

ANNUAL REPORT 1986-87

**SATYENDRA NATH BOSE NATIONAL CENTRE
FOR BASIC SCIENCES**

(Estd: 1986)

DB 17 : SECTOR I, BIDHANNAGAR,
CALCUTTA

**SATYENDRA NATH BOSE NATIONAL CENTRE
FOR BASIC SCIENCES
Calcutta
ANNUAL REPORT—1986-87**

GENERAL INFORMATION AND BACKGROUND.

The Central Government having decided to set up an Institution/National Centre for research to be dedicated to the hallowed memory of Prof. Satyendra Nath Bose, appointed the following Committee in June 1982 to prepare a feasibility report and make recommendations concerning the aims and objectives, location and organisational structure of the proposed Centre.

Names etc. of the members of the Committee :

- | | |
|--|-----------|
| 1. Shri B. D. Pande,
Governor of West Bengal &
Chancellor of Calcutta &
Jadavpur University. | —Chairman |
| 2. Prof. M. Datta,
Prof.-In-Charge,
S. N. Bose Institute of Physical Sciences,
Calcutta University. | —Member |
| 3. Prof. Chanchal Kumar Mazumdar,
IACS, Jadavpur. | — ” |
| 4. Prof. A. N. Mitra,
Physics Department,
Delhi University. | — ” |
| 5. Prof. Virendra Singh,
TIFR, Bombay. | — ” |
| 6. Secretary, Education,
Govt. of West Bengal. | — ” |
| 7. Representative of Planning Commission. | — ” |
| 8. Secretary, Department of
Science & Technology. | — ” |

In the preamble to its report, the Committee extolled the distinctive and original contributions of Prof. Satyendra Nath Bose as a scientist in the following words :

“Prof. Satyendra Nath Bose was an outstanding Indian scientist who has placed India’s name on the scientific map of the world through his original contribution which had opened up new fields of study in the area of theoretical and mathematical physics. The scientific world knows Prof. S. N. Bose as the author of Bose Statistics and conferred a fitting tribute to his genius by baptising one of the two fundamental types of particles as Bosons. In this work, Prof. Bose was very closely associated with Albert Einstein. He had also made important contributions to other fields of theoretical physics notably in the Unified Field Theory as well as in the fields of electromagnetic waves and ionospheric studies. It is well known that Prof. Bose had also special expertise in the areas of mathematical statistics, number theory, organic chemistry and botany in which the members of the scientific community used to seek his advice and suggestion. Most of the work of Prof. S. N. Bose was done in India where he worked incessantly on problems involving the understanding of fundamental mysteries of nature. Through his work, he inspired young scientists and helped to develop their own potentialities. When he was not working in his laboratory he would spend his energy to help laymen to get rid of their illusions and prejudices, to instill in them through popular scientific journals the objectives of scientific attitude of life. Prof. S. N. Bose had contributed to science under circumstances and environment which were not necessarily the most ideal and the young scientists of India would certainly have to keep this in mind ; but nevertheless there is an urgent need to create in India an environment and atmosphere which would enable young scientists to produce creative and original work of international standard which would help open up new fields of studies as Prof. Bose had done”.

The summary version of the recommendations of the Committee reads as follows :

“The most befitting memorial for Professor Satyendranath Bose is to set up an autonomous and independent Centre for Basic Sciences. The name of such an organisation shall be called “Satyendranath Bose National Centre for Basic Sciences”.

The objectives of the Satyendranath Bose National Centre for Basic Sciences shall be :

1. To foster, encourage & promote the growth of advanced studies in selected branches of basic sciences ;

2. To conduct original research in theoretical and mathematical sciences and other basic sciences and frontier areas including challenging theoretical studies in areas of future applications ;
3. To provide a forum for personal contacts and intellectual interaction amongst scientists within the country and also between them and scientists abroad ; and
4. To train young scientists for reseasch in basic sciences.

The Centre shall be set up in the Salt Lake area in Calcutta on land admeasuring 10 acres to be made available free of cost by the State Government and additional five acres to be acquired on payment. The Satyendranath Bose National Centre for Basic Sciences shall be an autonomous independent body outside any university system. The legal structure of the Centre may be decided by the Government of India. The Centre, when fully operational, should have a core group of maximum 25 scientists with a complement of 50 to 70 scientists on visiting assignments. Adequate infrastructure facilities in the form of buildings, computer facilities, hostel for visiting scientists etc. shall be provided and the investment might be about Rs. 2—3 crores for a period of 3-5 years.

