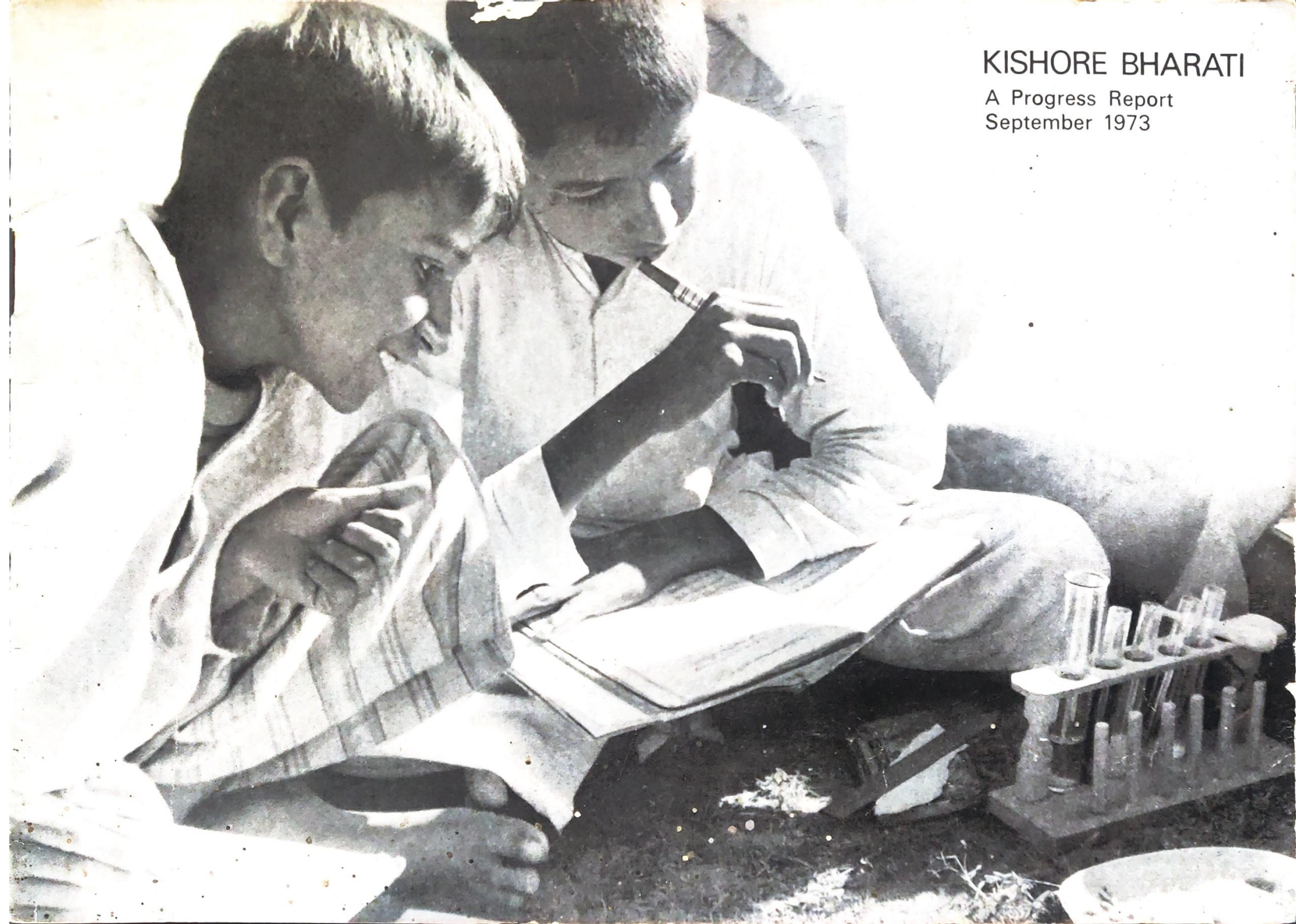


# KISHORE BHARATI

A Progress Report  
September 1973



This is the second Progress Report since the beginning of our work. The first was released in November, 1971, and is available on request.

All communications and contributions may be sent to:  
KISHORE BHARATI  
P. O. Malhanwara  
Via Bankheri  
Dist. Hoshangabad  
Madhya Pradesh 461990



Kishore Bharati is an experiment in rural education and development based in Hoshangabad District, Madhya Pradesh. Over the last few years, we have been analysing voluntary and Government attempts made in this direction. Through these explorations and our own local experience, we have arrived at a double-pronged approach to social change in the villages. We must create an economic infrastructure, and, we must radically overhaul the present education system to suit village conditions. In this manner, we would hope to reverse the fruitless city-bound migration of village youth in search of scarce menial jobs.

Whatever we do at Kishore Bharati is guided by the principle that the relationship we build up with the surrounding population be totally free of any touch of charity, patronage or dependence on us. Our actions must encourage local initiative and promote grassroots organisation. The clearest indication of success will be the speed with which the villagers assume responsibility for their own development and thus, render us superfluous.

The underlying assumption of all this work is that it is still possible to bring about relevant changes within the present socio-political structure. After weighing several alternatives, we have accepted this constraint. It remains to be seen whether any impregnable barriers inherent in the system will come in the way of achieving our objectives. If such barriers do appear, the primary assumption will have to be seriously questioned.

We thank all those who have given us their time, energies and money to help us progress towards our objectives. Yet the task has only begun. As we accelerate the pace of our work and take up new responsibilities, we look forward to your continuous and generous support. Our need for motivated and talented people willing to work and live in rural areas is just as urgent as ever.

We record our special thanks to the district authorities of Hoshangabad, various departments and agencies of the Government of Madhya Pradesh and the Central Government for the support given to us in starting a number of our projects.

We express our appreciation for the help which we have been getting from the local farmers for the last one year. It is this kind of help which encourages us to continue what we are doing with greater hope and meaning.

