

## **Contribution of Grassroots Innovation towards Development of Rural India – A Study**

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### **Abstract**

Innovation fosters new opportunities. It is one of the ways leading to development, especially towards sustainable development. A relatively new phenomenon to be explored in the field of innovation is grassroots innovators or interchangeably, social innovators. These innovators have contributed to bridging the gap between served and underserved regions of India. This paper attempts to understand the contribution of these innovators in the development of rural India and their efforts to help people in need during COVID-19. The launch of the UNDP (The United Nations Development Programme) Grassroots Innovation Database has also helped in providing opportunities to the underserved section of the society. Grassroots innovators are significant since they understand the ground reality and focus on seeking solutions to make society a better place to live.

**Keywords:** *Sustainable Development, UNDP, Grassroots Innovation, Social Innovators, Rural India, COVID-19.*

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### **1. Introduction**

Grassroots innovation is a community-based approach for sustainable development implemented after understanding and analyzing the ground reality. This paper focuses on understanding the contribution of grassroots innovation in the development of rural India.

Grassroots innovators are part of a network that is driven by a bottom-up strategy rather than a top-down approach for finding solutions to various local problems and ensuring sustainable development. Unlike the traditional lookout of green reforms, grassroots innovation has a wider understanding and border concepts for finding alternative ways of innovative ideas for sustainability.

Grassroots innovators are often referred to as social innovators as they work to serve rural and local communities for improving their lives by prioritizing social benefits. They are a group of dedicated individuals who strive to experiment with eco-friendly technology and approaches for contributing to the sustainable development of the nation.

India's strength and core, being a developing country, lie in developing its rural area as it has maximum untapped potential and growth value. This research explores how rural India has benefited from these grassroots innovations and their contribution to economic development. Grassroots innovation has the potential to reform rural conditions with sustainable and innovative ideas. Their contribution has been recognized to the extent that there is policy attention and various government promotional schemes. These communities' innovators play an important role in rural development and for making it self-sufficient.

COVID-19 took the world by surprise and rural Indians were most hit due to job insecurity and poor living conditions. It required immediate community intervention to support the ones in need to improve their situation, these innovators played a significant role in these uncertain times of pandemic.

## 2. Literature Review

Innovation is the basis for sustainable economic development. The process of achieving this goal also creates an impact and leads to transforming society either to the betterment or detrimental effects. The contribution of grassroots innovation in the development of the economy is relatively a new phenomenon to be explored. These innovators help in upscaling the contribution of people towards the wealth creation of the country. Economies encouraging these innovators create an ecosystem in which people understanding the ground reality become the solution finders (*Nair, Tiwari, & Buse, 2017*). There are many factors such as occupation, education, age, resource availability, support from the community which trigger outcomes of grassroots innovation.

The collective actions of grassroots innovators are essential for sustainable development. These social innovators bridge the gap between focusing on monetary gains or social benefits from innovative ideas by prioritizing the benefit of society (*Seyfang & Smith, 2007*).

Many researchers have analysed the characteristics, opportunities, and challenges faced by grassroots innovators. A paper (*Bhaduri & Kumar, 2009*) explored the motivational factors for grassroots innovators. It is broadly classified into extrinsic motivation (rewards, intellectual property rights, business gain, competition, and external conditionalities) and intrinsic motivation (joy of work, confidence, self-resilience, and duty towards community) which drives the grassroots innovators. There exists a complex relationship between these motivators. A balance between extrinsic and intrinsic motivators is a prerequisite. If extrinsic motivators are high then the core of grassroots innovation of sustainability and societal changes will be lost. Whereas if intrinsic motivators are high then scaling up will become a

demotivator. The study also focused on the implementation of policy and analysed the importance of the National Innovation Foundation (NIF) and other institutions in India which took various initiatives to support and promote grassroots innovators.

The progress and sustainable development through grassroots innovation can be accelerated with necessary support from the government and society for leading toward developmental changes. The grassroots innovation creates an ecosystem of democratic practice for innovation, empowers socio-economic changes, and promotes social diversity for the development of the country (**Smith & Stirling, 2016**). Effective actions in support of grassroots promotion in a democracy can be established by cultivating a proper implementation of work culture, training, required investments, and infrastructure.

When the economy was stabilizing and social entrepreneurship along with innovation was supported by the government, the world's economy had a setback due to the wave of a global pandemic. The COVID-19 shocks lead to factory shutdowns, disruptions in global supply chains and unemployment leading to mass disruption which hampered the economic growth of the world.