REGISTRATION AS A SOICETY

In accordance with the recommendations of the Committee and the decision of the Government of India, the Centre applied for and was accorded registration as a Society in the name of "Satyendra Nath Bose National Centre for Basic Sciences" under the West Bengal Societies' Registration Act XXVI, 1961 on June 13, 1986. The date formally marks the first birthday of the Centre.

The Memorandum of Association and the Rules of the Centre are embodied in this Report as an annexure.

GOVERNING BODY

The following members constitute the First Governing Body of the Centre.

- | | |
|---|------------------------------------|
| 1. The Secretary to the Govt. of India,
Dept. of Science & Technology. | Chairman
(Ex-Officio) |
| 2. Prof. J. V. Narlikar, | Member Nominated
by the Central |

- | | |
|---|---|
| 3. Prof. C. S. Seshadri, | Member (Nominated by the
Central Government) |
| 4. Prof. C. N. R. Rao, | —Do— |
| 5. The Financial Adviser,
Dept. of Science & Technology. | Member
(Ex-Officio) |
| 6. The Chief Secretary,
Govt. of West Bengal. | —Do— |
| 7. Director of the Centre, | —Do— |

MEETING OF THE GOVERNING BODY

No meeting of the Governing Body was held during the year under report.

ACQUISITION OF THE PERMANENT SITE OF THE CENTRE

In accordance with the order of allocation of a 15-acre plot of land in JD Block, Sector IM, Salt Lake City issued by the State Government in December, 1985, informal possession of 15.0401 acres of land has been delivered to the Centre on July 8, 1986. The State Government having donated 10 acres of land, the remaining five acres were acquired by purchase by the Government of India on payment of Rs. 36.30 lakhs.

CONSTRUCTION

Upon delivery of possession of the site, the Central Public Works Department (Eastern Region) was approached to undertake construction of a boundary wall extending to 1132 running meters. The preliminary estimates amounting to Rs. 9.06 lakhs for raising a 5 high wall above the ground level has been received from the CPWD and its acceptance has already been communicated. Necessary administrative orders has also been issued for starting the work at an early date.

Grant-in-aid, disbursements etc.

Total expenditure incurred during the year was Rs. 35696/- by way of payment of consolidated salary @ Rs. 2,981/- to the Officer on Special Duty. No other expenditure was incurred during the year. All payments were made by the Indian Association for the Cultivation of Science, Calcutta, under an arrangement under which the D.S.T. made reimbursements to the I.A.C.S. direct. The Centre has therefore not maintained any accounts for the year.

**MEMORANDUM
OF
ASSOCIATION
&
RULES**

**SATYENDRA NATH BOSE NATIONAL CENTRE
FOR BASIC SCIENCES**

**(Registered under West Bengal Societies Registration
Act XXVI of 1961)**

CALCUTTA

1986

West Bengal Form No. 264.



**CERTIFICATE OF REGISTRATION OF SOCIETIES
WEST BENGAL ACT XXVI OF 1961**

No. S/52170

of 1986-1987

I hereby certify that SATYENDRA NATH BOSE NATIONAL
CENTRE FOR BASIC SCIENCES has this day been registered
under the West Bengal Societies Registration Act, 1961.

Given under my hand at Calcutta this thirteenth day of June
One thousand nine hundred and eighty six.

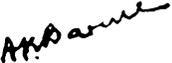
Sd/-
REGISTRAR OF FIRMS, SOCIETIES
&
NON-TRADING CORPORATIONS,
WEST BENGAL.

Memorandum of Association
of
Satyendra Nath Bose National Centre For Basic Sciences

1. The name of the Society shall be the Satyendra Nath Bose National Centre for Basic Sciences, hereinafter called the S. N. Bose National Centre.
2. The Registered Office of the Society shall be at Calcutta and at present in the Indian Association for the Cultivation of Science, 2A, Raja S. C. Mallick Road, Jadavpur, Calcutta-700 032.
3. The objects for which the S. N. Bose National Centre is established, are :—
 - (i) To foster, encourage and promote the growth of advanced studies in selected branches of basic sciences ;
 - (ii) To conduct original research in theoretical and mathematical sciences and other basic sciences in frontier areas, including challenging theoretical studies of future applications ;
 - (iii) To provide a forum of personal contacts and intellectual interaction among scientists within the country and also between them and scientists abroad ;
 - (iv) To train young scientists for research in basic sciences.
4. The Governing Body of the S. N. Bose National Centre shall be the Body constituted to be the Governing Body under the Rules & Regulations of the said S. N. Bose National Centre and the first members of the Governing Body shall be :—

