

**REPORT ON
NETARHAT SCHOOL
RANCHI**

An Experiment in
Promotion of Excellence

By
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FOREWORD

Pursuit and promotion of excellence is an integral part of the over-all policy of equalisation of educational opportunities among the people. The provision of scholarships to meritorious students, with inadequate means, is one method of promoting excellence. But what is more important is that the meritorious students, after being identified, are placed in a proper environment which helps in a fuller nurturing of their abilities. This highlights the importance of setting up quality institutions to help excellence grow. It is in the light of this conviction that I thought that it would be desirable to undertake an on-the-spot factual study of the Netarhat School, Ranchi, which was set up by the Bihar Government with this object in view. This Report on Netarhat School, Ranchi, by Dr. S. N. Saraf, Director, Bureau of Planning & Coordination, Ministry of Education and Youth Services, is a very useful document which brings out in a very objective way the functioning of the school.

What has struck me most is that it is possible, through the media of our own Indian languages, to train students who can make a mark in the various fields of sciences and technology. The Netarhat School, which has Hindi as the medium of education, has proved it beyond any doubt. Its students have got the maximum number of positions in the Board results. Its alumni, from the reports available, have done exceedingly well in various walks of life.

I hope that it will be possible for the State Governments to set up a number of such pace-setting quality institutions in various parts of the country, which would be nurseries

for our bright boys and girls to grow into talented young men and women who would be the pride of the nation. Such models do exist in other countries and I believe that investment in such type of institutions is worthwhile.

I commend this report to the State Governments for their study and action.

V. K. R. V. RAO

*Union Minister for Education
and Youth Services* २३

DECEMBER 17, 1969
NEW DELHI

INTRODUCTION

The Union Education Minister desired that I should visit Netarhat and make an on-the-spot study of the Residential School established by the Bihar Government there. On the basis of my visit to the School and the discussions I had with the Principal and Members of the Faculty of the School, the officers of the Department of Education at Patna and the material which was made available to me by the school authorities, I have prepared a factual report on the working of the Netarhat School. I have described its working under various sections. At the end, I have given my own appreciation of the working of this institution.

I would like to place on record my deep appreciation of the co-operation which was extended to me by Shri B. K. Sinha, Principal of the Netarhat School and his colleagues during my stay on 18th and 19th June, 1969. I had very useful discussions with the Education Secretary, Director of Public Instruction and other officers of the Education Department at Patna. The State Education Department provided all possible facilities. Without the willing co-operation of the school authorities at Netarhat and the facilities provided to me by the State Education Department, it would not have been possible to prepare this factual report.

S. N. SARAF

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SECTION I

ORIGIN OF THE SCHEME

The Netarhat School is a residential school, for boys between the ages of 10 and 18 years, maintained by the Government of Bihar, for the education of selected pupils whose parents are permanent residents of Bihar. Netarhat is 96 miles from Ranchi. The demand for a school of this kind arose around 1945, when it was observed that there were inadequate facilities in most of the secondary schools of Bihar for the all-round integrated development of the personality of the students. This led to the passing of a resolution by the Bihar Legislative Assembly in 1947, and the appointment of a committee to prepare a scheme for a Public School in Bihar. The scheme, drawn up by the committee, was found to be very costly, and in 1951, the Bihar Education Department requested Shri F. C. Pearce, Principal of Rishi Valley School and a founder-member of the Indian Public School Conference, and formerly, Principal, Scindia School, Gwalior, to prepare a scheme better suited to the needs of Bihar. Shri Pearce's scheme received the general approval of the Bihar Government in 1952 and the school was opened in 1954 at Netarhat with Shri Charles Napier as its first Principal. Shri Napier was succeeded by Shri J. N. Dhar in 1955 and Shri B. K. Sinha succeeded Shri J. N. Dhar in 1967.

2. The school has a six-year course and prepares students for the higher secondary examination of the Patna Board. From 1954 onwards 60 boys were admitted every year and the full strength of 360 boys was reached in 1960. Since 1964, at the request of the Government of India, five

Government of India scholars are also admitted in the junior-most class every year. In 1965, the Government of Bihar agreed to allow the children of the employees of the school, up to a maximum of 12 per year, to be admitted in the school as day scholars. The enrolment of the school in various years (classes) and categories, i.e., residential, Government of India scholars, day scholars, scheduled caste, scheduled tribe, backward class students is given in Table I.

TABLE I : *Enrolment in 1968-69—By Years (Classes) and Category of Students*

Year	Residential Students		Day Scholars	Total (2+3+4)	S.C. (Included in Column 5)	S.T.	B.C.
	Bihar Govt. Scholars	Govt. of India Scholars					
1	2	3	4	5	6	7	8
VI	54	1	3	58	2	—	1
V	62	2	2	66	3	—	—
IV	58	2	3	63	2	1	—
III	58	3	4	65	2	2	—
II	59	6	7	72	2	4	—
I	59	5	7	71	1	—	4
	350	19	26	395	12	7	5

S.C.=Scheduled Castes; S.T.=Scheduled Tribes; B.C.=Backward Classes

Out of the total enrolment of 395 students, only 26 students are day scholars and the rest are resident students.

SECTION II

ADMISSION PROCEDURES

3. Admission to the school is through an open competition, consisting of written tests, held at sub-divisional headquarters every year in the first week of February. The examination fee is only Rs. 2. The standard of the written examination is approximately that of the class VI of Bihar middle schools and the subjects in which candidates are tested are: (i) Languages and Literature, (ii) Arithmetic, (iii) General Knowledge consisting of General Science and Social Studies. These tests of the objective type are in English, Hindi, Bengali and Urdu in order to cater for the multi-lingual character of the student population. On the basis of these written tests, boys are selected for psychological tests and interviews which are held at divisional headquarters where boys have also to undergo a medical examination.