When Kishore Bharati was being conceived, it was decided as a matter of policy to seek financial support and manpower from Indian sources alone. We continue to feel that unless our own countrymen get fully involved and share the responsibility of carrying out such work, we shall not succeed in solving our basic economic and social problems. It is evident that there is more than enough money in the country to catalyse rural development, if only we learn to channel this money properly.

Kishore Bharati began its fund-raising drive in December, 1970. Since then a total of about Rs. 3.5 lakhs have been raised in cash and kind. Contributions from individuals have ranged from Rs. 5 to Rs. 2,000 and those from corporate sources such as firms, companies, trusts and student groups, from Rs. 500 to Rs. 60,000 (see Appendix II). We need to raise at least Rs. 5 lakhs during the current year in order to implement the proposed programmes. Your co-operation in rapidly achieving this goal will enable us to look ahead and work with renewed confidence.

All contributions to Kishore Bharati are deductible under Section 80 (G) of the Income Tax Act, 1961.

Please send your donations in the name of KISHORE BHARATI either by crossed cheque to our address (inside front cover) or through a mail transfer to our Home Savings Account No. 704 with the Central Bank of India, Hoshangabad, M. P. 461001.

## Contents

1. Plan of Action	4
2. Location	4
3. Beginnings	4
4. Farming	5
5. Ringwells	5
6. Irrigation Programme	6
7. Cattle Development Programme	6
8. Cement Unit	7
9. An Experiment in Cottage Industry	8
10. Vocation-Based Education Programme	8
11. Science Teaching Programme	8
12. Building Plan	10
13. Staff Members	10
14. Volunteers	11
15. Executive Committee (1973-74)	12
Appendix I	14
A list of the Scientists and Teacher-trainers Participating in the Science Teaching Programme	
Appendix II	16
Fund-Raising Drive — A Summary	

### Cover

Discovery : Children in a village school covered by the Science Teaching Programme



## **Plan of Action**

It has been our attempt to look at a region—rather than isolated villages—as a practical unit of development. To date, we have identified irrigation, milch cattle and cottage and small-scale industries as three major inputs which are crucial to the economic development of this region. Search is also on for a system of credit and marketing that will make it possible for small and marginal farmers and landless labour to participate in these development programmes. In education, we are working at two levels simultaneously. Within the existing school system, we have undertaken to optimise a free thinking spirit and develop the capacity for self-learning in children. Outside the Government structure, our effort is to evolve a wholly new pattern of vocation-based education. Here, we propose to combine academic and vocational training in such a way that it will infuse self-confidence amongst

young villagers in the viability of agro-based activities and, at the same time, strengthen their faith in co-operative endeavour as an effective means of solving community problems.

## **Location**

Kishore Bharati received 150 acres of land in Hoshangabad District from the Government of Madhya Pradesh in March, 1972. The location is Palia Piparia village, about 17 miles east of Piparia and 4 miles from Bankhedi on the Piparia-Jabalpur road. Both Piparia and Bankhedi, towns with populations of about 25,000 and 5,000 respectively, are on the Bombay-Howrah railway line via Allahabad.

The transfer of land took place despite concerted opposition from local vested interests, both landed and political.

Fearing direct financial losses and gradual attrition of their traditional hold in the area, they exerted their influence in administrative and political circles to block the Government from releasing the land. They also succeeded in casting widespread fear and misgivings about Kishore Bharati amongst the local population. It was in such an uncertain atmosphere that the first three staff members, Devta Deen Mishra, Sankata Prasad and Anil Sadgopal, moved to the new site on May 1, 1972, to start the work. Gradually, as a result of daily contact with the people and the work on the site, early feelings of suspicion and non-co-operation have largely disappeared.

## **Beginnings**

Our life in Palia Piparia village began



under a big kausum tree. We soon built a thatched hut in which we lived throughout the entire monsoons of 1972. We have now moved into two multipurpose buildings with tiled roofing. These single-storeyed hall-like structures have been partitioned to serve as a dormitory for staff members, office, store, kitchen and dining space, a small science laboratory and library, and a room for training boys in the manufacture of electrical items.

### Farming

Our first problem was to remove tree stumps—an average of 300 per acre—left behind when the Government felled the trees before handing over the land. Since machinery for this task was not available, the stumps were removed manually. Fifty-six acres were thus cleared in less than six weeks during the short spell of monsoons last year. The average cost of removing stumps was about Rs. 120 per acre. Work on the removal of stumps from the remaining 94 acres is being organised right now and will be completed by the end of this rainy season.

The agricultural operations began within a couple of months of the transfer of land last year. Twelve acres were put under

a mixed crop of **tuar** and **til** in the kharif of 1972. During the rabi, eight acres were sown with dwarf varieties of wheat. Our first attempt at cultivating the land was made particularly difficult by the high incidence of white ants, low humus content, poor water-retaining capacity of sandy soil and lack of fencing. Due to delay in getting the electricity connection to our well last year, the **tuar** and **til** crops had to depend totally on the scanty rains of the monsoons. In spite of all this, we managed to make a small profit.

During the current kharif season, we have sown 21 acres with groundnut, 3 acres with soyabean and a couple of acres with fodder crops (corn and napier grass).

Meanwhile, plans are afoot to conduct a contour survey with the help of Government surveyors. As soon as this is completed, the land will be levelled and irrigation channels laid on scientific lines. We propose to cultivate 100 acres in the next rabi, ultimately covering most of the 150 acres by 1974.

One of our chief problems in agriculture is the absence of fencing. This has already resulted in significant losses caused by stray cattle. The estimated cost of fencing the entire land is about Rs. 1.5 lakhs.

Raising support for this is one of our top priorities.