<i>Name/Designation</i>	<i>Address</i>	<i>Office/Function</i>
1. The Secretary to the Govt. of India, Dept. of Science & Technology.	Technology Bhavan, New Mehrauli Road, New Delhi-110016.	Chairman (Ex-Officio)
2. Prof. J. V. Narlikar	Tata Institute of Fundamental Research Bombay-400005	Member (Nominated by the Central Government)
3. Prof. C. S. Seshadri	Institute of Mathematical Sciences, Adayar, Madras.	Member (Nominated by the Central Government)
4. Prof. C. N. R. Rao	Director, Indian Institute of Science, Bangalore.	Member (Nominated by the Central Government)
5. The Financial Adviser, Dept. of Science & Technology. Govt. of India.	Technology Bhavan, New Mehrauli Road, New Delhi-110016,	Member (Ex-Officio)
6. The Chief Secretary, Govt. of W. B.	Writers' Buildings Calcutta-700 001.	Member (Ex-Officio)
7. Director of the Centre	I.A.C.S. Campus, Indian Association for the Cultivation of Science, Jadavpur, Calcutta-700 032.	Member (Ex-Officio)

5. We, the undersigned, whose names and addresses are hereunder subscribed being members of the S. N. Bose National Centre are desirous of being formed into a Society under the West Bengal Societies Registration Act XXVI of 1961 in pursuance of this Memorandum of Association :—

<i>Sl. No.</i>	<i>Name</i>	<i>Occupation and Address</i>	<i>Signature</i>
1.	Professor Yash Pal	Chairman, University Grants Commission, Bahadur Shah Zafar Marg, New Delhi. A-B 19, Mathura Road, New Delhi.	
2.	Prof. A. K. Sharma	Ghosh Professor & Programme Co-ordinator, University of Calcutta, 35, Ballygunge Circular Road, Calcutta. 18/3, Gariahat Road, Calcutta-700019.	
3.	Prof. A. K. Barua	Director, Indian Association for the Cultivation of Science, Calcutta-700032. 188/60, Prince Anwar Shah Road, Calcutta-700045.	
4.	Prof. B. B. Biswas	Director, Bose Institute, 93/1, Acharya Prafulla Chandra Road, Calcutta-9. 30A, Lake Place, Calcutta-700029	
5.	Dr. A. K. Chatterjee	Secretary to the Govt. of West Bengal, Education Department. D-7, 32, Ballygunge Circular Road, Calcutta.	

6. Dr. P. J. Lavakare Adviser, Govt. of India,
Department of Science and
Technology, New Delhi.
H 20-C, Saket, New Delhi.



7 Dr. Ashok Jain Director, National Institute of
Science, Technology and Deve-
lopment Studies, New Delhi.
A-26, Nizamuddin West, New
Delhi.



Witnessed by :



Prof. Mihir Choudhury
Department of Physical Chemistry
Indian Association for the Cultivation of Science
Jadavpur Calcutta-700 032 India.

RULES OF THE S. N. BOSE NATIONAL CENTRE FOR BASIC SCIENCES

SHORT TITLE

1. These rules may be called the Rules of the Satyendra Nath Bose National Centre for Basic Sciences.

INTERPRETATION

2. In these rules, the following words and abbreviations have the meanings given to them unless there is anything contrary in the subject or context :
 - (a) "The Centre" shall mean the S. N. Bose National Centre for Basic Sciences.
 - (b) "The Society" shall mean the S. N. Bose National Centre for Basic Sciences.
 - (c) "The Central Government" shall mean the Administrative Ministry/ Department of Government of India concerned with Science and Technology.
 - (d) "The General Body" shall mean the Governing Body of the Centre.
 - (e) "The Governing Body" shall mean the Governing Body of the Centre.
 - (f) "The President" shall mean the President of the General Body.
 - (g) "The Chairman" shall mean the Chairman of the Governing Body of the Centre.
 - (h) "The Director" shall mean the Director of the Centre appointed under the rules.
 - (i) "The Secretary" shall mean the Secretary of the Centre appointed under the rules.