4. Provided suitable candidates are available, 11% seats are reserved for candidates belonging to scheduled castes and tribes and 4% for candidates belonging to the backward classes.

5. As stated earlier, the Netarhat School also admits students who are awarded Government of India merit scholarships. The number of such students on rolls rose from 1 in 1963-64 to 19 in 1968-69.

6. To get an idea about the competitive character of the admission, the figures regarding the number of students who

(a) took the admission test,

(b) were interviewed, and

(c) were finally admitted,

were obtained for the years 1966, 1967 and 1968. Table 2 indicates the position.

TABLE 2 : *Students Enrolled, Interviewed and Selected 1966-68*

Year	Students Enrolled for Test	Students Interviewed	Students Admitted
1	2	3	4
1966	2,289	248	60
1967	1,657	375	60
1968	2,349	251	59

During the years 1966 and 1968, it would appear that for every 100 students enrolled for the test, 10 to 11 were selected for interview and only 3 were finally admitted. For 1967, for every 100 students enrolled for the test, 23 were interviewed and only 4 finally admitted.

7. The break-up of these figures between scheduled castes, scheduled tribes, backward classes and other students for the years 1966, 1967 and 1968 is given in Table 3.

TABLE 3 : *Break-up of the Students Enrolled, Interviewed and Selected between Scheduled Caste, Scheduled Tribe, Backward Class and Other Students*

S. No.	No. of Students Enrolled for Test	No. of Students Called for Interview	No. of Students Admitted	
1	2	3	4	
1966 {	1. General Students ..	2,175 (95.0)	215 (86.7)	51 (85.0)
	2. Scheduled Caste Students	18 (0.8)	13 (5.3)	4 (6.7)

	1	2	3	4	5
1966	3. Scheduled Tribe Students		24 (1·1)	9 (3·6)	4 (6·7)
	4. Backward Classes Students		72 (3·1)	11 (4·4)	1 (1·6)
	5. TOTAL		2,289 (100)	248 (100)	60 (100)
1967	1. General Students ..		1,572 (94·9)	358 (95·5)	51 (85·0)
	2. Scheduled Caste Students		20 (1·2)	8 (2·1)	3 (5·0)
	3. Scheduled Tribe Students		16 (1·0)	5 (1·3)	2 (3·3)
	4. Backward Classes Students		49 (2·9)	4 (1·1)	4 (6·7)
	5. TOTAL		1,657 (100)	375 (100)	60 (100)
1968	1. General Students ..		2,237 (95·2)	219 (87·3)	53 (89·8)
	2. Scheduled Caste Students		35 (1·5)	20 (7·9)	4 (6·8)
	3. Scheduled Tribe Students		17 (0·7)	8 (3·2)	2 (3·4)
	4. Backward Classes Students		60 (2·6)	4 (1·6)	-
	5. TOTAL		2,349 (100)	251 (100)	59 (100)

(Figures within parentheses indicate percentages.)

It will be observed that an attempt is made to admit students belonging to the scheduled caste, the scheduled tribe and other backward classes. In fact, merit lists for these students are drawn up separately to ensure that at least about 10 to 15 per cent of the students admitted belong to these classes.

8. District-wise figures of students enrolled for the examination, called for interview and finally selected, in terms of percentages, are given in the statement at *Appendix I*. The following conclusions emerge :

(a) Students, belonging to all the 17 districts of the State, get enrolled for the initial admission tests, are selected for interview and are finally selected for admission.

(b) The percentage of students of various districts either enrolled for the initial test, or selected for interview or finally admitted does not bear necessarily any relationship with the percentage of the population of the district to the whole State. For instance, the population of Ranchi district is 4·6% of the total State population, but the percentage of students admitted in 1966, 1967 and 1968 was 16·7, 8·3 and 6·8 respectively. The position was somewhat similar in the case of Monghyr and Patna. In one or two cases, the distances of the districts from Ranchi may have played a part in causing variations.

SECTION III

SYSTEM OF SCHOLARSHIPS

9. The entire expenditure incurred by the school is met by the State Government. The fees charged from the guardians of the students are proportionate to their income. Table 4 indicates the fees charged from parents in different income groups :

TABLE 4: *Fees Charged according to Different Income-Groups*

Group	Income per Month Rs.	Annual Fee Rs.	Clothing & Equipment	Total Payment Rs.
1	2	3	*4	5
A	Below 100	Free	Free	Nil
B	Between 101 to 250	Free	300	300
C	Between 251 to 500	400	300	700
D	Between 501 to 750	600	300	900
E	Between 751 to 849	900	300	1,200
F	Above 850	1,200	300	1,500

*Expenses of boys during the first year of admission average about Rs. 425 but in subsequent years, the average annual expenditure is about Rs. 225. Thus, the average spread over 6 years works out at about Rs. 300 annually.

10. The number of guardians falling in any particular group varies from year to year and the Government has set no maximum or minimum limits for any particular group. Hence the extent to which the Government subsidizes the fees is not the same from year to year.