### Ring Wells

In April, 1972, we sank an open well of 4 feet diameter, lined with pre-cast cement rings. It is of a design conceived of and popularised by Friends Rural Centre, a voluntary agency that has been concerned with rural education and development in Hoshangabad District for the past several years. The well, which gives a yield of about 10,000 gallons of water per hour, has become the talk of the villages in the area because of its low cost of construction and the speed with which it was completed. More recently, we have dug 8 additional wells on the site, and plan to complete another 4 by the end of this year. The nine wells already completed will assure irrigation for at least 100 acres, leaving us with a possible surplus for the neighboring farmers. The average cost of such a ring well along with an electric pumpset is about Rs. 5,200. We have thus been able to provide irrigation to 100 acres at a cost of less than Rs. 500 per acre.



## **Irrigation Programme**

Farmers who frequently visit the site to see the ring wells, have expressed the wish to have similar ones on their farms. In response to this felt need, we began manufacturing cement rings in December 1972. There is a brisk sale of rings at Kishore Bharati today. Eight farmers of Palia Piparia village and eight more from surrounding villages have already acquired such wells, with the result that their income per acre is likely to increase by a factor of at least 2 or 3 this year.

We would like to point out two important features of this activity. Firstly, it is an example of the kind of small-scale industry that boys from landless labour families can profitably take up, especially if bank credit is made available to them. Secondly, ring wells, unlike tubewells, are within the grasp of a small farmer and enable him to go in for high yielding crops such as dwarf varieties of wheat which need assured irrigation. To cite an example, three of our neighbouring farmers, whose combined holdings add up to 8 acres, were induced to switch over to dwarf varieties of wheat during the last rabi season because we supplied them water from our well. We hope to release water on a larger scale later this year. A number of farmers

are looking forward to this so that they can earn enough money on their rabi crops to afford a ring well of their own next year.

We are presently looking around for help to procure a couple of drainage pumpsets along with a generator so that Kishore Bharati staff can go into the surrounding villages and assist farmers to deepen their wells, a necessary operation in the construction of successful ring wells. When, and if, this facility becomes available to us, we will be in a position to make a major contribution to increasing the irrigation potential, and consequently the agricultural production, of the Bankhedi region.

## **Cattle Development Programme**

We have concerned ourselves with the development of dairying both because it supplements farming operations and since it provides a regular income to the farmer. An expert from AMUL (Anand, Kaira District, Gujarat), who surveyed Hoshangabad District in October, 1971, reported that there was hardly any surplus milk in the area, and that, therefore, an economically viable milk marketing co-operative was not presently feasible.

Genetically poor milch stock and inadequate feeding and management practices are some of the reasons for low milk production. We are, therefore, organising a programme of cattle development to create a milk surplus in the area. As milk production goes up, a marketing co-operative on the lines of AMUL could be started.

The pivot of our effort will be cross-breeding of local cows using frozen semen from progeny-tested plus bulls of high genetic potential. Experience in several centres in Maharashtra has shown that a local cow with a lactation yield of about 300 litres per year can lead to progeny whose lactation yield could be as high as 2,500 litres per year. Artificial insemination, a veterinary service, encouragement to grow fodder crops and training in better management practices will be the cornerstones of this programme. To convince the farmers of the effectiveness of new ideas, a demonstration-cum-training farm of cross-bred cows is being set up. A cattle development centre will be organised later from where the facilities for artificial insemination and veterinary care shall be taken to the doorstep of the farmer. In a period of three years, the programme will cover 2,000 cows in an area of ten miles radius. All this



work is being done with the technical guidance of the Bharatiya Agro-Industries Foundation, Uruli Kanchan, Poona District, Maharashtra.

An intensive effort is under way to win the support of the farmers for the proposed cattle development programme. The following steps are being taken to achieve this goal.

1. Frequent meetings are being held, both at Kishore Bharati and in the villages, to talk about the tremendous potential of cross-breeding and to discuss the ways in which the farmers could contribute towards the cost of the programme.

2. A half-bred bull (Tharparkar X Holstein-Friesian) has been brought to Kishore Bharati to emphasise the role of cross-breeding. A male calf, sired by this bull, has also come to Kishore Bharati along with his Red Sindhi mother. The cross-bred animals have rapidly attracted attention due to their high growth rate and expected genetic potential. The half-bred bull, who has already started servicing the local cows, is expected to pave the way for a cross-breeding programme based on artificial insemination. When this happens, liquid nitrogen tanks containing frozen semen

from progeny-tested bulls will take his place.

3. To popularise the use of fodder crops, an acre of land was sown with lucerne during the last rabi and a couple of acres have been sown with corn and napier grass in the current kharif season.

4. At an appropriate stage, groups of farmers will be taken to dairy centres like AMUL, Bharatiya Agro-Industries Foundation and J. N. Krishi Vishwa Vidyalaya (Jabalpur), where they can see the role of cross-breeding and milk marketing in transforming rural economy.

5. Eight local cows of poor genetic background have been procured from the farmers for a demonstration programme. At present they are being kept at Friends Rural Centre, Rasulia, which has the facilities for artificial insemination with semen from progeny-tested bulls. When pregnant, these cows will be brought to Kishore Bharati. It is expected that the high milk-yielding progeny of such local cows will make a visible impact and help to convince the farmers of the effectiveness of this programme.

The initial capital investment for setting up a demonstration-cum-training cattle farm and a cattle development centre

will be about Rs. 1 lakh. The annual recurring expenditure for running a cattle development centre is Rs. 35,000. Over a period of three years the cost of running such a centre will be met through contributions from the farmers participating in the programme. The recurring expenditure for the first two years, however, needs to be guaranteed through donations or grants; this money can later be used as a revolving fund for setting up new cattle development centres in the region. The ultimate thrust of this programme is to make it possible for the small and marginal farmer—one who has, say, a single cow—to gain from the advent of dairy technology. We are exploring the possibility of credit support to the farmers to enable them to meet the cost of breeding, feeding and veterinary facilities. Search is also on for a suitable type of farmers' association, co-operative or otherwise, which will encourage local initiative in cattle development and milk marketing.

### **Cement Unit**

The main activity of this unit is the production of rings for wells. Economical water-sealed latrines, needing little water to flush, are also being made, and we



plan to manufacture irrigation channels and fence posts as well. Although the cement unit operated for merely four months during the financial year ending on March 31, 1973, products worth almost Rs. 20,000 were made.