MEMBERS OF THE CENTRE

3. The Centre shall consist of all the Members of the Governing Body set up under these rules and such other persons as may be nominated/admitted by the Central Government.

4. The Centre shall maintain a Register of Members giving their names and addresses and the same shall be open to inspection by the Members.
5. A member of the Centre shall cease to be a member : (i) on death ; (ii) on resignation ; (iii) upon being declared insolvent or of unsound mind ; (iv) on conviction of criminal offence involving moral turpitude ; and (v) on his failure to attend three consecutive meetings of the General Body.
6. The Centre shall function notwithstanding any vacancy in its body and no act or proceeding of the Centre shall be invalid merely by reasons of such vacancy or of any defect in the appointment of any of its members.

AUTHORITIES AND OFFICERS OF THE CENTRE

7. The following shall be the authorities and officers of the Centre :
 - i) The General Body ;
 - ii) The Governing Body ;
 - iii) The President ;
 - iv) The Chairman ;
 - v) The Director ; and
 - vi) Such other authorities and officers as may be constituted/ appointed by the Governing Body.

THE GENERAL BODY

8. The Chairman of the Governing Body shall be the President of the Society.
9. The Society shall hold an Annual General Meeting at such time, date and place as may be determined by the President to consider the Annual Report of the Society, the Audited Statement of Accounts together with the Auditor's Report thereon.
10. The President may convene a Special General Meeting of the Society as he/she thinks fit.
11. On the requisition of at least 4 (four) members, the President shall convene a Requisition General Meeting of the Society.

12. At such Requisition General Meeting no matter other than that stated in the notice for the meeting shall be discussed unless specially authorised by the President.
13. The President or the Secretary of the Institute shall issue notices of all meetings of the Society to members of the General Body giving 15 clear days before the appointed date for such meeting.
14. The accidental omission to give notice or non-receipt of notice by any member shall not invalidate the proceeding at the meetings.
15. The President of the Society shall preside at all meetings of the Society. In his absence, a member shall be elected from amongst those present to be the Chairman.
16. Four members of the General Body present in person shall form the quorum at any meeting of the Society.
17. Each member of the Society shall have one vote. In case of equality of votes, the Chairman shall have a casting vote.
18. All matters shall be determined by a majority of votes of the members present and voting.

THE GOVERNING BODY

19. The affairs of the Centre shall be managed, administered, directed and controlled, subject to Rules, Bye-Laws, by the Governing Body. The Governing Body of the Centre for the purpose of Act XXVI of 1961 shall consist of the following members :
 1. Secretary to the Government of India, Department of Science & Technology, Chairman (Ex-officio).
 2.)
 3.) Three scientists to be nominated by the Central Government.
 4.)
 5. Financial Adviser, Department of Science & Technology of the Government of India, Member (Ex-officio).
 6. Chief Secretary, Government of West Bengal, Member (Ex-officio).
 7. Director of the Centre, Member (Ex-officio).

The Administrative Officer of the Centre shall be non-member Secretary of the Governing Body.

20. A member of the Governing Body shall cease to be a member in case he/she :

- i) resigns ; (to be effective from the date of acceptance by the Chairman).
- ii) dies ;
- iii) is declared of unsound mind ;
- iv) is declared insolvent ;
- v) is convicted of criminal offence involving moral turpitude ;
- vi) is not permitted by his/her employer to serve on the Governing Body ;
- vii) proceeds abroad for a continuous period exceeding one year ;
- viii) fails to attend three consecutive meetings.

21. Each nominated member of the Governing Body shall relinquish his/her membership on the expiry of five years from the date on which he/she is nominated as a member of the Governing Body unless his/her membership of the Governing Body is terminated by the nominating authority earlier. In case of a casual vacancy the person appointed to fill the vacancy shall hold office for the unexpired portion of the term of the outgoing member. An outgoing member shall be eligible for reappointment.

22. Whenever a person holds the membership of the Governing Body by virtue of an office held by him/her (ex-officio) his/her membership shall terminate when he/she ceases to hold that office and the vacancy so caused shall be filled by his/her successor to that office.