11. The Government of India pay scholarships to its five nominees as per their own rules which are as follows :

Category 'A'

If the total income of both parents/guardians is below Rs. 501 and down to Rs. 301 per month :

Full exemption from school fees. The scholar will also be given a clothing allowance up to a maximum of :

- (i) Rs. 175 per annum in the case of scholars nominated to the Lawrence School, Sanawar or Lovedale; and
- (ii) Rs. 250 for the first year and Rs. 150 per annum for subsequent years in the case of scholars nominated to the other schools.

Category 'B'

If the total income of both parents/guardians is below Rs. 301 and down to Rs. 151 per month :

Full exemption from school fees and clothing allowance as at 'A' above. The scholar will be paid travelling allowance as below for the journey to join his school at the commencement of each term (including the journey for joining the school for the first time) and journey from school to his home (or other place of normal residence, whichever is nearer at the end of each term).

Where no school party is organised, third class railway fare, with a return fare for the escort.

Category 'C'

If the total income of both parents/guardians is below Rs. 151 per month :

Full exemption from school fees and clothing and travelling allowance as at 'B' above. The scholar will also be supplied by the school with school uniform according to schedule and will be given pocket money which will include expenditure on essential toilet articles at the school rate.

Category 'D'

If the total income of both parents/guardians is Rs. 501 per month and above. A national prize of Rs. 100 and a certificate of merit.

12. In order to find out the distribution of students between the six income groups, as shown in Table 4, the statistics of the students for the year 1968-69 were obtained and are shown in Table 5.

TABLE 5 : *Distribution of Students Admitted between the Six Income-Groups*

Year	A	B	C	D	E	F	Total
1	2	3	4	5	6	7	8
VI	24 (44.4)	9 (16.7)	17 (31.5)	4 (7.4)		—	54 (100)
V	22 (35.5)	21 (33.9)	10 (16.1)	7 (11.3)	1 (1.6)	1 (1.6)	62 (100)
IV	15 (25.9)	27 (46.6)	9 (15.5)	4 (6.9)	1 (1.7)	2 (3.4)	58 (100)
III	13 (22.4)	23 (39.7)	14 (24.2)	4 (6.9)	2 (3.4)	2 (3.4)	58 (100)
II	17 (28.8)	16 (27.1)	12 (20.3)	7 (11.9)	1 (1.7)	6 (10.2)	59 (100)
I	5 (8.5)	16 (27.1)	13 (22.0)	14 (23.7)	2 (3.4)	9 (15.3)	59 (100)
TOTAL :	96 (27.5)	112 (32.0)	75 (21.4)	40 (11.4)	7 (2.0)	20 (5.7)	350 (100)

About 60 per cent of the students enrolled in the school belong to Groups A and B and they are not charged any fee. About 28 per cent of the students, who belong to Group 'A' are also given free clothing and equipment.

SECTION IV

ACADEMIC AND CO-CURRICULAR PROGRAMMES

13. On admission to the school, all boys, irrespective of their previous academic standard, are placed in the first year which is roughly equivalent to class VII and during their six years' stay in the school, they are successively promoted till they reach the sixth year. The school classes are called years and thus class VII is designated as I year.

14. Each year is divided into three sections containing twenty to twenty-five students. The distribution of students into three sections is based on their academic standard in Hindi, English, mathematics and science. A monthly progress report on the effort and achievement of the students is maintained and serves as a barometer of his academic progress.

15. The medium of instruction in all classes is Hindi, the regional language of Bihar. Special stress is, however, laid on English which is a compulsory subject right from the beginning so that by the time pupils reach the higher secondary stage, most of them can understand and converse in English with ease.

16. The courses of studies during the six years is indicated below :

(a) The courses prescribed for the *first two years*, is shown in Table 6. The periods mentioned are per week.

TABLE 6 : *Courses of Studies in I and II Year*

(A) Humanities		(B) Science & Maths		(C) Arts & Crafts	
	Periods		Periods		Periods
1. Hindi	6	7. Mathematics	6	11. Woodwork	2
2. Sanskrit	2	8. Chemistry	2	12. Metal Work	2
3. English	6	9. Physics	2	13. Agriculture	2
4. Social Studies	2	10. Biology	2	14. Painting	2
5. History	2			15. Music	2
6. Geography	2				
TOTAL :	20		12		10

(b) During the *third year*, boys, in consultation with the housemaster, counsellor and the teachers concerned choose one or two subjects only from among the 'C' group subjects and are allotted four periods a week for them. Besides their usual courses of study, each boy has also two hobby periods in the third year.

(c) During the next *three years*, the boys have to study the following five core subjects :

- (1) Hindi
- (2) English
- (3) Social Studies
- (4) Elementary Mathematics (for Science Group), and
- (5) Everyday Science (for Humanities Group).

In addition, one group of subjects, among the following five streams, is to be taken up :

- (1) Humanities
- (2) Science
- (3) Agriculture
- (4) Fine Arts
- (5) Woodwork, Metal Work and Workshop.

Owing to the fixed number of seats in science courses (40), all those who wish to take up science and are also otherwise capable of doing so, are in actual fact unable to join the science group. Boys at all stages are expected to devote some time to art and craft work.

17. The following are some of the activities pursued by the boys during their leisure hours :

- (1) Woodwork
- (2) Metal Work
- (3) Gardening
- (4) Painting
- (5) Music
- (6) Star-gazing
- (7) Dramatics
- (8) Journalism
- (9) Trekking
- (10) Photography
- (11) Collections
- (12) Rock-climbing
- (13) Library-reading
- (14) Aeromodelling
- (15) Ship-modelling

18. The societies, enumerated below, are at present functioning at the school :

- (1) Bhugol Parishad (Geography Society)
- (2) Vigyan Parishad (Science Society)
- (3) Chalachitra Samiti (Film Society)
- (4) Prakriti Adhyayan Parishad (Naturalists)
- (5) Itihas Parishad (History Section)
- (6) Samaj Sevak Mandal (Social Service League)
- (7) Niharika (Star-Gazing).