### **An Experiment in Cottage Industry**

Ravi Chugh, a staff member, went to Faridabad to learn about the manufacture of chokes for tubelights. He has returned to Kishore Bharati and is presently organising a production-cum-training programme. The first few samples have already been made under local conditions and shown to work. Once again, this is a scheme specially suited for boys from families with little or no land. Training completed, these boys will return to their homes with credit support for buying their own hand-operated winding machines.

The success of this venture depends upon finding access to stable markets. We are in touch with some leading manufacturers of tubelights and hope to set up an arrangement whereby Kishore Bharati will initially be responsible for quality testing and marketing. It is envisaged that this programme will provide us with guidelines for organising a

variety of cottage industries on a similar basis.

### **Vocation-Based Education Programme**

Our study of the villages reveals that this programme will have to concern itself mainly with the dropouts from the schools. A vast majority of educational authorities look upon these dropouts as a major national problem. Immense efforts are going to be made during the coming five-year plans to pull back the dropouts into the conventional education system. We are convinced, however, that the dropouts are an asset rather than a liability. Having escaped from the irrelevant and monotonous education of the schools, the dropouts have the benefit of being exposed to the social and economic realities of daily life in the villages. They offer, therefore, a better potential for growth than their counterparts in the schools. We intend to exploit this opportunity by offering the dropouts of the surrounding villages a vocation-based education which will be aimed at infusing in them a spirit of self-reliance and co-operation. In contrast to the school system, this education will be centred around productive activities like farming,

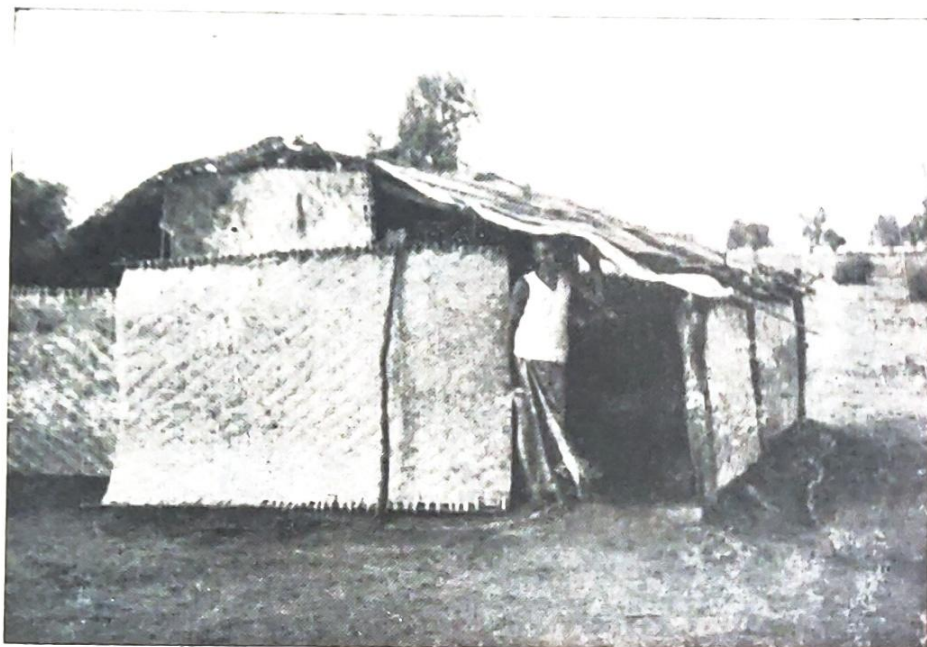
dairying, cottage industries, workshop and marketing.

It is important to emphasise here that a vocation-based education programme for the villages can be meaningful only if it is integrated with the effort to create a regional economic infrastructure. A vocational education programme without a simultaneous economic development effort is likely to be as irrelevant and unproductive as the existing school system. In fact, economic development projects in a region are themselves the most suitable training grounds for young people. It is for this reason that Kishore Bharati has first concentrated on organising a few crucial projects of economic development. Within the next few months, we are hoping to reach the stage when a vocation-based education programme will become not only meaningful and practical but also crucial to further development. Search for the first batch of students has already begun.

### **Science Teaching Programme**

Although Kishore Bharati's central aim is to organise a relevant rural educational programme outside the existing educational structure, the multitudes of children





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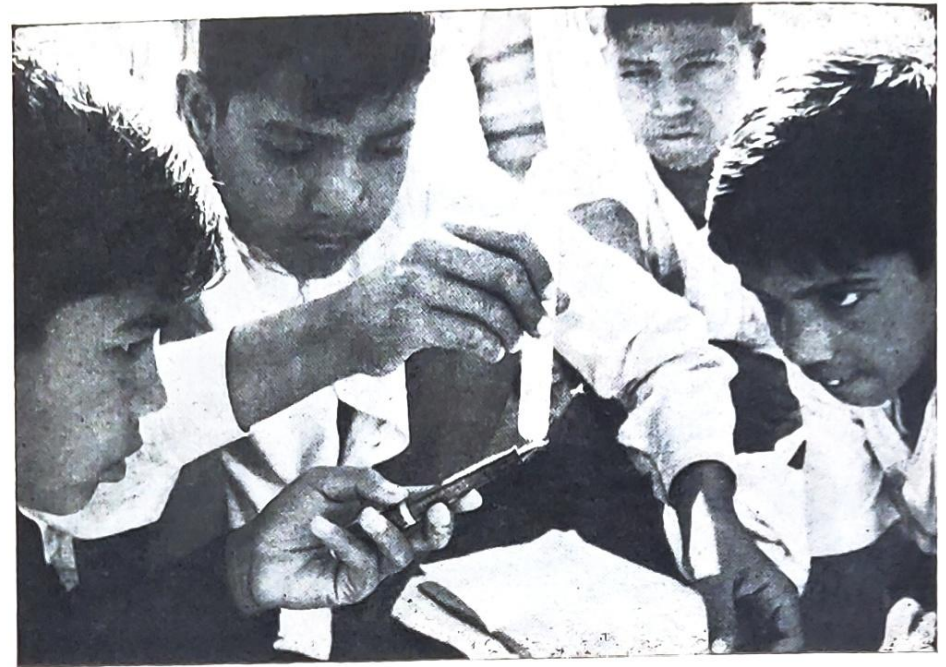
### From Small Beginnings

