The file movement Register has to be carefully maintained so that the information can be made available at a given point of time.

15. (a) The name of Public Information Officer & Appellate Authority of Public Authority needs to be published as provided in the Right to Information Act, 2005.

(b) The following information will be prominently displayed in front of the Office of Public Information Officer at various level of different administrative units under control of each Department.

(i) Name & Designation of Public Information Officer

(ii) Name & Designation of Appellate Authority.

16. Top priority should be given for suo-motu dissemination of maximum information in order to reduce the number of information seekers.

17. Each Departmental Appellate Authority will maintain a Register in the following proforma.

(a) Sl. No. of Appeal

(b) Name of the Appellant.

(c) Date of Receipt of the appeal

(d) Amount of Court fee attached

(e) Date of providing opportunity to the requester.

(f) Due date of disposal

(g) Final date of disposal

(h) Reason for delay, if any.

Further guidelines will be issued from time to time depending upon the experience gained & the difficulties encountered.

Annexure - 'A'

ରସିଦ ବହି (Receipt Book)

ବହି ନଂ :

କ୍ରମିକ ସଂ.

ତା.....୨୦୦

Received fromଙ୍କ ଠାରୁ
 towards ବାଦକୁ
 Rs.....ଟଙ୍କା(Paisa) ପଇସା ପତ୍ର
 ଗ୍ରହଣ କରି ଓରେ ଜମା ହେଲା ।

ଅଧିକାରୀଙ୍କର ସ୍ୱାକ୍ଷର ଓ ପଦନାମ
 Signature of the Office and Designation

OGP-MP (FORMS)

Annexure - 'B'

2. CASH BOOK / Receipt

Name & Address of the Applicant Source of the receipt	Date of Receipt of amount	Particulars of Fee/ Challan/ BD/Cash	Remarks
1	2	3	4

Expenditure

Date	Amount deposited in Govt. Treasury/Bank/Refund to applicant	T.C. No. & Date	Remarks
1	2	3	4

Kalinga and Burma - A Study in Ancient Relations

Dr. Benudhar Patra

Orissa, popularly known as Kalinga in the ancient times was a very powerful kingdom. Traditionally extending from the river Ganga in the north to the Godavari in the south on the western coast of the Bay of Bengal, she had ample opportunity to be a flourishing maritime power. The Kalingans, in fact, were very adventurous people (*K a l i n g a h Sahasikah*) and it is believed that the power and prosperity of Kalinga was on account of its extensive maritime trade. The vast coast

line of Kalinga was studded with a number of navigable ports whence the merchants and sailors plyed to different far-off countries in pursuit of fortune. Tamralipti, Chelitalo / Manikapatna, Palur, Khalkattapatna, Pithunda, Kalingapatnam were some of the significant ports worthy to be mentioned. Kalinga had maritime contact not only with the Asian countries but also with Africa and the Roman Empire. Since time immemorial she had brisk contact with Srilanka and south-east Asian

countries. It is said that the evolution of Hindu culture in the Island of Bali, and the establishment of Sri Vijaya empire in Sumatra traced their origin to the Kalingan maritime contact. Vijaya, the first king of Sri Lanka had also Kalingan origin.

With this sketchy background, in the present paper, an endeavour has been made to bring out the ancient relations of Kalinga with Burma.

Kalinga had maintained close contact with Burma (Myanmar) in the

ancient times. From the Burmese traditions it is gleaned that the people of Kalinga had established colonies in Burma since time immemorial. Burma being nearest to India, and directly accessible by both land and sea routes naturally attracted Indian traders, merchants, missionaries and more ardent military spirits from a very early period¹. As such, the geographical proximity of Kalinga and Burma and their location on the north-western and north-eastern parts of the Bay of Bengal



respectively provided favourable conditions for the establishment of maritime contact between the two. G.E.Gerini² in his researches on Ptolemy's Geography has pointed out that the mighty people of Kalinga had colonized Burma much before emperor Ashoka led his victorious soldiers into Kalinga. B.C.Majumdar³ advocates that "the Kalingans established an empire in Burma perhaps many hundred years before the rise of Buddhism". In absence of authentic data these views sometimes, however, appears to be mere exaggerations. Without an analysis we can not say exactly the role played by the Kalingans in Burma.

The *Jatakas*, the *Arthashastra* of Kautilya (cir.4th CBC), and the *Mahaniddesa*(cir.3rd CBC) have references to Burma as *Suvarnabhumi* (the golden land). The classical writers refers to it as Chryse and Golden Khersonese. J.G.Scott⁴ observes" it seems more likely that the Golden Chersonese is simply a translation of the name *Suvarnabhumi*, the classic, or sacred name of Burma". The Cinghalese (Cylonese) monks have given the name *Brahma-desa* to Burma⁵. The Arab geographers mention the Mon country of lower Burma under the name of Ramanadesa⁶. The *Mahajanaka Jataka* (no.539) states that prince Mahajanaka reached *Suvarnabhumi* with 350 persons. According to H.B.Sarkar⁷ "evidently they had gone there with the purpose of colonization". The *Tagaung Yazawin*, a late Burmese chronicle based on earlier traditions says that Abhi Raja of Kapilavastu, who became the first ruler of Burma, came with a military contingent as early as cir 923 BC. He is said to have arrived in Burma through Arakan and founded the kingdom called Sangassarattha in the Tagaung country of Burma⁸. According to Burmese tradition, another Indian prince named

Chandravamsa, said to be a brother of Ashoka's chief Queen Asandhimitra, came to Burma in 324 BC and founded a new dynasty. But the date of Chandravamsa's arrival in Burma *i.e.* 324 B.C. referred to by the Burmese traditions appears to be wrong, as this date would make him a contemporary of Ashoka's grandfather Chandragupta Maurya and not that of Ashoka. However, this prince is said to have built a new capital city called Shue-hnanmyo (the Golden Palace city) which had been visited by Ashoka's son Mahendra. Mahendra is reputed to have built a monastery on the Yangoma hill in the vicinity of the capital and is believed to have preached Theravada Buddhism in the kingdom before his departure for Ceylon⁹. From the above narration though we can not be able to determine exactly the date of influx of Indians into Burma, historically one thing is evident that in the pre-centuries of the Christian era many Indian settlers from northern India came by the land route and carved out small principalities in different places of Burma. Of course, one can not deny the use of water routes to Burma . It is believed that the trade centres on the banks of Ganga had direct water routes for *Suvarnabhumi* (Burma).

Burma went by the name of Kalingarat (*Kalinga Rastra*) in the seventh century B.C.¹⁰ The *Buddhagat*, the sacred Burmese scripture refers to "a steady commercial interaction with Burma by the Buddhist merchants of Kalinga, which soon led to the missionary undertakings for the propagation of their religion, and afterwards to the assumption of political supremacy in the land¹¹. Tapassu and Bhalluka, the first lay disciples of Buddha, supposed to be two merchant brothers of Utkal (another name of Orissa) went to the golden land (Burma) by sea with eight hairs of the head of

Buddha (given by the Buddha himself) and enshrined under the Shwe Dagon Pagoda at Rangoon¹². Besides, there are evidences to prove that certain sections of the people migrated from Kalinga and had their settlements there who were known as the Talaing people. The new Kalingarat in Burma was given the designation Mudu Kalinga. (Mudu means three, thus, Mudu Kalinga is TriKalinga). From the Mon chronicles it is known that two Buddhist monks, Sona and Uttara were deputed to the Golden land by the Third Buddhist synod at Pataliputra in *cir.*241 BC¹³. According to G.E.Gerini¹⁴ before Ptolemy wrote his geography in the second century A.D., the rule of the Kalingans centred around at least three places in Burma *i.e* (i) Kale, (ii) the valley of the Arakan river, and (iii) Pegu proper around the gulf of Martaban. G.Coedes¹⁵ has also observed that in lower Burma there were colonies of Indians who had come from Orissa. According to R.F. St.Andrew and St. John, “somewhere about A.D. 300, people from the east coast of the Bay of Bengal founded colonies on the coast of the Gulf of Martaban, of which the principal appears to have been Thaton or Saddhammanagara.”¹⁶ Thus, on the basis of these evidences it can be inferred that there was brisk relationship between Kalinga and Burma in the pre and the beginning centuries of the Christian era.

K.C.Panigrahi¹⁷, observed that “the people of Kalinga (Orissa) entered into lower Burma in large numbers, settled there permanently, changing even names of cities and some parts of Burma.” The view of Professor Panigrahi, however, requires to be scrutinised. No doubt, Kalinga had tremendous influence on Burmese place names and monuments. On the other hand, Burma owed to Orissa many

elements of culture too. The ruins of a ship which have been excavated at Tante, near Rangoon is even believed to have belonged to the merchants of Kalinga¹⁸. In Burma, the old name of Pegu was Ussa which is a form of Odra or Orissa.¹⁹ Similarly, the old kingdom of Prome was called *Srikshetra*, so often mentioned in the Mon records as *Sikset* or *Srikset* apparently was named after *Srikshetra*, modern Puri of Orissa.²⁰ It is said that Srikshetra was the first great Hindu kingdom beyond the frontier of East India.²¹ Hiuen Tsang and I-Tsing, the Chinese pilgrims (7th CAD) specifically say : “Southward from this (Kettara), and close to the sea-coast, there is a country called *Shi-li-cha-to-lo* (*Shrikshetra*)”.²² K.A.N.Sastri²³, however, has wrongly identified Shrikshetra of Burma with Vanavasi, the capital of the Kadambas in the western part of south India. It is believed that the Pyus who settled in the 11th century AD.in and around Prome had direct connection with Orissa (Shrikshetra).²⁴

In connection with the establishment of the Shrikshetra kingdom the Shwezigon Pagoda inscription records : “The Lord Buddha smiled and Ananda asked the cause of this smile ; and the lord spoke unto Ananda. Ananda, hereafter a sage named Bishnu, great in supernatural power, great in glory, possessing the five transcendental faculties, together with my son Ganapati and King Indra and Bissukarmadevaput (putra) and Katakarmmanagaraja, shall build a city called *Sisit Srikhetra!* After the sage Bishnu has built the city of Sisit, he shall depart from thence (and) in the city of Arimaddanpur (Pagan) he shall become king Sri Tribhuvanaditya Dharmaraja.”²⁵ Tribhuvanaditya Dharmaraja has been identified with king Kyanzittha of Pagan.²⁶ From the inscription it is revealed that

the king had claimed about Buddha's prediction in founding Srikshetra by him. Similarly, the north-western part of Burma, the region extending from Rangoon to Tante (Pegu) was known as Ukkala or Utkalapa; a variant of Utkala or Odisha. According to R.C. Majumdar²⁷ the name Utkala originally applied to a region in the delta in lower Burma by the colonists from the Orissa coast. The Talaings, the ruling races of lower Burma otherwise known as the Mons had their capital at Triglypton or Trilingon. Gerini²⁸ has identified Triglypton of Ptolemy with Kale / Kula. It is now universally acknowledged that the Talaing people of Burma or the Mons obtained their name from TriKalinga. G.E. Harvey²⁹ says that the name Talainga could have been derived from Telingana, a region on the Madras (Chennai) coast. However, TriKalingas as a name used to mean almost the whole of the Andhra - Kalinga zone. Thus, without any doubt it can be presumed that the people of Kalinga went there at different stages of history and started the process of colonization. G.E. Gerini³⁰ observed that the Kalingans alongwith the Andhras, founded in Burma, "a kingdom consisting of three districts or separate communities called Tri-Kalinga or Tri-linga, a name from which the term Telingana was derived, and employed to designate the country of Kalinga proper, on the western side of the Gulf of Bengal, as well as the country of the Mons or Telengs (Talaings) on the opposite shore, which had been colonized by them".

About Kalinga - Burma maritime contact, and the changes that took place in Burma as a result of a steady flow of immigrants from Kalinga, N.R. Ray³¹ has aptly described:

"In Thalon *i.e.* the ancient Rammanades, the land par excellence of the

Tailangas, the Indian, at least the Brahmanical elements was imported decidedly from Orissa, the ancient Odra or Kalinga. The ancient name attributed to old Prome is Srikshetra, so often mentioned in the Mon records as Sikset or Srikset, and by the Chinese pilgrims as Sili-cha-ta-lo ; and Srikshetra is the holy land of Puri on the ancient Kalinga coast. The name Srikshetra given to old Prome may be apocryphal, but attribution itself is significant, however late it may be. The old name for Pegu is Ussa which is but a form of Odra or Orissa. It is difficult to disbelieve that Pegu colonized from Orissa or was once dominated by a people who migrated from Orissa. Indeed, these classical names are but survivals of actual colonization from the original countries inhabited by the colonists themselves. The latter authorities who used those names did not satisfy their whims alone but their origins. Lower Burma is the land of a people who were and are still called "*Tailangas*". The term used as early as 1107 A.D. in Mon records is but a deviation of 'Telingana' or 'TriKalinga', a name used to mean almost the whole of the Andhra-Kalinga zone."

Apart from the similarity of names, there are some prominent architectural evidences showing the cultural affinity of the two regions. In some of the sculptures of the Shwezayan *Pagoda* at Thaton, similarities with the Orissan art are found. The dress and hair style of some of the females are of the Orissan varieties. Some of the bas-reliefs of the *Pagoda* in high technical as well as artistic efficiency show affinity with the early medieval sculptures of Orissa³². The resemblance of a Siva image seated with Parvati of the above *Pagoda* with Hara-Parvati on the outer walls of Vaital temple of Bhubaneswar is the most striking one.

During the reign period of Kyanzitha, the Pagan king (CAD 1084-1113), Burma was in intimate touch with India as well as Kalinga. It was during his rule that many Buddhists and Vaishnavas from India settled in his kingdom³³. During his reign the famous Ananda temple “justly regarded as the master-piece of Burman architecture” was also designed and constructed. In this temple, the Orissan influence is evident in architectural and decorative programmes. The legend speaks that Kyanzitha had heard from eight monks of India about the cave temple of Ananta in the Khandagiri hills of Orissa and this inspired him to construct the Ananda temple in imitation of Ananta.³⁴ The king is said to have fed eight Indian monks with his own hands for three months. He is also believed to have repaired the holy temple of Bodh-Gaya in India. The construction style of the stupas at Prome which have cylindrical drums with hemispherical or ogival domes probably originated in north-east India and the Orissa coast.³⁵ Another characteristic form of Pyu architecture found at Hmawza (old Prome) is the type of building with an inner chamber surmounted by a tapering superstructure known in India as *Sikhara*, which also has its origin in the architecture of Orissa.³⁶ It is observed that the *Sikharas* of the monuments of Prome are remarkable in similarity with the temples at Bhubaneswar. The style and language of two gold plates bearing Pali inscription of 5th and 6th centuries A.D. discovered near Prome had similarity with inscription of Mathara and early Ganga kings of Kalinga.³⁷ It is believed that Burmese Mahayana and Tantric sect of Buddhism came from Orissa and Bengal.³⁸ Besides, the discovery of coins and medals with Hindu symbols at Pegu prove that there was good trade relation between Kalinga and

Burma.³⁹ The trade link with Burma is also proved by the discovery of a brown glazed ware, known as Maratuan ware, after the name of the place located in Burma from Manikpatna. This Burmese ware is available both in thick and thin variety⁴⁰.

We have very meagre information regarding ancient ports and port-towns of Burma. But as Burma had maritime contact with different parts of Asia it must possess some ports on its coast. Hiuen Tsang places Prome near a sea-harbour.⁴¹ Martaban, Cirion (Syrian) and Bassein have been referred to as sea-ports of Burma. Burma had imported various commodities from different countries *i.e.* painted cloth from Masulipatanam, white cloth from Bengal, sandalwood from Malacca, porcelain from China, camphora from Borneo, pepper from Sumatra, woollen cloth, scarlets, opium etc. from Mecca. Though we have no clear-cut reference to any of the import items from Kalinga as Kalinga in ancient times was very famous for her fine cotton garments. It must have exported the same alongwith other articles to Burma. Burma on the other hand exported the articles like velvet stuffs, aloes wood etc. The people from northern India mainly used land route *via* north-east to Burma, though the use of water route is not ruled out. There was a route from Pataliputra to China which passed through Kajangala, Pundravardhana-Kamarupa-north Burma-Szechwan.⁴² In a slight different way P.C.Bagchi.⁴³ observed that in ancient times there were two overland routes from India to China; one through Assam, upper Burma and Yunnana, and the other through Nepal and Tibet. Regarding the Assam-Burma route he says that this route to China started from Pataliputra (Patna), the ancient capital of India, passed through Champa (Bhagalpur),

Kajangala (Rajmahal) and Pundravardhana (North Bengal) and proceeded to Kamarupa (Gauhati) in Assam. From Assam three routes went to Burma. One by the valley of the Brahmaputra upto the Patkoi ranges and then through its passes upto upper Burma; the second through Manipur upto the Chindwin valley; and the third through Arakan up to the Irrawaddy valley. All these routes met on the frontier of Burma near Bhamo and then proceeded over the mountains and across the river valleys to Yunnanfu, *i.e.* Kunming, which was the chief city of the southern province of China. From the above narration one thing is evident that though the over land routes by nature were difficult and discouraging to the travellers, Burma was well connected with northern India through land routes. Burmese Buddhist legends tell of Indian influence coming to lower Burma by sea.⁴⁴ The Kalingan sailors, however, used both land and sea-routes in course of their journey to Burma.

So far land route is concerned, the most popular route used by the north Indians was *via* Pundravardhan and Kamarupa. In course of his discussion regarding the penetration and establishment of a dominion in Burma by the Kalingans G.E. Gerini⁴⁵ has referred to a route. He observed "since the Kalingans and the Andhras appear to have been in the third century B.C., master of the valley of the Ganges from the frontier of Magadha to the sea, it is easy to conceive on the one part that the Kalingans could penetrate into western Burma through Silhet, Manipur and the Kubo valley, and establish thereat a dominion called Mudu-Kalinga or Tri-Kalinga; and that the Andhras, in their turn could easily advanced along the coast line as far the Naf or the Kuladan." Gerini, however, has wrongly mixed up the Andhras with the Kalingans, because in the

third century BC, Kalinga, no doubt, was an independent powerful dominion and was the immediate neighbour of Magadha extending upto the sea, a fact which has been attested to by the bloody Kalinga war of *cir.* 261BC. It is also an admitted fact that Ashoka invaded Kalinga to capture her flourishing ports.