All boys have to participate in (a) Morning P.T., (b) Afternoon Games, and (c) A.C.C. & N.C.C.

19. Full importance is given to physical activities. As a matter of fact, the boys start the day with twenty minutes of compulsory physical training with one-hour compulsory games in the evening.

20. The following games are played at the school :

Major	Minor	Indoor
1. Athletics	1. Volleyball	1. Table Tennis*
2. Football	2. Cricket	2. Draughts
3. Hockey	3. Tennis	3. Carrom
4. Basketball	4. Kho-kho	4. Chess

*Each house of 20 boys is provided with a table tennis set and a table.

21. The school has :

- (a) football and hockey 8 fields
- (b) basketball 4 fields
- (c) volleyball 2 courts
- (d) tennis 3 courts
- (e) a permanent athletics track and jumping pits.

22. The school has one troop each of the Army, Navy and Air Wings of the N.C.C. Trekking and camping is one of the most popular outdoor activities. A set of selected photographs indicating the life of the Netarhat School is given at *Appendix II*.

23. The school library is kept open every day including Sundays from 7.00 A.M. to 7.00 P.M. There are at present about 10,000 volumes apart from reference book. These

library subscribes to the following daily papers and periodicals :

DAILY PAPERS		MONTHLIES	
Aryavart	Hindi	Navnit	Hindi
Nav-Bharat Times	"	Chanda Mama	"
Hindustan	"	Arogya	"
Bharat	"	Ajkal	"
Statesman	English	Kalpana	"
Indian Nation	"	Jiwan Sahitya	"
Amrita Bazar Patrika	"	Sarita	"
Searchlight	"	Vigyan	"
		Kalyan	"
		Sahitya Sandesh	"
		Samaj Kalyan	"
		Kheti	"
		Parag	"
		Alochak	"
		Saraswati Samvad	"
		Social Welfare	English
		Metric Measure	"
		Readers Digest	"
		March of India	"
		Children's Digest	"
		Careers and Courses	"
		Pictorial Education	"
		Woodworker	"
		Modern Review	"
		National Geographic Magazine	"
		Journal of Educational and Vocational Guidance	"
			"
WEEKLIES			
Saptahik Hindustan	Hindi		
Dharmyuga	"		
Adivasi	"		
Shankar's Weekly	English		
Illustrated Weekly	"		
Hobbies Weekly	"		
Sport & Pastime	"		
Teachers World	"		
Desh (Bengali)	"		
The Times Educational Supplement	"		
The Times Literary Supplement	"		
Akashvani	"		
FORTNIGHTLY			
Bihar Information	English		
Bihar Samachar	"		
QUARTERLY			
Alochna	Hindi		
School Science Review	English		
Teaching English	"		

SECTION V

RESIDENTIAL ARRANGEMENTS

24. The hostels at Netarhat School are known as Ashrams, each accommodating 20 to 22 boys, in the care of a housemaster, who lives with them along with his family. There are fifteen ashrams divided into five sets. The names of the ashrams are given below :

- | | |
|----------------|-----------------------|
| <i>1st Set</i> | 1. Shanti Ashram |
| | 2. Gautam Ashram |
| | 3. Arun Ashram |
| <i>2nd Set</i> | 4. Anand Ashram |
| | 5. Prem Ashram |
| | 6. Arjun Ashram |
| <i>3rd Set</i> | 7. Kishore Ashram |
| | 8. Saket Ashram |
| | 9. Ashok Ashram |
| <i>4th Set</i> | 10. Taxila Ashram |
| | 11. Nalanda Ashram |
| | 12. Vikram Ashram |
| <i>5th Set</i> | 13. Ramkrishna Ashram |
| | 14. Arvind Ashram |
| | 15. Pradeep Ashram |

25. Each ashram has a dining hall of its own. A kitchen is provided for a set of three ashrams and the cooking is supervised by the wives of the housemasters who are given a nominal honorarium for the work. The cereals, vegetables and other items of food are purchased from the local Government Agricultural Farm or through the contractors and distributed to the kitchens under school arrangements.

26. The normal meal of a boy consists of :

- (a) germinated grams early in the *morning before P.T.*;
- (b) dalia, bread & butter, egg, or dry fruits for *breakfast*;
- (c) rice, chapati, dals, two vegetables, salad, sometime 'achar', 'chatni', papar for *lunch*.
- (d) a glass of milk and fruits for *afternoon tea*;
- (e) rice, chapati, dal, two vegetables and a sweet dish for *dinner*.

The average expenses per boy per day on food is roughly about Rs. 4.

27. The cooking is done by grade IV employees but serving and cleaning of dining hall utensils is the responsibility of the boys.

28. The routine daily programmes followed by the Netarhat School during summer and winter are respectively shown in *Appendix III* and *Appendix IV*. While in summer the programme begins at 5.00 A.M., in winter it begins thirty minutes later. Further, in summer, the regular school hours begin at 6.40 A.M., in winter these begin at 8.40 A.M. Teaching work in the school in summer is over by 1.15 P.M., in winter, it is over by 3.30 P.M.