- 1 May '72 — The first shelter
- 2 Kishore Bharati becomes visible on the Piparia-Gadarwara Road
- 3 Today

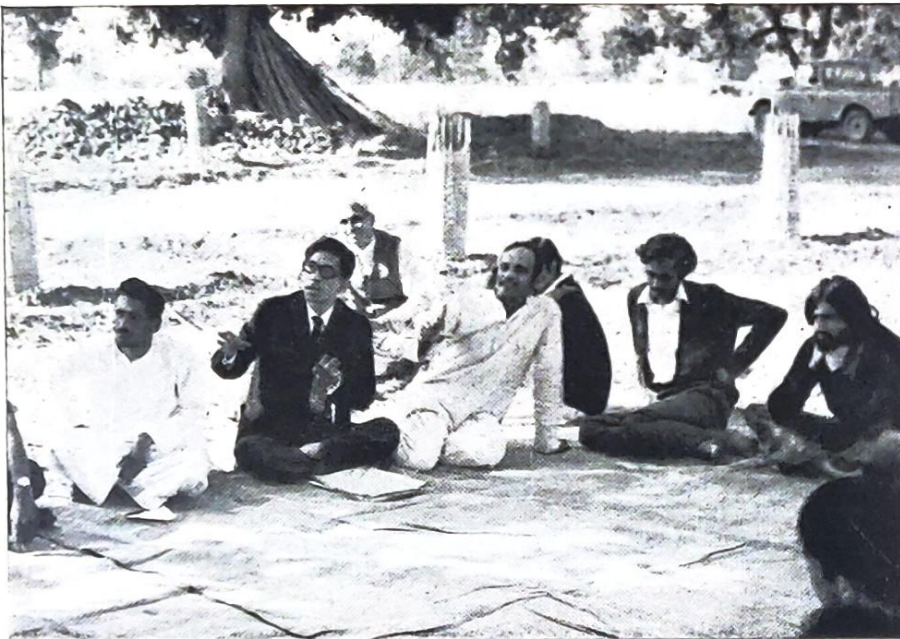




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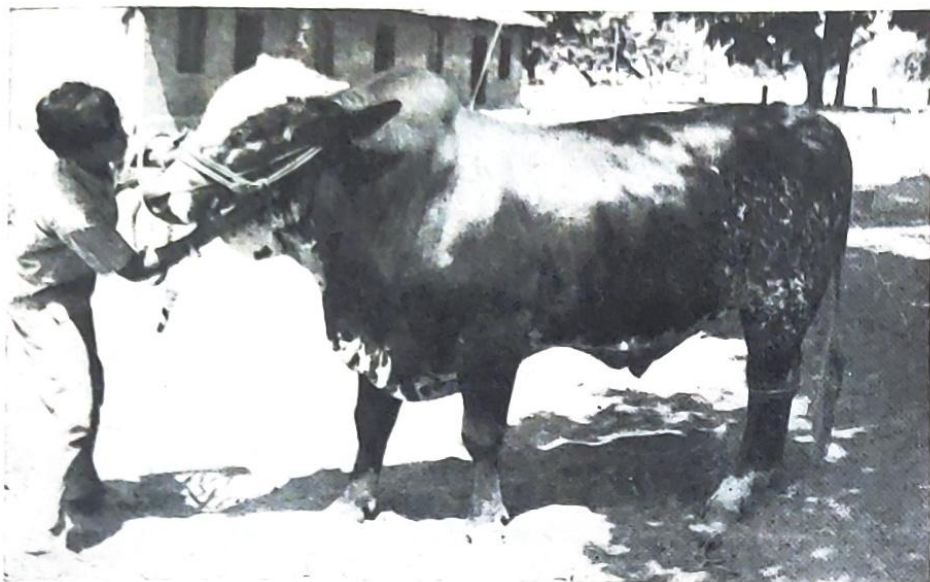


3

### Science Teaching Programme

- 1 A village teacher helps children conduct an experiment on volume
- 2 Testing for starch in food materials
- 3 Village teachers with visiting scientists and teacher-trainers at a monthly meeting

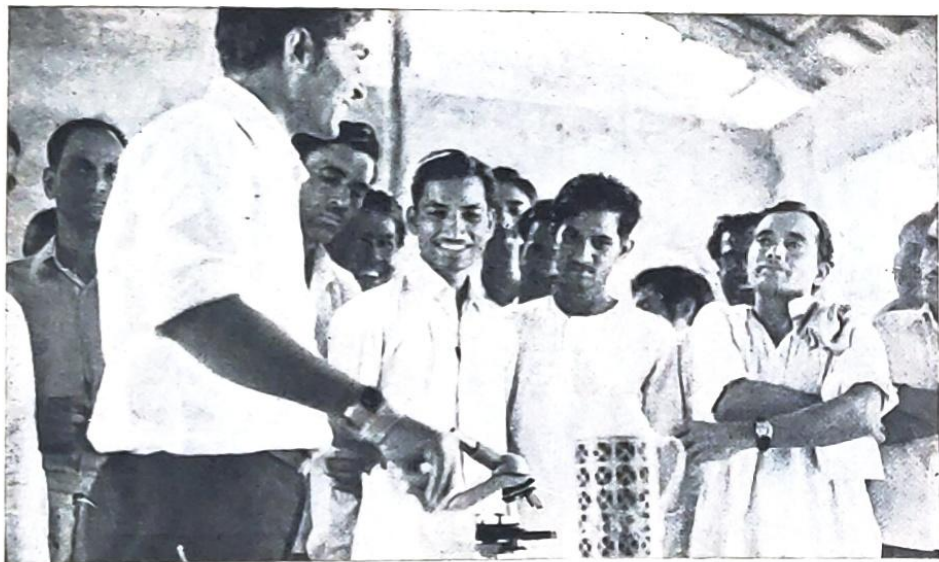




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### Cattle Development Programme

