



## **DR. ANIL SADGOPAL**

### **Recipient of the Award for Application of Science and Technology for Rural Development - 1980**

Dr. Anil Sadgopal, who is a Master of Science in Plant Physiology and Chemistry from the Indian Agricultural Research Institute, New Delhi, and a Doctorate in Biochemistry from the California Institute of Technology, U.S.A., is the Founder of Kishore Bharati and the moving spirit behind this organization. Hardly 30 at the time in 1971 he gave up a promising career as a theoretical scientist in the Molecular Biology Department of the Tata Institute of Fundamental Research (TIFR), Bombay, to devote his life for the improvement of the living conditions of the people in the villages. He inspired a few other young scientists of high academic qualifications and diverse professional backgrounds including field experience in rural education and development to join hands with him in the venture.

Kishore Bharati is a voluntary organization and was registered as a society in 1970. It started its work in 1972 after intensive preliminary field surveys in rural education, agriculture and cottage industries, with its headquarters at Palia Piparia, a village with a population of about 1200, in Hoshangabad District, Madhya Pradesh.

The objectives of Kishore Bharati can be briefly summed up as an attempt to effect social change by radically overhauling the present rural education system in order to make it relevant to the village conditions, and creating the requisite social and economic infrastructure for an integrated approach to rural development through the application of science and technology.

An important and salutary principle adopted by Kishore Bharati from the outset is that all resources for its work, financial as well as human, shall be raised from within the country. No help of any kind from any foreign agencies or donors will be ever sought or accepted. This decision is based on the premise that a meaningful solution to our problems can only emerge from within the depths of our culture, resources and genius through our own efforts and struggles.

Being aware that education is a major input in rural development, one of the first and foremost problems tackled by Kishore Bharati were to devise a system of education in science for children in middle schools suited to our rural conditions. The system, which has come to be known as Hoshangabad Vigyan, was to give up the traditional method of learning by rote, and placing emphasis on the 'discovery approach' and 'activity-based learning' in which the children themselves performed experiments to illustrate scientific phenomena. The Madhya Pradesh Government permitted the experiment to be tried as a pilot scheme in 16 village middle schools in Hoshangabad District, and it was launched in 1972 by Kishore Bharati in collaboration with the Friends Rural Centre, Rasulia. A simple and inexpensive multipurpose scientific kit and teaching materials were provided by Kishore Bharati, which also formulated a reorientation course for the existing teachers to train them to take up the new method of teaching, so that none of them needed to be replaced or disturbed. In keeping with the new teaching method, the system of examinations was also revised to test the intelligence and ability of students.

The scheme was so novel in its approach and yet simple in its execution, that it attracted wide attention among scientists and educationists from several institutions such as the All India Science Teachers Association, Delhi University, T.I.F.R. and Indian Institute of Technology besides several post-graduate

colleges in Madhya Pradesh, who voluntarily started taking keen interest in it and actively participating in its programmes. The syllabus and teaching material are revised from time to time in the light of critical analysis from those directly involved rather than on the basis of 'expertise' available in urban headquarters. The experiment proves so successful during the seven years of its working that in 1978 the Madhya Pradesh Government with assistance from the NCERT decided to adopt it in all the 220 middle schools in Hoshangabad District.

Due to conditions prevailing, 60 to 70 per cent of the village children belonging to the weaker sections of society either do not enter the school system or drop out at an early stage. In order to help them as well as other youths and adults, Kishore Bharati has evolved a Non-formal Education Programme. Built round such relevant activities as farming, irrigation, cattle breeding and cottage industries, it aims at enabling the weaker sections of society the landless labourers and the marginal farmers to acquire the skills and attitudes necessary to improve their own lot. It also enables the launching of 'learn while you earn' programmes. The object is to put an end to the fruitless city bound migration of rural youth in search of scarce menial jobs.

Having acquired a meaningful education, the youth of today who will be the citizens of tomorrow are sure to provide the leadership necessary to improve the quality of life in their villages.

Side by side with these educational programmes, all these years Kishore Bharati has been carrying on research through experiments on the application of science and technology to rural development in all its aspects of agriculture, horticulture, irrigation, compositing, animal husbandry and cottage industries. The aim is to make available to the villagers the results of the research to train them in making their agricultural and other operations more productive and profitable. The people are also encouraged and helped to start village co-operatives to tackle their problems such as rural credit, irrigation and electric power supply. Collective pastures for growing better quality fodder to serve the entire community of the villages have been set up in various places. Experiments have also been made to evolve a relevant pattern of medical infrastructure in rural areas by integrating the health services provided by the Government with the traditional services available in the villages. Local cultural forms like Kathas and Ramlila are utilized to focus attention on social issues.

In formulating its plans of action, Kishore Bharati has kept in mind the social, economic and political constraints under which the work has to be carried on and tried to gradually overcome them by enlisting wide co-operation from all classes. Further, since surveys have indicated that the benefits of rural development plans generally accrue to the socially powerful rural elite, Kishore Bharati has been trying to devise methods for carrying technology directly to the underprivileged. Thirdly, a region and not an isolated village has been treated as a practical unit of development.

Part of the expenses of Kishore Bharati are met from the profit of its experimental farm set up on 60 hectares of land donated in 1972 by the Madhya Pradesh Government. The rest comes from donations from well-wishers and friends companies, trusts and individuals and government grants. Several voluntary workers from different walks of life extend their help by participating in its activities in various ways.

Dr. Anil Sadgopal continues to be the moving spirit and inspiration behind the Kishore Bharati Group consisting of about a dozen full-time and part-time workers assisted by numerous volunteers. His wife, Dr. Mira Sadgopal, M.B.B.S, has been one of his co-workers. The rich experience and knowledge which Dr. Anil Sadgopal has derived from in-depth studies and analyses of the formidable technical as well as social problems of rural development have made him one of the leaders of the rural regeneration movement in the country. In particular, he has shown how to make science and education serve the real needs of the rural poor.

Kishore Bharati is guided by the principle that the relationship it builds with the people whom it serves should be free from any touch of charity, patronage or dependence. Its activities are directed towards encouraging local initiative for promoting grass-roots organizational and leadership to enable the people to help themselves and improve their material and moral well-being. The Kishore Bharati Group constitutes what can be termed as the 'Hoshangabad Science Symphony Orchestra' attuned to the pulse beat of rural transformation with Dr. Anil Sadgopal as its Conductor.