The Kalingan sailors plyed their ships from the ports of Tamralipti, Palur etc. along the coast of Bengal to Burma. As during the ancient period, coasting voyage was the order of the day. It is believed that this route was regularly followed by sailors of both Kalinga and northern India. Ptolemy⁴⁶ has referred to a direct route from Paloura (Palur) to Sada which was frequently used by the Kalingans in course of their journey to Burma. Sada was the first port touched at in Ptolemy's time by ships proceeding from India to the eastern coast of the Bay of Bengal. It is most plausible that the people of Kalinga used to take the help of the south-west monsoon in course of their onward journey to Burma while in the return journey they could avail the north-east monsoon wind. To conclude, we can say that Orissa in ancient times had close commercial and cultural contact with Burma. It had considerable influence on different aspects of the culture of Burma, though it is not an easy task to measure it exactly.

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30. G.E.Gerini, *op.cit*. pp.29 & 30.
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36. *Ibid*, pp.111 & 112.
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Tourism in Orissa : A Historic Perspective

Pareswar Sahoo

From ancient monuments, magnificent temples, sunny beaches, verdant wildlife sanctuaries and mist-covered hill stations, Orissa has something for everyone. It is a state with myriad charms, with a bouquet of offerings. For wildlife lovers to nature lovers, for those who want to sun themselves in golden beaches, to those who want adventure, from spiritualists to monument lovers Orissa is probably the only state in the country that has virtually everything for every one. Ancient monuments, temples, sunny beaches, verdant wild life sanctuaries and mist covered hill stations - you can very well take your pick. Some of these monuments date back to the 3rd century BC and are well preserved for the tourist attractions and are somewhat in tact to these days.

Travel and tourism have been a part of human life since the hoary past and is at once associated with pleasures, adventures, gainful experiences and knowledge. However travel in the present scenario has become a commercial proposition. It has grown into an industry under the name of tourism, which fills the coffers¹ of the state it is an

important section for earning precious foreign exchange. Indeed tourism has become the second large-scale industry after oil and is very fast growing. Every nation is today tapping² its tourism potential. Tourism throws open to the world the natural, cultural, historical, social, political, economical, artistic and architectural splendour and heritage of a state, country or a nation.



The Sun temple at Konark

The modern state of Orissa includes the territorial limits of all the ancient kingdoms like, Kalinga, Odra, Tosali, Utkal, Kangoda and Kosala, which once upon a time formed a large part of historical geography of India particularly in the ancient as well as medieval periods. For centuries the crowning piece of Orissan architecture and sculpture built in the 13th century AD. The sun temple at Konark is a poetry in

stone and a world heritage monument which beckoned³ people from a great distance, seers, preachers philosophers, tourists both foreign and inland gather here around the year. Many in the past like, Mahavir, the 24th Jaina Tirthankar;

Hiuen-Tsang, the Buddhist monk from China, Ramanuja; the Vaishnavite philosopher, Sri Krishna Chaitanya, the pioneer of Radhakrishna cult visited this holy land of Orissa.

Nanak the founder of Sikhism, came here in religious pursuits. The ancient and medieval periods were mostly devoted to tourism of another kind, based on religion. In the world tourist pattern nearly 60% of tourist movement is found within Europe and North America, Switzerland, France, Greece, Italy, Spain, USA, Canada and Newzealand. One finds the Alps,⁴ Venice,⁵ Niagra falls,⁶ and Disneyland,⁷ as top tourist attractions in the West unlike the Sun temple at Konark (The Black Pagoda). The Jagannath temple (The White Pagoda), the Lingaraj temple; Lalitagiri, Ratnagiri and Udayagiri in Orissa, the later three known as Buddhist sites⁸ (the mini golden triangle of Orissan tourism). The Vishwasanti Stupa atop Dhauligiri hills near Bhubaneswar where the great Kalinga war was fought in 261 B.C. stands prominently as a very solid monument for world peace.⁹

In fact these are some of the masterpieces of the top tourist influx to Orissa. Unfortunately tourism in Orissa has still a long way to go to be able to catch up with the front ranking nations in this sphere. However Orissa is making rapid strides in and attracting tourist influx.¹⁰

The orient and more specifically Orissa have enamoured the whole world since ancient times. So it is considered to be an El Dorado¹¹ and a land of fascinating riches besides philosophy, spiritualism and culture. The Universities like, Utkal University, Jagannath Sanskrit University and Utkal University of Culture attract students and scholars to the state from Kashmir to Kanyakumari. Orissa is full of natural resources, beauty as marked in regional varieties, weather, climate, diversity of culture, people, languages,

food, dress, customs, traditions, religions and faiths, morals and values. Also magnificent is its historical and architectural monuments and places, rich artistic heritage. It is virtually a tourist's paradise.¹²

Orissa has something to offer to each and everyone coming here. The wild life observer can find rich material in our wild life sanctuaries. The bird sanctuaries like Chilika and Bhitarkanika are remarkable for the migratory birds. The variety of animals found is also remarkable, what for it is to ride on camel or elephant. The noisy bazaars, the colorful dresses, the variety of people and their ways of life provide ample material for the human observer.

Those who are on shopping spree can have no cause for complaint since Orissa has plenty to offer. Orissa is also a rapidly developing state with enormous scientific, technological, industrial and agricultural, potential. However, some of the old beliefs regarding Orissa which were the result of its past British connection still persist.

The 'Pattachitra' or the palm leaf paintings is quite unique.¹³ It attracts a lot of tourists to Raghurajpur, a village near Puri, which is famous for it. The special type of dance form known as Odissi¹⁴ happens to be a classical one and simply bewitches the audience. Promotion of tourism in Orissa is essential for its development. It calls for providing adequate facilities to cater to all categories of tourists in order to make them comfortable and also to get them the maximum pleasure out of their trip. A mere sprinkling of luxurious hotels would not suffice in their attempt or endeavour. It is equally necessary to build less expensive but comfortable hotels.

A blending of Oriya cultural traditions with all modern amenities would allow them to indulge in a favourite sport or pastime. It would also be

a means to gain the good will of the tourists so that we could also happily say "aurevoir" to them. Besides cultural programmes should be a must in a tour itinerary. Music, dance performances exhibitions on Orissan arts and crafts would win the hearts of the appreciative tourists and expose them to our rich cultural heritage, its variety and grandeur.

It should also be borne in mind that tourists are not necessarily foreigners alone but also many Indians coming from different regions of the country. These too should be encouraged to travel more as it would develop the people to people contact by way of bringing a sense of love and admiration for each other. Knowledge of the cultural heritage and inculcation of a spirit of brotherhood and unity¹⁶ also should be given top priority.

The Orissa Tourism Development Corporation (O.T.D.C.) is playing an important role in this direction by maintaining a chain of hotels in the name of Pantha Nivas, the production of publicity literature, entertainment and the transport divisions. Besides, it has set up a number of tourist offices with skilled and trained staff members in key tourist centers of the state.

Modern means of communications have made the world a smaller place. When we talk of a global village, tourism is truly an easier prospect now than it ever was before. As a tourist destination Orissa is almost unmatched. With its vastness and diversity, as regards her people, culture, history, it has unique tourist attraction backed by facilities of international standards like jet air services, standard hotels, air-conditioned coaches, rail services and tourist guides. Indeed the sky is the limit for Orissan tourism.

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Pattachitra - An Indigenous Technique

Tanmaya Mohapatra

Pattachitra simply means a painting on pata (Pati) on Patta is a very primitive practice in India. Pata has been derived from the Sanskrit word 'Patta' 'Gulasti' in the Amarakosa composed in the fourth century A.D., depict patta as fabric and cloth. Use of patta or cloth as a ground and carrier for painting is mentioned in old texts such as - Acharyachintamani, Mahavamsa. Aryamanjushree, a Buddhist monk, who came to Odisha (Orissa) in the kingdom of Dharmarakhita for the propagation of Buddhism, states that a picture should be painted on new, white cloth, having no fringes, clean and devoid of any string foreign writers like - Monier Williams, Thumb and Pikorney, interpretes patta as woven cloth, veil - a piece of fabric, screen etc.



Paintings done on paper are also called patta painting in Bengal. The stone plaques of the jainas are called Ayagapatta. The painting on leather done in south India is called Charmapatta. In U.P., Maharashtra a kind of rolled illuminated

horoscope known by the name of Rashi Patta. A square stone slab with the image of Vishnu and his ten incarnations is called Vaisnavapatta and the terracotta slabs of Paharpur in Bengal were termed Mrinmaya patta by C.C. Dasgupta. All these different definitions of patta can only be taken as references, which can give a general idea of the various names of pata.

In the context of Orissan pata, the word pata or patta has special significance since it refers to cloth in early texts. In Orissa Pattachitra is done on pati, a special type of hand made canvas prepared by passing together layers of cloth. Paintings are also done on wooden plaques, either covered with a layer of cloth or directly on the wooden surface. Since the wooden

plaque is known as pata in Oriya, there should not be any confusion between pata painting and patta painting. Moreover, paintings on pata is also known as pata painting in general.

Like the Kalighat painting which are produced around the temple of Kali in Calcutta

for pilgrims and visitors or like the pichwai painting, which evolved around the temple of Srinath in the state of Rajasthan, the Jagannath Yamipatis and the Vaisnavapatas at large have centred on the Jagannath temple. We can say pata painting of Orissa has origin from the Cult of Jagannath, which is a mystery in itself. Through a slow evolutionary process Pattachitra today attained its reputation and identity as an primitive and traditional painting. So far patta painting of Orissa have adhered to only religious sentiments and mostly depict topics related to Krishnalila and Jagannath.

Considered from their major sources of sustenance, patronage and use, Patta painting have three broader prospective. The most important is the temple art on the art of Jagannath temple. Less significant is the court art and the third of the more generalised nature is the art of the society, mostly opposed to temple art, without any specific patronage but with specific use.

Technique :

As an old practice, the procedure of preparation painting follows an indigenous method, including the tool techniques. To prepare a patti on handmade canvas, the artists use, old and used cotton cloth and tamarind seed gum. The first layer of cloth is spread on the cemented floor or on a mat (Hensa), over which gum is applied on the manner of smearing cowdung, after which the second layer of cloth is spread over it and pasted together. The bubbles and patches of gum in between the layer should remove. If necessary small pieces of cloth are pasted to avoid the torn portion of the used cotton cloth. Now it is left in sun to dry. When it is dried, it is taken off the floor, rolled and preserved for painting.

Preparation of gum (tamarind seed gum) follows certain stages - Seeds are crushed on a flat stone bed (sila), then soaked in water in an earthen pot for half a day. Then they are ground and made into thick paste, which is cooked with required water to obtain the gum.

Preparation technique of patta follows by Khadilagi after the pati is dried. The coating is obtained by mixing tamarind gum with chalk in proportion of 50 - 50. But sometime in rainy season due to dampness, the proportion of gum is increased to 5% to avoid *nasama*. This coating is applied by the hand and left to dry. When Khadi becomes a bit dry, it is rubbed with agate stone called 'barada'. Two types of barada is used - Khadada barada (rough) chikana barada (fine). The first phase of rubbing is done with *khadada barada* and the subsequent smoothing is done with *chikana barada*. Rubbing is done systematically by horizontal and vertical movements. Finally a shape is given to the patti by trimming and cutting the *patti* to its required sizes with the help of scissors.

After being trimmed and sized, the patti is ready now to serve the purpose of painting. As the painting procedure is uniform, it differs from places, we are going to discuss the popular method followed by the *chitrakar*s of Puri area. It starts with the demarcation of the border leaving a narrow space around from the last edge of the pati, with the help of scale and ruler. After this sketching is done without going into details like, eye, nose, lips, fingers etc. In sketching the several stances in the pose of figures came out prominently, generally the head is drawn first, a slightly oval form with the suggestion of the chin, there after the torso and legs are added. Generally the master craftsman on the head of the family draws it. Sketching is followed by colouring, and here comes the background first. Hingula (red) is

applied to the background. Although other colours like brick-red on red-ochre blue etc are applied, the red background in pattachitra of Orissa is the most common. Colours are applied to the figures in the next step. Consequently one colour follows the other in sequential order. The body colours of different deities are painted as per their 'Dhyanamatra'. Mostly yellow colour is applied to the garments including other colours. ornamentation is done after this. It includes colouring the ornaments, head-dresses, border of soris, weapons and attributes. Safeda or white is painted to accentuate the intricate beauty of the ornaments and bring out the details of carving. Rangalekha or redness is done over ornaments to stabilise the effects produced by the white ornamentation. Thick black line are given to those portions like hair, borders of the garment etc. fine black line or finishing is done thereafter. This is done by the master craftsman. The merit of the artist is judged from these lines. The master craftsman with one sweep of brush without shaking his hand, draws the line with firmness and boldness. The treatment of the background is done with trees and foliage over red background with yellow and white colour. White foliage is called *saru-sankhapata*. Pata is used for the foliage, when the foliage is painted in yellow, it is termed *haladi pata*. The floral motifs like - *pancha anguli* and *sata anguli*, dots called *topi* and a cluster of four or five dots known as 'Punji' or 'machhi' are also done in this stage. The border are decorated with floral motifs, motifs of animal and birds and other geometrical designs. Before lacquering, if some defects are noticed in the course of the painting, touching up is done, which is called Bageiba, finally lacquering is done to give a glow to the painting and to protect the painting from water and moisture. Lacquer is applied to the painting with a wooden stick. This is done in the manner of beating on the surface of the painting.

Then a bundle of cloth called '*kanamunda*' or '*dasi*' is rubbed over the surface to make the melting lac even and smooth.

The tools used in the process of painting like brush (*tuli*), container, *matka*, *gaja* etc. are also hand made and have some technique with them.

Tuli or brushes are used to apply paint over the *pati*. Brushes of various sizes are made by tufts of hair tied together to the ends of bamboo twigs with the help of thread or Kanadhadi. Over the knot liquid lac is applied to bind it firmly. Brushes of fine quality are prepared out of rat and squirrel hair and brushes of coarse quality are made out of buffalo-hair. The workability and durability of the traditional brushes are very good.

Bamboo tube container (*Baunsanali*) is used to keep the brushes while painting. Coconut shell (*Sadhei*) are generally used as container for colour. Shell with eyes are not put to use '*Sanas*' - earthenware are also used, but these are more easily breakable and so *Sadheis* are popular. '*Matka*' is a ring like thing prepared out of the edges of *saris* and used as the base of the *sadheis*. This helps the container to sit solidly on the ground '*Gaja*' - measuring scale, used to draw lines and to measure distance. This is prepared by incising the lines on a long wooden batten. Thread is also used to measure long distances. *Kainchi* - scissors is used to cut the *patis* into required sizes.

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Palm - Leaf Manuscripts : The Proud Possessions of Orissa

Jayanti Rath

Orissa is the land where dry leaves speak about every aspect of life, starting from poignant emotion of love to the hard rules of arithmetic, from canons of law to the riddle of Tantra, Mantra and Yantra. It may sound incredible, but it is true in every sense of words that the palm-leaf manuscripts vividly depict the theme of religion, architecture, medicine, astrology, astronomy, grammar, details about war, arms and armoury, geography, trade routes, occult practices, temple rituals, crafts, literature and so on. The illustrated miniature paintings on the palm leaves also provide a living record of the saratorial styles, cosmetics and coiffure, dance forms, myths and legends and above all, our rich heritage of socio-cultural traditions.

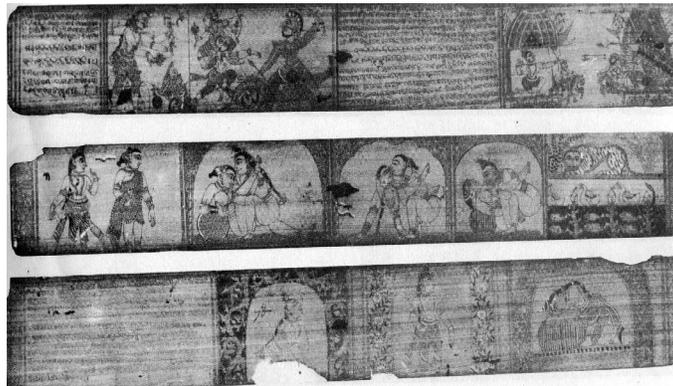
The very thing that Oriya alphabets have no headmarks like that of Bengali or Nagari Script can safely be attributed to the long and continuous practice of writing on palm leaves. The stones of Konark, Muktesvar and Rajarani display the union of couple, the Amaru Sataka, the Gita-Govinda palm-leaf manuscripts describe the

moments of love. Here passion has been translated both in words and forms. The Orissan artists have shown their excellence in these miniature paintings in the palm-leaves. Unique in their style and forms, they constitute as significant part of the glorious Orissan tradition and are similar to the tradition of dance and sculpture. The features of the human figures as well as the flora

and fauna are sharp and well-proportioned and display the same precision and neatness which one can find in the motifs drawn in the textiles in the typical Orissan tie and dye tradition. Women are usually

represented with full bosoms and big bottoms and slender waists and are stylistically very close to the finely chiselled sculptures of Konark temple.

Epigraphic evidence of the use of palm-leaf for writing goes back to the sixth century A.D. The Kurud Charter of Maharaja Narendra issued from his camp of victory at Tilakeswar records the renewal of the grant of village Kesavaka. This village had been formerly granted in a palm-leaf charter to one Bhasrutaswami by the previous



king, but as the palm-leaf was destroyed in fire, Maharaja Narendra regranted it in a copper plate charter in favour of Sankhaswami, son of Bhasrutaswami. Maharaja Narendra was a Sarabhapuriya king of South Kosala in the 6th century A.D.

There are also many sculptural evidences regarding the use of palm-leaf manuscripts. The earliest of these can be found in the Parsuramesvar temple at Bhubaneswar which was built during the rule of Sailodbhava dynasty (7th Century A.D.). Similar representations can be observed in the Muktesvar temple (10th century A.D.) and also the famous Sun temple of Konark (13th century A.D.). Another important sculptural evidence is an image of Buddha found at a temple in Haripur near Khurdha. In this sculpture one finds in the pedestal a scholar studying some holy scriptures in the shape of a stringed palm-leaf manuscript placed on Vyasasana. There is a beautiful presentation of a scribe writing with a stylus on a palm-leaf in a sculpture of Jagannath temple of Dharakot.