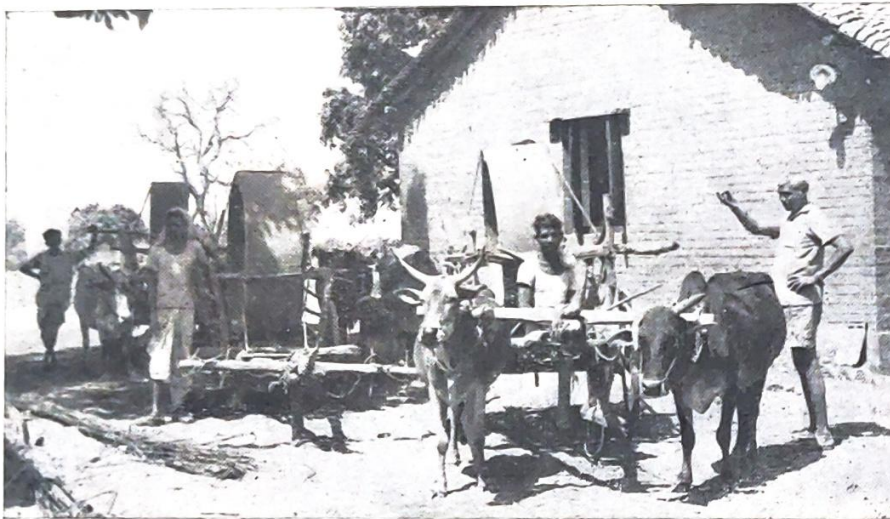
- 1 Ghanshyam — a Tharparkar X Holstein-Fresian half-bred bull used for servicing local cows
- 2 Villagers gather from afar to participate in a meeting addressed by a visiting cattle expert
- 3 "What is *artificial insemination*?" — a veterinarian explains to a group of amused science teachers



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2



3

### Ring Well Programme

- 1 December '72 — The first cement ring takes shape at Kishore Bharati
- 2 Rings being watered for curing
- 3 "Jai Ramji !" — a villager departing with his caravan of rings



attending the conventional schools cannot, and should not, be ignored. The need to find ways of transforming the methods of education within the school system continues to pose a major national challenge. It was with this feeling that Kishore Bharati decided last year to start an effort to change science teaching methods in the surrounding schools. The programme, a joint effort of Kishore Bharati and Friends Rural Centre, aims to introduce science teaching through experiments and inquiry with the co-operation of an average village teacher.

The Government of Madhya Pradesh has released 16 rural middle schools for this programme. Nine of these schools are located around Friends Rural Centre in Hoshangabad Tahsil and seven of them around Kishore Bharati in Sohagpur Tahsil. The Government has given us full freedom to experiment with text-books, syllabi, learning methods and the examination system, and to devise teacher-training techniques.

**The First Year:** In May-June, 1972, with the help of members of the All India Science Teachers' Association Physics Study Group and several scientists of the Tata Institute of Fundamental Research (Bombay), we held a three-week Orientation Course for 34 teachers from these

schools. The majority of these teachers have had little or no background in science. During the Orientation Course, the teachers were trained in science teaching methods which allow the children to learn through their own observations and conclusions. An inexpensive but highly versatile kit has been distributed to these schools along with a work-book. The work-book, specially designed to utilise the village environment, differs from ordinary text-books in that it contains no facts or definitions. It is merely a set of instructions to the children for performing experiments, followed by a few guiding questions. The core of the programme is an intensive follow-up effort involving one-day monthly meetings with the teachers and frequent visits to individual classrooms to come in direct contact with the children. The feedback thus collected has given us new insights into the problem of carrying the discovery method of learning science to rural teachers and children. The first year's material is being revised both in content and direction on the basis of this feedback.

**The Second Year:** During the first year, the trials were conducted in class six, involving about 750 children. The number of children has increased to 1,400 this year as the programme has

been taken to class seven. The second Orientation Course was held in May-June, 1973. A special feature of this year is the introduction of the concept of individual science projects to encourage the students to develop their own style and pace of learning. The teachers and the students will be further encouraged to organise science exhibitions in the villages to involve the entire community.

**The Future :** The Government of Madhya Pradesh has recently proposed that we demonstrate the efficacy and relevance of the programme by expanding it to all of the 150 middle schools of Hoshangabad District. We are presently trying to build up a nucleus of workers to take up this challenge. We are also alive to the need for including the primary schools in this effort and to cover mathematics and languages—the two subjects which are essential to better understanding and communication in science. Our long-range goal is to build up a group of teacher-trainers from amongst the teachers involved in our programme so that a multiplier effect is generated.

**Participation by the Academic Community:** A number of highly motivated scientists and teacher-trainers from the All India Science Teachers' Association, Aligarh Muslim University,



Bombay Municipal Corporation, Gandhi Vidyapeeth (Vedchhi, Surat Dist., Gujarat), Lok Bharati (Sanosra, Bhavnagar Dist., Gujarat), Space Applications Centre (Ahmedabad), Tata Institute of Fundamental Research and the Universities of Delhi and Rajasthan have visited Hoshangabad to participate in the Orientation Courses and the monthly follow-up meetings. The University of Delhi, supported by the University Grants Commission, has recently accepted a proposal that two of its faculty members be given official leave on a rotational basis for a period of six months each to work in Hoshangabad District. The first two scientists from the University of Delhi, Dr. Raj Rup and Dr. Vijay Varma, have already arrived to lead the programme. Participation of such people has helped us both to broaden the outlook of our science teachers and to involve more like-minded people from all over the country in our attempt to change the education system.

