Model villages: A pathway towards inclusive development

SANGEETA BHATTACHARYYA^{1*}, R ROY BURMAN², R N PADARIA², J P SHARMA³, SUDIPTA PAUL² and PINAKI ROY⁴

ICAR-Central Citrus Research Institute, Nagpur, Mahararhtra 440 033, India

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Development programmes and technological advancements have brought about transformations in rural India in infrastructure, education, health, sanitation and employment. Although Indian economy has grown steadily over the last two decades in all spheres of development in rural areas, its growth has been found to be uneven when comparing different social and economic groups, geographic regions, and rural and urban areas. When the global development agenda is Inclusive Development, since the adoption of Millennium Development Goals and recently the Sustainable Development Goals in 2015 by the United Nations, it becomes all the most important to shift our attention from hard core income and economic growth towards more sustainable and equitable development which is impossible by ignoring rural India. Villages are our roots and shelters 68.84% of Indian population. Hence growth of India amidst negligence to the majority is not a rightful development agenda. India has 640867 villages. About 65% is dependent on agriculture for their livelihood (Census of India 2011).

Present study was carried out during 2018 at ICAR-Indian Agricultural Research Institute, New Delhi to explore the significance of global policy of inclusive development in Indian context for bringing rural India into the mainstream. The intensive reviews led to re-discovery of concept of Model Villages which is not new in India but serve as potential units in kick-starting the concept of inclusive development in India by reducing rural-urban disparity.

The Concept of Inclusive Development: The concept of inclusive development combines the two basic principles of inclusion and development. Inclusion is a process and a goal. To achieve inclusion, a twin track approach is

Present address: ¹ICAR-Central Citrus Research Institute, Nagpur, Maharashtra; ²ICAR-Indian Agricultural Research Institute, New Delhi; ³Sher-e- Kashmir University of Agricultural Sciences and Technology, Jammu; ⁴Krishi Anusandhan Bhawan (KAB II), ICAR, New Delhi. *Corresponding author e-mail: sangeeta.bhattacharyya2012@gmail.com.

needed. First is to remove the barriers that exclude, that is, to foster mainstreaming and the second is to focus on the group of persons who are excluded, to build their capacity and support them to lobby for their inclusion. Inclusion involves everyone in society at all levels, collaboration and networking are core strategies to achieve inclusion (IDDC 2009).

Inclusive Development Index by World Economic Forum: A new economic measure introduced at the World Economic Forum suggests inequality is not a natural byproduct of globalization but, a choice, countries make through investments and priorities. The Inclusive Development Index shifts the evidence of a nation's economic health from gross domestic product to living standards. GDP, a commonly used economic measure, is good at tracking overall wealth creation but fails to capture how that wealth is distributed. The inclusion index measures economic development and social well-being. It is done by combining per capita income, employment data, poverty rate, income distribution patterns as well as intergenerational equity and sustainability (net savings and carbon intensity). By that measure, Norway comes out on top of the list in 2018. In the five years between 2008 and 2013 Norway grew its standard of living by more than 10% with market incentives and welfare policies, despite economic growth of less than one percent (Price 2017).

Pillars of Inclusive Development Index: The Inclusive Growth and Development Report of World Economic Forum, 2018, present a policy framework encompassing 3 principal factors and 12 indicators (Table 1). The countries worldwide are evaluated and given scores against these national key performance indicators.

Need for Inclusive Development in India: India, with an improving trend, ranks 62 out of 74 emerging economies. The country performed best (44th) in terms of Intergenerational Equity and Sustainability. Though the incidence of poverty has declined in India over the past five years, 6 out of 10 Indians still live on less than \$3.20 per day. Given the prevalence of inequality both in terms of both income and wealth, there is substantial scope for

Table 1 Major Factors and Indicators of Inclusive Development Index

Major Factor	Indicator
Growth and Development	1. GDP (Per capita)
	2. Labour Productivity
	3. Employment
	4. Healthy Life Expectancy
Inclusion	5. Median Household Income
	6. Income Gini
	7. Poverty Rate
	8. Wealth Gini
Intergenerational Equity and Sustainability	9. Adjusted Net Savings
	10. Dependency Ratio
	11. Public Debt (as a share of GDP)
	12. Carbon Intensity of GDP

Source: World Economic Forum, 2018

improvement for India in this aspect (World Economic Forum 2018). And the wide gap between urban and rural India (Table 2) is enough to highlight the reason for poor performance of India in Inclusive Development Index.

