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**Sustainable
Rural Development**

PM Addresses Nation From Ramparts of Red Fort on 72nd Independence Day



The Prime Minister, Shri Narendra Modi addressing the Nation on the occasion of 72nd Independence Day from the ramparts of Red Fort, in Delhi on August 15, 2018.

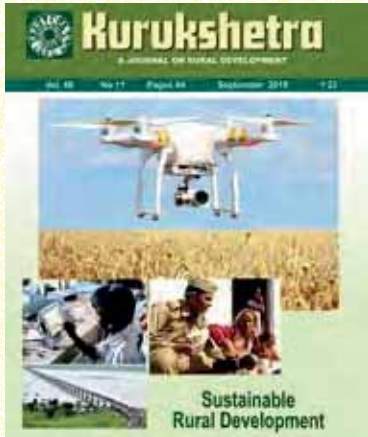
The Prime Minister, Shri Narendra Modi, today addressed the nation from the ramparts of the Red Fort, on the occasion of the 72nd Independence Day. Following are the key points from his speech:

Farmers Welfare:

- Doubling farmers' incomes by 2022- the aim is to accomplish tasks which seem extremely difficult. The Union Government had taken the decision on higher MSP for farmers by as demanded by economists, farmer organizations and farmers, that farmers should get an MSP which is one and a half times of their investment.
- The North-East has the last unconnected villages with electricity, and has become a hub of organic farming.
- A record number of tractors are being bought by our farmers today with its sale touching a new high.
- Our farmers are working on modern agricultural techniques like micro irrigation, drip irrigation and sprinklers.

Rural Development:

- To ensure that the poor of India get access to good quality and affordable healthcare, Pradhan Mantri Jan Arogya Abhiyaan would be launched on 25th September, 2018, which will positively impact 50 crore people.
- Indians are now coming together to build the nation for the pace of development in various fields such as toilet construction, electricity reaching villages, LPG gas connections, house construction etc.
- 13 crore loans being disbursed under the Mudra Yojana, and four crore loans out of this number, being disbursed to first time beneficiaries of such loans.
- Better targeting of government benefits has been achieved by weeding out about 6 crore fake beneficiaries. It is due to them that so many people are fed, and the lives of the poor are transformed.
- With a new spirit, new energy, new resolve, new determination and new inspiration, the country has doubled the pace of construction of the highways. The construction of new houses has gone up four times in the villages.
- Digital India is now making inroads into our villages. As a government sensitive to the needs of people, efforts are being made to turn Digital India into a reality.
- The last village in North-East that has been electrified. The North East region now has highways, railways, airways, waterways and information ways (i-ways). The work of installing electric transmission lines across the North-East is progressing at a rapid pace.
- Initiatives such as Ujjwala Yojana and Saubhagya Yojana are providing dignity to the people. WHO has appreciated the progress made in the Swachh Bharat Mission.
- He emphasized on the vision of Housing for All, Power for All, Clean Cooking for All, Water for All, Sanitation for All, Skill for All, Health for All, Insurance for All, and Connectivity for All.



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CONTENTS

✂ Agriculture for Rural Transformation	J P Mishra	5
✂ Promoting Livelihood Through NRLM	Dr. H.S. Shylendra	12
✂ Financial Inclusion for Inclusive Growth	Dr. R S Reddy T S Raji Gain	18
✂ MGNREGS: Empowering Rural India	Nirendra Dev	23
✂ Health Services In rural India	Dr. Chandrakant Lahariya	27
✂ Swachh Bharat Mission: Success Stories		34
✂ SPMRM: Bridging Rural-Urban Divide	Dr. Kavita G. Kalkoti	38
✂ Digital Technology: Connecting Rural India	K.M. Singh Pushpa Singh	43
✂ Women: Driving Force of Development	Dr. Shahin Razi	51
✂ Unleashing Potential of North East India	MK Srivastav	56



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Kurukshetra seeks to carry the message of Rural Development to all people. It serves as a forum for free, frank and serious discussion on the problems of Rural Development with special focus on Rural Uplift.

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Editorial

In India sustainable rural development is crucial to the social and economic well being of the majority of its population inhabiting the rural areas. The core principle of sustainable rural development is poverty eradication and the objective is to bring about improvement in the quality of life of the rural poor. It is therefore critical to design development initiatives in the manner that contribute to sustainable growth of economic and social sectors in rural areas.

A robust and dynamic agricultural sector is essential to generate strong linkages to other economic sectors. Government is committed to promote and implement in a major way through the States/UTs the schemes like Soil Health Card (SHC) scheme; Neem Coated Urea (NCU); Pradhan Mantri Krishi Sinchayee Yojana (PMKSY); Paramparagat Krishi Vikas Yojana (PKVY); National Agriculture Market scheme (e-NAM); Pradhan Mantri Fasal Bima Yojana (PMFBY). The objective is to realise net positive returns for the farmer. Such schemes of the government have made agriculture sector more inclusive with suitable blend of food security and income security priorities.

Rural livelihoods are enhanced through effective participation of rural people and rural communities in the management of their own social, economic and environmental objectives by empowering people in rural areas, particularly women and youth. A study by the National Council of Applied Economic Research found that the MGNREGS has reduced poverty overall by up to 32 per cent and has prevented 14 million people from falling into poverty. DAY- NRLM aims at promoting diversified livelihoods through sustainable community institutions of poor like Self Help Groups across the country. Close economic integration of rural areas with neighbouring urban areas and the creation of rural off-farm employment can narrow rural-urban disparities, expand opportunities and encourage the retention of skilled people, including youth, in rural areas. There is considerable potential for rural job creation not only in farming, agro processing and rural industry but also in building rural infrastructure, in the sustainable management of natural resources.

The Pradhan Mantri Jan Dhan Yojana, PMJDY represents the National Mission for Financial Inclusion to ensure access to financial services. The Jan Dhan Yojana provided the bankers with the necessary confidence to promote credit culture across the deprived population and resulted in significant increases in credit flows to rural sector. Dubbed as the world's biggest financial inclusion drive, with an entry in the Guinness Book of Records to boast, the PMJDY has for the first time brought over 32.25 crore people under the ambit of formal banking network. For the first time, three Social Security Schemes, viz., Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY) and Atal Pension Yojana (APY) were brought in to serve the goal of financial inclusion.

The Government has launched several schemes for women empowerment which cover drudgery reduction, gender sensitization, capacity building, promotion of micro-enterprises, socio-economic equality etc. The Government is encouraging, promoting and strengthening SHGs by inculcating habit of savings and enforcing credit discipline in women through organizing rural poor women into groups to build their own capital through regular savings and get access to loans and secure social and economic security for themselves.

Through its various schemes, the government has well taken care of the vulnerabilities of the rural poor related to the economic and social issues. The success of sustainable rural development depends on, inter alia, developing and implementing comprehensive strategies for dealing with poverty eradication in rural areas, enhancing access to services as a precursor to improve livelihoods, providing social protection programmes to benefit the vulnerable sections, in particular the aged, women, and unemployed.

All such efforts reflect the mission, vision, strategic goals and commitment of the government as reiterated by the Prime Minister Sh. Narendra Modi on more than one occasion. Since the inception of the present government, he has made his intentions clear that the core agenda of the government will remain, "*welfare of the marginalized*".

AGRICULTURE FOR RURAL TRANSFORMATION

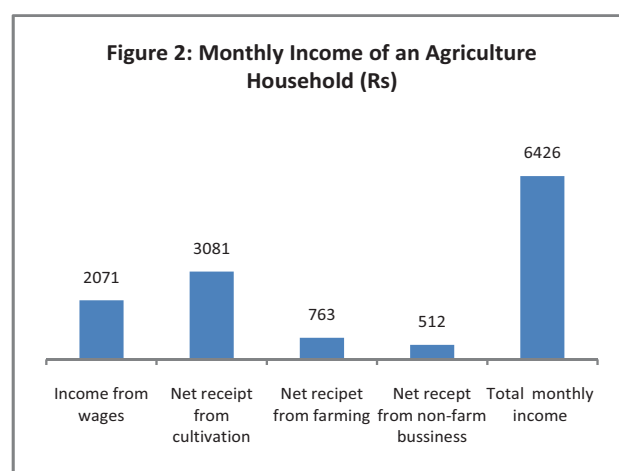
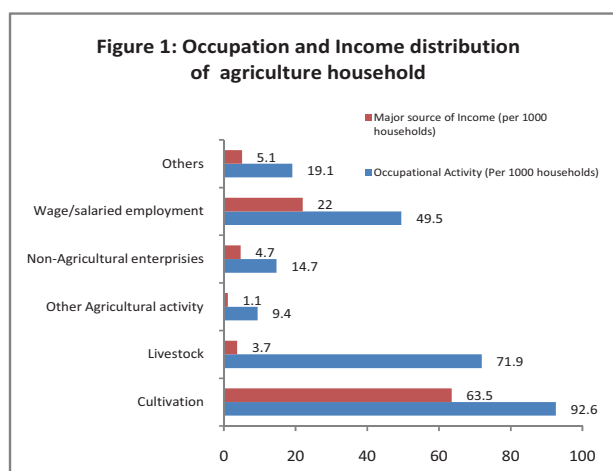
J P Mishra

The Government adopted three pronged strategy to increase investment, better infrastructure and governance in agriculture for the sustainable rural development. While core production activities have been mainstreamed by the ongoing centrally sponsored schemes with broadening of their reach, the reforms in agriculture marketing, contract farming, land leasing, price and trade policy and agricultural credit have been introduced for inclusive development of rural India rather than agriculture as sector.

Agriculture and allied activities are the prime source for livelihood support to about 70% of India's population living in over 6.40 lakh villages (Census, 2011). Consequently, agricultural development is central to all strategies of rural development. Agriculture employs almost half of the workforce where alternate source of employment is limited and likely to remain limited in a low income country like ours. Rural India witnessed a very positive development during the last decade moving towards high income activities like dairying, poultry, horticulture, and aquaculture along with group formation. The income augmentation enterprises have shown positive dynamism with market innovations. Dominated by food security concerns, the policies in past were more centric to green revolution technologies and regions leaving behind sizeable geographies, which are water stressed.