SECTION VI

ACADEMIC AND OTHER STAFF

29. The total strength of academic staff of the school, including principal and assistant masters, who are of gazetted rank, is 33. The salary scale of the principal is Rs. 900-50-1400. Five assistant masters are in gazetted selection grade of Rs. 450-35-660-EB-35-870-40-1070-EB-45-1250. Thirty-seven assistant masters are in gazetted class II Bihar Education Service (outside the cadre) in the scale of Rs. 325-30-505-EB-30-805-EB-30-985. They are given a minimum start of Rs. 415 per month. The principal and assistant masters are selected by the Bihar Public Service Commission and are not transferable. It may perhaps be relevant here to indicate the salary scales of principal and teachers in other Government institutions. The salary scale of a principal of a secondary school, who is class II gazetted in the Bihar Education Service, is Rs. 325-925. The salary scales of non-gazetted assistant masters is Rs. 230-450 (upper division scale) and Rs. 180-280 (lower division scale).

30. An analysis of the qualifications and experience of teachers reveals the following facts :

- (1) Four members of the staff have doctorate degrees in different subjects. They obtained these degrees while working at Netarhat.
- (2) The academic staff have invariably double master's degrees in arts and science subjects. Almost all the members of staff have professional qualifications like diploma in education and master's degree in education.

- (3) Some members of the staff have degrees from foreign universities.
- (4) Thirteen members of the staff have master's degree in various science subjects.
- (5) Nineteen teachers have put in more than 10 years' service; ten teachers have put in between 5 to 10 years and 4 teachers have less than 5 years' experience.

Almost every year, since the last two years, two or three teachers have earned scholarships for further training in foreign countries. Several of the teachers have original publications to their credit.

31. In addition, there are five non-gazetted instructors, one each in metal work, physical training, music, art and agriculture. There are two laboratory assistants.

32. The non-academic staff consists of 15 persons, one bursar, one personal assistant to principal, one head clerk, two accounts clerks, three store-keepers, three clerks, a stenographer, a canteen manager, a care-taker and a nurse matron.

33. The school has 63 fourth grade employees like cooks, peons, laboratory peons, malis, etc. and 24 contingent menials.

SECTION VII

PROGRESS AND ACHIEVEMENTS OF THE SCHOOL

34. The school sent its first batch of students for the higher secondary examination of the Bihar Board of Higher Secondary Education, Patna, in 1960. The number of students, who appeared in the examination, and their break-up between various divisions, is shown in Table 7.

TABLE 7 : *Number of Students Appeared and Divisions
Obtained*

Year	No. of Candidates Appeared	First Division	Second Division	Position in Board
1	2	3	4	5
1960	41	37 (90.2)	4 (9.8)	9 out of 10
1961	62	60 (96.8)	2 (3.2)	8 out of 15
1962	50	48 (96.0)	2 (4.0)	13 out of 15
1963	49	49 (100.0)	.	8 out of 15
1964	58	42 (72.4)	16 (27.6)	6 out of 15
1965	51	28 (54.9)	23 (45.1)	9 out of 15
1966	56	50 (89.3)	6 (10.7)	6 out of 15
1967	51	51 (100.0)	—	7 out of 10
1968	59	52 (88.1)	7 (11.9)	7 out of 15

(Figures within parentheses indicate percentages.)

It will be seen that not a single boy has so far failed. Further, not a single boy was placed in the third division. Another significant point to be noted is that the school gets the maximum number of positions in the Patna Board results.

35. The alumni of the Netarhat School have kept up their good record in various colleges and universities where they pursue their further studies; a large number of them getting first division in the various examinations along with good positions. One of the alumni, Vashistha Narayan Singh, distinguished himself to such an extent that the Patna University allowed him to appear at B.Sc. (Hons.) in mathematics the very year after he passed his higher secondary examination. Subsequently, he was offered the post of an assistant research scholar in the USA and he has now completed his Ph.D. in mathematics and distinguished himself in the *viva voce*. Another boy, Krishna Kumar Nag, not only stood first in B.Sc. (botany hons.) in the Ranchi University but he got the highest marks amongst the graduate students of that year. He is currently carrying on research at the Delhi University. Two boys, Dr. Gauri Shankar Singh and Subhash Chatterjee, distinguished themselves in Patna Medical College and the former has been selected for the Pfizer scholarship to continue his studies in M.D. One of the medical students, Baliram, was selected to carry out research work at a high altitude in the Himalayas. He was the youngest member of the team. Satyadeo Prasad not only always stood first in the Indian School of Mines, Dhanbad, but also beat the all-time record in the final year.

36. In the field of athletics also, the alumni of the school have won laurels for themselves. Four old boys have joined the Armed Forces as officers.

37. Four of the old boys have competed in the I.A.S., I.P.S. and Allied Services. More than half a dozen of the students have secured scholarships for studies in basic and technical sciences in foreign countries.

38. The school is trying to maintain its liaison with its alumni and annually, on the Founders' Day, which is on 15th November, the alumni come to the school and participate in various functions. The follow-up data of the first three batches of students, who have completed their studies and have settled in life, indicate the position as shown at Table 8 :

TABLE 8 : *Professional Status of the Alumni of the Netarhat School*

Batch	Engineering & Technology	Medical Profession	Defence Services	All Types of Administrative Jobs including Police	Research, Teaching, Private Business or Farming and Other Professions	Professions not known	Total	
1	2	3	4	5	6	7	8	
	Engineers & Technologists	Teachers						
I	25	.	6	—	7	4	2	44
II	24	3	9	2 (Infantry)	2	4	18	62
III	25	1	8	2 (E.M.T.)	2	7	5	50
TOTAL :	74	4	23	4	11	15	25	156

NOTE : The boys of the IV batch have come out of their colleges only recently.
The boys of the last five batches are still studying in colleges.
The tenth batch has just appeared in the higher secondary examination.