India being a developing nation was unprepared for such a consequence. The government introduced many policies to help the people in this challenging time. It emphasized on implementation of plans to support the weaker section of the society as they were most affected due to unemployment as a result of lockdown (**Hussain & Borah, 2020**). The magnitude of this crisis is huge. It demands people to understand the importance of prioritizing economic development and lead to societal changes.

COVID-19 crippled India's economy and the innovation sector is no exemption to it. The pandemic led to an emphasis on the requirement of grassroots innovators in rural India also because self-reliance is the motive of the nation (Atmanirbhar Bharat). There is a great opportunity for creating a hub of innovation centres in the unserved and under-served regions of the country especially during this challenging time (**Singh, 2020**). The hubs could develop relevant technology-driven solutions and innovative services that can address the needs of the local community. It also helps the informal sector to focus on sustainability by identifying the problem and finding solutions using local knowledge and resources by understanding the ground reality. Thus, for a long time, grassroots innovators have played a significant role, and it has now become the need of the hour to understand and recognize their contribution to society's development.

### **3. Research Gap**

Many researchers have conducted studies to evaluate the overall impact, need, characteristics, opportunities, challenges, and benefits of grassroots innovators in developing the worldwide economy, including the Indian economy. However, there has not yet been any study establishing the importance of grassroots innovation in the development of rural India. Therefore, there is an inherent need to explore the amount of support that they have provided and could have provided with appropriate resources during the pandemic and otherwise.

### **4. Research Objectives**

#### ***Primary Objectives***

1. To assess the role of grassroots innovators in the development of rural areas.
2. To ascertain the importance of the role played by grassroots innovators during the pandemic in supporting development of society.

#### ***Secondary Objectives***

1. To ascertain the impact of COVID-19 on the grassroots innovators.
2. To study select few grassroots innovations which helped in making society a better place to live.

### **5. Research Methodology**

The researcher has opted to use secondary data for data collection. This paper is based on qualitative research and has conducted a descriptive case study analysis on the contribution of grassroots innovation towards the development of rural India. The data is collected and analysed through various secondary sources which include journals, research papers, and articles.

### **6. Data Analysis and Interpretation**

Rural areas are the economic backbone. They are the pillars that define the economic prosperity of the country and assist in its economic growth. Rural areas do not lack people who are incapable of innovation, rather lack in providing opportunities and tools required for growth. Grassroots innovation becomes important where government and private agencies are unable to provide solutions due to their lack of understanding of ground-level reality. These social innovators have experienced reality and thus provide the most appropriate solution.

Grassroots innovators live in the ground reality every day and belong to humble and grounded backgrounds, thus taking inspiration from their day-to-day routines, they strive to make lives simpler with their innovative ideas for sustainable development.

Rural India needs to extend its capacities, presence and services in such a way that it can ensure that the village's social and economic needs are fulfilled and properly understood and continuously addressed to allow self-sufficiency in areas such as health care, agriculture, hygiene, education, skills development and much more. India has a demographic dividend wherein 65% of the population is less than 35 years old and has the advantage of affordable and advanced technology which acts as an impetus to introduce creativity to the country's underserved regions.

The responsibility of ensuring economic development in rural India lies on the shoulders of grassroots innovators. These innovators have changed the mechanism of work in rural India. Apart from transforming lives, it has also led to the creation of many job opportunities.

Some of the most recognized and worth mentioning grassroots innovations are - natural non-stick coating for pots, solar-powered silk reeling machines, herbal medication for poultry, stove maker, natural water cooler, water lifting pump, roti maker, useful agricultural equipment, and many more.

To promote grassroots innovation, one such recognizable platform is the Honey Bee Network founded by Anil Gupta in 1989. The network is present in 75 countries, primarily in India, and works on the motto to build upon what people know and do well. SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions) is an international NGO established to provide organizational assistance to the Honey Bee Network. They collect knowledge from these grassroots innovators, examine the feasibility of the innovation, and implement them for the benefit of the rural section or underserved section of the society. The network focuses on knowledge instead of resources. This also fosters innovators in the patenting process, additional design and development, incubation, and venture financing to ensure economic viability.

The grassroots innovation in rural India can give the economy a major boost under the Make in India platform and this would benefit the economy as well as the environment because one of the major characteristics of these innovations is eco-friendliness.