While the average investments in the irrigated command development ranged from Rs. 2.5 to 3.0 lakh per ha, only Rs. 0.12 to 0.15 lakh/ha was invested in rainfed areas through integrated water management programme (IWMP). The estimates suggest that for unlocking the potential of rainfed agriculture, an investment of Rs. 0.50 lakh/ha or more is needed. Huge regional disparities were also observed in seed, fertilizer and marketing



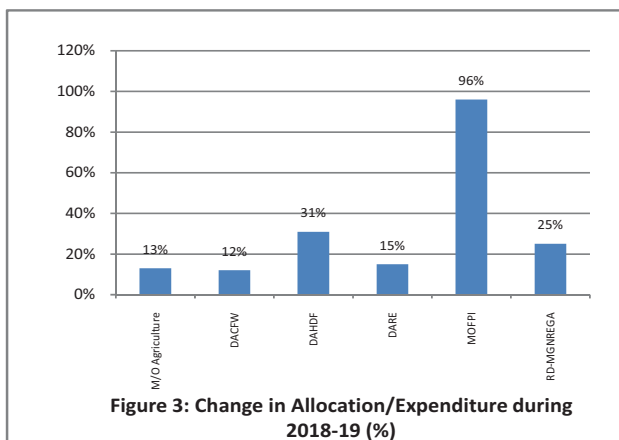
services and infrastructure and the post-harvest infrastructure. The Government adopted three pronged strategy to increase investment, better infrastructure and governance in agriculture for the sustainable rural development. While core production activities have been mainstreamed by the ongoing centrally sponsored schemes with broadening of their reach, the reforms in agriculture marketing, contract farming, land leasing, price and trade policy and agricultural credit have been introduced for inclusive development of rural India rather than agriculture as sector.

Agricultural and Rural Prosperity:

The centrality of agricultural development for rural transformation is apparent from the NSSO data on distribution of agricultural households for income by major activities which indicated that more than 92% households in rural areas have agriculture as these major activity for income generation. The farming and livestock rearing together provide about 67.2 % of the income of the agricultural households (Figure 1). About 60% of the income per month is received from cultivation and farming followed by 32% from wages. The non-farm business provide only 8% of the monthly income to an agricultural households (Figure 2).

Higher Investment for Inclusive Development:

The public spending in agriculture and allied sectors has increased significantly by Central Government during 2014 to 2018. The cumulative allocation/expenditure of Ministry of Agriculture has been over Rs. 153100 crore during last three years (Figure 3). The sizeable increase has been effected in livestock sector to raise the income



Expanding the Focused Funds

- Long Term Irrigation Fund with initial corpus of about Rs.20,000 crore was established in NABARD in 2015-16 which was further augmented with Rs. 20000 crore in 2016-17.
- Food Processing Fund of Rs. 2000 crore in NABARD for extending affordable credit to designated food parks and the individual food processing units in the designated food parks.
- Micro Irrigation Fund of Rs. 5,000 crores in NABARD to achieve the goal, 'per drop more crop'.
- Dairy Processing and Infrastructure Development Fund of Rs. 8,000 crores in NABARD. Initially, the Fund will start with a corpus of Rs. 2,000 crores. Dairy is an important source of additional income for the farmers. Availability of milk processing facility and other infrastructure will benefit the farmers through value addition. It will revitalize the milk processing units set up under the Operation Flood Programme.
- Fisheries & Aquaculture Infrastructure Development Fund (FAIDF) and Animal Husbandry Infrastructure Development Fund (AHIDF) for financing infrastructure requirement of fisheries animal husbandry sector. Total Corpus of these two new Funds is Rs. 10,000 crore.

of the farmers. Food processing is recognized as an employment intensive priority sector in the New Manufacturing Policy in 2011. The specific incentives to producers and entrepreneurs are put in place through PM SAMPADA scheme of Ministry of Food Processing Industries. The budgetary allocation of food processing has been almost doubled during 2018-19 to augment employment opportunities in rural areas.

Making Natural Resources More Productive and Rewarding:

A major part of rural population is primarily dependent on agri-based activities for their livelihood where land and water, due to depletion

and deterioration, has become the limiting factors. Integrated development of land and water is the pivotal to rural development. The availability of land per household is 1.16 ha and water at 1544 m³ per capita per annum. While land is unsustainable to support a normal family, India is a water stressed country with 1544 m³ per capita water availability annually. Many of the geographies are heading towards water scarce situation (below 1000 m³ per capita). For increasing the operational holdings, NITI Aayog suggested a Model Act on Agricultural Land Leasing. Consequently, Uttar Pradesh and Uttarakhand modified tenancy acts. Madhya Pradesh introduced separate bill on land leasing for optimum land use and occupational diversification. These interventions will have a strong impact in rural development in view of large landless households doing agriculture on leased-in land. The studies have established a strong inverse relationship of rural poverty with irrigation expansion. Bringing irrigation to a rainfed land increases the productivity by 2.5 times. Both the land productivity and scope for diversified farming gets enhanced with irrigation. During 2001-2012, the net irrigated area increased by about 11.4 million ha, dominated by tube wells and other sources (63.6%). The surface water irrigation has not yielded much in irrigation utilization out of the irrigation potential created. Understanding the potential of water in rural transformation, the Government undertook a much needed initiative to bring convergence within the water sector



through Pradhan Mantri Krishi Sinchai Yojana (PMKSY).

The PMKSY provides an overarching convergence amongst the programmes of agriculture, water resources and rural development. It aims at end-to-end solution in irrigation supply chain from source to farm level applications. The irrigation potential of 8.06 million ha has been targeted by 2020. The convergence with MGREGA has been envisaged to create about 5 lakh farm ponds annually. The micro-irrigation is the core focus to achieve *per drop more crop*. PMKSY-microirrigation has explicit focus on tools and techniques leading to protective irrigation and higher on-farm water use efficiency. Since 2015-16 about 17 lakh ha additional area has been added under micro-irrigation. Besides the corpus of Rs. 5000 crore, PPP model of micro-

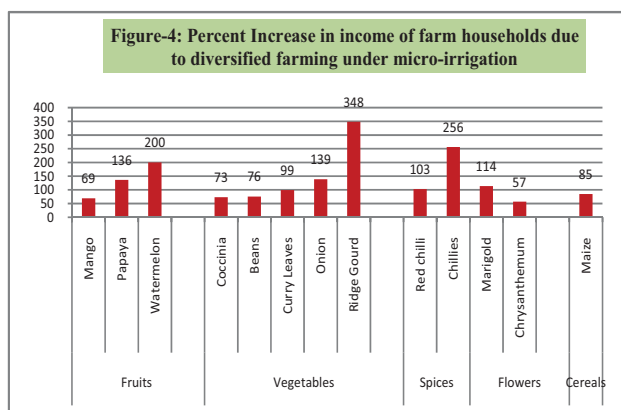


Table 1: All India Status of Soil Health Card

Particulars	Cycle-I (2015-2017)	Cycle-II (2017-2019)
Target for Soil Samples Collection & Testing (No)	25349546	28011869
No. of Samples Collected	25349546 (100 %)	23316624 (83.24 %)
No. of Samples Tested	25349546 (100 %)	14549698 (51.94 %)
Target for Printing & Distribution of SHCs	107389421	122045175
No. of SHCs Printed	107389421 (100 %)	50580440 (41.44 %)
No. of SHCs Distributed	107389421 (100 %)	46083032 (37.76 %)

irrigation with area approach is also being mainstreamed in several States. The success in augmenting the income of rural households and diversify agriculture through micro-irrigation has been rather encouraging. The income increased 69 percent to as high as 348 per cent (Rs 1.0 lakh to 1.5 lakh per acre) over traditional cropping at the farms of those household which adopted diversified cropping with fruits, vegetables and spices through drip irrigation in Chhattisgarh, Andhra Pradesh, Telangana and others States. The most encouraging benefits to rural poor happened where water for irrigation is needed the most (Figure 4). The benefit has spread over 13 states in varied agro-climatic zones. The phenomenal growth in return to farmers due to irrigation has evidenced the strongest impact that PMKSY-micro-irrigation is likely to make on rural economy.

Raising Farm Productivity to Boost Income of Rural Households:

Globally our productivity is lower in almost all the commodities than any global standards. Seed and fertilizers have been central to augmenting productivity. Government established 125 seed hubs in leading state Agricultural Universities and ICAR Institutes across the country to augment the availability of seeds of pulses. Additional 25 seed hubs have been introduced since 2018-19 for increasing the availability of quality seeds of nutri-cereals. Soil health card scheme is operational to economize the fertilizer use. The soil health card helps farmers know the fertility status of his farm and get crop-specific prescription for the right mix of fertilizers and manure needed to achieve

the higher productivity. Not only has his input mixed for fertilizer will get balanced saving on his costs but also improve the soil health. Over 10.73 crore soil health cards have been distributed amongst as many farm households (Table 1). Neem coating has been introduced to reduce the leakages in urea distribution and enhance on-farm use efficiency and cut the cost of cultivation. DBT in fertilizers linked with Aadhaar enabled soil health cards is to promote balanced use of nutrients and also bring in transparency in fertilizers distribution and sale. The present level of farm power usage is 1.84 kw/ha has to be raised to 2.2 kw/ha by 2020. It is established that farm productivity and farm power availability are strongly correlated as highly mechanized states such as Punjab and Haryana have very high productivity as compared to other States with low mechanization. Promotion of Custom Hiring Centre (CHC) for agricultural machinery is being implemented under National Mission for Agricultural Extension & Technology. The crop residue management in NCR region has been given top priority through a new scheme to manage the crop residue at farmers' fields through farm mechanization. Government introduced a Rs. 1151.80 crore scheme for in-situ management of crop residues through rural entrepreneurs.