The rural poor and the neglected are the marginalized and weaker sections of the society and as the definition of inclusive development goes, mainstreaming this large section of rural population can only bring inclusive development in India. And for improving their condition, agriculture, the mainstay livelihood of rural India can be leveraged.

ModelVillages: the answer to Inclusive Development: Mahatma Gandhi long back dreamt of "Gram Swaraj" where each village is basically selfreliant, making provision for all necessities of lifefood, clothing, clean water, sanitation, housing, education and so on, including good governance and all socially useful amenities required by a community. Equality and social justice prevail in the village promoting human, spiritual, ethical and social

Table 2 Rural Urban Disparity

Parameter	Urban	Rural
Population distribution (%)	31.16	68.84
Growth Rate of Population (2001-11) in per cent	31.8	12.2
Sex ratio (females/1000 males)	926	947
Sex ratio (0-6yrs)	902	919
Male literacy rate (%)	89.67	78.57
Female literacy rate (%)	79.92	58.75
Per capita income (in terms of Net Value Added)	₹ 98,435	₹ 40,925

Source: Census of India, 2011; Sharma, 2019

values. The community adopts eco-friendly and sustainable agricultural practices ensuring the security for future generations. Villagers live with unity and discipline without any discrimination of caste, religion, political, class etc. The

Infrastructural Domain

Sub-Domains Roads.Hygiene

and Sanitation.
Drinking Water,
Electricity, Type
of Houses,
Community
Centre and its
usage,
Educational
Facilities, Health
facilities,
Communication
Facilities

Case Study

Biswas and Anwaruzzaman (2018) studied the impact of 6.93 km long Chandpur-Kushabaria PMGSY road segment on socio-economic development of rural areas adjoining the road. They found that there was an increase in agricultural productivity of major cereals (paddy 46.78% wheat 54.08%) and oilseed crops, a positive impact on education (reduction in travel time to school), health services, industrial growth. employment generation. urbanization and cultural development with easier access to modern facilities

Economic Domain

Sub-Domains

Average annual income of each household, Proportion of APL and BPL population, Extent of utilization of services of financial institutions, Self sufficiency of village in food requirements

Case Study

Field and Pande (2018) reported a randomised controlled trial conducted to study the effects of the expansion of a rural branch banking model in Tamil Nadu which resulted in positive impact on saving, wages, on people's business activities, and on their ability to cope financially with health shocks. Increasing access to formal financial services had a positive impact on poor households through income stabilisation and increased financial security. Household income increased by 10 per cent in treatment groups compared with control groups.

Farming Domain

Sub-Domains

Availability of irrigation water, Prevalence of cooperative farming, Extent of usage of agricultural implements, Adoption of scientific farming practices, Housing of animals, Artificial Practice of Insemination, Adoption of scientific livestock farming practices, Cultivation and storage of fodder, Presence of other enterprises, Extent of veterinary facilities, Milk cooperative society and services, Agricultural marketing facilities, Presence of food processing industries, Frequency of visits by agricultural personnel

Case Study

Bhattacharyya and Ponnusamy (2017) studied the impact of Model village efforts of 4 agricultural institutes and found the one adopted by Ramakrishna Ashram Krishi Vigyan Kendra, South 24 Parganas, West Bengal: had a higher farming score (68) than others. The farmers of this village, Gilechant practices like intercropping, fishery, apiary and poultry and also usage of organic fertilizers and pesticides thus relying on sustainable farming techniques rather than the exhaustive methods of U.P and Harvana where rice-wheat cropping system is prevalent

Fig 1(A) Domains of Model Villages & Success Stories of each.

Social Domain

Sub-Domains

Literacy rate of the village, Absence of consumption of alcohol and tobacco, Status of women in the village, Trust and solidarity among villagers

Case Study

Pandey and Parthasarathy (2019) stated that women entrepreneurs and women beneficiaries associated with various Self-Help Group's (SHG's) in Kanave, Shahapur (Dist. Thane) and Vengaon, Karjat (Dist. Raigad) region reported boost in self-confidence, increase in purchasing power and decision making power and even resistance to domestic violence

Ecological Domain

Sub-Domains

Presence of soil and water conservation structures, Pollution free water bodies, Presence of forest cover and community grazing land, Adoption of renewable source of energy.