The entire Buddhist scripture "Avatamsaka Sutra" was written on palm-leaf manuscript and it was presented to Chinese emperor Te-Song by Subhakara Deva, the Bhaumakara king of Orissa with his own autograph. This was an event of eight century (798 A.D.).

The oldest datable palm-leaf manuscript now exant in Orissa State Museum is a copy of the poetic work 'Abhinava Gita Govinda' by Kavi Chandra Ray Divakara Mishra, inscribed by one Sri Sridhara Sharma. The date of the manuscript has been established as 6th April, 1494. The poet has offered the work in the name of Gajapati Purushottama Deva.

The concluding portion of the manuscript is called Pushpika or Colophon. It gives the name

of the scribe and the date of copying just as we have today the name of the author and the publisher and the date of the publication of a printed book on its title page. In recording the date in the colophon, the scribe followed the *anka* or the regnal year of the Raja of Puri. The colophon sometimes mention the Oriya Sala or Sana year of an era which started on the twelfth day of bright fortnight of the Bhadra month of 593 A.D. During the reign of Akbar, Hijra or Amali Era was introduced in the manuscripts. In a few latter manuscripts, the Christian era called Samvatsara and the Christian month are given in colophon. The Saka Era (Starting in 78 A.D.) has also been used. Sometimes the year has been given in a riddle or chronogram.

In case of illustrated palm-leaf manuscripts, the introduction was always made with the picture of Ganesha, the god of learning and well being with the words Shri Ganeshaya Namah (Salutation to Ganesha) and Shri Shubham astu (let it be auspicious). Some Chitrapothis also had the picture of Sarasvati, the goddess of learning on the front page. If the manuscript contained erotic text, (Rati-bandha) - it invariably had a picture of Kandarpa, the God of love. In many of Upendra Bhanja's Kavyas, the poet is shown paying his obeissance to Rama, Vishnu and other Gods.

Palm-leaves and stylus were adopted as the sole writing material for writing the charya-Songs which are believed to be the oldest Oriya literary works. These were composed in a period between 9th to 12th century A.D. Between the Charya Songs and Sarala Das's Mahabharata, no Oriya literary works have come to notice except some prose writing and a poem called "Kalasa Chautisa". During this period, however, Orissa produced an enormous amount of Sanskrit literature, which includes books on astronomy, astrology, medicines, grammar, religion and law.

Several commentaries were written on well-known Sanskrit works. There were also an outpouring of literary works, the best known of which are Anargha Raghava of Murari Mishra, Gita Govinda of Sri Jayadev and Sahitya Darpana of Viswanath Kaviraj.

By the fifteenth century the art of palm-leaf writing had attained great excellence. The innumerable copies of Sarala Mahabharata were written on palm-leaf manuscripts and spread throughout Orissa. By the way, the great poet and the great monarch, Gajapati Kapilendra Dev of Suryavamsi dynasty, who ruled Orissa at that time became indelible in history. The manuscripts of Bhagabata of the poet Jagannath Das, had still far greater influence over the common people of Orissa. Balaram Das's Jagamohan Ramayana was also accepted with much reverence for its lucid style. Practically speaking, these three were the most widely read books in Orissa by that time. With the advent of Shri Chaitanya to Orissa in 1510 A.D. and the spread of Vaishnavism, the Oriya Bhagabata achieved unprecedented popularity. Community houses called Bhagabata Gharas or Bhagabata Tungi sprang up in the villages of Orissa where copies of Bhagabat were kept and recited daily. The reading of the chapters of the holy scriptures became a daily ritual in the homes of Oriya people. Thus, the Bhagabata Pothi brought profound vibration in the entire social life of Orissa.

During the sixteenth and seventeenth centuries a large number of Kavyas or long episodic poems were written in Oriya, all based on Krishna theme.

The most outstanding of these Kavyas are Bhakta Charan Das's Mathura Mangala, Rupa Goswami's "Bidagdha Madhava" and Dina Krushna Das's Rasa Kallola. Several other translations of Ramayana also appeared, the more

popular ones being the versions of Adhyatma Ramayana by Gopala Telenga and Haladhara Das and Vichitra Ramayana by Viswanath Khuntia. Another popular manuscript of this period was Sishu Shankar Das's Ushabhilasha, based on a story of Sarala Mahabharata. New poetic forms also emerged during this period viz, Janana (song of prayer), Chautisa (songs which followed the thirty-four consonants of Oriya alphabets) and Poi (referring to the number of verses in the poems), i.e. Dasa Poi - meaning a ten-verse poem.

Orissa lost her independence in 1568 A.D. and was successively overrun by Afghans, Mughals and Marathas. Till the British conquest in 1803, Orissa was a veritable cockpit of rival warlords. There was no peace and security. In the absence of a stable central power, Orissa broke up into a number of semi-independent principalities under local Rajas. The feudal chiefs patronized art, music and literature as pastimes.

The brilliant literary figures of this period was Upendra Bhanja, who was a prince himself. A prolific poet, he created volumes of literary works. He was the master of ornate poetry and each of his work is an example of his mastery over some particular versifying skill or other. Through clever manipulation of words and with a liberal use of puns, alliterations, assonances and figures of speech, he built up a body of poetry which was gaudy and grandeloquent and at the same time pedantic and unintelligible. He composed songs, Kavyas, epics, fictional poems, rhetorical compositions. Chitra-kavya (picture-poem) and even a dictionary of verse for the use of poets. "Vaidehisha Vilas", 'Koti Brahmanda Sundari', 'Prema Sudhanidhi', 'Lavanyabati' are some of his memorable works.

The style of Bhanja prevailed till the second half of the 19th century. All the poets who emerged after Upendra Bhanja followed his style.

The name of Brajanath Badajena, an eminent poet of post-Bhanja era can be cited as an example. During this said period, thousands of palm-leaf manuscripts were copied for large scale circulation. Numerous Chitra-pothis were also prepared during this period, though many of the extant chitra-pothis seem to have been done towards the later part of the 19th century A.D. Though paper was in use during this time, poets did their writing on palm-leaf as this was considered sacred. The Oriya script used in Pothis did not undergo much of a change from its fifteenth century form.

Oriya printing was introduced by Christian missionaries after the British conquest of 1803. An Oriya type-face was devised in 1804. Today, the use of palm-leaf and stylus has been diminished a lot. Now at the outset of twenty-first century, when the world has become technocratic, the use of fragile palm-leaves has become irrelevant. But the age-old practice of writing on palm-leaf has not been extinguished from our cultural heritage. Writing on palm-leaf has many ritual uses in Orissa. On Raksha Panchami day (fifth day of the dark of fortnight of Bhadra month), painting of Batuka Bhairava (an aspect of Siva) is done on doors with an invocation to Siva written on it.

In the Jagannath temple of Puri, a letter is written on palm-leaf on behalf of Rukmini to be delivered to Jagannath on the eleventh day of bright fortnight of Jyestha month (also known as Rukmini Harana Ekadasi). In Orissa, horoscopes of new born babies are also written on palm-leaves. Similarly, the invitation sent to the deities, known as ‘Diyana Nimantrana’ as well as the ceremonial invitation to the bride-groom from the bride’s family is generally written on palm-leaf in Orissa.

Thus, the tradition of palm-leaf writing is still alive. In the past, the palm-leaf manuscripts were the medium of learning, while in the changing scenario of present, it has become the object of analysis and retrospection.

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Pattachitra

The Cultural and Literary Form of Jayadeva's Gitagovinda

Pradeep Kumar Gan

As a rare creation Jayadeva's Gitagovinda had earned wide appreciation in India and abroad. Its sonorous diction and rhythmic musical excellence has created a unique place for it in the whole of world literature. It is a unique text in Sanskrit literature, which was composed in the second half of the 12th century A.D. There is no medieval literary work, which is at once so sweet and so lyrical as the Gitagovinda and none, which exercised a profound influence on a large number of people.

The sweetness of diction, the musical beauty of lyrics, the softness of word pictures and above all, the artistic expression of the universal human feelings, depicted in the Gitagovinda have a captivating effect on its readers irrespective of caste, creed and colour. As a result the popularity of this work has never been affected by the bulk of literature in Sanskrit as well as in the regional languages, which has subsequently been appeared in the field. The most striking factor about the popularity of Gitagovinda is the introduction of the 24 songs in its 12 cantos designed to be sung with the help of definite ragas and talas.

Jayadeva's Gitagovinda was quite popular in Orissa within years of its composition. The first commentary of the text was made in Orissa. Visvanath Kaviraja of Orissa quotes verses from the Gitagovinda in his Sahityadarpan. The Gitagovinda reached Gujarat by the 13th century and the verse relating to the ten incarnations of Vishnu is quoted in an inscription there. Some scholars believed that the work of Gitagovinda reached at Nepal, the Himalayan

Hindu Kingdom by the 15th century A.D. One of the commentaries on the Gitagovinda is attributed to Kumbhakarna, king of Mewar, which indicates that by the 15th century, Gitagovinda was known in Rajasthan. Gitagovinda is sung in temples of Kerala and known as Soparna Sangita. In course of time, the work deeply influenced the Vaisnavas of Bihar, Bengal, North-East India as well as South India. Thus the work and its "sweet soft and lyrical songs" became the common property of all regions of India. No poet, secular or devotional, writing after Jayadeva, has ever been able to shake off the ponderous influence of Gitagovinda. Jayadeva, it is true, wrote in Sanskrit, but hardly conformed to classical Sanskrit poetic tradition. His poems are lucid diction, lilting lyricism and captivating metres and are set to different melodic patterns, "madhura komalakanta padavalim srnutada Jayadeva sarasvatim". That is why they have such a haunting quality about them. Like the ancient poets he too used many rhetorical devices like the consonantal alliteration, assonance, metres, rhyming and rhythms. Jayadeva infused a new vocabulary, a new idiom and style in his poem to make it suit the taste of his time.

The life history of Jayadeva, as of many other great seers and sages, saints and devotees poets and writers of ancient and medieval India, is shrouded in oblivion. A great literary work or a great piece of art can be appreciated without knowing the author, the place of his birth, etc. The text of Gitagovinda contexts that the poet Jayadeva, son of Bhojadeva and Ramadevi, was

a saint dwelling with his danseuse wife Padmavati in the vicinity of Lord Jagannath in Purushottama Kshetra. He was an accomplished Sanskrit scholar, a devout Vaisnava, a skilled poet and an adept in music. While he wrote and sang the lyrics of his poem Gitagovinda, Padmavati danced to the tunes.

The evidences go to support the date of composition of Gitagovinda to be between the 50s to 60s of the 12th century. Such evidences include (i) incorporation of a few slokas of Gitagovinda in Sridhar Das's Saduktikaranamitra (1205 A. D.); (ii) reference to the poet and the poem found in Chand Bardai's Prithviraj Raso (early 13th century); and (iii) the existence of the Gitagovinda's earliest commentary, Bhavabibhavini Tika prepared by Udayanacharya, a contemporary of Raja Raja Deva II (1170-90 A. D.) of the Ganga dynasty. The internal evidence of the Gitagovinda (Part III. 10) seems to suggest that, Kindubilva was the birth place of the poet and he is compared to the moon, rising out of the Kindubilva Sea. In course of time the name Kindubilva became known as Kenduli. Hagiographers of all over the country through centuries have invariably identified Jayadeva as belonging from Kendubilva, a village near Puri of Utkal and he was said to be devoted to Purushottama-Jagannath. Chandradutta, a Maithali poet in his work Bhaktamala (1703 A.D.) alludes to Jayadeva's place and occupation.

*Jagannath Puri prante dese
Chaivotlkalabhide
Kindubilva iti khyato gramo Brahmana
samkulah
Tatrotkale dvijo jato Jayadeva iti srutah
Vidyabhyasaratah santah
Purushottampujakah*

The identification has been made by Kaviraja Narayan Das's Sarvanga Sundari Tika (1307 A.D.), Nabhaji of Rajasthan in Bhaktamala (1581 A.D.), Mahipati of Maharashtra in Bhaktavijaya (1685 A.D.), Krishna Das of Bengal

in Shri Bhaktamala (18th century A.D.) and of course, Ram Das of Orissa in Dardhyatabhakti (18th century A.D.).

The archaeological findings of the 10th and 11th centuries reflect the ocular proof of Jayadeva's regional identity is the actual village of Kenduli near Prataprudrapur sasan in the Prachi Valley. The notable vestiges regarding the poet's native place are, (i) the inscription on the lintel of Jogeswari temple, Jaya Jayadeva Hare 1112 (1190 A. D.), which is suggestive of the nature of a memorial; (ii) a statue of a standing male ascetic in Akhandaleswar temple, which is worshipped as Jayadeva; (iii) the remains of two sacrificial posts, which are now seen about 600 feet to the south of Ambika temple, are stated to have been installed during the time of Sri Jayadeva; and (iv) the annual Triveni festival held at Triveni g h a t (confluence of three rivers

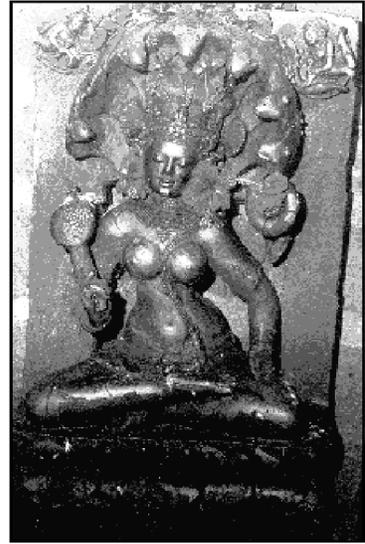


Image from Kenduli, Orissa

Prachi, Kusabhadra and Dhanva) on the black-moon day in the month of Magha (January/February). The evidences in support of Kenduli as the native village of Jayadeva are conclusive. They enforce the impression that to see is to agree.

When Sir William Jones published the first English translation of the Gitagovinda, in 1792, the place of the origin of the text, roused his intellectual curiosity and among other regions, Kalinga figured as a possible region. Gitagovinda has been translated in to English by many scholars,

among the work best of them being perhaps the translation by Barbara Stoler Miller in 1977 A.D.

In the Jayadeva's Gitagovinda one can find the celebration of the love-frolic of Radha and Krishna. Krishna is the universal creative dancer and Radha is the controlling energy. Jayadeva, however, portrays Radha as the lover of the cosmic form and soul of Krishna. The purpose of creation is the dynamic equilibrium of love and love is the open dance of Radha and Krishna in creative union. The Gitagovinda is structured on the sensuous beauty of the universe. At other places in the Gitagovinda, however, the name Padmavati, Sri, Kamala and Lakshmi are also mentioned. A significant verse (I.2) mentions the poet as Padmavati Charana Charana Chakravarti, which may suggest that, Jayadeva the wondering poet king sang at the feet of Padmavati. In the sarga (X. 9), Gitagovinda refers to "Jayadeva singing to delight Padmavati". Kaviraja Jayadeva also mentions Padmavati in sarga (XI.21). The diminutive term Padma also occurs in the Gitagovinda (I. 25).

The long continued tradition of Devadasi or the temple damsel prevalent in the temples of Orissa was clearly epitomized in Padmavati, who was dedicated to the Lord in pursuance of the age old practice. Legends relate that dancer Padmavati was the wife of Jayadeva. Such floating legends about Jayadeva were widely current in the later centuries, but any historical evidence has not yet corroborated such legendary accounts. The Devadasi system was of great antiquity. The archaeological evidences speak in support of this prevalent practice and custom. The Brahamesvara temple inscription (1035 A. D.) in Bhubaneswar and the stone inscription of Sobhanesvar temple (1080 A. D.) at Niali in Prachi Valley speak to the introduction of music and dance by the beautiful maidens in the temples. Historical and epigraphical sources reinforced by architectural evidences commingling with the folk tradition prove beyond doubt that there was the

prevalence of dance performance by Devadasis in the temples before the advent of Jayadeva.

Devadasis, such as Sutanuka, Varastri, Bisvarupa and great dancer (Mahanachani) Padmavati are known from inscriptions. It is not quite clear, whether Padmavati of the Gitagovinda, was the wife of poet Jayadeva. Earlier commentators, such as Manaka and



Image from Kenduli, Orissa

Kumbhakarna interpreted Padmavati as synonymos with Sri, Kamala or Lakshmi. For example, in the Rasikapriya of Ranakumbha, Padmavati Charana Charana Chakravarti is explained as Lakshmi Charana Sevagranih.

It is traditionally belived to be that, the birthplace of Jayadeva at Kenduli in Baliana Police Station near Prataprudrapur Sasana of the Prachi Valley in Puri district. The Valley is teeming with temples and ancient relics of different cults, especially Madhava cult. Among the detached images of Kenduli, now housed in a local museum, known as Jayadeva Culture Centre, there are images belonging to the Saiva, Vaisnava and Sakta pantheon. Notable among them are the images of Lakulisa, Bhairava, Madhava, Ambika and another goddess locally known as Jogeswari. There are two Madhava images in good state preservation. There is a two-armed image of the place with heavy matted hair is worshipped by the local people as the sage Jayadeva. Ambika and Jogeswari, the presiding deities of the village, beautifully chiseled out from

black chlorite, which are worshipped in a reconstructed temple. It is in this temple that the Gitagovinda is recited in lieu of Chandi Saptasati every year on the occasion of Dasahara. The substitution of Gitagovinda for a Sakta text in a Sakta temple speaks of the great influence and popularity of the poem. People say that Ambika was originally installed under a Vilva tree and Jogeswari under a Kendu tree, because of which the village was known as Kendubilva. Both the goddesses are seated on a Visvapadma in Paryanka position and are distinguished by a canopy of seven serpent hoods. The two-armed goddess holds a full-blown lotus in the left hand and a bunch of lotus buds in the right hand. On the high pedestal of one goddess, there are small figures of dancers on the right and perhaps having a lion on the left. They wear a Yajnopavita and their coiffure is studded with jewelled chains. On grounds of style, the images may be assigned to the late 11th century A.D. This serpent-hooded goddess is generally identified as Manasa. Some scholars also take this image as the Jaina Yakshi Padmavati, the Sasanadevi of Parsvanath. The dhyana in Sri Durga Saptasati (Chapter-VI) provides the correct identification of the goddess as Padmavati of the Brahmanical pantheon. The dhyana runs as follows;

*Nagadhisvaravistaram
Phani phanottamsoruratnavali
Bhasvad dehalatam divakaranibham
Netratrayodbhasitam
Malakumbhakapalanirajakaram
Chandrardhachudam param
Sarvajnesvara bhairavankanilayam
PADMAVATIM chintaye.*

Jayadeva is an epoch making trend setter among the Sanskrit poets of the medieval past and his single monumental work Gitagovinda occupies a unique place in the history of world literature as much as no other poet has achieved such abiding fame and imperishable distinction. It is one of the unique creations of Jayadeva, which

is a high watermark in the realm of devotional poetry and enriched the cultural life of India. Gitagovinda is so important a gem in the treasure of literature and in religion that as many as forty commentaries and a good number of imitations of this have been composed in India and the poem has been translated into different foreign languages. Jayadeva through his single work is comparable to the great Kalidas. His work reveals that he had imbibed in him the script of the past age and he heralded a new epoch in Indian literature, namely the 'Vernacular Age'. He can, therefore, be rightly called the last of the 'Ancient' and the first of the 'Modern' in Indian poetry.