Relieving the Rural Households from Risk:

Crop failure is a major stress which every household in the rural India faces at some point of time. The intensity and frequency is more in rainfed areas. This phenomenon affects both the farmers and the consumers in the rural areas. The Pradhan Mantri Fasal Bima Yojana (PMFBY) has been

Table 2: Achievements of Pradhan Mantri Fasal Bima Yojana in 2016-17

Coverage Details During 2016-2017	Kharif 2016	Rabi 2016-17 (Prov)	Total
Loanee applications (in lakh)	299.05	139.92	438.97
Non-loanee applications (in lakh)	102.48	32.8	135.28
Total farmer applications (in lakh)	401.53	172.78	574.25
Area insured (in lakh ha.)	385.34	195.82	581.16
Sum insured (Rs. in crore)	134582	66837	201420
Claims paid (Rs. crore)	6233.69	1493.38	7727.07
Farmers benefited (in lakh)	84.9	5.89	90.79

launched in January 2016 by subsuming multiple insurance schemes like National Agricultural Insurance Scheme, Modified NAIS, etc. PMFBY is an efficient and effective adaptation tool to cover the risk in the rural areas. It has been made more inclusive with a meagre premium of only 1.5 to 2.0 % for arable cropping and 5% of the sum insured for fruits, vegetables and plantation crops. The allocation of PMFBY has been almost tripled since 2016-17. So far the scheme has been implemented by 24 States and 3 UTs and about 5.8 million ha of cropped area brought under insurance during 2016-17. Interestingly, about 24% of the farmers applied for insurance were non-loanee farmers (Table 2).

Rural and Agriculture Financial Inclusion:

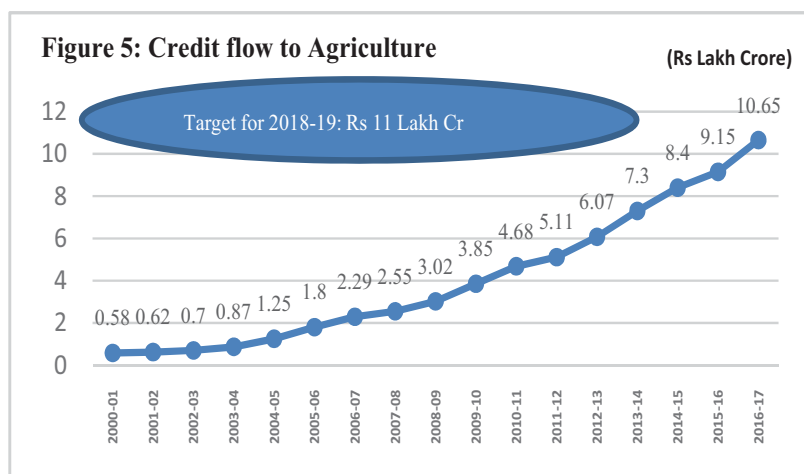
The empirical studies of the past indicated an increase of \$ 2 per capita per month income in a farm household due to institutional credit. The institutional flow of credit to farmers has increased over 18 folds since 2000-01 (Figure 3) to provide cheap credit to farmers. However, the access to credit to small and marginal farmers has been a concern along with the higher interest rates. Two significant steps were taken in the recent past-interest subvention on the short-term crop loan upto Rs. 3 lakh and broad basing the Kisan Credit Card (KCC) scheme to include term credit and consumption needs, besides some risk cover against accidental death. A farmer, who repays the loan on time, becomes eligible to get crop loan at 4 per cent rate of interest. Post-harvest loans are also being granted against Negotiable Warehouse Receipts (NWRs) with benefit of interest subvention.

The Government made agricultural credit more inclusive by provision of institutional credit to tenants or lessee cultivators, animal rearers and the aquaculture. Recognizing the need for a legal arrangement that protects the land rights of the owner but also provide working facilitation to tenants, NITI Aayog prepared a Model Act on Agricultural Land Leasing in 2016 for facilitating the states to enact the land leasing laws for agriculture so as to enhance the operational holdings and investment in farming.

Diversified Income Augmenting Activities:

The pull factor of higher income in urban areas and push of lack or underemployment in rural areas are triggering migration to urban Centres. The process helps increasing the commercialization of agriculture. The reforms in contract farming, tariff and tax regimes, export promotion, credit have been done for achieving optimum commercialization in agriculture along with prioritizing of value chain development with a scale commensurate with national income and employment. Diversification towards high value commodities can enhance the income of farmers substantially as evident from the value of output data for year 2013-14 (CSO, 2013-14) The fruits and vegetable crops on average generate Rs. 3.30 lakh worth of output per ha compared to Rs 0.38 lakh by cereals, Rs 0.29 lakh by pulses and 0.49 lakh per ha by oilseeds. This suggests an attractive scope of raising the value of farm output by diversifying from field crops to fruits and vegetables. The rapid decline in rural poverty in Andhra Pradesh and Gujarat could be attributed to diversification in their farming during last 15

years. Even small farmers can benefit by shifting to high value commodities by utilizing large volume of family labour more effectively on small land. Special attention has been given to Medicinal & Aromatic Plants (MAPs) as a focus towards diversified farming and income augmentation. About 8,000 species of medicinal herbs and medicinal plants are reported in the country and the fragrance markets have showcased a steady growth in the past. The sales value of perfumes and fragrances in India is estimated at \$3169 million. A





sum of Rs. 200 crore has allocated for supporting organized cultivation of MAPs for the benefit of MSMEs in the associated industry. Mechanisms to sell surplus solar power by farmers to electricity grids and distribution companies instinctively combine income generation and sustainability targets. Galvanizing Organic Bio-Agro Resources (GOBAR) Dhan Scheme has been announced for management and conversion of cattle dung and solid waste on farms as compost, bio-gas and bio-CNG.

Rural Infrastructure Development:

The agro-based setting of rural economy is changing towards more diversified activities. However, such development is constrained by poor infrastructure as evidenced from rural road density, access to irrigation, power supply, market facility and network, godown, cold storages, cold chain and processing infrastructure. It is estimated that gap of 99% exists in pack houses, 85% in reefer vans, 10% in cold storages and 91% in ripening chambers. The primary space of marketing is market yards. On an average one market yard is distributed about 463 sq. km (12 km radius) against the desirable level of one at every 80 sq km (~5 km radius). The disparity is vast amongst states. One wholesale market at every 6 km radius exists in Punjab against one at 45 km radius in Assam. The farm mechanization is also very low at 1.84 kw/ha against 2.2 kw/ha envisaged by the experts. A number of centrally sponsored schemes and central sector schemes are under operation

which provides incentives to farmers and entrepreneurs for infrastructure development.

Reinvigorating Value Chain in rural areas:

The annual post-harvest loss is estimated at Rs. 92651 crore. The synergies amongst the programmes of Agriculture, Food Processing, and Commerce for developing effective procurement linkages, processing facilities, retail chains and export-import have been emphasised. Pooling of resources for cold chain and warehousing infrastructure development and PM Kisan Sampada Yojana of MOFPI could help mobilizing the initial funding. Specific targeted actions has been undertaken towards establishment of mega food parks, forming agro-processing clusters, modernizing abattoirs, establishing integrated cold chain and value addition infrastructure, technology upgradation for expansion of food processing, forming backward and forward linkages including warehousing, setting up food testing labs.

Strong linkage between the farmer and the wholesale markets has been long felt need for formation of an accessible, decentralised market structure. The Government has embarked upon an ambitious programme of upgrading 22000 rural periodic markets into Gramin Agricultural Markets (GrAMs) to serve as multipurpose platforms for assembly, aggregation and local retail. Rs. 2000 crores has been set aside for this purpose initially. GrAMs will provide systemic linkage to realise the vision of a unified national market by bringing primary post production activities to farmers at village level. A convergence with agricultural scheme and MGNREGA has been thought through built these GrAMs. Prime Minister Gram Sadak Yojana Phase 3 will put special attention to connecting habitations with GrAMs through all-weather roads.

Remunerative Price to Rural households:

The price policy has aimed to offer remunerative prices to producers through minimum support prices (MSP). However, the implementation of MSP has never been inclusive and limited to some produce

(rice, wheat, cotton and sugarcane) and geographies (Punjab, Haryana, Chhattisgarh, Madhya Pradesh, UP, Andhra Pradesh). It has been observed that farmers in all states and for almost all major agricultural commodities are seeking price guarantee like MSP. Government took a pathbreaking decision to provide Minimum Support Price (MSP) equivalent or more than 150% of the cost of production. The MSP so announced will change the entire canvass of rural income. The implementation of MSP, for the first time, is being made inclusive. A mechanism has been thought through to implement the MSP for all the 25 notified crops in all the States. NITI Aayog has suggested three mechanisms of market assurance, price deficiency payment and procurement by private stockists on MSP. A comprehensive mechanism integrating all three is likely to be rolled out shortly to target at least 40% of marketable surplus of these crops.

To have agricultural markets and marketing modernized, a new Model Agricultural Produce and Livestock Marketing (APLMC) Act, 2017 was suggested. The out-of-mandi transactions and exemption of market fee on horticultural perishables along with the electronic marketing etc have been explicitly dealt in the Model Act. Government has also, in May, 2018, launched a model act on contract farming to facilitate the States to enact the contract farming acts for protecting the interests of producers and the buyers (sponsors). The model act provides an opportunity to farmers to decide their own price and negotiate with the sponsors for guaranteed price.¹ National Agriculture Market (e-NAM) was launched on 15th April 2016 with an allocation of Rs.200 crore. It is an online inter-connectivity of e-mandis, aimed at ushering in much needed agriculture marketing reforms to enable farmers to get better price of their produce. It provides a single window service for all APMC related information and services. Farmers can showcase their produce online from their nearest market and traders can quote price from anywhere. 585 regulated wholesale markets in States/UTs across the country were connected with the common e-market platform by March 2018.

Integrating Small and Marginal Farmers with Value Chain:

Over 3500 FPOs formed under various initiatives in the country. They are real carrier of

transformation for small and marginal farmers of rural India. India. NABARD under its Producer Organisation Development Fund (PODF) has provided credit plus assistance to over 200 POs during the last 4-5 years. Based on the experiences gained under PODF, the Government created a dedicated corpus of Rs. 200 crore in NABARD in 2014-15 for promotion and nurturing of 2000 new FPOs. Subsequently, NABARD promoted 2174 new FPOs across 29 States. An explicit focus on cluster based approach to developing agriculture in a dispersed manner can potentially form the basis of future public and private agribusiness initiatives. Further, aggregation through Farmer Producer Companies (FPCs) has a dominant role in bringing forth specialisation and scale to an otherwise fragmented sector, along with necessary managerial and technical backing. Government has announced a 100 percent tax deduction to FPCs with turnover of less than Rs 100 crore during next 5 years. FPOs are also the cornerstone of newly launched Operation Greens for managing supply of Tomato, Onion and Potato (TOP) throughout the year. Rs. 500 crore is set aside for Operation Greens to promote agri-logistics, processing facilities and professional management for TOP crops.