The bulk of the students have gone in for engineering and medical courses and have taken up these professions after completing their courses of studies.

SECTION VIII

COSTING OF THE PROJECT

39. The income-expenditure figures of the school during the last five years are indicated in Table 9. The break-up of expenditure between establishment, contingencies, stipends and clothing has been shown separately. Column 9 of Table 9 indicates the annual expenditure per boy.

TABLE 9 : *Annual Income and Expenditure*

S. No.	Year	In- come	Total Expen- diture (Cols. 5, 6 ; 7 + 8)	Estab- lish- ment	Misc. Conti- nencies	Sti- pends, Cloth- ing, etc.	Food	Annual Expen- diture per Boy
1	2	3	4	5	6	7	8	9
(.....Rs. in Lakhs.....)								Rs.
1.	1965-66	0.80	10.00	3.85	1.95	1.15	3.05	2,740
2.	1966-67	1.46	11.35	4.14	1.69	1.52	4.00	3,070
3.	1967-68	1.70	12.55	4.30	2.10	1.60	4.55	3,340
4.	1968-69	1.75	13.27	5.15	2.05	1.65	4.42	3,990
5.	1969-70	2.07	13.81	5.30	2.21	1.75	4.55	3,580
6.	1965-70	7.78	60.98	22.74	10.00	7.67	20.57	—

About 13% constitute income from fees. All receipts are deposited in the Government Treasury. The bulk of the expenditure is on pay and allowances of academic and non-academic staff and on their boarding.

40. The break-up of the expenditure on establishment (shown in column 5 of Table 9) between that incurred separately on academic and non-academic staff, for the last five years is given in Table 10.

TABLE 10 : *Break-up of Expenditure on Establishment between Academic and Non-Academic Staff*

(Rs. in Lakhs)				
S. No.	Year	Academic Staff (Pay & Allowances)	Non-academic Staff (Pay & Allowances)	Total
1	2	3	4	5
1.	1965-66	2.91 (75.6)	0.94 (24.4)	3.83 (100)
2.	1966-67	3.19 (77.1)	0.95 (22.9)	4.14 (100)
3.	1967-68	3.09 (71.9)	1.21 (28.1)	4.30 (100)
4.	1968-69	3.56 (69.1)	1.59 (30.9)	5.15 (100)
5.	1969-70	3.68 (69.4)	1.62 (30.6)	5.30 (100)

The expenditure on the salary and allowances of the non-academic staff seems to be rising.

41. Column 8 in Table 9, indicates the annual expenditure per boy. The cost per child per year, excluding the expenditure on stipends and food, would be as shown in Table 11.

TABLE 11 : *Cost Per Capita—With and Without Stipends and Food*

1	2	3
	Annual Expenditure per Capita (including Food and Stipends)	Annual Expenditure per Capita (excluding Food and Stipends)
1965-66	2,740	1,589
1966-67	3,070	1,576
1967-68	3,340	1,702
1968-69	3,990	2,162
1969-70	3,580	1,946

The comparative figures give an idea about the cost per capita. The expenditure on food and stipends is substantial.

42. The expenditure, which has been incurred so far, on various types of buildings, is indicated below :

Expenditure on Buildings

	(Rs. in lakhs)
1. Six sets of ashrams	17.66
2. Main school building	4.93
3. North and South Wings	3.58
4. Office and Store Blocks	1.14
5. Workshop	1.90
6. Staff quarters (22)	2.86
7. Teachers' quarters	2.83
TOTAL	34.90

The bulk of the expenditure has been on hostel buildings.

43. The expenditure on miscellaneous contingencies is sizeable. The items on which expenditure is incurred are quite large. A list of the items is shown in *Appendix VIII*.

SECTION IX

AN OVER-ALL VIEW

44. The previous sections give a factual survey of the 15-year old Netarhat School. The academic programme of the school is rich and so also the content of co-curricular activities. All possible attempts have been made to locate talented students in various districts of the State and to provide them the best possible education. The bulk of the beneficiaries are the students belonging to the lower income groups.

45. Hindi is the medium of instruction, but English is taught as a subject in all the six years of the school. The library and the laboratories are fully equipped and students are exposed to the latest possible literature available in all subjects. The workshops are equipped with all types of machinery. The ashrams, where the students reside, are like homes and are a special feature of the school. Community life is what it should be. There are very close relations between the teachers and the students. The campus life is rich and rewarding. Deliberate attempts are made to recruit adequately qualified teachers and to retain them. The salary scales are highly attractive. The students have done exceedingly well in the Board examinations; their academic record, in terms of divisions obtained, is outstanding and the alumni have acquitted themselves creditably.

46. The expenditure on the school, in terms of cost per student, is, no doubt, very high. This is inevitable in an institution where residential facilities are available and physical facilities are provided on an adequate scale and the bulk

of the cost is met by the Government. The high cost per student is due to various factors. The teacher-pupil ratio of the school is 1 : 12. This is because many options are offered. The overhead charges on cooking are too high because there are six kitchens catering for the needs of about 360 students. Central cooking in two or three kitchens would reduce the cost. The school is dispersed over a very wide area and, therefore, the expenditure on maintenance of grounds, lawns, roads, etc. is rather high. The school makes purchases through contractors; this raises the costs by 10 to 15%. The teacher-pupil ratio can be increased by cutting down the number of options. Without adding any expenditure on the maintenance of staff and with some slight initial non-recurring expenditure on construction of multi-storeyed hostels with a common kitchen, the school with its existing and excellent physical facilities, can take care of 200 to 300 additional students. There are many possibilities of economy in expenditure consistent with efficiency. The distance of the school at Netarhat which is in the hills with scarce local population, from Ranchi—the main town of the district—adds to the cost.