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Orissan Temple Architecture

Dr. Soma Chand

Orissa is a land of temples. The concentration of the largest number of temples all over the State has made it a centre of unique attraction for the scholars, indologists, tourists and others.

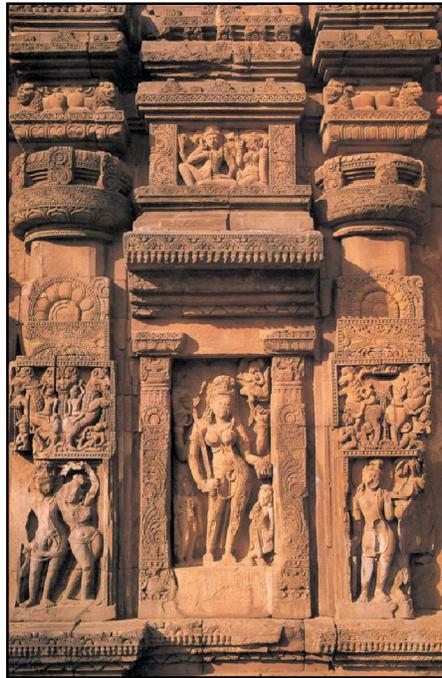
Out of the five different types of architecture that is Devotional, Memorial, Civil, Military and Domestic.

We mainly come across the devotional type of architecture in Orissa while others have disappeared with the ravages of time and power.

Temples as free-standing structures came to Orissa after the Gupta period through Dakshina Kosala. The Hindu hegemony if Somavamsi, Bhaumakaras, Gangas inspired the Orissan architects to carry on the spirit of creating their own style of architectural temple representations without any Islamic or Persian influence. The period thus ranges from 6th century A.D. to 16th century A.D.

The builders of the Orissan temples gave vent to their feelings on the basis of indigenous canonical texts like Bhuban Pradip, Silpapothi,

Silpasastra, Silpasarini, Upanishad, Silparatnakosa, Vastusastra, Silpa Prakash, Padma Kesara Deula Mapagunagara, Bhuban Prabesh, Soudhikagana etc. indicating the standard achieved by our ancestors in the field of temple architecture.



The Indian temples in general are divided into three categories based on their geographical location and peculiar features-

- The Northern Indian temples are branded as Nagara style of Architecture.
- The Southern temples of Deccan belong to the Vessara style.
- The third category is called Dravida style found in South India.

The Orissan temple architecture ranging from 7th to 13th century A.D however, corresponds to an altogether different category for their unique representations called Kalingan style of temple architecture though broadly they came under the Northern style or Nagara style,

they have certain special features which are unique of their own.

The Orissan temples are of three types-

- Khakhara Deula
- Rekha Deula
- Pidha or Bhadra Deula

The Khakhara Deula is altogether a different style of architecture closely appearing similar to the Dravidian Gopuran design. The word is derived from Khakharu (Pumpkin, gourd) as the crown looks like a barrel-vaulted elongated roof. The Sakta temples are generally of Khakhara order. Brahmi temple of Chaurasi in Puri and Gouri temple of Bhubaneswar are two glaring examples of Khakhara temple.

Other Saivite and Vaisnavite temples in Orissa represent both Rekha and Pidha types. In the formative period of Orissan temple architecture there were only two structures of the temples.

- The first is original sanctum or Vimana or Bada Deula.
- The second is Jagamohan or Mukhasala.

The sanctum of the temple is of Rekha order which has a curvilinear super structure. But the Jagamohana standing before the main structure is of Pidha order. The Pidhas form several tiers sitting one upon the other rising to a pinnacle.

With the march of time the Oriya architects began to invent newer forms of structure. Thus in the big temples we find four structures-

- Vimana or Bada Deula
- Jagamohana or Mukhasala or Hall of audiences
- Nata Mandira or Festive Hall
- Bhoga Mandapa or the Hall of offerings.

The constructive peculiarities of Orissan temple is marked by uniqueness. The architects perceived the temple in the form of a human male figure or Purusha.

Like human physical divisions of leg, thigh, waist, chest, neck and head the temple had similar shapes and structures.

The Vimana or the main temple of Orissa is always of Rekha designs with the following special features such as-

- Pavement or Talapattana
- Plintha or Pitha
- Curvilinear Tower or Rekha or Rathak
- Neck or the recess below the Amlaka Sila called Beki
- Denticulate blocks of stone called Amlaka Sila.
- Stone cape resembling an unfolded umbrella or Khapuri
- Finial or Kalasa
- Trident or Discuss

From the ground Vimana rises vertically to a height than in a curvilinear design to the neck. From the base to the *gandi* or trunk portion the rise is perpendicular and then the temple slowly inclines inward in a critical manner till the four reclining walls join together at the Beki or neck. Above the Beki is the portion called Mastaka or crown which consists of the *amlaka*, inverted Kalasa and Dhvaja. Finally comes the mark of the Deity-Trident or Trishul in case of a Siva temple or a Discuss or Chakra in case of a Vishnu temple. The crown portion is called Khapuri. Over the *ayudha* there may be a flag as auspicious mark. Thus a temple is represented as a Purusha.

In a pyramidal Pidha type of temple curvilinear Vimana is not there. The *gandi* or trunk

rises from the ground perpendicularly upto a point and then the pyramidal roof is constructed on the four walls that looks much alike the shape of a thatched house from a distance.

Another way is to study the Orissan temple by resorting to vertical division. This is done with the help of vertical segments marked on the Vimana of the temple called Pagas. The projection at the centre is called Rahapaga, on the either side of Raha are two Anurahapagas and at the two corners are two Konakapagas. In course of time by gradual evolution. Triratha plan of the temple became Pancharatha. Saptaratha and Navaratha temples.

Another distinctive feature of the Orissan temples is the decorative programmes which are of three types:-

- Constructive
- Representative
- Purely ornamental or Decorative

These designs are governed by specifications laid down by Silpasastra. The vertical projections called Pagas are designed as miniature shrines with niches which contain different sculptures to beautify the temple. The canon of architecture classifies soil, stone and temples and contains details of designs and placement of icons, decorative motifs, Parsvadevatas, Dikpatis, Astasakhis, Naga and Nagini, Sardula, Ulta-Gaja-Viraja-Singh, Ulta-Gaja-Singh, Navagraha, Vaitala, Kirtimukha types of scroll like Phulalata, Natilata, Patralata, Vanalata, elephant, horse, bull, Makara and other animals. After 13th century there was a

perceptible decline in the artistic merit of the decorative programmes of Orissan temple architecture.

The antiquity of Orissa is endorsed by her temple architecture which is as subline as it is aesthetically innervating. For centuries now the Orissan Golden Triangle of Bhubaneswar-Puri-Konark has retained a vantage point on India's pilgrimage circuit for their devotional architectural background.

Lingaraj temple of Bhubaneswar marked the culmination of the evolution of Orissan temple architecture. Exactly a century later started the construction of Jagannath temple with the final product of Orissan architects-that is the temple of Konark.

The Orissan Temple Architecture holds an appeal that is magnetic and almost stupefying in its extravagance and mobility. The dizzying heights of the heavily sculptured towers are as much reasons for wonder as are the exquisitely wrought-base-reliefs within their numerous halls. From the splendid ruins of Konark to highly sanctified environs of Jagannath and Lingaraj, one can get an unforgettable experience of Orissa's arts and crafts. They are the symbols of Orissa's cultural heritage that remain an eye-opener even today.

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Orissa : A Place of Many Wonders

Perpetually washed by the blue water of Bay of Bengal, Orissa lies on India's east coast with 480 kms of seabeach. Alongwith the alluvial belt running on the sea coast the State consists of rugged tracts dotted with jungle clad blue hills of Eastern Ghats, occasionally broken by ravines and lush green valleys. The valleys, with crags and peaks of wild beauty over-hanging them, rush into the fertile plains with rich crops, being watered by many mountain streams. The villages nestling amidst palm, coconut and mango groves with picturesque environment create excellent atmosphere and repose for the visitors, who seek retreat from the hustle and bustle of urban life.

Amalgamating the ancient lands of Kalinga, Kangoda, Kosal, Odra and Utkal, modern Orissa took its present form on April 1, 1936, the first state in the country to be formed on linguistic basis. Orissa has been a repository of one of the world's finest cultural heritages. It has attracted saints, philosophers, pilgrims and invaders through the ages. They have left glowing impressions, which have shaped the mosaic texture of art and culture of this land much to the applause of international tourists and scholars.

Orissa is the stronghold of all great religions of India - Jainism, Buddhism, Saivism, Saktism and Vaishnavism. Each of these religions were propagated and continued for centuries until



assimilated or synthesized into some universal concepts. To cite instances, Jainism which was preached by Mahavira on the soil of Orissa was practised from the 6th century B.C. to the 7th Century A.D. and then it declined, leaving a generalized impact on other faiths. Buddhism was preserved and nurtured for a longer period and got itself imperceptibly merged in the Jagannath cult when Buddha was accepted as an incarnation of Vishnu. Orissa is a melting pot of different faiths, which have been assimilated into the cult

of Jagannath with its cardinal tenets of amity and universal brotherhood. The people of Orissa are reputed for paying respect to all religions. Spiritual faith as distinguished from the material, equality of all men, things and unity of all religions are seen to be the age old religious principles accepted in Orissa. Abounding with innumerable temples and monuments with sculpted figures, Orissa is a veritable museum of the country's sculptural heritage. The Orissan architecture enjoys a unique position in view of its richness. The temple of Mukteswar, Konark, Rajarani, Lingaraj and Jagannath are a testimony to the skills of the indigenous artisans who built these temples of stone and adorned its walls with striking sculptural motifs. The figures live and glance at the viewer with delicate nuances of moods and communicate to him in a language that surpasses his own. While the broad conception of the figures is Indian, the delicate execution is entirely the art of Orissa. The same is true of the performing arts like dance and music and also of the artistic crafts.



Orissa's culture is manifested by a number of festivals that are observed with pomp and gaiety. A great festival held at Puri is called the Car Festival or Ratha Yatra of Lord Jagannath. In three richly decorated wooden chariots Lord Jagannath, Balabhadra and Devi Subhadra come out of the temple to give Darshan to a concourse

of national and international audience and devotees of all sort, who come from various parts of the country and even from abroad.

Being endowed with abundant mineral wealth, rich forest reserves, untapped energy potential and a vast work force Orissa State offers immense investment opportunities to entrepreneurs. The State is in the process of evolving an appropriate strategy to increase agricultural production as agriculture is the mainstay of the people.

Orissa has a perfect geo-morphological setting with nearly 480 kms of unpolluted coastline, sky blue lakes, throbbing estuaries, rolling hills, cascading streams, gorgeous and towering cliffs, sprawling meadows, dense and vibrant woods, bewildering variety of wild life in harmonious setting and above all her serene climate and tranquil atmosphere has but few parallels.

Major cities of our state attracting internal tourists are Cuttack, Bhubaneswar, Berhampur, Sambalpur, Rourkela, Angul and Jeypore. The protected sanctuary areas are well distributed. Bhitarkanika, Chandaka, and Chilika are in the east, while Ushakothi, Debrigarh and Sunabeda are in the west. Similipal is in the north while Lakhari valley and Mahendragiri are distinctively in the south. The popular ones in central Orissa



are Satkosia, Baisipali and Kotagarh. Depending on the composition and size of the group, available leisure time, orientation and expectation, visitors can be suitably guided. Visitors are assisted through selection of proper packages.



Although 292 places have so far been identified as Tourist Centres, thrust is being given to develop tourism on a thematic basis keeping in view the available resources for optimum utilization. Establishment of a peace park at Dhauli under Destination Development, Infrastructure Development in the Buddhist Circuit comprising Ratnagiri, Lalitgiri, Udayagiri and Langudi under Travel Circuit Scheme and Endogenous Tourism Development at Pipili under Rural Development Scheme have already been taken up. Proposals for development of eco-tourism at Chilika and Bhitarkanika, Rural Tourism at Barpali and Taptapani, Destination development of Gopalpur on Sea are under consideration. Projects like the construction of roads connecting important tourist destinations, Development of area around Sun Temple at Konark and Light and Sound show at Khandagiri Caves are nearing completion.

The traditional Pattachitra has ever been hailed as an exquisite expression of consummate craftsmanship. The filigree work of Cuttack, the stone carving work of Puri, the Horn work of

Paralakhemundi and the handloom fabric of Sambalpur can entice any one with a penchant for art and craft. Similarly the applique work of Pipli is indeed a masterpiece.

The dance forms of Orissa have always occupied pride of place in the evolution of Orissa's art and culture. The Odissi dance, a highly evolved classical dance form of Orissa, has earned international acclaim for its lyrical exuberance. Besides, the Chhau dance of Mayurbhanj is a popular form of martial folk art performed through dances and physical gestures.



Sea-bound transport is the most cost-efficient as well as economical means of transport for the conveyance of raw materials, as well as finished products in bulk. Such an infrastructure could be the necessary backbone, for attracting large-scale industrial houses. An integrated port policy for the State would encourage and lay down the pathway for the development of ports and other associated infrastructure, for promoting industry, trade and commerce.

Orissa has a vast hinterland generating food grains, mineral sands and raw-materials. Finished goods, fertilizers edible oils and petroleum products by the large industrial houses located in the hinterland offer long term potential for cargo. Any economic development taking

place in the hinterland States would have a direct bearing on the ports in Orissa.

The port locations and the perennial riverine systems of Orissa are ideally situated to adapt to the current developments in technology, in the areas of communication, automation, cargo handling and ship technology. It is in this perspective that the Government of Orissa, by evolving an integrated strategy, intends to implement its vision.

Dhamra Port, a green field project has already been handed over for development. For the establishment of a major port of international standards, the preliminary works are in progress. The Government of Orissa intends to develop Gopalpur Port with private participation from a seasonal lighter age port into an all weather port of international standards. The process of identifying a strategic partner is in progress.



Under skill up-gradation training programme 2520 members of Women SHGs in 26 districts with funding from Mission Shakti have been imparted training. Apart from this, for the skill upgradation of marine fisherwomen, a project is being implemented for hygienic preparation of dry fish and value added fish products. Till date 1559 fisherwomen have been benefited under the project through eighteen fisherwomen Co-operatives.

Establishment of a Medicinal Plant Research Centre at Jaypore of Koraput district by the M.S. Swaminathan Research Foundation has already been put in place in collaboration with the State Government.

There are abundant resources of Iron ore, Manganese ore, Bauxite, Limestone, Dolomite, Chromite, Coal, Gem stones and Decorative Stones (Granites) in the State. Liberalisation of Mining Laws have prompted the development of large scale mining and establishment of mineral based industries in the State. Basing on the large resources of Metallurgical grade Iron ore and Bauxite, it has been planned to set up a number of Iron and steel plants and aluminium industries. The resources of coal have also invited many industrial houses to set up Thermal Power Projects to cater to the need of electricity of Industrial projects. The lucrative occurrences of Diamond have created global eagerness to participate in its scientific exploration and exploitation and to attract the investors of international repute.

It is a matter of crowning glory that Orissa has played a pioneering role in Information Technology Revolution in the whole country. In conceptualising the IT vision, the Government of Orissa is in the process of developing an



appropriate IT architecture in the State to bring qualitative changes in all walks of life and society, resulting therewith ease and convenience in transaction, creating more employment opportunities and accelerating higher economic growth within a specific time frame. Extensive application of IT would establish a system where the citizens will receive good governance ensuring speedy decisions from a transparent Government through an effective e-Governance system.

A sketch of achievements made as a result of consistent effort of the State Government broadly encompasses following impressions :

1. In order to encourage the farmers for direct participation in irrigation management, 12,902 Pani Panchayats constituted.
2. To provide house and homestead land to the homeless families within the next 3 years, an innovative scheme "Basundhara" implemented.
3. To reduce infant mortality rate from 87 to 83 per one thousand lives "Nabayoti" programme launched.
4. To empower women under "Mission Shakti" 1,45,814 Self Help Groups have been constituted.
5. State Government have signed MOU with 37 leading Companies to establish mineral based industries. By this investment of Rs.1,18,031 crore, production of 4769 million tonnes of steel and generation of huge direct and indirect employment envisaged.
6. Free Text Books to the students starting from Class-I to Class-VII.
7. Provision of electricity to all the villages in the State by 2009.
8. Electricity supply to 12,090 beneficiaries under "Kutira Jyoti" Scheme.
9. A Sports Academy is going to be established in the State very soon with central assistance of 2.18 cr.
10. State Employment Policy, 2005 framed to create massive self-employment opportunities to unemployed youths.
11. To ensure greater transparency and good governance, implementation of Right to Information Act, 2005 starts from 12th October, 2005.



Weed Management Through Fungal Herbicides

H.P. Misra

Out of several factors responsible for decrease in crop yield, weeds in crop plants contribute to a maximum extent of 45%. Of the nearly 3-lakh species of higher plants in this world, only 10% are weeds. Of these, 200 weed species are responsible for 95% of economic losses caused by the weeds in agricultural production. Non-availability of adequate manual labour and lack of use of mechanical weeder force, the farmer has to go for synthetic chemical herbicide application or leave the crop unweeded and accept lower yield of crops. Chemical herbicides that have revolutionized modern agriculture, when applied to soil, have several harmful effects on both human and animal health. In highly developed countries over usage of chemical herbicide has led to many problems like shift in weed flora, occurrence of new problematic weeds and residues of herbicides affecting soil micro fauna and flora (in turn soil health), aquatic fauna and flora and terrestrial and aquatic birds. Alternately, fungal herbicides prepared from fungal pathogens control specific weeds and continue to survive on weeds year after year over long period unlike chemical herbicides that need to be applied repeatedly.