Conclusion:

Agriculture, as a profession in rural space, has been progressing, albeit with a slower pace than other sectors of economy. The recent initiatives have made it more inclusive with suitable blend of food security along with income security priorities. While major initiatives and programmes are on course for creating an ecosystem to boost the income of the rural households, it will only sustain if reforms are mainstreamed along with developmental plans. The innovations for convergence of rural development priorities and programmes with farming technologies that economize the cost of inputs and produce more from less of natural resources will lead to rural prosperity while transforming the agriculture.

Endnotes

¹ Maharashtra has introduced contract farming of pulses and other commodities.

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PROMOTING LIVELIHOOD THROUGH NRLM

Dr. H.S. Shylendra

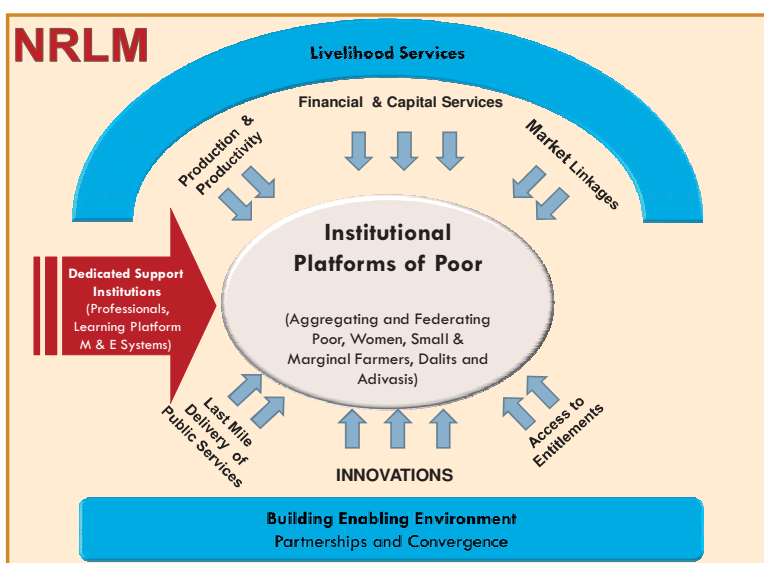
Forming Community Based Organisations, CBOs to ensure programme sustainability is the most prominent achievement of NRLM. The formation has been attempted using innovative strategies of social mobilisation and institutional building. The efforts have resulted in some widespread promotion of the institutions of poor having potential to contribute for their socio-economic advancement.

National Rural Livelihood Mission (NRLM) as a new generation public policy programme has sought promoting community based organisations (CBOs) as the corner-stone of its strategy for addressing the goal of poverty eradication. With a belief that poor have a strong innate capability to come out of poverty, NRLM visualises a prominent role for poor and their institutions. The institutions of the poor comprising essentially of self-help groups (SHGs) and their federations are expected to emerge as platforms for collective action. Building linkages with variety of other support agencies, these institutions would strive towards providing wide range of services to the poor to overcome their multiple deprivations. NRLM has set for itself a target to mobilize nine crore poor households spread across all the villages in the country.

To overcome some of the past limitations of SHG-based CBOs and promote them on a sustainable basis, NRLM has espoused a multi-pronged strategy which includes: i) Building dedicated support structure at various levels to mobilize poor and augment their capacities; ii) Saturation of poor in a phased way to include each and every poor household under the fold of SHGs; iii) Arrange linkages to CBOs to emerge as viable units providing services for livelihood generation; and iv) Encouraging participation of members in all decision-making processes.

The article attempts to examine the structure and role of CBOs of NRLM and identify the emerging issues of their sustainability. The article draws from the findings of a larger study (IRMA 2017) of NRLM covering multiple themes in eight selected states. Taking a broader view, the study has defined CBOs as *'collectives having formal or informal structure working on democratic basis to address relevant social and economic needs of their members who exercise full or significant control and ownership over these collectives'*. For CBOs to emerge as effective member owned organizations the need is for appropriate enabling conditions of various kinds. Sound governance is essential for sound working of CBOs and must be enabled through effective capacity building, autonomous leadership and professional support. CBOs including SHGs would require right legal form to exercise needed control and autonomy. The CBOs must be enabled to have effective linkages with various institutions to augment their resources and to attain the required scale and impact. Finally, CBOs which grow into federated structures have to satisfy few other conditions.

While NRLM itself has identified the principle of subsidiarity as the basic logic which should guide the federations with each layer having its own clearly defined role; democratic federalism is another major principle advocated for the sound integration of the units as collectives.



Progress of CBOs:

NRLM is more of a framework providing funds and guidance to the states. The state rural livelihood missions (SRLMs) are expected to frame their own approach to suit the local conditions. The SRLMs without exception have come to adopt largely uniform approach pertaining to various components of NRLM like social mobilization, inclusion, institutional building, training, linkages, and convergence for livelihood promotion. All the states have created the dedicated support structures at state, district and block levels including inducting professionals and community resource persons (CRPs). Besides using intensive block strategy to concentrate resources in selected pockets, there is a phased expansion for saturation.

Working in all states, NRLM has managed to reach 530 districts and 3519 blocks by March 2017. The geographic outreach accounts of about 82 per cent of the total districts and 53 per cent of the total blocks. NRLM has mobilized about 3.86 crore households under its fold accounting for about 21.6 per cent of the total rural households. As a proportion of BPL households, NRLM has reached about 76.3 per cent of the estimated poor households. Most of the states have not been able to attain saturation as several villages remain outside the fold of NRLM.

Table 1: Outreach of NRLM

Details	2017
No. of districts covered	530
% of total district	81.62
No. of blocks covered	3519
% to total blocks	53.26
Households mobilized	3,86,18,623
Estimated % of BPL households	83.87
CBOs Formed:	
i) Self-Help Groups (SHGs):	32,52,372
ii) Village Organisations (VOs):	1,81,105
iii) Cluster Level Federations (CLFs):	15,665

NRLM, besides its focus on women, has a thrust on targeting very poor and vulnerable households. Overall NRLM has aimed at including 50 per cent of its households from SC/ST groups, 15 per cent from minorities and 3 per cent

from PwD. Attention is also to be given to other vulnerable groups like PoP, elderly and PVTGs. As social inclusion faces considerable challenge NRLM has adopted participatory identification of poor (PIP). Though considerable proportion of target groups has been included, the CBOs have still a long way to go in ensuring complete inclusion (Table 2).

Table 2: Social Composition of NRLM (2017)

Category	% of Households	% of SHGs
Scheduled Castes (SC)	22.10	18.95
Scheduled Tribes (ST)	13.33	12.03
Minorities	8.35	6.14
PwD	1.21	1.33
Others	55.01	61.15
Elderly	-	0.40
Total	100.0	100.0

Structure of CBOs:

A multi-layered structure of CBOs is visualized under NRLM. What has emerged largely is a three-tier structure (Fig 1) consisting of SHGs, Village Organisations (VOs) and Cluster Level Federations (CLFs) with some variations seen in few states due to local contingencies. It would be useful to look into the structure and role of each of the type of CBOs.

Self Help Groups (SHGs): The SHGs are the most ubiquitous CBOs at grassroots. The SHGs are informal groups with a maximum of twenty members who tend to hail from similar socio-economic background. Once formed the SHGs are expected to follow norms of *panchastutra* wherein besides framing their own bye-laws they display regularity in meetings, savings, inter-

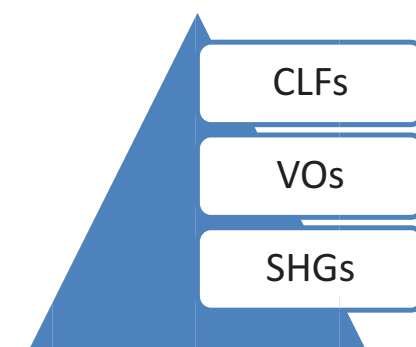


Figure 1: Structure of SHG Federation

loaning, repayment and book-keeping. The SHGs also would elect their office bearers—president, secretary and treasurer, besides appointing a book-keeper. All the office bearers would be given training in SHG management.

The SHGs will subsequently open a bank account for savings and get themselves graded to receive revolving fund (RF) and community investment fund (CIF). This would be followed by preparation of microcredit plan (MCP) to be able to receive bank loan. After 4-6 months of their formation, the SHGs in the village will come together and form a primary level federation leading to larger collective action. The field assessment revealed that SHGs have emerged as fairly widespread and active entities (Table 3). The discussion with several stakeholders highlighted that the SHGs of NRLM though are not without problems but are considered to be relatively better in quality than other SHGs owing to intensive effort.

Table 3: Working of SHGs

Details of SHGs	Total
Average Size of SHGs	11.02
% reporting member withdrawal	37.00
% with Regular Meetings	86.68
% with regular savings	91.58
% with internal lending	96.47
% with regular repayment in internal loans	88.04
% federated into VO	83.97
% received training in SHG Management	82.61
% received training in livelihood	45.11
% having membership in producer groups	20.65
Monthly savings contribution (Rs)	74
Current Savings in SHG (Rs)	2615
% member taking SHG internal loan	81.82

Village Organisations (VOs): VOs are at the second tier in the CBO structure. VOs are perceived as primary federations of the SHGs providing them locally relevant services. However, given the informal nature of SHGs, there are legal constraints in SHGs becoming full-fledged members. In most states, VOs are working on informal basis. To make them cohesive, the membership of VOs is being restricted with VOs having an average size about 11 SHGs. The general body of VO consists of all elected representatives of SHGs and elects the

office bearers comprising president, secretary and treasurer. The VOs are forming sub-committees which can give focused attention to areas like bank linkage and recovery management.