23. The members of the Governing Body shall not be entitled to any remuneration from the Centre excepting the full-time Director of the Centre. The non-official members of the Governing Body or any committee appointed by it, shall be paid by the Centre, such travelling and daily allowances and honorarium as may be provided for in the Bye-Laws.

24. A person holding the membership of the Governing Body by virtue of an office held by him/her (ex-officio) shall normally attend the Governing Body meetings himself/herself in person but in exceptional circumstances,

shall have the right to nominate a representative to act on his/her behalf at particular meetings of the Governing Body and the representative so nominated shall be entitled to take part in the proceedings of that meeting.

FUNCTIONS AND POWERS OF THE GOVERNING BODY

25. The Governing Body shall generally carry out and pursue the objects of the Centre, as set forth in the Memorandum of its Association. The management of all the affairs and funds of the Centre shall, for this purpose, vest in the Governing Body.
26. The Governing Body shall exercise all the powers of the Centre, subject nevertheless to such limitations as the Government of India may from time to time impose in respect of the expenditure from the funds of the Centre and of grants made by the Central Government.
27. The Governing Body shall appoint the Director of the Centre who shall be a distinguished scientist. The Director shall be the principal executive officer of the Centre. Until such time a full-time Director of the Centre is appointed in accordance with rules and bye-laws, the Governing Body may appoint a distinguished scientist as Honorary Director and the person so appointed shall have full powers, functions and status of the Director in accordance with these rules.
28. In particular and without prejudice to the generality of the foregoing provisions, the Governing Body shall have the power, subject to the provisions of these Rules and the Bye-Laws to :
 - i) consider the Annual and Supplementary Budgets placed before it by the Director from time to time, and pass them with such modifications as the Governing Body may think fit ;
 - ii) create and abolish posts, the emolument structure of various posts i.e. adoption of pay scales allowances and revision thereof and creation of posts above a specified pay scale, shall require prior approval of Central Government.
 - iii) appoint various scientific, technical, administrative and other officers

and staff of the Centre, fix their remuneration and define their duties ;

- iv) enter into arrangement with the Central Government and with the State Governments and other public or private organisations or individuals within the country for securing and accepting grant-in-aid, endowments, donations or gifts to the Centre, on mutually agreed terms and conditions, provided that such terms and conditions, if any, shall not be contrary to, inconsistent or in conflict with the objects of the Centre provided, for any such arrangement with foreign and/or international agencies or organisations the prior approval of the Central Government shall be obtained ;
- v) take over, acquire by purchase, gifts, exchange, lease or hire or otherwise from Central Government, the State Governments and other public or private bodies or individuals, institutions, libraries, laboratories ; immovable properties, endowments or other funds together with any attendant obligations and engagements not inconsistent with the objects of the Centre provided for any such activity involving a foreign and/or international agency or organisation, the prior approval of the Central Government shall be obtained ;
- vi) appoint Committees and Sub-committees for such purposes and with such powers and for such periods and on such terms as it may deem fit, and dissolve any of them ;
- vii) delegate such administrative and financial powers as it may think proper to the Chairman, the Director and such other officers of the Centre as may be considered necessary ; and
- viii) to frame, amend or repeal Bye-laws, for the administration and management of the affairs of the Centre and in particular to provide for the following matters :
 - (a) preparation and sanction of budget estimates, sanctioning of expenditure, entering into execution of contracts, investment

- of the funds of the Centre, sale or alteration of such investments and maintenance of accounts and their audit ;
- (b) procedure for recruitment of officers and establishment in the service of the Centre ;
 - (c) terms and tenures of appointments, emoluments, allowances, rules of discipline and other conditions of the establishment of the Centre ;
 - (d) terms and conditions governing the grant of scholarships, fellowships and grant-in-aid for research schemes and projects not inconsistent with the objects of the Centre ;
 - (e) such other matters as may be necessary for the administration of the affairs and funds of the Centre.

PROCEEDINGS OF THE GOVERNING BODY

- 29. Every meeting of the Governing Body shall be presided over by the Chairman and in his/her absence a member chosen from amongst themselves by members present, to provide for the occasion.
- 30. Four members of the Governing Body present in person, shall constitute a quorum at any meeting of the Governing Body.
- 31. Not less than fifteen days clear notice of every meeting of the Governing Body shall be given to each member of the Governing Body. The accidental omission to give notice to or the non-receipt of notice by any member shall not invalidate the proceedings at the same meeting.
- 32. Normally two meetings of the Governing Body shall be held in each year.
- 33. For the purpose of Rule 32, each year shall be deemed to commence on the 1st day of April and terminate on the 31st day of March of the following calendar year.
- 34. The Chairman may himself call, or by a requisition in writing signed by him, may require the Secretary to call a meeting of the Governing Body at any time and on the receipt of such a requisition the Secretary shall forthwith call such a meeting.

