



DR. S. S. KALBAG

Recipient of the Award for Application of Science and Technology for Rural Development - 1996

Born: October 23, 1928

Education: Bachelor of Science, Hon. Bachelor of Science in Technology, Master of Science in Technology, Doctor of Philosophy (Ph.D).

Dr. Kalbag, worked as a Senior Scientific Officer in the Central Food Technological Research Institute (CFTRI), Government of India, Mysore from 1956-1963 and later joined the Hindustan Lever Ltd where he rose to be Head of Engineering Science Division in 1968.

Dr. Kalbag preferred to settle on a barren 5 acre land given by the Maharashtra Government renouncing the hi-fi opportunities of Metropolitan life. He established under the banner of the Indian Institute of Education, Pune, the Vigyan Ashram at Patbal in January 1983. Dr Kalbag's work is a one person led revolutionary structural reform of our educational system. It gives formal and non-formal training with the same facility. The teaching material and methods have been documented, demonstrated and used. A scheme for using the existing educational institutions has been worked out in detail and necessary changes have been made in the syllabus of the existing schools. The scheme is now open to any school in Maharashtra and their networking is planned.

The system integrates education and rural development through the process of "learning while doing" on the one hand and giving paid services to the community on the other for hands-on experience to the students. Such approach has reduced the cost to a level where finances are no longer a constraint for extension.

The chief merit of the system is the Demystification of Science and Technology whereby many of the modern and sophisticated services are simplified to the level where the rural youth can handle these and also contribute to the national effort.

This is evidenced by the following examples:

1. The process and method of locating underground water. This electrical resistivity measurement method earlier done by post graduates is now routinely done by school level students. The principles of the test are also explained to many of the farmer clients. This has helped to wean away farmers from blind faith and superstition.
2. The Rural Laboratory with its simple equipment and methods for detecting anaemia, identifying blood groups, pregnancy tests, microscopic examination of specimens, etc has been a good educational exercise and critical social service.
3. The computers have been brought to the village and the boys and girls on the staff are all using them for Word Processing in Devnagari, database and spreadsheet applications and accounting.

The impact of the programme in the entire region is multidimensional:

1. More students are now going for higher technical education than before.
2. Enrollment has shot up from 30 students in some schools by 100% because of the Rural Technology course being introduced.
3. As against no workshop at all in the region in 1982, 5 new workshops have sprung up.

4. Water prospecting services have been developed by the trained students for using the instrument design from the Ashram.
5. Geodesic domes for use in earthquake affected areas have been designed. 500 such domes are to be manufactured. These have been used in Gubal village, near Khillari, the worst effected by the earthquake in the Osmanabad District of Maharashtra.
6. Because of the Rural Laboratory programme the patients of the local doctors get the service at a very modest cost, on a no loss no profit basis. There is a saving of Rs. 100 per patient and about 30 patients come every month.
7. The development group overwhelmingly manned by the local youth has evolved a large number of designs and documented them for use by other schools and voluntary agencies.

The replicability of the Rural Technology Course has been completed in a thorough field experiment in 3 schools in and around the village Pabal. The Ashram has shown results in all fields of constructive social work, child and women development, rural development and science & technology.