VOs as such are not having any staff of their own with community cadre providing relevant support for book keeping and audit. VOs receive revenues by way of fee, share capital, seed money, savings, and CIF. In terms of role, VOs are expected to help SHGs access RF/CIF, training, credit and other services. The field assessment indicates that VOs are yet to be formed fully in all the states with a few states experiencing even delay. In certain states, SHGs felt that they are yet to feel the need for a VO.

Cluster Level Federations (CLFs): CLFs are the third-level units under the CBO structure. Commonly, CLFs are being formed for a cluster of villages by integrating all the VOs. The primary responsibilities include monitoring and grading VOs, channelize CIF, help VOs/SHGs access public services, facilitate bank loans, nurture community cadres, book keepers and auditors, audit books of VOs, and facilitate convergence. The major sources of funds for CLFs are fee, share capital, savings from VOs/SHGs, seed money, CIF, interest margin, and funds through convergence. The emergence of CLFs as strong institutions has faced many challenges with most working as informal organizations. CLFs are found working actively mainly in states with mature SHG movements.

Functions of CBOs:

Broadly the activities pursued by CBOs can be categorized into financial and non-financial services.

Financial Services: Financial services are the prominent services being facilitated by the CBOs. Savings, credit and insurance are the key services being accessed by the members. Regular savings on weekly or monthly basis has become an integral part of SHGs. The saving installments are decided based on the ability of members to save. Savings is being promoted both to promote thrift and as a source of fund for SHGs/VOs. While all SHGs open savings accounts to manage their savings, mature SHGs tend to open fixed deposit accounts to invest their savings. Besides savings, SHGs collect fee, insurance, and loan repayments.

Providing credit is the second most prominent activity of the SHGs. More than 96 per cent of the SHGs as per the survey reported internal lending which is taken up mainly to meet small and emergency needs of the members. SHGs arrive at their own norms about internal loans and often charge 2 per cent per month interest rate. The second type of loan service being pursued by SHGs is enabling members' access to external loans from federations or banks. CIF is being channelized through CLF/VOs to SHGs to meet vulnerabilities and small livelihood needs. Except in the case of destitute members, CIF is being provided as soft loans. However, issues like delay and reduction in release of CIF have been observed.

Bank Linkage: Bank linkage to access larger capital has emerged as the prominent activity of the SHGs and their federations. The SHGs are expected to be credit linked with a bank after 4-7 months of their formation, and subsequently access multiple doses of credit to pursue income generating activities. The banks have been issued guidelines in providing credit to SHGs for livelihood promotion on a proactive basis. SHGs may be provided term loan or CC limit depending upon their need. Grading, MCP, savings, and panchasutra and loan repayment are some of the criteria used by banks while providing credit linkage to SHGs.

Table 4: SHG-Bank Linkage

Particulars	2016
SHGs savings linked (lakh)	34.57
Savings per SHG (Rs.)	18065
SHGs with outstanding loan (lakh)	21.91
% SHGs with outstanding loan	63.38
Loan outstanding per SHG (Rs)	121452
Savings: Credit Ratio	1:6.7
NPA %	6.23

Nearly 63.4 per cent of the SHGs of NRLM have been credit linked in 2016 (Table 4). The SHGs have accessed on an average Rs. 1.22 lakh worth loan with a savings to credit ratio of 1:6.7. The macro picture though impressive, the study revealed considerable variations across states. The share of states in total SHGs getting loans varied from less than 1 percent to about 23.7 percent. Again the

average loan disbursed per SHG has varied from Rs 50,000 to Rs. 4.2 lakh. Many states continue to face difficulties in establishing both savings and credit linkages. Though CRPs have been nominated, banks have not been able to tap fully their utility. Lack of branches, inadequate staff, KYC issues, and negative experience with old SHGs, and prevailing NPA have plagued credit linkages. Many SHGs tend to equally divide the bank loan among members irrespective of the need. The members are generally using the loans for social needs and for existing activities like agriculture, animal husbandry and business. In few states, the CBOs are also promoting social security and insurance schemes with the higher federations acting as agents for enrollment and settlement of claims.

Other Services: The CBOs of NRLM are also involved in facilitating other services to their members. The survey brought out diverse non-financial services being rendered by VOs (Table 5) which fall into five categories viz., formation of SHGs/FPOs, training and audit, social issues and legal counseling, livelihood promotion, and convergence. As part of convergence, the SHGs/VOs at the village level are involved in mobilizing and identifying needy members for development schemes. Many VOs provided support for livelihood activities of SHGs including forming producer groups.

Table 5: Non-Financial Services by VOs

Services	% of VOs
SHG formation	82.84
Training for SHGs	73.88
Livelihood Promotion	45.90
Audit	45.15
Social issues taken up	69.03
Legal Counseling	24.25
Convergence attempted	26.12
FPOs formed	9.70
Input Supply	4.10
Supply of Consumer items	5.97
Total VOs	268

Many VOs pursue social issues like gender discrimination, public advocacy, creating public facilities, school monitoring, and legal counseling. It is felt that such activities help women members to engage with social problems for playing meaningful role in their community.

Sustainability of CBOs:

NRLM visualises CBOs to emerge as sustainable institutions for an enduring impact. The sustainability of CBOs is a multi-dimensional goal of attaining self-reliance, autonomy and role clarity. The CBOs of NRLM are fledgling institutions which have begun to experience the challenges of sustainability. The formation of federations at various levels has been found to be top-down and issues concerning their need and viability have not been addressed adequately. Many CBOs are still informal and work under the guidance of the mission management units. Autonomy and sustained capacity building becomes necessary. Though SHGs have shown considerable abilities of solidarity and self-management, enabling them meet the felt needs of their members as revealed by household survey becomes important (Table 6).

Table 6: Needs of SHG Members

Needs	% of members
Credit Need	49.20
Credit Subsidy	50.21
Employment/Job	32.34
Marketing of produce	13.98
Other Subsidy	20.01
Productive Assets	13.98
Technology	29.24
Training in income generation	40.45

As regards higher level federations like VOs and CLFs, the study revealed that the challenges are even more acute. Their legal status is yet to be clearly clarified as they have remained informal though some states have initiated steps to ensure legal compliances. There is considerable variation in size and scale of operation of VO/CLFs. While the average size of VOs varied from 9 to 59 and that of CLFs varied from 5 to 99 across states. Ensuring minimum threshold size becomes crucial for attaining viability. Role clarity has to emerge with regard to both the VOs/CLFs as they are mainly into support and convergence activities. Until at least one of the units in the structure takes up some significant activity to ensure revenue flows, the long term sustainability would remain a challenge.

Conclusion:

Forming CBOs to ensure programme sustainability is the most prominent achievement of NRLM. The formation has been attempted using innovative strategies of social mobilisation and institutional building. The efforts have resulted in some widespread promotion of the institutions of poor having potential to contribute for their socio-economic advancement. Despite some of the notable achievements, NRLM has faced several constraints in realising the expected outcomes. The constraints have emerged both at the conceptual and programmatic level. Conceptually, the principle of democratic federalism and principle of subsidiarity have not been adequately addressed under NRLM. At the programme level, the depth and width of outreach across the states have not been uniform owing to bureaucratic hassles and resource constraints. Despite the flexibility, the overall thrust of the programme has been top-down more so with the design of the CBOs and in attaining time-bound results compromising on the quality and strength of the CBOs.

There is a need for continued support for the fledging CBOs including augmenting resources for the purpose. NRLM may take a relook at the standard design of SHG federations, and if need be certain restructuring could be attempted based on bottom-up strategies. The higher level structures like CLFs necessarily have to attain the required legal form along with ensuring recognition for SHGs as association of persons to enable them enjoy the rights as collectives. In terms of the role of CBOs, there is need for focused effort to bring clear clarity. While the banks need to further streamline the linkages with the SHGs, the federations themselves could explore emerging as community based financial intermediaries.

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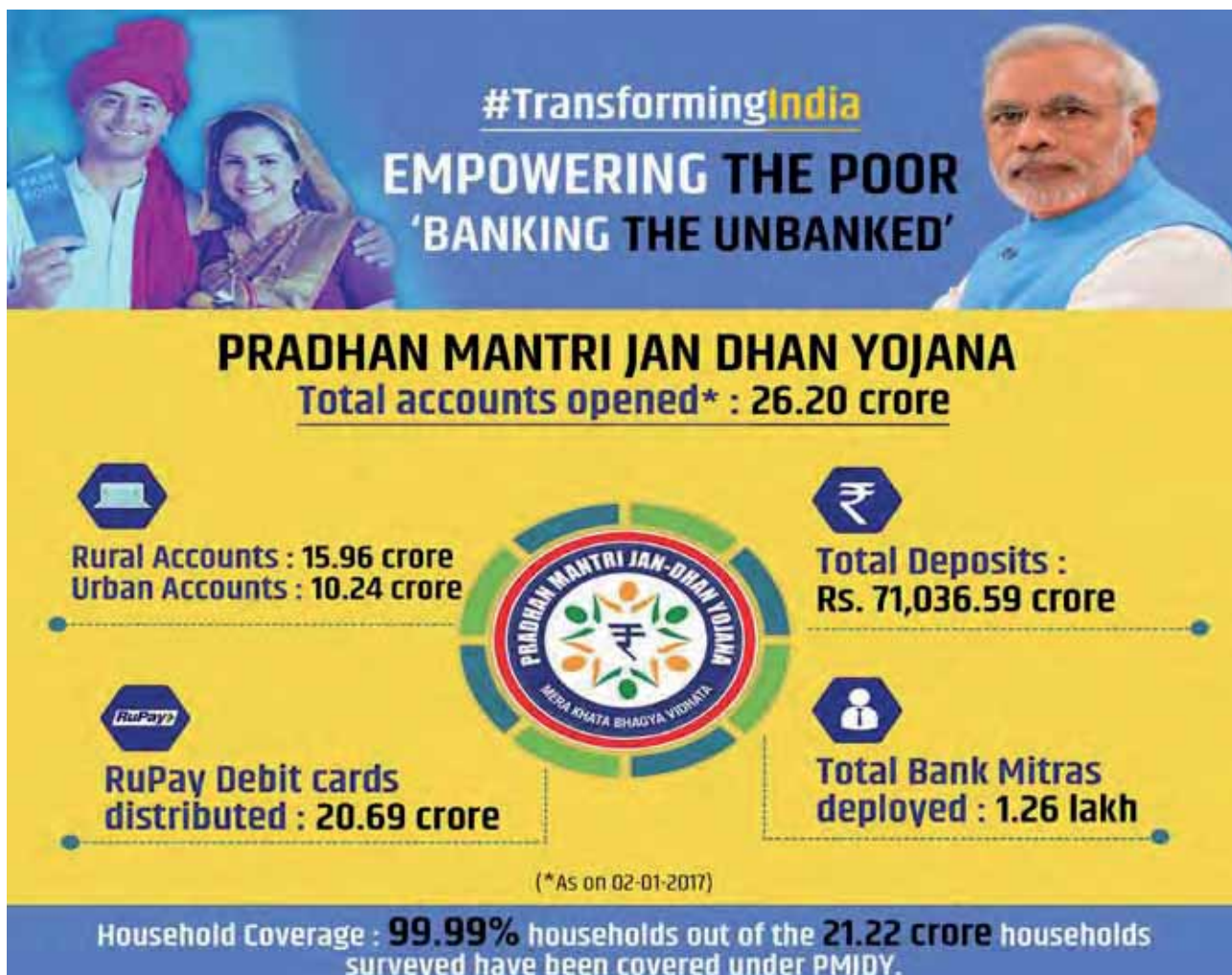
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Besides the flagship programme 'Pradhan Mantri Jan-Dhan Yojana, it is for the first time, three Social Security Schemes, viz., Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY) and Atal Pension Yojana (APY) were brought in to serve the goal of financial inclusion by increasing the penetration of insurance amongst the poorer / weaker sections of the society thereby ensuring their family's financial security.