35. Four members of the Governing Body may by a requisition in writing signed by them require the Secretary to call a meeting of the Governing Body at any time and on the receipt of such a requisition the Secretary shall forthwith call such a meeting in consultation with the Chairman.
36. Each member of the Governing Body shall have one vote and if there shall be an equality of votes on any question to be decided by the Governing Body, the Chairman shall have a casting vote.
37. Any business which it may be necessary for the Governing Body to perform may be performed by a resolution in writing circulated among all its members and any such resolution so circulated and approved by a majority of the members signing, shall be as effectual and binding as if such resolution had been passed at a meeting of the Governing Body provided that at least four members of the Governing Body have recorded their approval to the resolution.
38. In case of a difference of opinion amongst the members of the Governing Body on a question of sufficient importance, the opinion of the majority shall prevail, the Chairman may, however, refer any question, which in his opinion is of sufficient importance for the decision of the Central Government. The decision of the Central Government shall be binding on the Centre and its Governing Body.

FUNCTIONS AND POWERS OF THE CHAIRMAN

39. The Chairman shall exercise such powers for the conduct of the business of the Centre as may be delegated to him by the Governing Body.
40. The Chairman may, with the approval of the Governing Body, delegate such of his/her powers as may be considered necessary, to the Director.

FUNCTIONS AND POWERS OF THE DIRECTOR

41. Subject to any order that may be passed by the Chairman in exercise of the powers delegated to him by the Governing Body, and the decisions of the Governing Body, the Director shall be responsible for the proper administration of the affairs and funds of the Centre under the direction

and guidance of the Governing Body. He shall be vested with such executive and administrative powers of the Centre as may be necessary or incidental for the purpose, subject to these Rules and Bye-Laws.

42. He shall subject to the provisions of these Rules and Bye-Laws and decisions of the Governing Body exercise general supervision and disciplinary control over the officers and the staff of the Centre and prescribe their duties and functions.
43. The Director shall co-ordinate and exercise general supervision of all the activities of the Centre.
44. The Director of the Centre shall act as the Secretary of the Society. For the purpose of Section 6 of the West Bengal Societies Registration Act XXVI of 1961, the Secretary shall be considered the Principal Secretary of the Society and the Society may sue or be sued in the name of the Secretary of the Society.

FUNDS AND PROPERTIES OF THE SOCIETY

45. The funds of the Society will consist of the following :
 - i) Lumpsum and recurring grants made by the Central Government ;
 - ii) Fees and other charges received by the Centre ;
 - iii) All money received by the Centre by way of grants, donations or other contributions.
46. All funds of the Centre shall be paid into the Centre's account with Treasuries/Sub Treasuries including Reserve Bank of India, branches of the State Bank of India and its subsidiaries and in a scheduled/nationalised bank and shall not be withdrawn except on cheques signed and countersigned by such officers as may be duly empowered by the Governing Body.
47. The income and property of the Centre, howsoever derived, shall be applied towards the promotion of the objects thereof as set forth in the Memorandum of Association subject nevertheless in respect of the expenditure of grants made by the Central Government to such limitations as the Central Government may from time to time impose. No portion of

the income and property of the Centre shall be paid or transferred, directly or indirectly by way of dividends, bonus or otherwise howsoever by way of profit to the persons who at any time are/or have been members of the Centre or to any of them or to any persons claiming through them or any of them provided that nothing herein contained shall prevent the payment in good faith of remuneration of any member thereof or other person in return for any service rendered to the Centre.

48. The powers for the creation/utilisation/disposal of assets and funds of the Society vest in the Governing Body.

ACCOUNTS AND AUDIT

49. The Accounts of the Centre shall be audited by such person or persons as may be nominated by the Central Government. The nature of audit to be applied and the detailed arrangements to be made in regard to the form of accounts and their maintenance and the presentation of the accounts for audit shall be prescribed by Bye-Laws to be framed by the Governing Body and approved by the Central Government.