Several other institutions such as Grassroots Innovation and Augmentation Network (GIAN), Rural Innovation Network (RIN) Sustainable Agriculture and Environmental Voluntary Action (SEVA), also play an important role in mobilizing and facilitating grassroots

innovation. It creates a pool of people, who can convert traditional knowledge and practices to social betterment.

Grassroots innovation can be encouraged and promoted in the development of rural India by fostering diversity in innovation and prioritizing solutions to acute problems. For example, women facing problems in rice cultivation and their absence from carpentry and blacksmithing, walking miles to collect water, poor crop cultivation, infrastructure and sanitation problems. Students and youth should be encouraged to pitch new ideas and address unsolved social problems.

To connect grassroots innovators with the real-world crisis, a forum should be developed. It can also be promoted with numerous conferences, trade fairs and tournaments held in the presence of the media. A practice for growth of micro-venture and proper financial assistance along with incentives for innovators should be facilitated to promote grassroots innovation. The institution studying and performing such innovation must be provided with the flexibility, fellowship and freedom to the ideas.

Several innovators have put forward their conventional and innovative ideas but did not gain any recognition. To support these underprivileged individuals, a network must be created. It should not be one-way roads, but two-way flows that connect local communities with development agencies, to identify problems, seek alternatives and promote innovation.

The information gained by grassroots innovation movements should be taken into consideration when innovation policies are planned to address issues of poverty, social inclusion, and sustainability. It should be a blueprint of the future for constructing various paths to sustainable development.

### ***Beacon of Hope during Uncertain Times of Pandemic***

COVID-19 shook the world and has revealed significant social and economic disparities that disproportionately affected the poor. Rural India was vulnerable during the global crisis because of high inequality in access to work and health care facilities during the lockdown. When higher authorities' hands were tied in prioritizing to control the pandemic it was the courageous grassroots innovators who stepped up to provide care to informal sector groups and rural India.

States such as Kerala, Karnataka, and Maharashtra have given the most assistance to grassroots innovators during the pandemic. Kerala state ensured that the prevailing uncertainty would not hamper the way of grassroots innovation. They conducted all the meetings, and idea generation online to maintain the flow. Innovations focusing on improvement in farming, seed varieties and agricultural practices were discussed and

evaluated. The Karnataka government too is keen to focus on these innovators to promote the Atma Nirbhar Bharat.

During this hardship, a community-based grassroots innovator known as GRAVIS (GraminVikasVigyan Samiti) offered awareness campaigns and healthcare facilities to people. Some more courageous incidents were taken in south India. LVC South Asia's agroecology school realized that huge numbers of rural labourers were struggling due to lockdown and took an ambitious step of collective farming by women to provide for additional income and access to daily bread. In Jaipur, Ashok Kumar Aasrani designed a safety net for patients with a detachable translucent window. In Maharashtra, a primary school teacher Balaji Jadhav created a system for teaching students by narrating stories over a conference call. Shankeshwar from Gujarat ensured with the collaboration of 350 teachers to deliver lectures through cable networks that reached remote areas of almost 70 villages to help 20,000 children. In these uncertain times, these innovators did their share of work to support the country.

According to the report of The United Nations Development Program (UNDP) Prof K. Vijay Raghavan, Principal Scientific Adviser, Government of India, unveiled first of its kind Grassroots Innovation Database (GRID) in October 2020 in India. GIAN (Grassroots Innovation Augmentation Network) and Honey Bee Network collaborated to build this forum for public use. It includes over 1,500 solutions created by grassroots communities, start-ups, individuals and other innovators from across the country. This website serves a variety of industries, including livelihood, natural resource management, fisheries, agro-biodiversity, and waste management.

COVID-19 has shed light on the potential of social innovators, therefore it is up to the policymakers to ensure adequate support so that the innovators can lead to a self-reliant India.

## **7. Contribution and Conclusion**

A considerable number of people reside in rural areas under poor living conditions. Even in such a resource-constrained climate, grassroots innovators have demonstrated their capacity and will-power to benefit people. India's development does not necessarily require groundbreaking innovations rather it needs small-scale innovations of greater sustainability. This gap is bridged by focusing more on social benefits than monetary gains.

The researcher believes that these innovative ideas have a high potential for commercialization and thus need scaling. The government is implementing policy changes and introducing platforms like the National Innovation Council to help in assistance and

commercialization of grassroots innovations. These grassroots innovators are ordinary citizens who with their extraordinary thinking help people in need and contribute to the economic development of the country.