47. The institutions of the type of Netarhat School can be very attractive and would serve their purpose better if they are located nearer the district headquarters. It would solve the problem created by large distances which act as a disincentive for otherwise talented pupils residing in far-away districts, from attending such institutions. A larger number of non-residential students can be admitted in such institutions which would reduce the cost.

48. Identification, promotion and pursuit of talent are interlinked. The Netarhat School has succeeded in the present context, to identify and promote talent, though on a very small scale. The pursuit of talent is not within its

jurisdiction. Some methods might be found out to see that the students, passing out of this institution, continue to receive the attention they deserve and need.

49. In conclusion, it may be stated that the Netarhat School is a bold experiment. The idea of the school is well-conceived and its objectives are fully realised. There is an urgent need for such institutions in larger numbers to serve as nurseries for our talented children to grow and bloom.

APPENDIX I

DISTRICT-WISE PERCENTAGE OF STUDENTS ENROLLED, INTERVIEWED AND ADMITTED
IN NETARHAT SCHOOL, RANCHI—1966-68

S. No.	District	Percentage to Total Population	1966			1967			1968		
			Students Enrolled	Students Interviewed	Students Admitted	Students Enrolled	Students Interviewed	Students Admitted	Students Enrolled	Students Interviewed	Students Admitted
1	2	3	4	5	6	7	8	9	10	11	12
1.	Patna	6.3	11.7	14.1	11.7	11.2	11.7	6.7	11.2	7.5	11.8
2.	Gaya	7.9	7.9	6.4	5.0	10.0	12.5	10.0	10.0	2.4	3.4
3.	Shahabad	6.9	7.8	8.5	5.0	6.0	5.3	5.0	7.8	8.3	5.1
4.	Muzaffarpur	8.8	8.4	6.4	8.3	10.6	8.8	8.3	9.3	6.4	11.8
5.	Darbhanga	9.5	6.4	4.4	3.3	6.2	4.8	11.7	5.8	6.8	8.5
6.	Saran	7.7	4.8	4.0	1.7	5.8	4.3	5.0	2.8	4.4	1.7
7.	Champanan	6.5	4.1	3.6	1.7	2.2	1.1	3.3	1.6	2.4	—
8.	Bhagalpur	3.7	4.0	4.0	3.3	3.6	2.7	10.0	5.9	4.4	6.8
9.	Saharsa	3.7	3.4	2.4	1.7	2.7	2.7	1.7	4.0	2.8	1.7
10.	Monghyr	7.3	11.0	13.3	10.0	10.9	12.0	11.7	12.0	20.7	16.9
11.	Purnea	6.6	9.0	12.5	11.7	9.4	11.5	5.0	8.0	7.5	3.4
12.	Santhal Parganas	5.8	4.6	3.2	3.3	5.2	4.8	5.0	3.5	3.6	5.1
13.	Ranchi	4.6	4.9	6.4	16.7	5.0	4.8	8.3	5.4	6.4	6.8
14.	Hazaribagh	5.2	3.4	4.0	3.3	2.9	2.4	—	5.0	4.8	3.4
15.	Palamau	2.6	3.4	1.2	3.3	2.7	2.7	5.0	2.7	3.2	5.1
16.	Singbhum	4.4	3.4	4.0	5.0	3.5	4.2	3.3	1.8	2.4	5.1
17.	Dhanbad	2.5	1.8	1.2	5.0	2.6	3.7	—	3.2	6.0	3.4
TOTAL		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