ANNUAL REPORT

50. An Annual Report of the proceedings of the Centre and of all work undertaken during the year shall be prepared by the Governing Body for the information of the Central Government and the members of the Society. The Report and the audited accounts of the Centre along with the auditor's report thereon shall be placed before the General Body and shall be kept open for inspection by members of the Society on requisition.

ALTERATIONS OF RULES

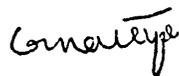
51. The Rules of the Centre may be altered at any time by the Governing Body/General Body by a resolution passed by at least three-fourth majority of the members present at any meeting.
52. All provisions contained in the West Bengal Societies Registration Act XXVI of 1961 as applicable to the State of West Bengal shall apply to this Society.

ESSENTIAL CERTIFICATE

53. We the following members of the Governing Body do hereby certify that this is the true copy of the Rules and Regulations of the Satyendra Nath Bose National Centre for Basic Sciences.



(Dr. S. Ramachandran)
Secy. to the Govt. of
India, Deptt. of Science
& Technology.



(Shri G. Chatterjee)
Jt. Secy. & F.A. Govt. of
India, Deptt. of Science
& Technology.



(S. V. Krishnan)
Chief Secretary
Govt. of West Bengal.

NOTES

The Centre, established in 1986, did not formulate any budget proposals for the year 1986-87. During this year no expenditure other than the salary of the O.S.D. amounting to Rs. 35,696/- was incurred by the IACS under an arrangement for reimbursement by the Department of Science & Technology, Government of India. The proposals in the following pages constitute the Budget Estimates (revised) for 1987-88 and Budget Estimates for the year 1988-89.

The estimates envisage expenditure as follows during the current years.

Recurring Plan	Rs. 9.74 Lakhs
Non-Recurring Plan	Rs. 46.41 Lakhs

The Department of Science & Technology has communicated the following allocations of fund for 1987-88 in its letter No. F.SP/SN/001/87 dated 23.6.87.

Recurring Plan	Rs. 10.00 Lakhs
Non-Recurring Plan	Rs. 50.00 Lakhs

Since the Director assumed office in June '87, every effort is being made to build up the minimum facilities necessary for starting construction and other developmental work as soon as possible. With this end in view, the proposal for creation of a few posts has been included in the Budget Estimates. This will facilitate functioning of an office and help in making effective measures towards full utilization of the funds allocated to the Centre for development work in the first year of its existence.

PLAN (RECURRING)

Sl. No.	Major Head	Budget Estimates 1987-88	Revised Budget Estimates 1987-88	Budget Estimates 1988-89	Reasons for Variation	Remarks
1	2.	3	4	5	6	7
		Rs.	Rs.	Rs.		
1. A. Salaries & Allowances etc.						
		1,31,772	1,06,372	2,47,772		Provision made as follows :
1.	Pay of Officers					1987-88
2.	Pay of Establishment	2,03,040	1,13,220	2,38,440		Director — 9 months
3.	Travelling Allowances	25,000	50,000	75,000		O.S.D./A.O. — 12 months
4.	D. A.	—	2,520	3,360		Prof. — One — Six months
5.	A.D.A.	10,000	25,000	40,000		Lect. — One — Six months
6.	H.R.A.	53,000	30,150	82,800		Prof. — One — 12 months
7.	C.C.A.	9,860	7,200	17,400		Lect. — Two — 12 months
8.	Medical Reimbursement	3,900	5,000	10,000		Provision made as follows :
9.	Festival Advance	4,000	5,000	10,000		1987-88
10.	Conveyance Allowances	500	1,000	2,000		Supdt. : Accts. 1 for 6 months
11.	Post Doctoral visiting fellowship	—	33,500	67,200		Security 1
12.	Research Fellowship	15,000	18,000	90,000		Overseer 1
						Librarian 1 — for 3 months
						Driver 1
						Steno 1
						Jr. Clerk 4
						Peon 2
						Guards 3
						Sweeper 1
						Four fellowships of two years' duration.
	Total (A)	4,55,572	3,96,962	8,83,972		