Case Study

ChubaPhong Gram Panchayat in Sikkim has benefited from the Dhara Vikas programme launched by the state's Rural Management and Development Department. Pilot projects to recharge an estimated 500 million litres of groundwater have enhanced the natural ground water recharge in drought prone zones in the south and west districts. The volume of water harvested annually after the project work, can provide for the drinking water requirements of about 6,850 families based on the present supply norms (UNDP, 2012).

Fig 1(B) Domains of Model Villages and Success Stories of each.

community adopts modern technology to bring efficiency in production and enhancing economic opportunities.

Some Model Village Efforts in India: Government initiatives like "Saansad Adarsh Gram Yojana" in which every Member of Parliament adopts a village and strives to develop it into a model - 'Model means an ideal village', Indian Council of Agricultural Research (ICAR) programme of "Mera Gaon Mera Gaurav" to promote the direct interface of agricultural scientists with farmers to hasten the lab to land process, the Ankapur Model Village in Nizamabad district of Telangana with a cropping intensity of 250–300% (Muthuraman et. al 2006), Ralegaon Siddhi Model Village in Ahmednagar district of Maharashtra which became one of the richest in the country by the watershed development efforts of social reformer Shri Anna Hazare (www.panchayat. gov.in); the Hiware Bazar Model Village in Maharashtra, known for water conservation in 40000 contour trenches around hills (Menon 2012) and also the Smart Villages of Andhra Pradesh - a programme inaugurated by Hon'ble Chief Minister of Andhra Pradesh Chandrababu Naidu in January 2015 according to which anybody can adopt one village and develop it in partnership with Government (Nichenam et al. 2015) are examples of some existing Model Village efforts in India.

Domains of Developing Model Village: The development of model villages should focus on the five major components which can be considered as the five domains. Till date there have been rural development programmes targeting one or more of these domains and sub-domains. There have been impact assessment studies of certain individual programmes which show that interventions in any of these domains result

in significant improvements in rural livelihood. But what is required for a Model Village is a holistic focus on all of the domains (Fig 1(A) and (B)).

A village which has all the above mentioned domains and sub-domains can aptly be called a progressive village and can serve as a Model for other neighbouring villages. And in this way, more and more villages will compete for achieving excellence, progress and prosperity.

Actors in Development of Model villages: To transform a village into a progressive one or a Model Village, any individual, Government department, private agency, voluntary organisation, educational institution, research organisation, Krishi Vigyan Kendras or corporate

company; any one can become instrumental in introducing interventions which can transform the village into an ideal village. Already many such development agencies have adopted villages in order to develop them into Model Villages.

Role of Frontline Extension Professionals of ICAR: Over the past few decades the role of extension has changed substantially, shifting away from a production oriented, technology transfer model to a greater emphasis on broader development objectives such as improving rural livelihoods through a demand-led, participatory and market-oriented approach. In other words, extension is capable of handling the diversity of multidisciplinary approaches. Also extension system enjoys (a) an established infrastructure (b) reach (c) community trust, and (d) and cultural awareness, including (e) an understanding of how to mitigate the constraints faced by farmers. Hence extension professionals can very well be leveraged by development agencies to facilitate their respective development interventions in their adopted villages so that the villagers very easily can welcome these development agencies and adopt their interventions. Presence of extension professional along with development agents can help in rapport building, situation analysis, prioritisation of needs, demand driven technology development and their adoption with ease because extension professionals can be the best facilitators in any rural scenario. Moreover, among the variety of extension researches, impact studies have always been a favourite area of research. Impact study of a Model Village will help not only in evaluation of the socio economic impact of the developmental intervention but also provide guidelines to policy makers for designing future developmental programs for that particular agro ecological region. Impact studies can identify the facilitating and inhibiting factors behind the growth of a Model Village. Above all, the role which development agencies play in developing a Model Village, if studied through impact analysis, can prove as a mirror for the agencies in finding their strengths and flaws and improve their services in future.

SUMMARY

Model Villages can serve as miniature self-sufficient, sustainable and equitable units. One village can inspire other villages and if in this way, the developmental efforts cover whole of rural India, then India can set example of inclusive development in global charts. Not only food and nutritional security through scientific farming but also sustainable ecological balance, enhanced income and equitable distribution, modern infrastructure and along with social harmony and brotherhood can serve as a milestone in the pathway of achieving inclusive development and an Atmanirbhar Bharat. Extension professionals of State Departments and Frontline system of ICAR can work towards developing these sustainable micro-units and then replicating them at district and State levels. The 5 domains and their sub-domains should remain the crux of formulating Model Village Development Programs.

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