It has been recognized world over that economic growth cannot be sustainable unless all sections of society, more so the deprived sections, are included as part of the growth process. The inclusive growth approach focus on productive employment as a means of increasing the incomes of poor and excluded groups and raising their standards of living. Inclusive growth helps in sustainable development of rural areas as

it creates employment opportunities and helps in reducing poverty.

Government of India (GOI) has recognized that Financial Inclusion (FI) is the important part of inclusive growth with focus on delivering financial services at affordable costs to the under-privileged sections of the society. Rangarajan Committee on Financial Inclusion (2008) had defined FI as the process of ensuring timely access to financial



services and adequate credit to vulnerable groups such as the weaker sections and low income groups at an affordable cost. The process of financial inclusion consists of ensuring bank accounts to each household and offering their inclusion in the banking system, with other social benefits like insurance, remittances etc. Access to financial services promotes social inclusion, and builds self-confidence and empowerment.

Initiatives & their Impact:

Considering the fact that a large section of population exists on the margins of India's Financial Systems and the need to bank all the people, Govt, since independence had initiated various measures to improve the reach of financial systems to the common people. Some of the major steps taken by the Government include nationalization of Banks during 1969 & 1980, wherein 20 private controlled banks were nationalized in two phases so as to include the poor and marginalized sections among their reach and have an effective credit control.

The nationalization of banks was coupled with introduction of priority sector (PS) norms, where in Commercial banks were advised to lend a certain percentage (40% now) of their lendable resources to 'identified' sectors, which included agriculture, micro and small industry and various other sectors requiring priority in credit assistance. The PS targets provided an opportunity to the poor and the underprivileged section of our society to access credit from the formal systems for improving their standard of living by venturing into productive vocations.

The next important step was the introduction of area approach, through Lead Bank scheme in 1969, for development of an adequate banking and credit structure in rural areas. Credit planning process was strengthened through bottom up approach and monitoring of credit targets was made effective through various state, district and block level forums. Further, Regional Rural Banks were established during 1976, with the objective of reaching

the 'target' groups and this led to professional approach in extending credit to rural areas. Service Area Approach (SAA) was introduced in 1989 for planned and orderly development of rural and semi urban areas through allotment of identified villages (15-25) to a branch for taking care of financial needs of the population in these villages. The SAA has since been rationalized for coverage of government sponsored schemes only, giving the people a large choice of banks to approach to meet their financial needs.

The important FI initiative was mainstreaming of Self Help Groups (SHG) through an effective bank linkage program (SHG-BLP). Started in 1992, the program provided credit without collaterals to poor and brought in over 10 million poor women into banking fold and were able to access over Rs. 60,000 crores of micro credit loans per annum and save over Rs. 40,000 crore per annum. This program has been recognized as the largest micro finance program in the world.

What did the above initiatives do? The reach of the formal financial system improved in the rural areas and the access to credit for the disadvantaged sections increased. However, the All India Debt and Investment Survey (AIDIS), 2003 presented a fairly poor picture of reach of institutional credit in rural areas. While the reach of institutional credit increased from 29% in 1971 to 57% in 2003, the formal financial institutions in rural areas have not displaced informal sources of credit, altogether. The survey revealed that



43 per cent of rural households continue to rely on informal finance, which includes professional moneylenders, agricultural moneylenders, traders, relatives and friends, and others. The Task Force on 'Credit Related Issues of Farmers', 2008, observed that *"...there is an increase in the share of moneylenders in the total debt of cultivators. Moreover, a considerable proportion of the debt from informal sources was incurred at a fairly high rate of interest. About 36 per cent of the debt of farmers from informal sources had interest ranging from 20 to 25 per cent. Another 38 per cent of loans had been borrowed at an even higher rate of 30 per cent and above, indicating the excessive interest burden of such debt on small and marginal farmers..."*. The continued dependence of small and marginal farmers on informal sources of credit such as private moneylenders was attributed to constraint in the rural banking network and services arising out of financial sector reforms.

To improve the reach, Government of India launched a phase-wise road map for opening of banking outlets in unbanked villages – with population above 2000 (phase I – 2009) and less than 2000 population (Phase II – 2012). The focus through this approach shifted from opening of branches to providing doorstep banking services through business correspondents. Consequently, a National Rural Financial Plan was designed with a target of providing access to comprehensive financial services to at least 50% of the excluded rural households by 2012 and the remaining by 2015. Despite these efforts, the AIDIS, 2013 showed that the reach of institutional credit in rural areas has been at around 63.56% only.

Major Break through....!

While the efforts of GoI till 2014 brought in a semblance of reach of financial services to the poor, the approach was more on the supply side. The need was for a more comprehensive approach

towards Financial Inclusion covering opening of bank accounts, access to digital money, availing of micro credit, insurance and pension. The need was not only opening accounts with banks but necessary to keep the accounts alive and lead to some economic activity, thus improving or strengthening the livelihoods of the poor.

In this direction, a flagship program called the 'Pradhan Mantri Jan-Dhan Yojana (PMJDY)' was announced by the Prime Minister in his Independence Day address on 15 August, 2014. This was a National Mission on Financial Inclusion encompassing an integrated approach to bring about comprehensive financial inclusion of all the households in the country. The plan envisaged universal access to banking facilities with at least one basic banking account for every household (BSBDA), financial literacy, access to credit, insurance and pension facility. In addition, the beneficiaries would get RuPay Debit card having inbuilt accident insurance cover of Rs. 1 lakh. The scheme also offers a life cover of Rs. 30,000 to each of its beneficiary.

The program also envisaged channeling all Government benefits (from Centre / State / Local Body) to the beneficiaries accounts and pushing the Direct Benefits Transfer (DBT) scheme of the Union Government. Apart from addressing technological issues like poor connectivity, mobile transactions through telecom operators and their established centers as Cash Out Points were also planned to be used for Financial Inclusion under the program.

For the first time, three Social Security Schemes, viz., Pradhan Mantri Jeewan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY) and Atal Pension Yojana (APY) were brought in to serve the goal of financial inclusion by increasing the penetration of insurance amongst the poorer / weaker sections of the society thereby

Progress under PMJDY and other Social Security Schemes¹

Accounts Opened so far (No.)*	Balance Amount (Rs.)	No of Bank Mitras	Enrollments (No.)*		
			PMJJBY	PMSBY	APY
32.25 crore	80674.82 Crore	1.26 lakh	5.34 crore	13.51 crore	1.02 crore

Data on PMJDY as on 1/08/2018; PMJJBY & PMSBY as on 24/4/2018; APY as on 2/6/2018

(Source: GoI websites on PMJDY (www.pmjdy.gov.in) & Jansuraksha (www.jansuraksha.gov.in)

ensuring their family's financial security. PMJJBY provided life insurance coverage for death due to any reason to people in the age group of 18 to 50 years (life cover upto age 55) having a savings bank account. Life cover of Rs. 2 lakhs is available at an annual premium of Rs.330 per member.

PMSBY covered accidental death insurance for people in the age group of 18 to 70 years with bank account linked to their Aadhar card at an annual premium of just Rs. 12. While in case of accidental death and full disability the risk coverage is Rs. 2 lakh, for partial disability it is Rs. 1 lakh. The pension scheme (APY) encouraged workers (in the age group of 18-40 years) in unorganized sector to save for their retirement. Based on monthly contribution of a set amount to National Pension System (NPS), which will be debited directly from the account, the subscriber is guaranteed a monthly pension between Rs.1000 and Rs.5000 released to the account, from the age of 60 years.

Beyond the Numbers:

PMJDY was a watershed point in the history of Financial Inclusion initiatives by the Government of India. In the beginning the focus was on opening of accounts by banks, however dormancy in the new PMJDY accounts surfaced. The demonetization helped to overcome the situation. In reality, PMJDY had made a positive impact beyond the opening of accounts and deposits after demonetization. Dubbed as the world's biggest financial inclusion drive, with an entry in the Guinness Book of Records to boast, the PMJDY has for the first time brought over 32.25 crore of people under the ambit of formal banking network. Four years on, the total balance in the above no-frills accounts stands at Rs. 80674.82 crore (1 August 2018). Also, the National Payment Corporation of India (NPCI) has so far issued 24.19 crore RuPay debit cards to the accounts holders. The figures given below speaks for themselves –

The huge success was possible due to various initiatives taken by GOI through Indian Banks Association, State Level Bankers Committee, Lead District Managers (LDMs) and bank branches have helped create awareness about the PMJDY in the districts. Village level camps by banks through their Business Correspondents (BCs) / Financial

Literacy Centers have further supplemented these efforts. The financial literacy camps organized for the purpose have created awareness among the masses regarding facility of savings provided by banks to the public at large.