Mycoherbicides are bioherbicides prepared for microbial plant pathogens, which when applied as sprays suppress the weeds. Out

of several types of pathogens fungal pathogens are mostly used as mycoherbicides for control of specific weeds. The phytopathogens present in the fungal herbicides initiate diseases in specific weeds and produce phytotoxins killing the weeds within 3-5 weeks. These pathogens, should be easily culturable in artificial media, should have ability to produce abundant spores, stable in storage, genetically stable and should not mutate quickly, tolerant to variation in temperature, effective under field conditions and the herbicides prepared from them should be compatible with other agro-chemicals.

India has a good history of controlling problematic weeds through bio-agents like insects, but mycoherbicide development and use concept has not caught yet. On the other hand, developed countries like USA and Canada are far ahead in this field where rapid progress in discovery and commercialization of fungal herbicides was witnessed during 1973 to 1982. Till date 37 mycoherbicides and 8 mycoherbicide technologies have been patented world over.

Successful results were obtained in controlling water hyacinth, a problematic aquatic weed with fungal pathogens viz., *Alternaria eichhorniae*, *Cercospora piaropi*, *C. rodmanii*, *Uredo eichhorniae* and *Rhizoctonia solani*. In rice and soyabean fields, very good control of

weeds can be achieved by applying *Colletotrichum gloeosporioides*. Another weed *Eupatorium reparium* can be controlled by rust fungus (*Puccinia*). *Parthenium hysterophorus*, the so-called problematic weed that not only reduces crop yields but also a cause of dermatitis in human beings is controlled by *Puccinia abrupta*, rust fungi.

Two mycoherbicides are commercialized mostly in USA. They are "De Vine" and "Collego". De Vine was prepared from the soil borne fungus, *Phytophthora palmivora* and registered in 1981 as first selective mycoherbicide for control of strangler vine, *Morenia odorata* in the citrus grooves of Florida. Chlamydospores of this fungus are formulated as liquid suspension and

used as post emergent mycoherbicide. This is a facultative parasite that produces lethal root rot of its host plant and persists saprophytically in soil for a longer time. Collego was registered in 1982 in USA for the selective control of Northern joint vetch weed (*Aeschynomene virginica*) in rice and soyabean fields. It is a wettable formulation of *Colletotrichum gloeosporioides* f. sp *aechynomene* an endemic anthracnose fungus. It is a facultative saprophyte that causes lethal stem and foliage blight of its host weed when inoculated with spores. It is marketed as Collego 15% WP.

The list of fungus capable of controlling specific weeds with the trade names of some commercial mycoherbicides is as follows.

Sl. No.	Fungus Species Involved	Weeds Controlled	Trade Name
1.	<i>Colletotrichum gloeosporioides</i>	Northern joint vetch <i>Aeschynomene virginica</i>	College
2.	<i>C. furarioides</i>	<i>Aslepias seriacea</i>	-
3.	<i>Cercospora rodmanii</i>	<i>Eichhornia crassipes</i>	ABG 5003
4.	<i>Puccinia chandrillus</i>	<i>Chandrilla juncea</i>	-
5.	<i>P. abrupta</i>	<i>Parthenium hysterophorus</i>	-
6.	<i>Phytophthora palmivora</i>	Milk weed vine/Strangler vine <i>Morrenia odorata</i>	De Vine
7.	<i>Alternaria</i> sp.	<i>Crisium averse</i>	-
8.	<i>A. cassiae</i>	Sickle pod <i>Cassia obtusifolia</i>	Caset
9.	<i>A. crassa</i>	<i>Datura stramonium</i>	-
10.	<i>A. helianthi</i>	<i>Xanthium stromarium</i>	-
11.	<i>Phomopsis convolvulus</i>	<i>Convolvulus arvensis</i>	-
12.	<i>Bipolaris halepense</i>	<i>Sorghum halepense</i>	-
13.	<i>Fusarium lateritium</i>	Velvet leaf	Vego

Although the mycoherbicides have several advantages as described earlier, still their use is not free from constraints noted below.

Limitations :

1. Their registration process with Environmental Protection Agency (EPA) may take long time.
2. The magnitude of weed suppression is not as spectacular as chemical herbicides, for which farmers need to be educated.
3. There is rapid loss of viability of some products and their stability depends on environmental conditions.
4. Because of high specificity numerous fungi need to be discovered for control of different weeds present in a single field.
5. Commercial production of mycoherbicides in large scale may be expensive.

6. Some fungal herbicide like De Vine remain in the soil for long periods and work in killing milk weed vine, thereby resulting reduced sale of the products.

7. In case of most specific virulent fungi it is difficult to induce sporulation in submerged fermentation culture - a method commonly employed for commercialization of mycoherbicides.

Every new product that enters the market has certain good aspects and limitations. But before putting this new product in large-scale use, both pros and cons must be weighed properly. Then only, the farmers can harvest the benefits and prosper.

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ORISSA HARNESSING MINERAL RESOURCES

Orissa is endowed with a variety of mineral deposits and occupies a prominent place in India as a mineral-rich State. Abundant reserves of high grade Iron ore, coal, bauxite, chromite alongwith some other minerals are extensively available in the State. This has opened up immense possibilities for locating mineral based Industries for manufacture of steel, cement, alumina / aluminium etc. along with setting up other auxiliary and ancillary downstream industries. Consequent upon opening of the economy and liberalization policies, these mineral resources have now drawn worldwide attention for setting up of mineral - based industries with a view to gainfully utilizing these rich mineral resources, systematic survey and assessment of the mineral deposits of the State, and their exploitation.

The State of Orissa has been making concerted efforts to improve its economic base through industrialization in which the mineral sector can pave the way for faster economic growth of the State.

The State Government while granting mining lease, encourages substantial value addition by setting up of industries in the State with a view to enhancing tax and non-tax revenue, providing employment opportunities for the local people and general development of the area.

In response to the transparent policy and sincere efforts of the Govt. a number of Entrepreneurs / Corporate Houses have evinced interest in setting up of integrated steel plant in the State. These entrepreneurs companies are encouraged to have concrete, time-bound plans for making industrial investment and thereby become effective partners in our efforts for the socio-economic development of the State through mineral-based industries.

Soil of Orissa and Its Management

*Dr. G.C. Sahu
Antaryami Mishra*

The State of Orissa covering geographical area of 15.57 million ha. lies in the tropical belt in the eastern regions of India between 17^o.47'-22^o 33' N latitude and 81^o 31'-87^o30' E longitudes. The climate is characterized by high temperature and medium rainfall. The average annual rainfall of the State is 1500mm and the mean annual temperature is 26.2^oC. The mean summer and winter temperatures are 30.3^oC and 21.3^oC respectively.

The physiographic classifications of the State are (1) The Northern Plateau, (2) Central Table land, (3) Eastern Ghat, and (4) Coastal plain. Integrating the effect of land-form, topography, climate, soil and crop adaptability, the state has been divided into ten (10) agro-climatic zones. The soils of Orissa have been divided in to 8 broad soil groups. Taxonomically these 8 broad groups of soil come under 4 orders, 10 suborders and 18 great groups.

Each soil group is associated with specific characters and problems posing constraints for higher agriculture production. These characters have been identified and special attentions are made to increase the productivity. The characters of each soil alongwith their management practices are discussed below.

1. Red Soil (Haplustalfs, Rhodustalfs, Ustorthents)

Red soil covers about 7.14m. ha of lands and being the highest coverage of all soil groups of the state, extend to the districts of Koraput, Rayagada, Nawrangpur, Malkanagiri, Keonjhar, Ganjam, Kalahandi, Nuapada, Bolangir, Dhenkanal and Mayurbhanj. Presence of excess amounts of oxides of iron imparts red colours to the soil. The soils of the former four districts are heavier in texture and the rest of the districts have light textured soil. The soils have angular or sub angular blocky structure. The clay fraction of these soils is dominated by kaolinites and illites.

The soils are strongly to moderately acidic with low to medium organic mater status and poor water retentive capacity. These soils are deficient in nitrogen and phosphorus. Micronutrients like boron and molybdenum are highly deficient in these soils. These soils have low cation exchange capacity with high phosphate and sulphur absorption property and deficient in calcium and magnesium. Water soluble phosphates get fixed and become non available to crop plants. Applications of in-soluble phosphates two weeks before sowing seeds or mixed application of insoluble rock phosphates and single super phosphate at equal proportion (1:1) makes the best utilization of phosphate. Soil acidity is

corrected by application of lime. Application of 1 to 2 t/ha of papermill sludge corrects soil acidity. Winter vegetables and groundnut crops need application of 10 to 15 kg. borax/ha. Seed treatment with sodium molybdate at 10g/25 kg seeds corrects molybdenum deficiency in pulses and groundnut crops. Application of phosphogypsum at 200 kg/ha meets the sulphur demand of oil seed crops. Crops like rice, finger millet, minor millets, niger, potato, brinjal and fruit trees such as mango, jack fruit, guava, papaya and sapota are grown successfully in these soils.

2. Mixed red and Yellow Soil :- (Haplustalfs, Paleustalfs, Ustochrepts).

These soils occupy 5.5m ha of lands being the second highest in area. These soils occur in the district of Sambalpur, Bargarh, Deogarh, and Sundargarh. Mixed red and yellow soils occur as a catenary associations in undulating and rolling terrains which differ in depth, texture, and colour. The soils are moderately shallow in depth and coarse-textured. The upland soils are more shallower and lighter in texture than the low land soils. Presence of ferruginous concretions and fluctuation of water table imparts the mixed red and yellow colour to the soil. The upland soils are moderately acidic whereas, low land soils are slightly acidic. The low land soils are formed mainly by colluvial deposits.

The upland soils are low in nitrogen and phosphorous whereas, the low land soils are medium in phosphate and high in potassium. Upland light textured soils are deficient in boron and lowland soils with rice-rice cropping system under Hirakud command area are deficient in zinc. Soil acidity can be corrected through liming.

The upland soils are suitable for crops like rice, finger millet sugarcane, potato, brinjal, tomato and pointed guard. The low and soils are suitable for paddy following pulse as pyra crops.

Fruit trees like mango, guava and banana grow well in these soils.

3. Black Soil : (Chromusterts, Us-torthents)

There are no regular occurrence of black soils in the state. These soils occur sporadically in the districts of Puri, Ganjam, Malkangiri, Kalahandi, Nuapada, Bolangir, Sonepur, Boudh, Sambalpur, Bargarh and Angul covering an area of 0.96 m. ha. of lands. The black colour of the soil is due to presence of titaniferous magnetite, humins, bitumins etc. These soils are formed due to weathering of basic rocks in the low lying areas.

These soils are heavier in texture having clay content more than 30 percent. Clay minerals are dominated with smectites for which deep cracks are observed during summer. The effective soil depth extends to more than 90 cm. The soils swell on wetting holding maximum amount of moisture. Permeability of these soils is slow which result in severe surface soil erosion.

The soil pH is neutral to alkaline having free calcium carbonate nodules in the profile. The soil is rich in calcium but deficient in phosphorus, potassium, zinc and boron. Upland rice suffers from iron deficiency. Groundnut, mustard and safflower are found to respond to application of sulphur. Ammonia volatilization is higher in paddy fields.

Soil moisture stress conditions set early under drought. Either at low or high moisture conditions the soil could not be ploughed. Management of these soils is difficult. Tillage operations should be completed at right moisture consistency. Green manuring and application of bulky organic manures help in increasing water infiltration rates. Recycling of rice straw improves the aggregability of these soils. The soil is suitable for growing rice, jowar, bajra, maize, Bengal gram, safflower, mustard and cotton.

4. Laterite Soil : (Haplustalfs, Plinthustalfs, Ochraqualfs)

Lateritic soils occupy 0.70m. ha of lands in the districts of Puri, Khurda, Nayagarh, Cuttack, Dhenkanal, Keonjhar, Mayurbhanja and Sambalpur. Lateritic soils are characterised by compact vesicular structure and rich in hydrated oxides of iron and aluminium with small amounts of manganese, titanium and quartz. Degraded laterites are honey combed structure and found in the districts of Khurda and Cuttack. These soils are loamy sand to sandy loam in the surface having hard clay pan in the subsoil, crusting is its problem in upland laterite. Presence of higher amount of exchangeable aluminium and manganese results in slightly acidic to strongly acidic soil with pH ranging between 4.5 to 5.8.

These soils are poorly fertile with low organic matter. Available nitrogen and phosphate are low and potash is medium. Nitrogen is lost due to leaching and phosphate becomes unavailable due to fixation by Fe and Al oxides. Cation exchange capacity of the soil is low and it is low in percentage base saturation. Sulphur is absorbed as pyrites or zine sulphide.

Medium and low land soils adjacent to uplands suffer from iron toxicity due to literal movement of soluble iron from upper ridges. Crops can be raised better in these soils through proper soil management such as, liming, application of organic manure, growing green manure crops and applying balanced fertilizer with application of paper mill sludge (1 to 2 t/ha). Groundnut and pulses could be grown successfully in these acidic soil. Potato and other vegetables can grow well without liming. Application of mixture of water soluble and insoluble phosphatic fertilizers increases the crop yield. Soil application of boron and seed treatment with molybdenum improve legume yields. Rice, finger millet, miner

millet and sesamum can grow well with proper fertilizer application. Fruit trees like mango, jack fruit, banana, guava, and sapota grow well in this soil.

4. deltaic alluvial : Soils (Haplaquepts, Fluvaquepts, Ustochrepts)

Those soils cover 0.67m. ha of lands and occur in the deltaic regions of the rivers such as Mahanadi, Brahamani, Baitarani, Subarnarekha and Rushikullya in the districts of Balasore, Bhadrak, Jajpur, Kendrapara, Jagatsinghpur, Cuttack, Puri, Gajapati and Ganjam. Textural class of the soil varies from coarse sand to clay and is mostly dependent on geomorphology of the flood plain and the type of alluvial material carried by river water. The structure may be granular or platy. The latter structured soil is difficult to handle. Alluvial soils of clayey texture crack upon drying and becomes sticky when wet. The plough-share is loaded with heavy clay and becomes difficult to work. Water holding capacity of this type of soil is high. Once water-logged, the clay soil takes more time to become ploughable. Drainage is difficult due to slow permeability.

Deltaic alluvial soils are generally fertile but fertility decreases if the soil is not recharged regularly by flood. pH is acidic to neutral. The coarse textured soils are deficient with N, P, K and S.

Deltaic alluvial soils are suitable for rice in kharif and for groundnut, mustard, sesamum, potato and vegetables in Rabi. With residual soil moisture, groundnut, greengram and black gram are grown very successfully.

5. Coastal Saline and Alluvial Soil : (Halaquepts, Halaquepts)

Alluvial soils with high total soluble salts (EC-4ds/m) are included in this group. These soils

occur along the coastal belt of the state in a narrow strip extending 5-25 km inward. The salinity occurs due to littoral deposits of estuarial intrusion of brackish tidal water from sea through creeks. Nearly 0.254m ha. of saline soils are distributed in the districts of Balasore, Bhadrak Jagatsinghpur, Kendrapara, Puri, Khurda and Ganjam. Saline soils are rich in soluble salts of chloride and sulphate in conjunction with sodium and magnesium. Soils of lacustrine sediments of lake Chilika also get affected by salts due to flooding of brackish lake water in the districts of Puri, Khurda and Ganjam. During monsoon a build-up of subsoil salinity occurs due to high ground water table under low lying situation.

These soils are mostly clay to clay loam in texture and columnar in structure. The pH of these soils varies between 6.0 to 8.0 with a conductivity of 10-40 dS/m in the summer. The exchangeable sodium percentage varies between 18 to 27. The soils are rich in nitrogen, potassium and low to medium in phosphorus. The saline soils are sufficient in sulphate, boron, molybdenum and chloride. Failure of crops normally occurs due to (i) plasmolysis of germinating seeds and roots (ii) death of young seedlings, (iii) reduced uptake of K, Ca and Mg due to presence of excess Na, (iv) toxicity due to B and (v) hydrogen sulphide injury.

However, during rainy seasons the salinity hazards are low due to dilution and flushing of soluble salts by heavy rains. Rice is the main kharif crop with usual and well distributed rainfall. Although kharif rice does not suffer very much from salinity, very often early drought and cyclonic sea water inundation cause hazards to rice. Salt tolerant high yielding rice varieties like Lunisharee, SR-26B and Mohan out yield the local saline resistant varieties like Sola, Pateni and Cuttack Chandi. Salt tolerant rabi crops such as safflower,

mustard, barley, linseed, chilli, sugarbeet, tomato, spinach and some cucurbits grow well in these soils. Cotton is a successful crop in saline soil if managed properly.

Coastal saline soils with high exchangeable sodium but acidic in reaction could be reclaimed by application of lime which replaces some of the exchangeable Na⁺ or H⁺ by Ca⁺⁺. Use of organic manures, recycling of straw and incorporating green manure crops reduce the salinity and alkalinity and improve soil structure.

Cropping on sides of alternate ridges of irrigated furrows with the intermediate furrow left as fallow and frequent light irrigation are some of the cultural practices that save crops from salinity. Preventive measures such as construction of salt embankments, provision of suitable drainage system, flush out the soluble salts, construction of sluices across the creeks, raising shelter belts over and near saline belts check salinity hazards to a great extent.

6. Brown Forest Soil : (Haplustalfs, Ustochrepts, Rhodustalfs)

These soils being associated with forest areas are distributed in the districts of Phulbani, Kandhamal, Rayagada and parts of Ganjam and Nayagarh and cover about 0.17 m.ha. These are brown to gray brown in colour, light texture and acidic in reaction. Organic matter and nitrogen content of the soils are medium to high. Phosphorus and potash content are medium. The contents of most of the micronutrient are high barring molybdenum. Under slopy terrain soil erosion occurs making lands barren. Shifting cultivation is regular practice causing land degradation.