APPENDIX II

THE NETARHAT SCHOOL

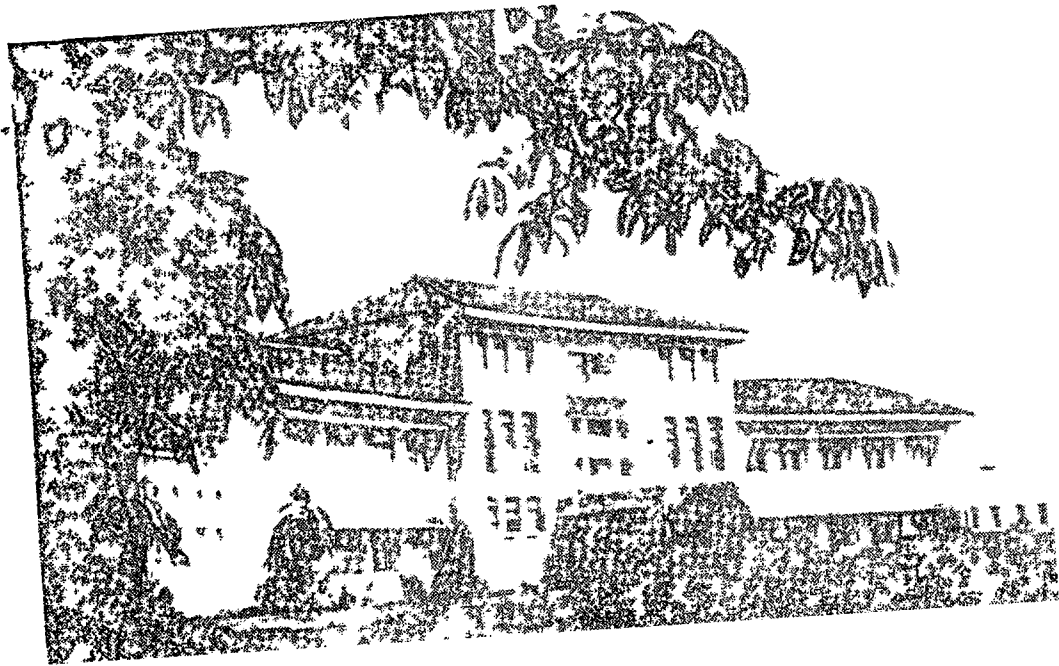
AND

ITS ACTIVITIES

IN

PICTURES

The Main Building





To Rajadera in October, 1968, the Trekking Party with the Principal



Vice-Chancellor, Ranchi University, Inspecting a Guard of Honour

Founder's Day

November 15, 1967

March Past by Old Boys' Contingent





Republic Day March Past, 1968

APPENDIX III

DAILY PROGRAMME FOR SUMMER

5-00 a.m.	5-25 a.m.	Reveille
5-30 „	5-50 „	P.T.
5-50 „	6-25 „	Cleaning and bath
6-40 „	7-20 „	First period
7-25 „	8-05 „	Second period
8-05 „	9-00 „	Breakfast and hospital
9-00 „	9-15 „	Assembly
9-20 „	10-00 „	Third period
10-05 „	10-45 „	Fourth period
10-50 „	11-30 „	Fifth period
11-30 „	11-45 „	Break (garment and book store)
11-50 „	12-30 p.m.	Sixth period
12-35 p.m.	1-15 „	Seventh period
1-30 „	2-00 „	Lunch
2-05 „	2-55 „	Rest
3-00 „	4-40 „	Self-study
4-40 „	4-55 „	Milk
5-00 „	6-00 „	Games
6-00 „	6-40 „	Bath, co-operative store
6-40 „	6-45 „	'Mounveia'
6-45 „	8-15 „	Self-study
8-15 „	9-30 „	Dinner and recreation
9-30 „		Light out

APPENDIX IV

DAILY PROGRAMME FOR WINTER

5·30 am.	6·10 a.m.	Reveille
6·15 „	6·35 „	P.T.
7·00 „	7·40 „	Self-study
7·45 „	8·05 „	Breakfast and hospital
8·20 „	8·35 „	Assembly
8·40 „	9·20 „	First period
9·25 „	10·05 „	Second period
10·10 „	10·50 „	Third period
10·50 „	11·05 „	Break (garment and book store)
11·10 „	11·50 „	Fourth period
11·55 „	12·35 p.m.	Fifth period
12·50 p.m.	1·50 „	Lunch
2·05 „	2·45 „	Sixth period
2·50 „	3·30 „	Seventh period
3·35 „	4·00 „	Milk
4·05 „	5·05 „	Games
5·05 „	6·00 „	Bath and co-operative store
6·00 „	6·05 „	'Mounvela'
6·05 „	8·15 „	Self-study
8·15 „	8·45 „	Dinner
8·45 „	9·30 „	Recreation and Radio news
9·30 „		Light out

ITEMS OF MISCELLANEOUS CONTINGENCIES

1. Washing charges.
2. Electricity charges.
3. School Agriculture Section :
 - (a) Mazdoors for school farm.
 - (b) Mazdoors for gardens of the school estate.
 - (c) Manures, seeds, replacement of implements, flower pots, etc.
4. Daily-wage workers for the school :
 - (a) School food store for transport of vegetables from the Bus Stand or Central Store to all the kitchens of the school and other works.
 - (b) Night guards for school estate.
 - (c) Cleanliness of the school estate.
 - (d) Miscellaneous works :
 - (i) Maintenance of school grounds.
 - (ii) Relieving work.
 - (iii) Other miscellaneous work like distribution of school stores, foodstore, unloading of materials, shifting, etc. as per requirement.
5. Petrol, diesel and other expenditure like repairs, tyres, tubes, taxes, etc. of two vehicles.
6. Contingent workers against the posts for which sanction is awaited.
7. Workshop :
 - (a) Metal Workshop :
 - (i) Raw materials for teaching.
 - (ii) Mistri-1.
 - (b) Wood Workshop :
 - (i) Raw materials for teaching.
 - (ii) Maintenance of carpenters.
 - (iii) Materials for repair and replacement of furniture.
8. Fine Art Class :
 - (i) Art materials.
9. Science chemicals and physics, biology apparatus replacements.
10. Sports including trips (compulsory sports for all students).
11. Miscellaneous expenditure on repairs of teaching apparatus, music equipment, mattresses, radio, watches, audio-visual aids, utensils, etc.
12. Service postage stamps.
13. Miscellaneous expenditure :
 - (a) Sanitation materials for school and ashrams of the school.
 - (b) Stationery for school and ashrams.
 - (c) Repairs of shoes, clothings, etc. of boys.
 - (d) Supply of liveries to peons, chowkidars, etc., aprons for kitchen and workshop staff and boys.
 - (e) Medicines for school sick-room, movement of boys for treatment and other requirement of sick-room.
 - (f) Magazines and book-binding for library.
 - (g) Painting and polishing of furniture of school and ashrams.
 - (h) Miscellaneous items.

