



## **MR. RAM KUMAR SINGH**

**Recipient of the Award for Application of Science and Technology for Rural Development - 2014**

Born: December 30, 1964

After passing engineering degree, Ram Kumar Singh had decided to work in voluntary sector. He worked extensively in training the rural youth in various rural technologies. This gave him the opportunity to develop an understanding about rural youth and their mind set along with an idea to work for the development of appropriate technologies. In 1990, he joined 'Centre of Science for Villages' in Wardha. Here, under the able guidance of noted Gandhian Dr Devendra Kumar, he developed a vision for rural development with appropriate technologies so as to make the lives of village labourers, farmers and artisans drudgery free, economically independent, self sustainable and prosperous.

In 1999, Ram Kumar Singh joined 'Suruchi Shikshan Vasahat Trust' (SSVT) in Bardoli, Surat. Though initially SSVT was focussing on campus-based activities, his vision and decision to involve the community both in development and use of technologies proved more impactful for the rural community. Within a short period his passion and dedication brought about a transformational change in the Vasahat as well as local community of more than fifty villages in and around Bardoli in terms of rural industrialisation.

In SSVT, work is carried in the three areas of technologies viz. agriculture tools, renewable energy and organic farming. The objectives are to: (1) Develop appropriate technologies, (2) Improve product efficiency and quality, (3) Make products commercially viable, and (4) Create strong network of the organisation, farmers and artisans within the community .

**Agricultural Tools:** The focus is on development of technology with quality and design intervention and marketing of products on a commercial scale. Research, design development, optimisation of the technologies, is done in collaboration with institutes like Indian Institute of Technology (IIT) Chennai, National Institute of Technology (NIT) Nagpur, National Institute of Design (NID) Ahmedabad and Indian Institute of Management (IIM), Ahmedabad.

He strongly believes that there is a need to develop simple and easy to adopt technologies which are viable on small scale, energy efficient, use green practices and are based on local resources. These basic aspects have always been a guiding force to his work on technology.

Ram Kumar Singh personally has developed more than a dozen tools and around 166 tools and accessories have been redesigned in collaboration with various associate and technical institutes.

With a view to increase the productivity, he improved the design of potter's wheel, carpenter's band saw and blacksmith's forge hammer by using flywheel motor.

Ram Kumar Singh also improvised the heat treatment methods used in the technique of ironsmiths as also in the type of the materials traditionally used. Development and optimisation of exclusive tools for organic farming, vermi-compost production, banana cultivation, bamboo workers etc.; considering anthropometric limitations and ease of posturing, are highlights of his work.

Ram Kumar Singh also designed set of tools for children of various age groups being procured by school specially imparting Nai Taleem education. The prices of tools range from Rs. 60/- to Rs. 2,400/.

Highlight of Bardoli model is that farmers do not have to travel long distances for repair. It all is available within or nearby the village. The most important part is that the institute has become self reliant.

*Renewable Energy:* Ram Kumar Singh promoted smokeless chulhas among tribals. Farmers' Club and Self Help Groups spread awareness about its use and benefits. Rural unemployed youth were trained and employed for installing over 23,000 chulhas.

SSVT designed and propagated solar cookers. While conducting camps, it created awareness about clean energy, food nutrition and clean environment. This generated demand for solar cookers in the community. Around 6,500 solar cookers have so far been sold by SSVT.

*Organic Farming:* Ram Kumar Singh propagated vermiculture technology among marginal farmers, specially women. SSVT developed vermi-compost production methods for farmers. Besides self utilisation, vermi-compost produced in the villages has become an income-generation activity for the farmers.

The Institute also produces thirteen organic varieties of vegetable seedlings like brinjal, tomatoes, turmeric, etc. which are purchased by thousands of farmers annually.

*Technology Transfer:* Dissemination of new technologies and marketing of new products developed at SSVT is mainly through collaboration and networking with 45 farmer co-operatives (each co-operative comprising 100-200 farmers); artisan clusters/groups; 11 field level organisations, and 7 government departments.

*Cluster Development for Rural Artisans:* Ram Kumar Singh is working on a cluster development model where the skills of local artisans (specially the blacksmiths) are upgraded on regular basis through training as well as better linkage support. Nodal-Bazar-Small (N-B-S), a three tier model of production, marketing and development is introduced. This ensures supply of better agriculture tools to the large number of small and marginal farmers in wider area. This also is an effective model of decentralised production and marketing. Currently over 130 artisan groups are associated with this program. The sales turnover of agricultural tools doubled only in three years through this program.

*Training:* Ram Kumar Singh has initiated a two year training course of skill development / agriculture tools production for rural youth. The curriculum is designed considering the actual needs of the local society. SSVT also conducts many other training programmes and camps. Around 1500 men and women are trained in the field of agricultural tools production, vermi-compost, biomanure, organic farming, renewable energy, etc. every year. His work is spread across four districts of Gujarat covering around 500 villages and about 15,000 farmers and 400 artisans.

He had also worked as a Member of Monitoring and Review Committee for Centre for Sustainable Technology, Indian Institute of Science, Bangalore for a project supported by The Council of Advancement of People's Action and Rural Technology (CAPART), New Delhi.

As an Executive Committee member of Nai Taleem Samiti, Ram Kumar Singh is presently engaged in curriculum development of Uttam Taleem. He had also served as General Secretary of Association of Voluntary Agencies for Rural Development (AVARD)-an NGO network founded by Jayaprakash Narayan and Kamaladevi Chattopadhyay to promote voluntary action and Gram Swaraj during 2009-2011.

Treading a path and leading a lifestyle purely based on Gandhian principles, Ram Kumar Singh's work is unique in many ways. He is a researcher, a field worker, and a trainer in the realms of appropriate technology. He has helped reduce the drudgery of the artisans and farmers, which in turn has resulted in stoppage of their displacement, improved user's performance and quality of products and increased

income. Ram Kumar Singh has developed a successful model of decentralised and self sustainable production.

**Contact details:**

Mr. Ram Kumar Singh

Managing Trustee and Director

Suruchi Shikshan Vasahat Trust

Suruchi Vasahat

Bardoli – 394 601, District-Surat, Gujarat

Tel. No.: (O) +91-2622-220258 (R)+91-2622-220095