Land shapping and checking 'podu cultivation' would improve the soil and land

management. With proper moisture conservation, soil are most suitable for growing ginger, turmeric and tapioca. Maize, wheat and mustard grow well in this soil. In the marginal lands niger comes up successfully with use of nitrogen fertilizer. Horticultural crops like jackfruit, mango, guava and citrus are the established fruit crops in these soils. Social forestry plantations are taken up successfully in the degraded soils.

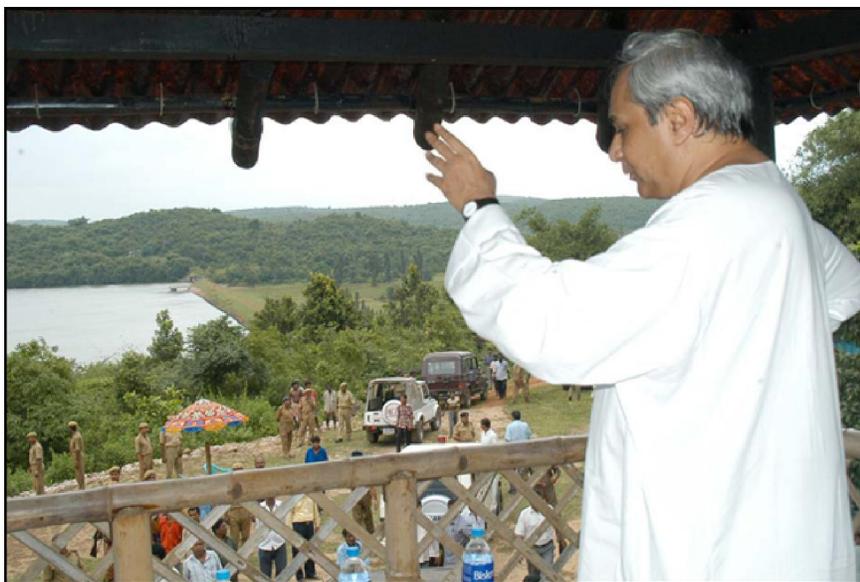
7. Mixed red and black soil (Association of Alfisols, Vertisols and Vertic Intergrades)

These soils occur as association of both red and black soil together in which black soil occurs in patches within the predominant red soil. The red and black soils are so intermixed that red soils are found in upper ridges whereas, black soils occur in lower ridges. The soil occupies about 0.16 m.ha of lands in the western districts of Sambalpur, Bargarh, Sonepur and Bolangir.

The soils are light to medium textured having neutral pH. Black soils are rich in calcium and red soils are dominant with iron-giving catenary formation to the soil. The soils are deep with medium fertility status. The lowland soils growing rice are deficient in zinc. Rice, sugarcane maize, ragi, groundnut, sesamum and all types of vegetable crops are cultivated successfully with adequate fertilizer application.

Soils of Orissa influenced by climate, topography and parent material are the most heterogeneous for which the average productivity of many crops is low. Identification of specific soil problems and their efficient management would accelerate the crop productivity.

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Hon'ble Chief Minister Shri Naveen Patnaik watching the MIP Project from the Tower at Deras on 11.10.2005.

State Employment Policy - 2005

CHAPTER - I

INTRODUCTION

1.1 Organized sector be it of public or private cannot absorb the huge pool of the unemployed youth. To mitigate the growing problem of unemployment in the State, Government have initiated a number of steps as part of the overall plan strategy. Development Departments have been advised to explore the scope for innovative self employment projects under various sectors and to play more proactive role for creation of large scale self employment and wage employment opportunities ensuring more productive and efficient use of the available human resources.

1.2 Keeping in view the burning problem of unemployment, the State Government have decided to take up a major initiative for creation of self and wage employment opportunities during the years 2003-04 and rest of the 10th Plan period up to 2006-07.

1.3 In the latest Election Manifesto of B.J.P and B.J.D, great emphasis has been laid on expansion of self employment opportunity. It has been indicated to maximize self-employment opportunities which in turn will generate associated wage employment. In order to achieve this end, a High Power Employment Mission (HPEM) has been proposed to be constituted to take over the responsibility of coordination with different Departments and related institutions.

1.4 As a part of the State Employment Policy, 2005 an Employment Mission has been proposed. This will be headed by the Chief Minister and shall include all the members of Council of Ministers, 5 M.L.As, 5 M.Ps and 10 members from among Bankers, Professionals, Civil Society organizations etc.

1.5 While this Apex Body will be determining policies and general directions, there will be an Executive Body of the Mission headed by the Chief Secretary. The Mission may constitute if deemed necessary, an Empowered Committee and Task Forces on different operational aspects. The composition of the High Power Employment Mission and its Executive Body is at Annexure -A.

OBJECTIVES OF THE MISSION:

1.6 The main objectives of this Mission shall be as follows:

- i) To facilitate generation of adequate employment opportunities through a policy frame work.

- (ii) To recommend and initiate bold steps for infrastructure development which will open up avenues for self employment and create a conducive atmosphere for sustainable wage employment.
- (ii) To act as a catalyst in opening of marketing opportunities for commodities and goods produced in the State.
- (iv) To mount special drive for creation of self employment opportunities particularly in agriculture and allied sectors and small scale industries, handicraft and cottage industries and in the I.T. sector.
- (v) To encourage and facilitate training of young entrepreneurs on development of small scale and cottage industries.
- (vi) To monitor generation of employment in different sectors and programmes.
- (vii) To facilitate launching of training programmes for both uneducated and educated unemployed persons for upgradation of their skill.
- (viii) To formulate area and trade specific strategies for maximizing employment opportunities on a sustainable basis in the State supported and private sectors.
- (ix) To facilitate proactively substantial wage employment for various development activities with special emphasis on creation of community and individual assets. Sectors like forestry, watershed development, rural communication, horticulture and land development among others will receive priority.
- (x) To facilitate a coordinated approach in achieving the above objectives through convergence of various ongoing schemes for maximizing the benefits over time and space and in reaching out the most needy sections of the population.

CHAPTER- II

POLICY INITIATIVES

2.1 Govt. of Orissa, through the State Employment Policy- 2005, intends to bring synergy in different development sectors in terms of creation of self employment opportunities. In this regard, following policy interventions are proposed.

(a) **Model Law on Contract farming**

2.2 A model law on contract farming would be introduced so that a legal framework is created linking agriculture with industries.

(b) **Strengthening of Cooperative Movement**

2.3 Cooperatives shall be revitalized through Long Term Operation Funds to promote agricultural and agribusiness activities. Agricultural Term Loan would be doubled in 3 years which would enhance both self employment and wage employment opportunities.

(c) **New and Innovative Self Employment Programmes (SEPs)**

- 2.4. Development Departments would formulate more proactive and innovative self-employment programmes so as to provide self employment and wage employment opportunities to the youth. Such schemes shall contain training component for up-gradation of skill and entrepreneurial ability.
- 2.5. Assistance will be provided to educated unemployed persons for their self employment in urban and rural growth centres in the services and small business sectors.
- 2.6. Development of infrastructure for marketing shall be given utmost priority.
- 2.7. Export promotion in Handloom, Coir and Cottage Industries will be given priority.
- 2.8. Handicraft artisans and Handloom Weavers would be assisted with a particular emphasis on market orientation and linkage with the SME sector.
- 2.9. Special measures will be initiated for improving the skills of young persons in order to improve their employability.
- 2.10. Ancillarisation of large industries and promotion of downstream industries will receive priority of attention.

(d) **Reorganisation of Directorate of Employment**

- 2.11. The Director of Employment will monitor all sorts of employment programmes particularly the Self Employment Programmes (SEPs). The Director of Employment will be redesignated as Director Employment-cum-Joint Commissioner of Employment Mission. The Employment Exchanges will also be reorganized and District Employment Officers (DEOs) will be given responsibilities for counseling on Self Employment Programmes and will be redesignated as Project Directors of Employment Mission-cum-District Employment Officers.

CHAPTER - III

SECTORAL STRATEGY

- 3.1. The following strategies shall be adopted in various sectors to boost up generation of employment in next five years. Key sectors/ economic activities will be identified in each district and special attention will be given to develop the identified sectors in those districts.

1. Agriculture & Allied Sector:

(a) **Agriculture**

- 3.2. Strategies have to be made for diversification of crops from paddy to pulses, oil seeds, cash crops and plantations. Agriculture diversification planning have to be done on the basis of agro-climatic zones. Specific programme will be taken up on an extensive scale so that production reaches a critical mass for market development.
- 3.3. Agri-Enterprises and Agro-Processing will be encouraged under Agriculture Policy, 1996 and under Special Package for Self Employment Programmes. Training would be imparted for developing skills of entrepreneurship.

3.4. Farm mechanisation will be intensified and Self Help Groups would be assisted to own mechanical devices.

3.5. Private Lift Irrigation Points such as Shallow Tube-wells, Deep Tubewells and Bore Wells will be promoted so as to raise the crop intensity as well as generate substantial employment opportunities in the rural areas.

(b) Horticulture & Floriculture :

3.6. Steps shall be taken to increase area as well as productivity under cashew, coconut, banana, lemon, guava, orange and mango & other plantation crops. Production would have to reach the critical mass on zone specific basis so as to attract the market in a substantive capacity.

3.7. Fruit processing including production of jam and jelly will be encouraged .

3.8. Floriculture will be taken up in compact patches under Work Plan which can provide substantial employment and income to the farmers as well as to the traders.

3.9. Medicinal and other plantation crops would be encouraged with all backward and forward linkages in private lands and in degraded Government lands, and Forests through appropriate long term arrangement, usufructuary rights and marketing commitments.

(c) Pisciculture :

3.10. Steps shall be taken to promote Pisciculture through Reservoir Fisheries and Tank Fisheries under the new policy of encouraging the Self Help Groups and Self Help Cooperatives.

3.11. Special attention will be given to marine and brakish water pisciculture and to achieve higher magnitude of growth in terms of exports.

3.12. Special emphasis will be given for development of infrastructure, particularly for communication, storage and port related facilities to achieve this objective.

(d) Animal Husbandry & Poultry

3.13. Procurement capacity of OMFED will be increased to generate substantial employment and income for the rural people. In non-OMFED areas, alternative modes of procurement can be tried with involvement of entrepreneurs.

3.14. Dairy and poultry programmes will be intensified in clusters and through S.H.Gs and such farms will be promoted through organizations such as OMFED, OPOLOFED and also under State Agriculture Policy through the APICOL.

3.15. Poultry, Piggery and Dairy schemes will be implemented both under Individual Mode and Group Mode under SGSY.

(e) Apiculture

3.16. Apiculture will be promoted extensively through different agencies such as APICOL, DRDAs and ITDAs, etc. Floriculture and Apiculture shall be well co-ordinated including marketing tie up for marketing of flowers as well as honey.

2. Handloom and Sericulture Sector:

- 3.17. Necessary support will be extended through Self Help Groups, SMEs, Cooperatives and exporters with regard to products and designs, training support, marketing and development of infrastructure. Utmost importance would be given to Designs and Training. Advantage will be taken of current and new schemes of DC, Handlooms, GoI.
- 3.18. Tassar, Mulberry and Eri Silk production will be taken up in bigger way.
- 3.19. Cluster approach will be adopted to facilitate sustainable development and economies of scale.

3. Handicraft Sector:

- 3.20. Handicrafts Sector is a major provider of employment in the non-farm sector.
- 3.21. Special efforts will be made to promote handicrafts by pulling resources from different sources for welfare of handicraft artisans. Introduction of new design and technique, marketing support, construction of Work Shed and Work Shed-cum- Houses and training support will be provided to the artisans for their capacity building and development of handicraft will be taken up on cluster basis.
- 3.22. Organized production base will be created through cluster development and association of artisans through SHGs, SMEs, Cooperatives and exporters and their capacity building.
- 3.23. Entrepreneurs will be identified both from within and outside the State to set up handicraft units/ adopt developed clusters/ SHGs through skill upgradation, design and marketing support.
- 3.24. Presentation of products will be made before the potential buyers through buyer seller meets, road shows, exhibitions and export promotion activities.
- 3.25. Members of viable but sick handicraft cooperative societies will be assisted through formation of Self Help Groups.
- 3.26. Artisan credit cards will be provided in selected clusters through the mode of Self Help Group..
- 3.27. Steps will be taken for employment generation in coir and salt sectors.
- 3.28. Training of girls for carpet weaving and setting up of production and finishing centres by exporters in the state will be encouraged.
- 3.29. Funds and support from current and new schemes of DC, Handicrafts, GOI will be availed to promote the sector.

4. Industries Sector

- 3.30. Incentives will be provided for setting up small scale industries in particular through cluster development approach under Industrial Policy Resolution, 2001 and Special Package for Self Employment Programmes as implemented from 2003-04.
- 3.31. Engineering Schools/ Polytechnics will be associated in imparting orientation training, specialized training and skill upgradation training to unemployed persons. In this regard, corporate initiatives will also be encouraged. Requirement of such trainings will be supported with inputs from HRD consultants.

Apprenticeship and summer placement programmes will also be initiated. State Council of Vocational Education and Training and Director, Technical Education will be involved in organising trainings in self financing schemes in Govt. and private I.T.Is and Polytechnics.

3.32 Development of ancillaries and downstream industries will receive priority of attention.

5. Forest Sector

3.33 Policy intervention relating to minor forest produce will be fine-tuned to enhance livelihood support to the tribal people and generate substantial self employment opportunities for them.

3.34 Cultivation of medicinal plants (i.e. herbal garden) and other plantation crops will be intensified in KBK districts under RLTA Programme with the help of Self Help Groups and "Vana Samrakshyan Samitis", with usufruct rights & tree pattas to the Samitis.

3.35 Steps will be taken to focus on artisans/ workers involved with bamboo works to enhance their income and employment under Bamboo Mission.

3.36 Economic Plantation and Afforestation Programme will be well coordinated so that it can generate adequate wage employment. Externally Assisted Projects for catchment protection of Upper Kolab and Indravati rivers would generate adequate wage employment and create durable assets for the Vana Samrakshyan samitis.

3.37 Large scale afforestation in catchment areas of multipurpose projects will be taken up. Emphasis will be given for multi-variety plantation with special emphasis on fruit trees, medicinal plants and other species which will be acceptable to the communities and deepen their stake in to protection, management and growth of such forests.

6. Biotechnology Sector

3.38 Tissue culture has got potential for self employment as a part of biotechnological intervention. Banana, Bamboo etc. and horticulture species will be given emphasis. Tissue culture again is an industry opening opportunities for women employment by and large. Entrepreneurs will be encouraged to set up tissue-culture laboratories with suitable support in different regions.

3.39 Production, demonstration and establishment of cottage industries for cyanobacteria (BGA) bio-fertilizer for self employment for unemployed youth will be promoted in the State. Similar projects on production of other bacteria bio-fertilizer e.g. Rhizobium, Azotobacter, Azospirillum etc. will be undertaken for self employment in Biotechnology Sector.

7. Information Technology Sector

3.40 Establishment of I.T. Kiosks in the urban area will be encouraged under special package of assistance for promotion of self-employment.

3.41 Computer training will be given for setting up I.T. Kiosks, through Bank loans and subsidy as admissible under existing self employment schemes.

3.42 A Business Process Outsourcing Complex (BPO Complex) will be set up at Bhubaneswar which will generate some high quality employment, particularly, for the educated unemployed persons

and I.T. professionals in the state. Suitable facilitation of enterprises as well as development of Human Resources will be done on high priority.

8. Development of SC & ST/OBC & Minorities

3.43 Steps will be taken to cover adequate number of ST & SC, OBC and Minorities unemployed persons under various Self Employment Programmes to provide them self employment opportunities.

3.44 Activities of Orissa SC & ST Development Finance Cooperative Corporation (OSFDC) will be expanded.

3.45 Possibility of imparting vocational/professional training to unemployed persons belonging to SC/ST/OBC category with assistance from Govt. of India will be explored.

9. Empowerment of Women

3.46 Formation of new Women Self Help Groups and strengthening of the existing groups will be encouraged, so as to saturate the state within a period of five years.

3.47 Mahila Vikas Samabaya Nigama (MVSAN) will be strengthened to play a pro-active role in generation of self employment opportunities for women and disabled persons.

3.48 Voluntary organizations/ Non-Government Organizations (NGOs) will be encouraged to impart training, capacity building and promoting selfemployment for women.

10. Organizing Rally for recruitment in respect of persons for Defence Services

3.49 There is large scope for recruitment of youth for enrolment in the 3 wings in Defence Services like; Army, Airforce and Navy. This is one of the key areas for providing employment opportunities to the youth both in Urban and Rural Sector. At present the limited number of rallies conducted by Government is not sufficient to realize the full potential of the State in respect of youth remaining unemployed including those in tribal dominated pockets. Taking the national scenario, Orissa still remains much behind the required recruitment quota for want of the suitable youths. Therefore, regular rallies at the district level are to be organized in collaboration with the Branch Recruiting Officers of Govt. of India to conduct special rallies across the state including tribal pockets for recruitment of tribal youth. For this purpose suitable programmes for facilitating preparation by youth to participate and succeed in the competition in such rallies will be taken up. This will be done in collaboration with NCC Directorate, Recruitment Centres, CRPF and Territorial Army located at Bhubaneswar.

3.50 Orissa is not able to get its major share in the C.D.S.(Combined Defence Services) Examination and S.S.B.(Service Selection Board) for women. This is because due to want of necessary infrastructure available in the State for which the youth are to be trained to face different kind of competitive examinations at the National Level. In the Capital city of Bhubaneswar only one Academy called Kalinga Academy has got necessary infrastructure for imparting training in C.D.S. examination for boys and S.S.B. examination for girls.

3.51 Assistance would be provided to train the graduate girls and +2 qualified youth to get into the technical wings of the services through entrance examinations.

11. Rural Sector

3.52 In order to create marketing outlets at various growth centres for the products of the rural artisans and Self Help Groups steps will be taken under the existing programme.

3.53 In addition to the various general programmes, sector specific special programmes will be launched with relevant line departments to take advantage of various GOI schemes including those of RD Department. Particular emphasis will be given to horticulture, sericulture, handloom, coir, handicrafts, fisheries and forestry sectors. Special schemes of GOI for regeneration of traditional industries will be taken up to supplement funding from other sources.