**An Integrated Endeavour:** For us, the Science Teaching Programme is an integral part of our other development efforts. The science teaching activity strengthens, and in turn derives strength from, these other programmes. It is in this totality that the effort to encourage a free thinking and questioning spirit

amongst the village children acquires added meaning and perspective.

### Building Plan

A complete campus is being planned. The two hall-like structures now in use will eventually be vacated for a workshop and related activities. Some facilities, such as cattle sheds, agricultural stores, offices and staff residences (at present the staff members share a dormitory), are urgently needed. It was planned to begin the new construction in April, 1973, and in anticipation we have made a couple of lakhs of bricks on the site. However, the building plan is being indefinitely shelved due to an acute shortage of funds.

### Staff Members

**Sankata Prasad** and **Devta Deen Mishra** are experienced village extension workers from a Sarvodaya project in Mirzapur District, Uttar Pradesh. Sankata looks after the Cement Unit, Brick Kiln work and construction of buildings, and deals with the Block Development people whenever necessary. Devta manages the

farm and leads the extension work for the cattle development programme.

**Anil Sadgopal**, who has a Ph.D. in Biochemistry from the California Institute of Technology, USA, and has worked in the Molecular Biology Unit of the Tata Institute of Fundamental Research, is over-all co-ordinator of the project and particularly involved in the educational programme.

**Ravi Chugh**, experienced in working with machines, has been trained in a Faridabad industry in the manufacture of chokes and will soon initiate the project. In addition, he assists in office administration.

**Dalpat Danidharia** has a B. A. in Rural Studies, with special training in animal husbandry, from Lok Bharati, Gujarat. He is chiefly responsible for the activities of the cattle development programme.

**Anand Patwardhan**, who is a graduate in Sociology from Brandeis University, USA, and has worked with a farm-workers' union under the leadership of Cesar Chavez in California, is mainly concerned with education and the social problems of the villages.

**Rex D'Rozario**, until recently Sub-editor



of Science Today (a Times of India Publication from Bombay), is experienced in journalism and mass communication methods. At Kishore Bharati, he assists in the farm and shares responsibilities in fund-raising and related work. Rex will also be starting work on the preparation of audio-visual aids for the Science Teaching Programme.

**Jagdish Mishra**, an experienced accountant from the Sarvodaya movement, is stationed at Friends Rural Centre. He spends part of his time maintaining Kishore Bharati's accounts.

**Anita Anand, Sundar Burra and Rashid Shaikh**, shared between Friends Rural Centre and Kishore Bharati, were with us until recently. Anita, a graduate in Education from the University of Calcutta, was largely responsible for the administration of the Science Teaching Programme during its early stages. Sundar, a graduate in Philosophy from Brandeis University, USA, looked after the fund-raising work and helped in administration. Rashid, an M.Sc. from the Indian Institute of Technology at Kanpur, was responsible for the follow-up and development of the kit and work-book for the Science Teaching Programme.

## **Volunteers**

**Nandita Haksar**, a young graduate from Delhi, was with us for a month during the Orientation Course this year. She helped with the office work and in the preparation of the school kits for the Science Teaching Programme.

**Sudarshan Kapur**, Co-ordinator of the Friends Rural Centre, has spent a great deal of his energies in helping us to procure the land, and to plan the farming, irrigation and cattle development programmes. He also shares the administrative responsibilities of the Science Teaching Programme. Sudarshan's help in winning the backing and trust of the local people is particularly appreciated.

**Ishwarbhai Rawal and Popatbhai Savani**, students of Horticulture and Rural Co-operation respectively at Lok Bharati, spent a month each at Kishore Bharati. Ishwarbhai started a nursery and garden and Popatbhai assisted on the farm.

**Subhash Shah**, a lawyer from Bombay, looks after Kishore Bharati's legal affairs and fund-raising. We have continuously benefitted from his willing support and advice.

**Asha Sippy**, who was at the Friends Rural Centre until recently, has given us invaluable support by looking after Kishore Bharati's correspondence and by helping in the fund-raising work.

### **Executive Committee (1973-74)**

<b>Name &amp; Address</b>	<b>Organisation associated with</b>	<b>Profession</b>	<b>Office Held</b>
1. Shri Mahesh Bhogilal 4-B, Manek, Nepean Rd. Bombay 400006	Shree Ram Mills Ltd., Batliboi & Co. Priv. Ltd.	Business Management & Industry	Member
2. Shri Jyotibhai Desai Gandhi Vidyapeeth, Vedchhi District Surat Gujarat 394640	Gandhi Vidyapeeth	Rural Education & Sarvodaya Work	Chairman
3. Smt. Ansuya Dutt Bombay Mutual Chambers 5th Fl., 19-21 Hamam St. Bombay 400001	—	Law	Member
4. Dr. Vasu Nori Flat No. 13, 2nd Floor Vasant Mahal 'C' Road, Churchgate Bombay 400020	Shirish Patel & Associates	Structural Engineering	Member
5. Dr. (Smt.) Shubhada Pandya Asstt. Dean's Bungalow K. E. M. Hospital, Parel Bombay 400012	Acworth Leprosy Hospital	Medical Research	Treasurer



Name & Address	Organisation associated with	Profession	Office Held
6. Dr. Anil Sadgopal Kishore Bharati P. O. Malhanwara, Via Bankheri District Hoshangabad M. P. 461990	Kishore Bharati	Science & Rural Development	Secretary
7. Shri Baldev Sidhu B2/12 Model Town Delhi 110009	Sibo Agencies	Business	Member
8. Shri Suresh Suratwala P.O. Devapur Taluka Man District Satara Maharashtra	Sir Dorabji Tata Trust	Rural Development	Member

Smt. Geeta Athreya (Calcutta), Shri Ramesh Kundalia (Hyderabad) and Shri Subhash Shah (Bombay) have all been members of the Executive Committee for varying lengths of time in the past.

