

THE PURPOSE OF education, as enunciated by John Dewey and Gene Carter, is "to transfer knowledge and prepare young people to participate in democratic society." Expectations from higher education are becoming demanding with complex societies asking for greater skills and capacities. The government's Unnat Bharat Abhiyan deems to create a new learning model for the youth by utilising the raw intelligence of learners in esteemed institutions of higher learning towards the development of communities that surround them, in particular rural communities.

A collection of anecdotes

There are success stories from Unnat Bharat Abhiyan. Examples include the development of a biogas conversion kit for diesel engines by IIT Delhi, the utilisation of paddy straw into bio-power generation through biomethane and bioethanol production, the modified bio-sand water treatment plant by NIT Manipur and so on. Some of these have managed to solve real problems such as sewage disposal, waste and water management, energy sources, organic farming, provision of basic amenities, and convergence of remote technologies. Students get to learn the practical aspects of the sciences taught in the classroom, while communities benefit. They also learn problem-solving skills,

Unlocking the job market for rural youth

Rural technology adaptation will be boosted if it also generates employment through manufacturing units, supply and distributor networks

SD GUPTA

Chairman, IIMR University, Jaipur

get feedback and obtain market inputs from grassroots populations. These are relevant industry skills.

Holes in the story

About 69% of India's population resides in areas classified as 'rural'. Farming is not the only activity that drives sustenance in rural society. These communities need the same basic civic amenities that urban residents enjoy. The lone incentive-driven programme that supported community development initiatives in villages, the MGNREGA, has been considerably diluted, despite earning praise from economists such as Jean Dreze and Amartya Sen. A large number of NGOs are

already involved in developing technologies for rural areas. But these technologies have hardly touched the lives of general rural people. With a population of 250 million, rural areas have a high degree of market potential. Many developmental organisations, apart from universities, are developing technological and social solutions for rural communities. But there is no concrete example of any such initiative changing lives.

The urban bias

The problem with most of these programmes is they carry an urban bias and assume that benefits will trickle down to the masses. Social aspirations of these



communities are not given due importance in technical applications. Most of these technologies are made with commonly available resources that aim to keep these ecosystems self-dependent. For example, there are easy-to-make *chulhas* and bullock carts. Comparable approaches in urban areas do not expect people to construct their own scooters or stoves. Also, developers of these technologies are only able to make minor improvements to existing systems. For example, most people prefer to cook food over a steady blue flame. There is a clearly present demand, but little work has been done to produce a steady blue flame from firewood or biomass. There seems to be a

gap between the perceptions of national laboratories and research institutions, which have the technical resources but little knowledge of market demand, NGOs on the ground have knowledge of social aspirations and demand but no technical resources to act on them. There are clean and unadorned machines such as the bicycle that could provide a viable mobility solution for movement of light goods and passengers. A broad network of suppliers and easy availability of spare parts exist and provide ideal conditions for the proliferation of this simple machine. Yet there is no government support to finance bicycle purchases or improve frames and load-carrying capacities.

Redesigning the model

Rural development should best be realised by involving all stakeholders right from inception, market research, concept design and product distribution. Central funding can be obtained along existing lines. Industry linkages need to be established so that the mechanism of consumer demand comes into play. Convenience, and not ethical values, is the basis of market demand. Rural technology adaptation will be boosted if it also generates employment through manufacturing units, supply and distributor networks. Most people agree that higher education has a unique symbiosis with society. Continuous engagement between the two is necessary to sustain progress and growth.

Establishing a balance of education and transforming knowledge into skill and measuring the success of development programmes needs meticulous assessment. A robust registration of outcomes on a national platform will help understand the virtual success of all efforts. While governments need to be vigilant of the practices that institutions are adopting, each institution must come up with a self-assessment mechanism by unlocking the job market for rural youth. Employment generation is how a working plan can metamorphose into an iconic programme that will last as a model to follow for the years to come.