12. Urban Sector

3.54 Steps will be taken for "Generation of self-employment through Kiosks/shopping units." Besides this, adequate finance linkage may be provided to take up any vocational trade/ small business in the occupied kiosks so that it would not be difficult for the beneficiaries to start the venture.

13. Wage Employment

3.55 Adequate wage employment opportunities will be assured to the unskilled labourers under SGRY, PMGSY, NFFW and the proposed Employment Guarantee Scheme of Govt. of India and special awareness will be created for its successful implementation. A coordinated inter-sectoral, inter-scheme approach will be followed.

14. Institutional Arrangement

3.56 An Employment Mission will be set up at the state level to look into employment related issues and monitor employment generation programmes at each level.

3.57 P & C Deptt. will be the Nodal Deptt. The Employment Mission will function in the P & C Department which will be headed by an Officer of the rank of Commissioner. The Mission office will be fully equipped with adequate personnel and infrastructure. A Project Appraisal Cell will be created in P & C Department which will formulate new and innovative Self Employment Programmes in consultation with different Administrative Departments and draw funds from different sources including Government of India. The Director, Employment will function as the Joint Commissioner of Employment Mission, assist the Commissioner of Employment Mission and coordinate various employment programmes in the field.

3.58 For imparting training to young entrepreneurs on development of small scale and cottage industries, ITIs and Engineering Schools would start self financing skill upgradation schemes in different trades and disciplines. Entrepreneurship Development Programmes will be taken up vigorously through existing institutions. Hands on skills will be imparted in various trades such as automobile repair, pump repair, electrification, masonry, joinery works, plumbing, grafting, floriculture, horticulture, sericulture, pisciculture, handloom and handicraft, Agro-Service Centre etc. Soft skills including English language skills will be provided to skilled workmen to enable them to become employable at the national and international level.

3.59 A 10 year Human Resources Plan taking into account latest technology interventions will be prepared for development of human resources in the state, associating technically competent national organizations.

3.60 Employment Exchanges in the State will be re-organised to effectively motivate the educated unemployed persons to go for self-employment ventures.

3.61 All the Development Departments will be required to monitor the generation of employment on monthly basis and report the achievement to Planning & Co-ordination Department and Labour & Employment Department. This will cover generation of regular employment, contractual employment, wage employment and self employment through Government initiatives.

CHAPTER - IV

Operational Guidelines Relating to Employment Programmes

4.1 High Power Employment Mission headed by the Hon'ble Chief Minister will look into all policy matters relating to Employment Programmes. It should meet at least twice a year. It may constitute separate task forces as required or felt necessary.

4.2 The Executive Body of the Mission headed by the Chief Secretary will look into execution of policy decisions and should meet once in each quarter.

4.3 The Mission Director will function as the Member Secretary of the Executive Body of the Mission.

Role of Director, Employment

4.4 Director, Employment will look after all routine works of the Mission and guide the Employment Exchanges on counselling the job seekers for taking up self employment ventures. The Executive Wing of the Employment Mission will be located in the Directorate of Employment. Director, Employment may compile districtwise targets vrs. achievements under Employment Programmes on monthly basis and report the same to Labour & Employment Department and P & C Department. Finance Department may support the Directorate with necessary contingency funds.

Role of District Employment Officers

4.5 District Employment Officer-cum-Project Directors of Employment Mission will report to collectors. They will attend to all works relating to Self Employment Programmes in promotion of self employment ventures, survey of job seekers, identification of key activities, and proper counselling to the job seekers. Achieving the targets for self-employment for each district would be monitored by them every month and reported to proper quarters. They would also attend to the statutory works as District Employment Officers. They will monitor generation of all sorts of employment in district and furnish reports/returns to all quarters. They will also function as the Member- Convenor of the District Level Committee for implementation and monitoring of Self Employment Programmes at the district level (as constituted earlier).

Role of P & C Department:

4.6 The P & C Department will be the Nodal Department and coordinate policy making and macro issues as well as overall strategies.

Role of Labour & Employment Department:

4.7 Labour & Employment Department will monitor various employment generation programmes and compile generation of employment i.e. regular employment, contractual employment, self employment and wage employment Departmentwise, schemewise and districtwise on monthly basis. In this regard they will guide the Joint commissioner, Employment Mission and the District Employment Officers on proper counseling to the job seekers and submission of report returns in time. They will forward the consolidated monthly progress reports to P & C Department.

Role of Administrative Departments:

4.8 The Administrative Departments will implement ongoing Self Employment Programmes, special programmes and formulate new and innovative Self Employment Schemes. They will suggest targets to Planning & Co-ordination Department well in advance. After finalization of the targets at P & C Department level, they will accordingly make budget provision. Thereafter, they will communicate district-wise targets, necessary allotment and operational guidelines to their field functionaries with copies to the concerned Collectors, Director, Employment and Planning & Co-ordination Department. They will sensitize the Collectors and all their field functionaries on their Self Employment Programmes. They should ear-mark a Nodal Officer in their Department on Employment Programmes who can make liaison with different agencies and ensure forward and backward linkages for success of Self Employment Programmes. The Nodal Officer in each Department will take steps to ensure that the target set under each sector is achieved at the end of the year. He should furnish reports and returns to Labour and Employment Department, Director, Employment as well as to P & C Department in time as prescribed. The Administrative Departments will monitor generation of all sorts of employment on monthly basis and report the same to Director, Employment as well as to P & C Department.

Role of Heads of Department:

4.9 The concerned Heads of Departments will have the responsibility of execution of Employment Programmes in the field, monitor both physical and financial aspects, co-ordinate all activities and furnish report returns schemewise and districtwise to the Administrative Departments, Nodal Department and Director, Employment. They must regularly inspect physically at the field level and take up appropriate corrective actions. They will also document the success stories and send the same to P & C Department, concerned Administrative Department and the Director, Employment. They may supply necessary Booklets, Pamphlets and Operational Guidelines for awareness of all concerned.

Role of Collectors:

4.10 The Collector as the head of the team at the district level would be responsible for achieving the district target and will plan, execute and monitor the progress of Employment Programmes (including Self Employment Programmes) both physical and financial every month as head of the District Level Committee for implementation and monitoring of Self Employment Programmes as already constituted and furnish report returns to all concerned in time. He will also sort out various problems at the district

level and in case of issues to be resolved at the state level, the same shall be brought to the notice of the respective state level authorities. He will associate DRDAs, ITDAs, Special Projects, NGOs and other organizations to promote self employment ventures adequately and effectively. He will furnish Monthly Progress Report of the district to the Director, Employment with copies to concerned Heads of Departments/ Administrative Departments/ R.D.C./P & C Department.

Role of District Level Officers:

4.11 District Level Officers of Departments, Corporations and Agencies shall communicate the targets for their subordinate officers such as Blocks, implement the programmes, monitor their progress and co-ordinate with different agencies/organizations to ensure forward and backward linkages for success of their programmes. They have to monitor both physical and financial aspects and furnish report returns to respective Heads of the Departments and Collectors as prescribed in time.

Role of B.D.O:

4.12 The B.D.O will identify the key activities in his area with consultation of the concerned District Level Officers. He will ensure that VLWs/ VAWs and Extension Officers are all actively associated in the programme.

Role of Lead Bank Manager & NABARD:

4.13 The Lead Bank Manager and NABARD district manager together will allocate the targets under Self Employment Programmes to respective Bank Branches keeping in view the over all targets of the district and service area of different banks. They shall keep provisions under the Annual Credit Plan. The L.B.M will issue necessary guidelines to respective Banks. As and when necessary he will sensitise the bankers on Government Policy and about various new and innovative schemes. In case of any difficulty, he will bring the matter to the notice of the Convenor, SLBC. He must ensure that the targets allotted to the district is realized at the end of the year and for that purpose adequate credit is made available to the beneficiaries. He should coordinate with Collectors for organizing Block level recovery melas for different Banks and arrange for subsequent disbursement of sanctioned cases. NABARD would be requested to assist in monitoring the programmes.

Role of the Convenor, SLBC:

4.14 The Convenor, SLBC may ensure that problems and prospects of new & ongoing Self Employment Programmes are discussed in the SLBC meeting regularly and the problems, if any, be sorted out. He will co-ordinate on different issues with NABARD and Reserve Bank of India as and when necessary. He should have close liasion with the Employment Mission so that Mission can achieve its cherished goals. He should take all steps in close link with the Commissioner, Institutional Finance. All the Banks and Departments are to ensure that Bank credit is available in full for all the Self Employment Schemes.

Role of I & P.R. Department:

4.15 They will publish brochures, pamphlets, scheme outlines and success stories to be circulated. They will make Video films for telecast in T.V and Gramsat Programme and render necessary assistance in organizing awareness camps and credit-cum-recovery camps.

Annexure-A

Sub: "Constitution of "Employment Mission"

Realising very limited scope for generation of employment in Organised Sector, the State Government have accorded very high priority on generation of self employment to reduce unemployment problem in the State. The Government have mounted a Special Drive on Self-Employment Programme (SEP).

2. To co-ordinate creation of employment opportunities it has been decided to constitute a High Power Employment Mission headed by Hon'ble Chief Minister.

3. The composition of the Mission shall be as follows :

1. All the members of the Council of Ministers
2. Five MPs and five MLAs to be nominated by Government
3. Chief Secretary
4. APC-cum-ACS
5. Development Commissioner-cum-Additional Chief Secretary & Secretary to Government, P & C Department. Member Secretary
6. Ten members to be nominated by the Govt. from among bankers, professionals, civil society organizations etc.

4. As and when necessary, the Member-Secretary, may invite a few eminent professionals to attend meetings of this Mission with permission of the Chairman. The meeting of the High Power Employment Mission will be held at Bhubaneswar at least twice a year. Besides, emergency meeting of the Mission can be convened at short notice with the permission of the Chairman. Mission will determine policy and look into various aspects of the generation of employment, particularly self employment opportunity in the State. The Mission may constitute an Empowered Committee with limited members from out of its members to streamline day to day activities.

5. There will be an executive body of the Mission headed by the Chief Secretary to oversee implementation of policies and decisions as taken by the High Power Employment Mission. The executive body may meet on quarterly basis. Emergent meeting of the executive body of the Mission will be convened as and when necessary.

(Source : www.orissagov.nic.in)

Draft

Biotechnology Policy - 2005

I. BACKGROUND

Biotechnology has made significant contributions to the global economy in the fields of agriculture, human and animal healthcare, environment management and processing industry. It is recognized as a rapidly emerging and far-reaching technology with the potential of contributing to next wave of technological revolution as radical and even more pervasive than that brought about by information technology. Employment generation, intellectual wealth creation, expanding entrepreneurial opportunities, augmenting industrial growth constitute a few of the compelling factors that warrant a focused approach for this sector. The Indian biotechnology sector is gaining global visibility and is being tracked for emerging investment opportunities.

Recognizing the potential, the Government of Orissa has identified biotechnology as a priority area. The State is advantageously positioned to harness biotechnology applications owing to its rich mineral and bio-resources. The Chilika lake, Asia's largest brackish water lake, houses a unique ecosystem comprising aquatic and terrestrial vegetation, migratory and resident birds, fishery resources and terrestrial wild life. It has a long coastline covering 480 km. The State has a rich floristic wealth with an estimated 2754 plant species. Out of the estimated 1200 orchid species in India, 129 rare species are reported to occur exclusively in Orissa. Forests cover about 30% of the geographical area of the State. The biodiversity rich areas of the state include Similipal hills, Gandhamardan hills, Mahendragiri hills, Bhitarkanika, Sunabeda Plateau, Chilika lake and Malayagiri.

The mangrove flora in the Orissa coast is more prolific than those in the Sundarbans, Cauveri and Godavari basins and Andaman and Nicobar islands, with 63 out of the 65 species in India found there.

The state houses many scientific institutes and universities working on various aspects of biodiversity and biotechnology, contributing to generation of wealth of knowledge about the distribution, richness, sustainable utilization and value addition of these resources. These are also sources for highly educated skilled manpower base and cradles for potential entrepreneurs. The State has a well-developed social infrastructure such as and physical infrastructure such as road, rail and communication networks.

The Government of Orissa has already taken many initiatives for promoting biotechnology in the state. It had brought out the Biotechnology Vision Document in 2001 for the 10th five year plan. It has also declared biotechnology as a priority sector in its Industrial Policy Resolution (IPR-2001). These initiatives would be expanded and given major thrust as part of the Biotechnology Policy.

2. OBJECTIVES

The biotech policy aims at integrating the existing achievements in research and industry and strengthening and expanding the existing base to maximize the benefits for development of the state through the following:

1. Prioritising the thrust areas for basic and applied research and technology development
2. Promoting innovation in R&D by providing financial and infrastructural support and by encouraging public-private partnership for R&D.
3. Promoting development of the industry by providing quality infrastructure and an enabling environment for sustained growth and international competitiveness.
4. Development of human resources in various areas of biotechnology .
5. Employment generation.
6. Capacity building of IPR and biosafety.
7. Providing financial support, and incentives to industry.
8. Providing an institutional framework and well defined modalities to achieve the above objectives.

3. PRIORITY AREAS

Basic and applied research and technology development would be both " for public good" and "for profit". Areas for applied research will be identified in consultation with industry. Such projects both short term and long term will be implemented in association with the industry to ensure time targeted development and commercialization of the products and processes. Priority areas in individual sectors would be assessed from time to time to ensure optimal utilization of existing resources for biotechnology applications.

3.1 Agriculture biotechnology

Biotechnology intervention is necessary to make agriculture competitive and remunerative in the face of challenges such as declining availability of arable land; low productivity of crops, livestock and fisheries; production losses due to biotic (insects and other pests, weeds) and abiotic (salinity, drought, alkalinity) stresses; post-harvest crop damage in storage and transportation; and declining availability of water as an agricultural input.

The following priority areas have been identified.

1. Development of economically viable horticulture plants by clonal propagation.
2. Improvement of floriculture using, micro-propagation and macro propagation.
3. Setting up of regional hardening facilities for tissue culture plantlets in multiple locations to promote entrepreneurship and involvement at grass root level.
4. Cultivation of elite medicinal and aromatic plants for sustained supply of raw materials to the units engaged in extraction and production of value added products.
5. Development of molecular markers particularly for identification of elite plant varieties having attributes like resistance to specific diseases.

6. Organic farming using non chemical biotech inputs like biofertilisers and biopesticides for rural and economic development of the state given the higher realization of such products in the international market.
7. Mass planting of trees of economic importance which grow easily in Orissa's climatic and soil conditions but by sourcing efficient technologies and providing financial support and incentives.
Agro-forestry plantation (bamboo, teak, eucalyptus, pine etc.) to replace denuded forests for paper and pulp industry.
8. Establishments of gene-banks and germplasm collections for maintenance and propagation of superior quality crops and plants of special value.
9. Establishment of clonal seed orchards for mass production of improved seed
10. Development of transgenic crops standards

The yields of rice, pulses and oilseeds have reached the stage of saturation in Orissa. Yields can be improved either by restoration of hybrid vigour, or by genetic transformation. Similarly the yield of vegetables and fruits can also be improved.

Crop productivity in the non-coastal areas of the State affected by drought and high temperature can be improved by engineering the metabolic properties. Similarly the yield of oils and other products from non-timber species of trees such as trees like *Azadiracta indica* (neem) and *Madhuca latifolia* (Mahua) can be enhanced through gene transfer.

3.2 Medical biotechnology

Malaria, filariasis, cancer, tuberculosis and malnutrition pose a major burden of disease in the State as also in many other parts of the country. Further, Orissa is prone to several natural disasters including cyclones, floods and droughts following which out-break of several epidemics is common.

The medical biotechnology would be maximally utilized to develop affordable tools for prevention, detection and treatment of such diseases, particularly those which affect women, children and the poor. The priority areas would include.

1. Supporting basic and applied research in molecular and cellular biology, genomics, proteomics, system biology, stem cell biology, RNA interference, host response and new platform technologies.
2. Development of products such as vaccines, diagnostics, new therapies based on cell and tissue replacement, therapeutic antibodies, herbal and other, plant based medicines, nucleic acids, therapeutics, drug and vaccine delivery systems and new anti microbial agents.
3. Screening of native herbs for identification of bioactive molecules and extracts known in traditional systems for value added therapeutics products, their characterization and safety assessment in vitro and in vivo.
4. Development of immunodiagnostics as well as molecular diagnostic kits for diseases and genetically inherited disorders and diseases prevalent in the state. Local production of reagents required for the diagnostic kits will be supported.

5. The State has well established public health machinery and invaluable data on disease incidence, prevalence and management to support clinical trials. These trials could be taken up in collaboration with biotechnology companies internationally norms.

3.3 Industrial biotechnology

The priority areas in industrial biotechnology would be processes to convert renewable resources rich in vegetable oils and sugars and abundantly available in the state into a wide variety of chemical substances such as fine and bulk chemicals, pharmaceuticals, biocolorants, solvents, bioplastics, vitamins, food additives and biofuels.

3.4 Animal biotechnology

Improvement, maintenance and propagation of superior quality livestock and products from them such as milk, meat and eggs would be taken up through programmes such as:

1. Establishment of cell lines and sperm banking facilities for maintenance and propagation of superior quality livestock.
2. Rapid multiplication of livestock through introduction of advanced embryo transfer techniques.
3. Genetic improvement of local breeds of cows, buffaloes, goat and sheep.
4. Development of diagnostics and vaccines for major livestock diseases such as foot and mouth disease, rabies, haemorrhage, septicaemia, anthrax etc.
5. Development and application of methods for enhancing milk yields in cattle.
6. Biotechnological interventions for increasing shelf life of meat, milk and milk products.

3.5 Aquaculture and marine biotechnology

The state has economically important aquatic and marine resources such as a variety of important fish, prawns and microorganisms. Use of biotechnology will be continued for achieving disease resistance, enhanced productivity, fertility and reproductive growth, exploration of marine organisms for novel genes and gene products, biopolymers, novel enzymes, therapeutic products, pollution monitoring etc. The priority areas would include:

1. Development of better methods for pisciculture for commercially important fish such as katla, rohu, magur etc.
2. Development of scientific methods of cultivation of fresh water and brackish water prawns for higher yields and better quality.
3. Diagnostics for bacterial and viral diseases affecting fish and prawn.
4. Identification and cultivation of marine flora and fauna for production of value added products.

3.6 Environmental biotechnology

Contamination by heavy metal ions from mining has left a large areas of land unfit for cultivation. Rapid urbanization in the last few years has also led to serious environmental pollution of air, water and soil.