## Appendix I

### A List of the Scientists and Teacher-Trainers Participating in the Science Teaching Programme.

The following is a list of people who have given us help and guidance in the Science Teaching Programme since its inception in May, 1972. Many of these have participated in the Orientation Courses held so far, monthly meetings with the teachers, follow-up visits to the schools and in preparation of the kit and the work-books.

#### In 1972-73

##### Physics Study Group, All India Science Teachers' Association

1. Shri C. K. Dikshit,  
The Doon School, Dehra Dun
2. Shri B. G. Pitre,  
The Doon School, Dehra Dun

##### Department of Education, Bombay Municipal Corporation

3. Shri V. M. Phanshe,  
Inspector of Schools

##### Editorial Board, Hindi Vigyan Sahitya Parishad, Bhabha Atomic Research Centre, Bombay 400085

4. Shri S. R. Pande
5. Shri M. Saksena

##### Tata Institute of Fundamental Research, Bombay 400005

###### Solid State Physics Group

6. Shri V. G. Kulkarni

###### Molecular Biology Unit

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##### Solid State Physics Laboratory, Ministry of Defence, Delhi 110007

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## Appendix II Fund-Raising Drive: A Summary


A summary of donations (in rupees) from different sources is given below.

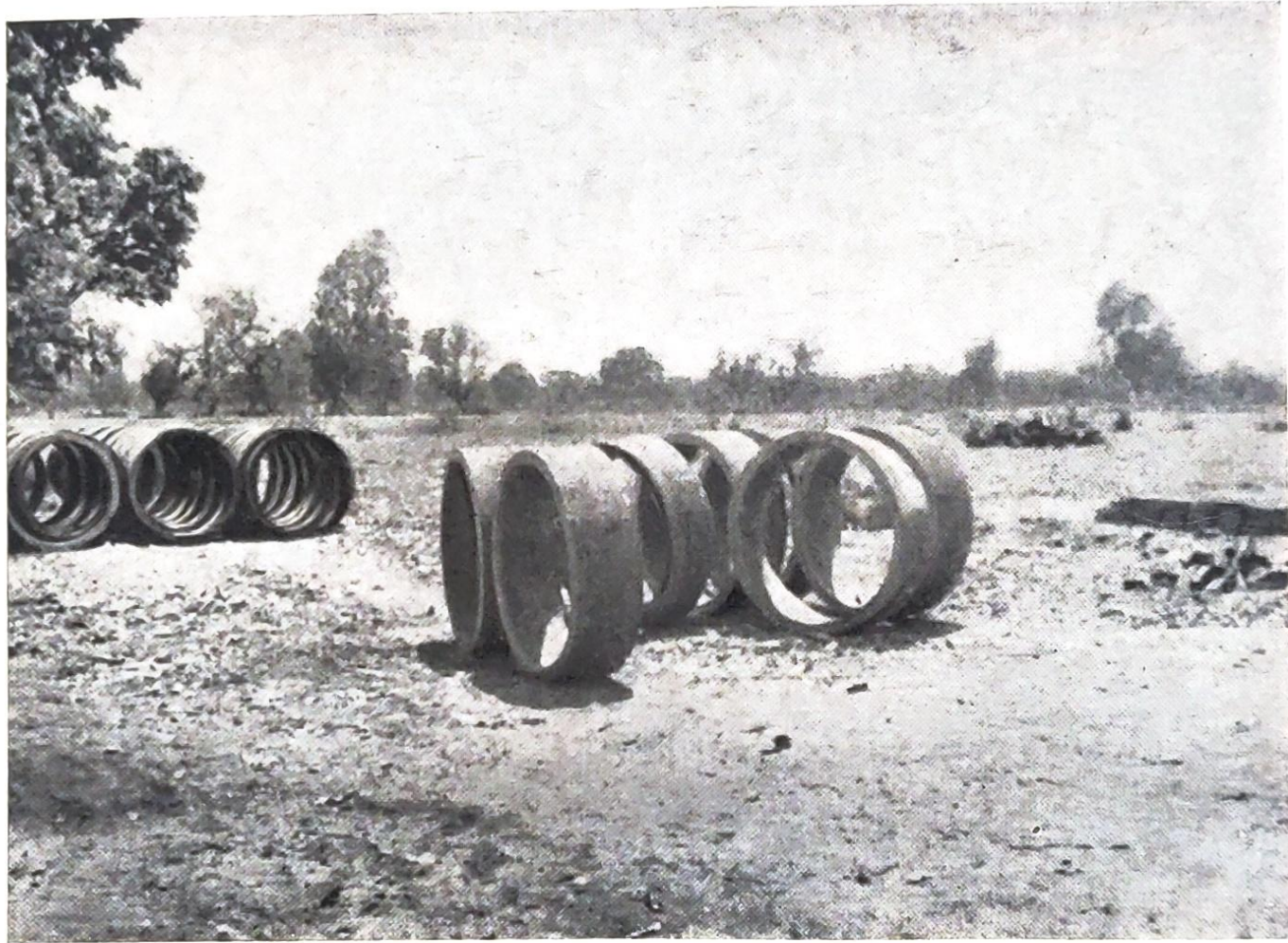
	1970-71	1971-72	1972-73	1973-74	Total
<b>Corporate Donors</b>					
I. Companies & Firms	351	42,751	67,620	500	111,222
II. Trusts	7,001	45,500	103,995	500	156,996
III. Student Associations and Groups	50	19,267	3,315	3,811	26,443
<b>Individual Donors</b>	17,002	18,285	8,680	4,897	48,864
<b>Total</b>	<u>24,404</u>	<u>125,803</u>	<u>183,610</u>	<u>9,708</u>	<u>343,525</u>



5 Km

☐ Covered by Science Teaching Programme (schools of Hoshangabad Tahsil not shown here)  
☐ Covered by Irrigation Programme, Figure indicates number of Ring Wells completed  
☐ Covered by Irrigation Programme, Figure indicates number of wells deepened with rings


 Village or Town  
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