The long-term aspects of grassroots innovation, with the help of local resources and traditional knowledge help to solve problems through their innovative sustainable ideas. These innovators have become an integral part of the economy. They have the potential to be converted into entrepreneurial ventures and provide the community with a livelihood. India has taken a significant move forward in understanding and supporting grassroots innovation through systemic processes over the years.

Rural India is the backbone of society, which requires sustainable development for contributing to development. This is only possible when these social innovations are encouraged. Grassroots creativity from rural India is not improvised improvisations or well-known 'Jugaad' but rather structured and innovative pursuits that bridge the gap between urban and rural. They are the thinker and executors who can restructure the societal imbalance and lead India towards sustainable development. Hence there is a need to assist grassroots innovation through various initiatives, policies, financial assistance and infrastructure so that their contribution can be elevated to the national level.

## References

1. Seyfang, D. G., & Smith, D. A. (2007). Grassroots Innovations for Sustainable Development: Towards a New Research and Policy Agenda. *Environmental Politics*, 16(4), 584-603.
2. Smith, A., Fressoli, M., & Thomas, H. (2013). Grassroots Innovation Movements: Challenges and Contributions. *Journal of Cleaner Production*, 1-11
3. Bhaduri, S., & Kumar, H. (2009). Tracing the Motivation to Innovate: A Study of Grassroot Innovators in India. *Papers on Economics and Evolution*, 0912, 1-28.
4. Grassroots Innovation. (n.d.). Retrieved from Researching Sustainability from the Bottom Up:  
<https://grassrootsinnovations.org/about/#:~:text=Examples%20include%20community%20renewable%20energy,currencies%20such%20as%20time%20banks>
5. Gupta, A. (2017). Yourstory. Retrieved from Be a Bee—Nine Steps to Promote Grassroots Innovations in India: [https://yourstory.com/2017/06/be-a-bee-promote-grassroots-innovations-anil-gupta?utm\\_pageloadtype=scroll](https://yourstory.com/2017/06/be-a-bee-promote-grassroots-innovations-anil-gupta?utm_pageloadtype=scroll)



6. Hussain, M. M., & Borah, R. R. (2020). Impact of COVID-19 on Indian Economy: A Study. *Journal of Global Resources*, 6, 26-37.
- iiid (International Institute for Environmental and Development. (2020). Retrieved from Inequality in the face of COVID-19: How grassroots communities are taking action: <https://www.iied.org/inequality-face-covid-19-how-grassroots-communities-are-taking-action>
7. Joshi, R. G. (2015). Fostering transformation through the mobilization of grassroots innovations. *Transformation for Sustainable Development in Asia and the Pacific Contributing Piece*, 1-9.
8. Kumar, H., & Bhaduri, S. (2014). Jugaad to grassroot innovations: understanding the landscape of the informal sector innovations in India. *African Journal of Science Technology Innovation and Development* , 6(1), 1-11.
9. Nair, A. K., Tiwari, R., & Buse, S. (2017). Emerging Patterns of Grassroots Innovations: Results of a Conceptual Study Based on Selected Cases from India. *Lead Market India: Key Elements and Corporate Perspective for Frugal Innovation*, 65-95.nextbigwhat. (n.d.). Retrieved from Tracking makers of modern India: Grassroot Innovators & their Innovations: <https://nextbigwhat.com/tracking-makers-of-modern-india-grassroot-innovators-their-innovations/>
10. NIF's Award Winning Grassroots Innovators from Rural India. (n.d.). Retrieved from Ecodeaz: <https://www.ecoideaz.com/innovative-green-ideas/nifs-award-winning-grassroots-innovators-from-rural-india>
11. Patternwhichconnects. (n.d.). Retrieved from Grassroots innovations for sustainable consumption: [https://patternwhichconnects.com/phd/academic\\_writing\\_files/Jeppe%20Graugaard%20research%20plan4.pdf](https://patternwhichconnects.com/phd/academic_writing_files/Jeppe%20Graugaard%20research%20plan4.pdf)
12. Rajappa, A. (2018). Yourstory. Retrieved from How these 7 people from rural India rose up to become social innovators
13. Rozita Singh, S. K. (2020). UNDP India. Retrieved from One Year of Accelerating Development Differently
14. SciDev.Net. (n.d.). Retrieved from Supporting grassroots innovation: Facts and Figures: <https://www.scidev.net/global/features/supporting-grassroots-innovation-facts-and-figures/>
15. Sengupta, V. (2021). BL (The Hindu Business Line). Retrieved from