

Shri Mohan Narhari Parikh

Recipient of Jamnalal Bajaj Award for Application of Science and Technology for Rural Development-1984

Shri Mohan Narhai Parikh was born in Gujarat on 24th August 1922. In his childhood he stayed at Sabarmati Ashram and Gujarat Vidyapeeth and received education on Gandhian lines. He showed a special liking for science and engineering, with a keen aptitude for application. He was trained in Gramodyog, specially in the making of hand-made paper, which he used in one of early assignments at Sanganer Gramodyog Centre in Rajasthan.

While still young, Mohanbhai also contributed a great deal to the work of Khadi Sarjan Karyalaya, when it was shifted from Bardoli to Sabarmati Ashram. During the Quit India Movement, he looked after the working of the Sabarmati Ashram. Later, in 1946, he started working in rural areas by joining the Swaraj Ashram at Velchhi in Surat District of Gujarat, under the inspiring guidance of veteran Gandhian leader, Shri Jugatram Dave. He was there for 10 years.

From 1956 to 1959, Mohanbhai took active part in the Bhoodan Movement. It was while he was working for the Gujarat Committee for Bhoodan that a momentous occasion came in his life. The leaders of the Sarva Seva Sangh, Jayaprakash Narayan, Annasaheb Sahasrabuddhe and Dharendra Mazumdar, assigned to Shri Parikh the task of finding out the most workable and viable farming methods and the most suitable and economical, yet productive, agricultural tools and implements which could be within the reach of small farmers. For this purpose, the Agricultural Tool Research Centre was set up at Bardoli and Mohanbhai was put in its charge.

Mohanbhai traveled extensively throughout the country to make an in-depth study of the agricultural tools in use. To be able to discuss problems with farmers, he studied agronomy. In 1960, he attended the World Agricultural Fair in Delhi to study the tools in various countries. The knowledge gained in this manner helped Mohanbhai to design improved varieties of tools. He visited Japan twice because he thought that the technology of Japanese tools would be more suitable to Indian farming. He also took a course in 'Mechanised farming and farm machineries', to further advance his knowledge. It was mainly due to Mohanbhai's innovative abilities, coupled with scientific field testing and experimentation, that the ATRC has been able to develop about 60 improved hand tools and bullock-driven implements during the last 25 years. These tools provide comfort and convenience to posture while handling, reduce fatigue and are easy to maintain. Since farmers' children also work in farms, there are tools specially designed for them.

The ATRC has developed a special organization the Yantra Vidyalaya for manufacturing and marketing the tools, for which there is a large demand from all over the country. The Vidyalaya has sold tools worth Rs 10 lakhs. The Centre has also set up a permanent exhibition of these appliances with illustrative charts and photographs. Every year about 5000 visitors-cum-customers visit the Centre and learn about appropriate technologies for farming operations.

The Centre has considerably diversified its activities in recent years. The foremost among these is the setting up of bio-gas plants and making of solar cookers. This also owes to Mohanbhai's assessment that bio-gas and solar energies are the two most appropriate alternative sources of energy, which could help a developing economy, overcome its present energy constraints. The ATRC has designed bio-gas plants which reduce the recurring initial investment, simplify construction and also reduce the recurring cost, besides increasing the life of the plant. It has successfully developed the fixed dome plant on Chinese pattern. Over 5000 such plants have been erected in the last 5 years in parts of Gujarat.

Similarly about the solar cookers. The Centre has taken them to the field level for the first time in India. In the last 6 years, about 950 flat plate box-type solar cookers were marketed, the design having been developed by the Centre itself. These cookers have been readily welcomed by the rural families, who suffer from a severe shortage of cooking fuel. As a result, the booking for the cookers made by the Yantra Vidyalaya has been very fast and much ahead of supply schedule. The Centre has improved the earlier design resulting in more heat generation and less time required for cooking. Recently, it has taken up a 'Cooking and Fuels Aspects' Project, at the behest of the Department of Science and Technology, through which solar cookers will reach more and more rural households.

In addition to the solar cooker, the Centre has also developed a small water desalination unit called solar still, very useful for rural dispensaries, laboratories, automobile batteries, etc.

The Centre has added 'social forestry' to its activities and has planted a large number of trees with a view to easing the problem of fuel for poor people.

The Centre has published a number of books and pamphlets on tools, bio-gas plants and solar cookers. Mohanbhai has contributed a great deal to this literature.

The above account will show how the ATRC, started primarily for developing tools and implements for small farmers, has become a centre for developing appropriate technologies for all-round rural development. This became possible mainly because of Mohanbhai's dynamic leadership, vision and social commitment.

