

## **DST SEED division core support group HESCO founder awarded Padma Bhushan**

Environmentalist Dr. Anil Joshi who is the founder of the Himalayan Environmental Studies and Conservation Organisation (HESCO), a core support group of Science for Equity Empowerment and Development (SEED) division of the Department of Science and Technology (DST), has been awarded the prestigious Padma Bhushan award.

Dr. Joshi's organisation HESCO works closely with DST to devise solutions for the rural population of Himalayan communities. His organisation is a core support group of Science for Equity Empowerment and Development (SEED) Division of DST.

HESCO works to create a viable, successful model for rural development in India, encourage self-sufficient and simple solutions to the practical problems and to promote sustainable development with a priority on environmental protection and economic independence. The philosophy of HESCO is to derive inspiration from the villages and work towards devising solutions for their problems. It helps them to focus on their economic and development needs encouraging them to tap local resources and open up new avenues for self-reliance.

Dr. Joshi has established 10 Community Research Centres in Vigyan Gram in Uttarakhand with the help of SEED, DST, to develop innovative technologies with community participation. These centres immediately became popular within communities, research institutions, planners, and policymakers. It is currently associated with hundreds of civil societies and research institutions for social upliftment of the underprivileged class.

One of his achievements in the recent past has been on creating 'Model villages' in different agro-climatic zones. These villages have been developed within the available resources through S&T intervention. About 38 villages have so far been developed in Uttarakhand. Another innovative and exciting programme introduced by Dr. Joshi involved school children and teachers from renowned local schools. The positive benefits of this project thus far have resulted in 'Adopt a village' concept being shared with 70 additional schools across the country.

Dr. Joshi also promoted the Schedule Caste Community. He developed an ideal village concept for the Schedule Caste community by using their local skills and resources in six states of India. His concept became popular, and based on it, a National Programme was developed by the Ministry of Science & Technology. A total of 32 SC villages have been developed across the country. The well recognised contribution of Dr. Joshi is the restoration and up-gradation of watermills (Gharat). With the help of DST under the Core Support Programme, the efficiency of watermills increased manifold. These are now also used for multiple purposes like grinding wheat into flour, as well as for power generation.



He has also helped rural artisans increase their produce and earn better returns. Their skills were upgraded and organized. Three such centers have been established in Uttarakhand as a common

platform for artisans in different locations serving 950 artisans currently. This work was carried out with the financial support of the SEED Division, DST.

He has been able to motivate the administration of various religious shrines, especially Vaishno Devi, Badrinath, Kedarnath, Yamunotri, Gangotri, to ensure that offerings (Prasad) be made from local grains, thereby promoting both local crops and economy. Similarly, value addition in the local and wild fruits and crops and their local markets has been one of his major achievements. His effort has brought employment to hundreds of women and youth across various Himalayan states.

Drying up of water springs and streams due to deforestation have been a major challenge in mountain areas. Dr Joshi, with the help of Bhabha Atomic Research Centre, was able to recharge the springs and streams through simple technology by identifying recharge zone and their treatment. Forest fire has also been a major issue in the mountain. His recent experiment in 44 hectares of forest land by developing water holes to maintain adequate moisture leading to flashy growth has been a successful experiment. His contribution to disaster relief and rehabilitation is noteworthy.

Dr Joshi has also been part of various initiatives like the 'Gaon Bachao Andolan' and has been instrumental in drawing the attention of policy planners towards issues of the Himalayas by celebrating a 'Himalaya Day' every year.

HESCO has developed some unique, low-cost products for rural areas of the Himalayan region, which are being successfully used in the Himalayan areas. Some of them are - using mechanical properties of lantana, a category of weed which has spread to all parts of India and have become a serious threat to agriculture land and ground flora in the forest, for making daily use utility items and mosquito repellent.

HESCO's approach of applying simple technologies using knowledge of the environmental sciences has immensely benefitted the development of the rural villages of the Himalayas. It has also given the organisation national recognition and international attention. HESCO team, which stays in the mountain villages, has been identifying problems and then implementing the real practical interventions necessary for their economic development for the last 30 years.

Dr Joshi had been earlier conferred the Padma Shri in 2006 for his remarkable contribution to promoting indigenous technologies as well as social upliftment of the rural community. His emphasis has been on the inclusive growth of community by integrating economy and ecology. His concept 'Local need meet locally' became popular across the country.