An initiative with Multiple benefits:

Bankers Institute of Rural Development (BIRD) in collaboration with College of Agriculture Banking (CAB) studied the impact of PMJDY in Jharkhand, Uttar Pradesh and Maharashtra (a district each) during the year 2016. The observations of the study were corroborated with some more recent studies done by various other institutions and they do point out to one important thing viz., Universal Coverage. The program has ensured almost 100% coverage of rural households, with small and marginal farmers, women and people with no formal education opening accounts for the first time. BIRD study pointed out that 60-65% of households opened accounts under PMJDY alone and responses in Pune and Chatra districts identified the need for savings as the most important reason for opening of bank account under PMJDY. This was possible due to increased awareness levels among Women about PMJDY, compared to men and SHGs have contributed in a significant way to this high level awareness. All the members of SHGs started having individual accounts under PMJDY.

Apart from opening of accounts, the extent of utilization of BSBDA's for various transactions varied from 55% to 100%, which is a real positive development. Again women utilized the accounts better than their male counterparts. Demonetization increased utilization of various financial services overcoming longstanding demographic and gender barriers. The improved utilization was possible due to integration of Jan Dhan accounts with Aadhar numbers. The distribution of pension, welfare and subsidy related payments through these accounts, as part of direct benefit transfers (DBT), helped in door step delivery of financial services to the rural populations. Further, the issue of Rupay cards (*a domestic debit card with accidental insurance coverage*) to PMJDY account holders, was another feature which helped in better use of the PMJDY accounts. It was a grey area to start with, however, with better use of technology and an active role

played by BCs, around 75% of PMJDY accounts have Rupay debit cards now. The utilization of debit cards for cash withdrawal and on-line transactions is on the rise with over 62% people have used it on a regular basis.

The other notable observation is the element of Risk Mitigation through PMJDY accounts, as is linked to three social security schemes. The awareness on insurance as a risk mitigation tool among the rural people improved in the last four years. Among the three social security schemes, PMSBY has picked up due to its low premium and the coverage is around 42% of the PMJDY accounts. PMJJBY is slowly taking off with around 16.6% PMJDY account holders opting for it. The claim ratio is around 0.02% (PMSBY) to 0.19% (PMSBY) of the PMJDY accounts and over the years, there is considerable improvement in the claim settlement process. The pension scheme (APY) could not make much inroads, with only 3.16% of PMJDY account holders opting for it. Proposals to increase the age of entry to APY to around 50 years and the pension payouts per month to Rs. 10,000 may improve the subscriber base.

PMJDB initiative also helped in stabilizing the BC network in villages and providing door step financial services to the rural populations. BCs were the main source of information on the program and played a critical role in motivating people and helping them fill the account opening form. RBI in its report on Trends and Progress in Banking (2016-17) observed that “.....The dominance of BCs in banking services in rural

areas can be gauged from the fact that in March 2017, about 91 per cent of the banking outlets in villages were BCs as against 50.5 per cent in March 2010. This underscores the increasing importance of technology in the provision of banking services. Further, given that BCs which provide banking services over a minimum of 4 hours per day and for at least 5 days a week have been recognised as banking outlets, their importance is set to increase further.”

The above financial inclusion initiatives were sustainable in the long run and resulted in overall development of large sections of small and marginal farmers, women and others, through increased reach to savings, credit, insurance and pension services.

Way Forward:

Though the process did put pressure on the banking apparatus and also had some disquiet among BCs due to low remuneration, problems of technology & Power etc., overall, it may be said that PMJDY has served the purpose of financial inclusion to a great extent. However, concerted efforts are needed to address the issues relating to Information and Communication Technology (ICT) in banks, BCs and FLCs so that the tempo gained thus far is sustained and the goal of total financial inclusion is reached in near future.

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Inclusion of more crops under Market Intervention Scheme

All the agricultural and horticultural commodities for which Minimum Support Price (MSP) are not fixed and are generally perishable in nature are covered under Market Intervention Scheme (MIS).

In order to give benefits to small and marginal farmers of the country including Jharkhand and Gujarat, the Government has implemented various schemes viz., Soil Health Card (SHC) scheme, Neem Coated Urea (NCU), Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), Paramparagat Krishi Vikas Yojana (PKVY), National Agriculture Market scheme (e-NAM), Pradhan Mantri Fasal Bima Yojana (PMFBY), Minimum Support Price (MSP) operation, Mission for integrated Development of Horticulture (MIDH), Sub-Mission on Seed and Planting Material (SMSM), Rashtriya Krishi Vikas Yojana (RKVY) etc. In addition, schemes relating to tree plantation (Har Medh Par Ped), Bee Keeping, Dairy and Fisheries are also being implemented.



MGNREGS: EMPOWERING RURAL INDIA

Nirendra Dev

Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) is seen as an instrument that has able to create a model of governance reform anchored on the principles of right to livelihood, transparency and grass root democracy. The key attributes of this scheme have been labour-intensive work, decentralized participatory planning, women empowerment, work site facilities, transparency and accountability through the provision of social audits.

Not long ago, it was often fashionable for western development journalists to describe India as a sleeping giant of an economy. But lately, there has been a sea change. This amazing sub-continent with its mosaic of colours, contrasts and cultures has leaped forward. India is perhaps living today, according to its deserving potentials and rural India has undergone developments on multiple fronts. Rural development, as the Government of India envisages, involves both economic development as well as social transformation. The Ministry of Rural Development is the chief implementing agency for executing several programs through the State Governments.

This is done in true federal spirit as enshrined in the constitution to promote better prospects for economic development, aimed at poverty reduction, rural infrastructure habitant development and also providing employment to marginal farmers and

labourers. There is also an underlined emphasis to discourage seasonal and permanent migration from rural hubs to urban areas.

In this context, the Mahatma Gandhi National Rural employment Guarantee Scheme - the flagship programme of the government is quite relevant as the programme aims at enhancing livelihood security of rural poor.

The preamble of MGNREG Act states that it is an “Act to provide for the enhancement of livelihood security of the households in rural areas of the country by providing at least one hundred days of guaranteed wage employment in every financial year to every household whose adult members volunteer to do unskilled manual work”.

Arguably, the scheme is modelled on the format of National Rural Employment Program (NREP) brought out by the Government in 1977.



It is also being linked to the Employment Guarantee Scheme (EGS), which was first initiated in Maharashtra way back in 1970s. It guaranteed employment to the rural poor in Maharashtra through piece-rate wage labour and the scheme was later expanded to the whole country.

A study by the National Council of Applied Economic Research found that the MGNREGS has reduced poverty overall by up to 32 per cent and has prevented 14 million people from falling into poverty.

Experts and officials working in rural development sectors say MGNREGA has achieved a remarkable process for the empowerment of the poor.

The Act is particularly hailed as a tool of empowerment for the most vulnerable sections of the village communities as they are also victims of social exclusion and political marginalization. MGNREGA has made a dent on poverty by both-increasing employment opportunities and raising the wage rate. And it has strengthened the process of participatory democracy through economic decentralization and by giving significant roles to the Panchayati Raj Institutions.

It was initially called the National Rural Employment Guarantee Scheme (NREGS) but was renamed on 2nd October 2009 to Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). This scheme is also seen as an instrument that has able to create a model of governance reform anchored on the principles of right to livelihood, transparency and grass root democracy.

The key attributes of this scheme have been labor-intensive work, decentralized participatory planning, women empowerment, work site facilities, transparency and accountability through the provision of social audits.

Survey by 2016-17 showed that NREGS has generated 19.86 billion person-days of employment benefitting over 270 million workers. Studies also say almost a third of works went to members of scheduled castes and scheduled tribes and half the jobs

went to women workers. As many as 55% NREGA workers in 2015 (data) were women with their participation recording a quantum leap from 38 per cent over the last decade.

Modified version:

After recent modifications in the scheme implementation asset creation has actually emerged as a chief attraction for MG-NREGS. According to official sources, 1.71 crore assets of MG-NREGS have been geo-tagged. Over 5.5 crore workers have been put on the Aadhaar-based Payment System and the Aadhaar numbers of 9.23 crore workers have been seeded so far in NREGA Soft MIS.

There is a need to link MG-NREGS to farm sector so that the agricultural income is raised, and if possible be doubled by 2022, as envisaged by the Government of India. There is thus, a need for reducing cost of cultivation, enhancing production through efficient use of water or other inputs, providing remunerative price to farmers and rehabilitation of agricultural land and assets after natural hazards. The government of India and other stake holders have acted rightly in these matters.

During the fourth meeting of Governing Council of NITI Aayog on June 17, 2018. Prime Minister took a decision on policy coordination between agriculture sector and MGNREGA, particularly in pre-sowing and post-harvest activities.

The Prime Minister also constituted a sub-group consisting of Chief Ministers of seven states—Madhya Pradesh, Andhra Pradesh, Bihar,



Uttar Pradesh, Gujarat, West Bengal and Sikkim— and NITI Aayog with the Chief Minister of Madhya Pradesh as the convener of the Sub-Group.

Here, it will also be relevant as what Prime Minister Modi has lately underlined about.

In April this year, Prime Minister said funds provided under the MGNREGA scheme be used on water conservation work for at least three summer months to curb water shortages in villages and boost farm activities. The human power available in rural areas could be harnessed to realise Mahatma Gandhi's dream of a village-centric model of development.

In this backdrop, PM also urged panchayat representatives to spend funds provided under the rural job scheme.

“We should work for conserving rainwater. Panchayats should spend NREGA funds on water conservation during April, May and June,” he said.