Sl. No.	Major Head	Budget Estimates 1987-88	Revised Budget Estimates 1987-88	Budget Estimates 1988-89	Reasons for Variation	Remarks
1	2	3	4	5	6	7
2. B. Contingencies						
1.	Telephone & Trunk Calls	12,000	15,000	25,000		
2.	Postage Expenditure	5,000	10,000	20,000		
3.	Electricity Charges	6,000	10,000	15,000		
4.	Municipal Taxes	500	500	1,000		
5.	Printing & Stationary	15,000	20,000	30,000		
6.	Hire of Office Premises	48,000	72,000	96,000		
7.	Hire of Transport	20,000	40,000	50,000		
8.	Meeting & Miscellaneous Expenses	30,000	60,000	75,000		
9.	Campus beautification-Planting of trees etc.	25,000	40,000	40,000		
10.	Seminar & other academic programme	—	● 2,50,000	1,50,000		● Provision for holding: (i) International meeting on the calculation of the properties of large molecules in February 88 ; (ii) Regional meeting for workers in I.I.T. Kharagpur and institutions around Calcutta on physics of Thin Films.
11.	Directors' Research Expenses including Computation	—	50,000	75,000		
Total (B)		1,61,500	5,67,500	5,77,000		

Sl. No.	Major Head	Budget Estimates 1987-88	Revised Budget Estimates 1987-88	Budget Estimates 1988-89	Reasons for Variation	Remarks
1	2	3	4	5	6	7

3 - C. Maintenance of Building

- | | | | | | | |
|----|-------------------------|-------|-------|-------|--|--|
| 1. | Maintenance of building | 5,000 | 5,000 | 5,000 | | |
| 2. | Repairs to equipment | 5,000 | 5,000 | 5,000 | | |

Total (C)	10,000	10,000	10,000			
Grand Total (A+B+C)	6,27,072	9,74,463	14,70,972			

Plan Non-Recurring

1. Equipment

Sl. No.	Name of the equipment	Cost	Justification
1.	Xerox Machine	1,40,000.00	Initial requirement for setting up an office.
2.	Typewriters	1,40,000.00	
3.	Small equipments (Franking, Calculators etc.)	25,000.00	
	Total Equipment : Rs.	3,05,000.00	

2. Building

Sl. No.	Name of Building	Cost	Justification
1.	Boundary wall	9,06,000.00	As per CPWD Estimates.
2.	Preparatory work, Campus plan etc.	50,000.00	On the basis of estimated expenditure likely to be incurred.
3.	Construction of Buildings	20,00,000.00	
4.	Construction of Guards' Goomty & Security Office	1,25,000.00	
	Total of Building : Rs.	30,81,000.00	

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3. Furniture & Fixtures

Sl. No.	Item	Cost	Justification
1.	Office Furniture :	50,000.00	Initial requirements for setting up an office.
	Secretariat Table — 2		
	Clerks Table — 5		
	Chairs etc.		
2.	Filing Cabinet & Almiraahs	25,000.00	
	Total of Furniture : Rs.	75,000.00	
4.	Any other Non-recurring expenditure		
1.	Water Supply installations & Overhead reservoir	10,00,000.00	
2.	Purchases of a Car/Van	80,000.00	
3.	Library (Books & Journals)	1,00,000.00	
	Total of Item 4 : Rs.	11,80,000.00	
	Grand Total : Rs.	46,41,000.00	

Plan (Recurring) 1987-88

A. Academic Post

- 4 Visiting post --- Doctoral Fellowships tenable for two years
5 Research Fellowships (2 in 87-88 for six months and 3 in 1988-89)

Sl. No.	Designation	Scale of Pay	Pay	H.R.A.	C.C.A.
1.	Administrative Officer				
2.	Supdt./Sect on Officer Accounts	2000-60-2300-EB-	2000/-	450/-	100/-
3.	Supdt. (Security)	75-3200-100-3500/-			
4.	Librarian				
5.	Stenographer	1320-30-1560-EB- 40-2040/-	1320/-	250/-	45/-
6.	Junior Clerk/Typist for Accounts	1200-30-1560-EB-			
	for Admn.				
	for Store/ purchase				
7.	Peon/Bearer	800-12-920-EB- 20-1150/-	800/-	150/-	30/-
8.	Guards	---do---	800/-	150/-	30/-
9.	Sweeper	---do---	800/-	150/-	30/-
Technical					
10.	Overseer (Civil)	2000-60-2300-EB- 75-3200-100-3500/-	2000/-	450/-	100/-
11.	Driver	950-20-1150-EB- 25-1900/-	950/-	250/-	45/-