

Research Activities
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RESEARCH ARTICLES

A concept of knowledge and technology enabled empowerment of rural Indian villages

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The objective of rapid development of rural population in a sustainable manner with a view to bridging the urban-rural divide would require leveraging knowledge and technology in an environment conducive for innovation. The concept of a CILLAGE that incorporates the best of a city in a village is developed with this objective in mind. A CILLAGE is a knowledge-based ecosystem for integrated education, research, technology development and deployment as well as capacity building in rural areas. The focus of research work at a CILLAGE is on regional problems. CILLAGE activities also include a comprehensive engagement with people in the neighbourhood for demonstration and deployment of relevant technologies through a number of Advanced Knowledge-based Rural Technology Initiative (AKRUTI) centres located in the neighbourhood. CILLAGE should thus become a centre of innovation in rural areas to solve the problems of the region and disseminate the developed technologies in the region through AKRUTI centres. This article discusses the philosophy of the CILLAGE concept and describes its implementation through an example.

Keywords: Digitally connected villages, knowledge and technology, livelihood generation, rural empowerment.

ACCORDING to the 2011 Census of India, around 70% of our population lives in rural areas. India development story is thus largely dependent on the development of people in rural areas. Rapid development and empowering of rural population, in a manner that significantly raises not just their individual income but also the level of self-empowerment, particularly at the base of the economic pyramid, should therefore be a matter of high priority.

Economic activities are increasingly becoming knowledge-based and are getting globalized at a fast pace. Thus there is a great need to prepare rural youth to adopt to advanced knowledge-based technologies and be an effective player in the emerging economic paradigm.

Rural areas require much greater attention and speedier actions in this regard to ensure that most of the population is on the right side of the digital and hence the technological divide. There is thus a need to evolve an ecosystem in rural areas in which there are opportunities for everyone to be well-educated and get trained in new technologies (both modern and traditional) that open up new opportunities as well as inculcate relevant skills. For this purpose, quality teaching/learning and first-hand participation in related real-life development activities that lead to better human empowerment and livelihood, need to be pursued synergistically.

The average per capita rural income in India is less than half of the average per capita urban income¹. Access to better technology, inculcation of requisite skills and nurturing innovation in the context of local resources and opportunities in rural areas are the keys to bridging this gap. If capacity building of people and nurturing the ecosystem in which they would need to operate is done properly, the livelihood can go up by multiples rather than by percentage points. Enhancing agricultural output and maximum possible value-addition to agricultural output along with other allied earning opportunities in villages should be the primary focus in the context of rural development. In addition, we should focus on the upcoming opportunities in the new digital era which is likely to facilitate decentralization of economic opportunities, including in villages. Apart from reduction in disparities and a large contribution to GDP, this could lead to a more humane society in greater harmony with itself and with the nature. If successful, this could also significantly lower the stress on urban infrastructure through reduced migration, which in any case appears inescapable.

Recognizing the need for a faster development of rural sector for the overall healthy development of the nation, several countries have adopted appropriate policies for the purpose²⁻⁶. Apart from the agricultural-based income, efforts have been made for improvement of rural sector by developing agricultural and allied businesses⁷⁻⁹. Some examples show that the regional rural branding has helped in the development of that region^{10,11}. Impact and requirement of digital technologies have also been studied from rural perspective¹². The analysis shows that the

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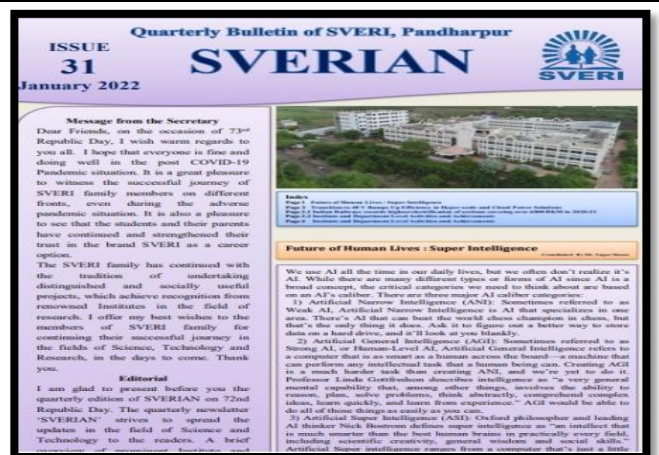
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