A major thrust would be given to development and application of biotechnology to promote cost-effective and clean alternatives for environmental risk assessment and quality monitoring, eco-restoration of degraded habitats, conversion of toxic recalcitrant chemicals into harmless by-products, phyto and bioremediation of waste land, effluent treatment, value-added products from biomass, control of biological invasion, greener process technologies and effective ex situ conservation strategies.

3.7 Bioresources

The State has a rich biodiversity. The animal, microbial, marine and plant resources are large and diverse and offer great opportunity for use of biotechnological interventions for their conservation and conversion to commercially useful products and processes in a sustainable manner. The following activities aimed at mapping of biosources and their sustainable utilization would be strengthened.

1. Inventorisation and mapping of the unique bioresources in the state, including mangroves, forest, marine and fresh water resources. This will be done with the help of universities, undergraduate colleges, schools, research institutions, NGOs and private companies.
2. Molecular characterization and bio-prospecting of flora and fauna from these resources for development of novel therapeutic leads as well as other natural compounds for industrial use. The rich traditional knowledge base among the rural and tribal people on the use of biodiversity (including medicinal uses of plants) would be harnessed for bioprospecting.

3.8 Alternative sources of energy

The State is advantageously placed to harness alternative sources of energy such as biomass for power generation, bioethanol and biodiesel. The large wastelands could be reclaimed by cultivation of low lignin pulp wood for biomass generation or other species such as *Jatropha*, *Pongamia*, *Salvadora* etc., for biodiesel production. The area also offers good potential for employment generation and rural development. Major initiatives are proposed with involvement of industry in the following areas.

1. Large scale cultivation of crops as alternative sources of bio-fuels and bio-energy particularly utilizing the wastelands.
2. Development of viable technologies for their conversion to biofuels.
3. Development of microbial fermentation technologies for conversion of agricultural wastes into bioethanol.

The State Government proposes to initiate steps to promote comprehensive R&D development in related areas such as industry, HRD, infrastructure development financial support and incentives.

4. INNOVATION IN RESEARCH AND DEVELOPMENT

1. Government of Orissa will offer specific one time grants for setting up or upgrading R&D facilities in universities in the area of biotechnology.
2. Some of the existing universities/ institutions already active in research will be provided adequate support in pursuit of excellence in their key strength in biotechnology including agribiotech, marine biotech and healthcare. These institutes will be designated as Centres of Excellence and would constitute a global advisory network to foster cutting edge research.
3. The State Government will encourage universities and institutions to build an active network with national and international institutes of repute.

4. The State Government will promote setting up of autonomous institutes under private participation for achieving excellence in specialized areas.
5. Core facilities in specialized areas of Genomics, Proteomics and Bioinformatics would be set up to facilitate research in the latest trends in biotechnology.
6. The Government will encourage universities and health institutes to take up contract research for industry and public agencies.
7. To promote public private partnership and ensure better coordination among different R & D organizations, the Government will extend support to the research institutes for entering into partnerships with private companies for development and transfer of technology so that the fruits of research could reach the people faster.

5. INFRASTRUCTURE FOR THE INDUSTRY

1. The State Government will provide quality infrastructure for incubation of technologies and promotion of biotech industries by setting one or more biotechnology parks. The parks would provide equipment, common facilities and technical, financial consultancy and managerial support to the entrepreneurs for undertaking production, research and scale up in a cost effective manner.
2. The government may take equity stakes in such projects by providing funds directly or for land allotted for the projects.
3. Biotech parks will promote closer interaction of the units housed in them with the research institutions and universities in the state, and help in commercialization of the technologies developed in the institutions.
4. The parks will facilitate all statutory and regulatory approvals.
5. The first Biotechnology Park is proposed to be developed at Patrapada, Bhubaneswar and the marine Biotechnology Park at Chandrabhaga near Konark.

6. HUMAN RESOURCE DEVELOPMENT

The life science and biotechnology sector is characterized by dynamic changes in the flow of new ideas and concepts in development of new tools for research. Human resource is the key to development in this knowledge driven industry. The Government of Orissa will continuously strive for development of its human resources in all facets.

A number of postgraduate and undergraduate courses in the area of biotechnology and allied sciences have been introduced in various universities in the state. Some of the institutes and universities are also offering doctoral programmes. The major institutes are:

1. Institute of Life Sciences, Bhubaneswar,
2. Central Rice Research Institute, Bidyadharpur, Cuttack,
3. Regional Plant Resources Centre, Bhubaneswar,
4. Central Institute of Fresh Water Aquaculture, Kausalya Ganga,
5. Regional Research Laboratory, Bhubaneswar,
6. Regional Medical Research Centre, Bhubaneswar

7. Central Tuber Crop Research Institute, Bhubaneswar,
8. Orissa University of Agriculture and Technology, Bhubaneswar,
9. Utkal University, Bhubaneswar,
10. Sambalpur University, Sambalpur
11. Biju Patnaik University of Technology (BPUT), Berhampur
12. Berhampur University, Berhampur,
13. SCB Medical College, Cuttack,
14. MKCG Medical College, Berhampur,
15. VSS Medical College, Burla.

The following initiatives are proposed to keep pace with the increasing demand for skilled manpower in the public and private sectors.

1. Introduction of additional courses at the graduate and post graduate levels.
2. Upgradation of the existing infrastructure and improving the course content, in consultation with DBT, Government of India.
3. Enabling research institutes, colleges, universities, NGOs and private organizations to undertake technicians training courses for technicians
4. Introduction of specialized short term courses in business management and entrepreneurship development for the biotech industry.
5. Introduction of specialized courses on bio-safety, bio-ethics, intellectual property rights (IPR) to enhance competitiveness of biotechnology industry.

7. INTELLECTUAL PROPERTY RIGHTS

Success of biotech industry depends on protection of the intellectual property resulting from innovation. The Government of Orissa will extend financial support to industry and research institutes for protection of IPR through filing of patents.

A patent information centre will be set up with access to all relevant databases. This centre will be converted to state level IPR center in due course.

8. BIOSAFETY

The increasing awareness on the possibilities of exploiting genetically modified organisms (GMOs) and products derived from them for commercial purposes has also led to considerable concern about their biosafety. The state government would ensure setting up of adequate institutional mechanisms for implementation as well as monitoring of GMO development and applications programmes as per the National Biosafety guidelines.

9. SOCIAL AND RURAL DEVELOPMENT

The Government of Orissa will promote simple, low cost agricultural biotechnologies to generate of rural employment. The following initiatives are proposed.

1. Activities such as mushroom cultivation, hardening facilities for plant tissue culture, vermicomposting and organic farming will be promoted with the objective of generating employment and to improve the quality of farm produce.
2. Separate financial support will be provided along with NABARD for such projects.
3. Support will be given to farmers cultivating medicinal plants and tissue culture raised plants under contract with medicinal plant extraction units and tissue culture units.
4. NGOs and private institutes will be encouraged to conduct farmers' training programmes to educate them on the benefits of agri-biotechnology.

10. INCENTIVES AND FINANCIAL SUPPORT

To be eligible for incentives and support, a biotechnology unit would mean a company engaged in any of the following activities:

- i. Research and development and/or manufacture of living organisms and/or products or processes derived by using specific living systems.
- ii. Bioinformatics
- iii. Clinical trials and contract research

The biotechnology units in the State will be eligible for the following incentives:

10.1 Subsidies

10.1.1 Capital investment

- i. All biotech units in the State will be eligible for capital investment subsidy at the rate of 20% to a limit of Rs. 20 lakhs.
- ii. Units with capital investment of Rs. 5 crores and above will be eligible for capital investment subsidy at the rate of 15% to a limit of Rs. 150 lakhs
- iii. Units in an incubator or contract research organisations will get an additional 5% capital investment subsidy.

10.1.2 Interest

- i. All biotech units will be eligible for a subsidy of 5% per annum on the rate of interest on the term loans availed from a recognized Financial Institutions/Banks for a period of five years from the date of completion of the project (If the rate of interest is 16 percent, the effective rate of interest after interest subsidy would be (16-5) percent per annum i.e., 11 %).
- ii. The units established in the districts Kalahandi, Naupada, Bolangir, Sonepur, Koraput, Malkangiri, Rayagada, Nawarangpur, Gajapati and Deogarh will get additional interest subsidy at the rate of 5% per annum on the rate of interest of the term loan or Rs. 5 lakhs whichever is less, as an incentive for backward area development.

10.1.3 Employment generation

- i. An eligible biotech unit in the large and medium sector will be entitled to reimbursement of 50% of the expenditure incurred by it for paying its contribution towards Employees State Insurance (ESI) and Employees Provident Fund (EPF) depending on the location of the unit for 5 and 7 years for units in Zone A and Zone B respectively defined in Industrial Policy 2001, Government of Orissa.

ii. An eligible unit in the small-scale sector will be entitled to reimbursement of 75% of the expenditure incurred by it for paying its contribution towards Employees State Insurance (ESI) and Employees Provident Fund (EPF) scheme for 5 and 7 years for units in Zone A and Zone B respectively.

iii. The reimbursement of the expenditure prescribed at 'i' and 'ii' above will be payable annually subject to the condition that the unit has paid its contribution towards ESI and EPF on due dates.

10.2 Tax exemption

10.2.1 Value added taxes (VAT)

i. Exemption of VAT on raw materials, spare parts, machinery and packaging material will be made available for a period of 7 years.

ii. Exemption of VAT on all biotech products will be available for a period of 10 years.

10.2.2 Other taxes

i. Exemption of entry tax on all inputs and capital goods including captive generation sets will be made available to all biotech units during the project implementation stage for a maximum period of 5 years.

ii. All biotech parks including the units therein will be excluded from the tax regime (including professional tax) of the municipal and other local authorities, provided, the park management undertakes to maintain the infrastructure of the biotech park.

10.3 Financial support

10.3.1 IPR protection

State Government will provide financial assistance to entrepreneurs for filing as well as a renewal for the first year of patents to the extent of 50% of the total expenditure up to maximum of Rs. 5 lakhs.

10.3.2 Quality certification

The biotech units will be provided a 50% subsidy for obtaining quality certification from B.I.S. and other internationally recognized institutions subject to a maximum of Rs. 2.00 lakhs.

10.3.3 Travel assistance

All post graduates or doctorates in biotechnology, biochemistry, microbiology or life sciences will be classified as technical entrepreneurs and can avail of travel assistance to go abroad for business development, interaction with other biotech companies or for training. This assistance can only be availed of by those sponsored by the Department of Science and Technology, Government of Orissa.

The scale of assistance will be as under:

1st year	Rs. 20,000/-
2nd year	Rs. 15,000/-
3rd year	Rs. 10,000/-

10.4 Power Supply

i. All biotech industries will be exempt from statutory power cuts.

ii. Industrial power tariff will be applicable to the biotech industry.

iii. Agri based biotechnology units will be treated as agricultural consumer for the purpose of levy of power tariff.

iv. All biotech units will be exempt from electricity duty for a period of 5 years from commencement of commercial production.

10.5 Water supply

i. All biotech units will get water at a concessional tariff of 50% under the provisions of the Irrigation Act for a period of five years.

ii. The units in the biotech park will have guaranteed municipal water supply.

10.6 Land

i. Government land earmarked for the Land Bank Scheme and other Government land wherever available as well as Biotechnology Parks will be allotted for new biotech units at pre-determined concessional rates as notified from time to time. The following rates for Government land shall apply until further orders.

Category	Rate for land located within Municipal/NAC Area (Rs. per acre)	Rate of Land located outside Municipal/ NAC Area (Rs. per acre)	Ground Rent
Zone-A*	3,00,000	1,00,000	0.25% of the Land Value
Zone-B*	1,00,000	25,000	0.25% of the Land Value

*As per Industrial Policy 2001, Government of Orissa

ii. An eligible industrial unit irrespective of its location will be entitled to exemption from payment of stamp duty and registration fee required for the purpose of registration of documents within the State relating to purchase/acquisition of land and buildings for setting up of the approved projects.

iii. Biotech units will be allowed twice the admissible floor area ratio.

10.7 Labour concessions

i. General permission will be accorded to the biotech industry to run a three-shift operation (subject to Government of India concurrence).

ii. A system of "Self-Certification" shall be introduced for labour related compliance of routine nature in the biotech park in consultation with the Labour Commissioner, Orissa. The system of inspection will also be rationalized in terms of the recommendations of Government of India.

iii. Flexibility in the opening and closing times and in the weekly holiday would be permitted to biotech units. The units will also be exempt from provisions of Chapter VI of Factories Act 1948 on working hours of adults).

iv. Biotech units would be exempt from the provisions of Contract Labour Act 1970, in so far as non-core activities are concerned (with concurrence of Government of India).

v. The State Level Apex Body constituted under the Industrial Policy 2001, Government of Orissa to act as Ombudsman for labour related issues in the State will set up an exclusive Special Industrial Tribunals for Biotech Parks to give top priority to the settlement of disputes that may arise in units located in the Biotech Parks.

vi. Biotechnology shall be declared as a "Public Utility Service" for the purpose of application of provisions under Chapter-V of the I.D. Act 1947.

10.8 Government purchases

Selected biotechnology products including the following will be included in the list of store items reserved for exclusive purchase from the companies manufacturing the products in state.

- i. Biopesticides
- ii. Biofertilizers
- iii. Plant tissue culture
- iv. Diagnostics
- v. Vaccines
- vi. Therapeutics

This list of products can be reviewed and updated from time to time.

Local small-scale biotech units will enjoy a price preference of 5% over local medium or large industries in state government purchases. Any small scale biotech unit having ISO or BIS Certification for its products will get an additional price preference of 3% or 2% respectively.

The units in any biotech park will be exempt from depositing earnest money in State Government tenders.

10.9 Venture capital

To promote biotech activities in the State, Government of Orissa, will set up a Biotechnology Development Fund, with an initial corpus of Rs. 50 crores. The fund will be utilized for developing biotechnology industry in the State, ensuring due priority for the units in Biotechnology Parks.

10.10 Single window clearance

- i. Government will constitute a High Level Clearance Authority under the Chairmanship of the Chief Minister consisting of such other ex-officio members, under The Orissa Industries (Facilitation) Act, 2004 for acting as a single window clearance for all projects in the biotech park.
- ii. The Authority under this section shall:
 - (a) meet at such times and places and shall adopt such procedures to transact its business as may be prescribed;
 - (b) examine the proposals brought before it, for setting up biotech units; and
 - (c) take decisions and communicate its decisions to the entrepreneurs and the Departments or the Authorities concerned within the prescribed time limit of 30 days.
- iii. Every Department or Authority concerned, shall issue the required clearances after processing the application as required under the applicable law within the specified time limit and in case of failure to issue the required clearances within the specified time limit, such clearances shall be deemed to have been issued and the entrepreneurs may proceed with the implementation of the project.
- iv. The authority shall consist of the following members, namely:
 - (a) Chief Secretary to Government;
 - (b) The Secretaries to Government in charge of Industries, Science and Technology, Finance, Labour, Local administration, Revenue, Taxes, Irrigation, Power and Forests departments;
 - (c) Managing Director, Industrial Development Corporation Ltd. (IDCO);

- (d) Managing Director, Industrial Promotion and Investment Corporation of Orissa Ltd. (IPICOL);
- (e) Director of Industries and Commerce;
- (f) Chairman, Orissa State Electricity Board;
- (g) Chief Town Planner;
- (h) Chairman, Orissa State Pollution Control Board;
- (i) Chairman, Orissa State Financial Corporation;
- (j) Chairman, Orissa Small Industries Corporation;
- (k) Chief Electrical Inspector;
- (l) Director of Factories and Boilers;
- (m) Director of Mining and Geology;
- (n) Director of Health Services
- (o) Chairman/CEO, Biotech Park

10.11 Miscellaneous

- i. All the incentives applicable to general industries would also be applicable to biotech units.
- ii. All incentives could be availed on initiation of the proposed activity/production.

11. INSTITUTIONAL FRAMEWORK FOR POLICY IMPLEMENTATION

To realize the goals set in the policy the State Government has constituted a State Biotechnology Board (SBB) under the Chairmanship of Chief Minister and a State Level Implementation Committee (SLIC), under the Chairmanship of Chief Secretary.

1. The State Biotechnology Board (SBB) would facilitate proper and timely implementation of this policy, and will ensure social and economic benefits of biotechnology are made available widely.

It will act in a manner so that the biotechnology industry in the State will retain its competitive edge at all times. It will liaise with the Central Government wherever required.

To foster public-private partnership, the state Government will set up a special Biotechnology Development Fund with an initial corpus of Rs.50 crores, with private collaboration with the objective of funding various ventures. The fund can be further augmented by grants and donations from Indian and overseas nationals and companies.

The committee will also be responsible for reassessment of priority areas for growth from time to time.

2. The SLIC will be responsible for effective utilization of the Biotech Development Fund and will act as a think tank and key advisor on diverse policy related issues.

It will identify key biotechnology areas for investments in research and technology development as is necessary for the State.

It will promote research in the emerging and nascent technologies by inviting proposals from different institutions and industries and providing financial assistance.

The SLIC will help the State in creating greater public awareness issues arising which impinge on aspects of culture, morality, ethics, economics etc.

The SLIC will setup a Core Technical Group for evaluation of the projects to be set up in the biotech parks and for disbursement of the subsidies.

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Editorial . . .



Emerging scenario in Orissa holds out possibilities of investment drive, quality service delivery and techno-savvy atmosphere. There has been marked increase in attracting investment of near about rupees one lakh fifty thousand crore especially during the last one year. The bureaucracy in the State has already been geared up with single window redressal mechanism for timely action and speedy disposal. Sectors like Agriculture, Revenue, Industry, Women & Child Development, Panchayati Raj, Rural Development, Information Technology and ST & SC Development are receiving utmost attention with a target to improve quality of life of the common man. Days are not far, when the state will witness the economic boom as a paradise of investors. The whole functioning of the government is presently experiencing a new regime with the implementation of Right to Information Act, 2005. As the nodal Department, the State Information & Public Relations set-up has taken due care in channelising the flow of information from public authority to information seekers. The trend of good governance has started to set in with greater degree of transparency and accountability. With people friendly political will and confident bureaucracy the state is all poised for growth and prosperity.

Bibeknarayan Biswal