There is now a need for paradigm shift from ‘relief works’ approach to integrated programme in implementing MG-NREGS. In fact, there is no gain saying to point out that the works taken up in NREGS should stop from taking up individual and stand-alone works. Here, it will be pertinent to underline that planned and systematic development of land and harnessing of rain water following watershed principles should become the focus of the NREGS to sustainably enhance farm productivity and incomes of poor people.

Thus, in more than one way than one finds that MGNREGS – as designed in 2005 has been a different ball game than the manner it has been ‘restructured’ by the present government.

Earlier it was rather based on adhocism, operated on a demand-driven method and largely laying emphasis on creation of temporary jobs. The best of admirers of the scheme, a decade back, would have spoken that it also disturbed agriculture labourers, how it sort of ensured ‘easy money’ where things would be essentially seasonal in approach. According to lawmakers it was largely dependent on digging ponds and thus, often it was found to be futile.

But the new dispensation, according to Rural Development Minister has changed it to make

the scheme target-driven and hence more result oriented. It is also, as discussed above – laying emphasis on asset creation.

Geo-tagging assures Transparency:

The government added a provision to schedule-1 stating that, “At least 60 per cent of the works to be taken up in a District in terms of cost, shall be for the creation of productive assets directly linked to agriculture and allied activities through development of land, water and trees.”

In the past, it was also found that there have been a failure of implementing agencies in strictly complying with the act or their problems such as manpower shortage, ineffectiveness of grievance-redressal mechanism and social audit.

But now in the new structure, the number of works under the scheme has gone up from eight to 23. Measures are being taken to avoid increase in centralisation of implementation process and largely village level population and gram sabhas are being empowered to select works.

The Act makes it clear that 50 per cent of the total works - in terms of cost- shall be implemented by gram panchayats that will select, plan and execute the work. In analysing the functioning of the NREGS, a vital change that the government has ushered in is the addition of “individual assets” and infrastructure for the “National Rural Livelihoods Mission (NRLM)-compliant Self-Help Groups” in the assets list. This is considered far-reaching and significant given the potential positive effect it can have on the beneficiaries, experts say.

Now, few findings suggest without MGNREGS it would be difficult to create assets in individual lands. It indicates that MGNREGS has helped in creating the assets which otherwise would have been very difficult for individuals to create.

In terms of tangible results, it needs to be pointed out that the rise in water conservation activities under the MGNREGS is expected to have some impact on the cropping pattern. In some areas, there has been a shift from low value traditional crops to high value crops. As irrigation facilities increase due to water related works, the possibility of growing short duration high value crops also

increases. In many agricultural areas including in states like Madhya Pradesh, Maharashtra and Uttar Pradesh, it has been found that there is a change in cropping patterns since the implementation of MGNREGS.

To wrap up, one can say the relevance of MGNREGA must be also appreciated that it has played a much larger role in revitalizing the labour market in rural areas. The MGNREGA is like a safety net. At times, workers are also able to use it as a bargaining tool for extraction of higher wages. Some findings reveal it played a role in the acceleration in wage rate growth through upward pressure on wages and tightening of the supply of casual labour to the market and indirectly also through the pressure on the state governments to increase minimum wages.

In futuristic sense one can say that efforts should be made so that part of the funds are utilized on enhancing skills at the village level. A stipend-based apprenticeship may be adopted to ensure skill enhancement because this empowers people and prepares them for jobs to conform to new technologies. The well-crafted rural job scheme should not be allowed to turn a direct cash transfer programme alone.

MGNREGS is said to have changed the face of whole rural labour and rural India. It has empowered people, gave powers to labourers to demand higher wages. It has given dignity to them and has acted as a market mechanism. Such stories have been heard from states like Kerala, Maharashtra and Madhya Pradesh as well. One feels, the Act underlines that the state has a role as a provider of livelihood within the reach of the beneficiaries themselves.

Some Highlights:

- MGNREGA has provided employment to 6.23 lakh households in FY 2016-17 with a substantial increase in the average number of person-days per household.
- India's National Rural Employment Guarantee Act (NREGA) came into effect on Feb 2, 2006, across 200 of India's poorest districts in 27 states, assuring 100 days of unskilled manual work in a year to one adult member of every rural household.

- In the first 10 months, more than 13 million families in the country were provided employment and more than Rs.500 million (approx \$11 million) pumped into the rural economy.
- Andhra Pradesh and the eastern state of Orissa, with some of the poorest pockets in the land, did well in the initial stage in the implementation of the scheme.
- Early trends indicated that at least 15 to 20 per cent of the people who migrate every year have not gone out since the launch of the scheme. Such was the experience even in poverty stricken areas of Bolangir district in Orissa.
- In Karnataka, NREGA workers have even been employed to manufacture environment-friendly earthen bricks. The Maharashtra government's Jalyukt Shivar Abhiyan to make 5,000 villages drought-free by 2019 also depended on the NREGA.
- Tamil Nadu has employed 60,000 sanitation workers for cleanliness drive under NREGA across three-fourth of villages.

Type of Works undertaken :

- Water conservation and harvesting, digging new tanks/ponds.
- Making of small check dams, etc.
- Draught proofing and plantation, tree plantation, etc.
- Flood control and protection drainage in water logged areas.
- Construction and repair of embankment, etc.
- Land development plantation, land leveling, etc.
- Micro irrigation works, Minor irrigation canals.
- Renovation of traditional water bodies, desilting tanks/ponds.
- Provision of irrigation facility in areas inhabited by Scheduled castes and Schedule tribes as well.
- Rural connectivity, construction of roads.

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HEALTH SERVICES IN RURAL INDIA

Dr. Chandrakant Lahariya

The vast rural health infrastructure in India has the capacity and potential to deliver more services than it currently does. This can be strengthened and enabled by ensuring appropriate input mix (facilities, supplies and human resources) deployed based upon 'real time' information system. The health and wellness centres under Ayushman Bharat program and National Health Resource Repository (NHRR) initiatives of Government of India are two emerging opportunities to implement innovative solutions to already well recognised challenges of rural healthcare system in India. The process needs to be evidently informed and guided by experts and practitioners of rural health in India.

The public (or government) health facilities in India are organised in three tier structure of primary, secondary and tertiary levels (Box 1). The public health facilities in rural India include health sub centres (HSC), primary health centres (PHCs) and community health centres (CHCs). These facilities have been designed alongside a functional referral linkage with secondary and tertiary level health facilities, most of which are located in urban areas. There has been sustained growth in public health facilities in rural India, in last few decades (Table 1).

Service delivery perspective¹ of infrastructure proposes to include both physical infrastructure and human resources. In this article, the physical infrastructure has been discussed as service infrastructure (facilities directly involved in the delivery of health services to people) and educational infrastructure (institutions to train human resources

for health). The availability of health workforce in public health facilities has been dealt separately. The focus is on public sector infrastructure in rural India, however, references to urban settings and private sector have been made to contextualise the discussion.

Health Service infrastructure:

There has been a variable growth in this infrastructure over last 12 years (Table 2). The information on geographical access to rural health facilities, in 2017, is provided in Table 3. The rural primary healthcare facilities are supplemented by a network of 1,108 Sub-Divisional Hospitals (SDHs) or Taluka Hospitals, 779 District Hospitals (DHs), 1,589 Mobile Medical Units and 476 Medical Colleges and associated hospitals (MC&AH), as on March 2017. During this period, there were 27,698 AYUSH dispensaries and 3,943 AYUSH (Ayurveda, Yoga &



Naturopathy, Unani, Siddha and Homoeopathy hospitals in India.

The average population served by each government hospital in India is about 98,571 persons. However, this also reflects primary health centres and community health centres as hospitals and counts the beds available at those facilities. The total number of licensed blood banks and eye banks in India were 2,903. In addition, India has a vast private sector, mostly single doctor facilities, which provide services on direct payment by people. The majority of private providers are in urban areas. The non-profit organizations also provide select health services in identified areas of the country. The geographical access to facilities is only a part of access to health services. The provision and utilization of health services (at these existing facilities) is

dependent upon provision of basic amenities as well as other types of access. Some of this information on status of rural health facilities in India is provided in Table 4.

Health Education Infrastructure:

The health education and training infrastructure in India has also grown over a period of time. The existing infrastructure has been summarised in Table 5. In addition to graduate courses, there are post-graduate (PG) seats for MD/MS and in AYUSH stream also. To increase availability of various types of human resources at government health facilities, the intake capacity of graduate courses (doctors), Post graduate courses (specialists) and other cadres of health care is being augmented. In parallel, there is focus on setting up new medical colleges and

Table 1: Availability of rural health facilities in India (1985-2017)*

Number of facilities	HSC	PHC	CHC	Total
Sixth Plan (1981-85)	84,376 (---)	9,115 (---)	761(---)	94,252 (---)
Seventh Plan (1985-90)	130,165 (+54%)	18,671 (+105%)	1,910 (+151)	150,746 (+60%)
Eighth Plan (1992-97)	136,258 (+05%)	22,149 (+19%)	2,633 (+38%)	161,040 (+07%)
Ninth Plan (1997-2002)	137,311 (+01%)	22,875 (+03%)	3,054 (+16%)	163,240 (+01%)
Tenth Plan (2002-07)	145,272 (+06%)	22,370 (- 02%)	4,045 (+32%)	171,687 (+05%)
Eleventh Plan (2007-12)	148,366 (+02%)	24,049 (+08%)	4,833 (+19%)	177,248 (+03%)
Twelfth Plan (2012-17)	156,231 (+05%)	25,650 (+07%)	5,624 (+16%)	187,505 (+06%)

HSC: Health Sub-Centres; PHC: Primary Health Centres; CHC: Community Health Centres.

*The numbers represent facilities existing at the end of each plan period, i.e. for Sixth Plan, as on 31 March 1985. The values in parenthesis show an increase in percentage over previous plan period.

Table 2: Evolution of Government healthcare infrastructure in India (2005-2017)

Type of Facility	2017	2005	Change from 2005-2017*
Health Sub-centre	156,231	146,026	--
In Govt. Building	108,959 (70)	63,901 (44)	+26%
In Rented Building	30,022 (19)	50,338 (34)	- 15%
In rent free Panchayat or village society buildings	17,250 (11)	14,295 (10)	+01%
Primary Health Centres	25,650	23,236	--
In Govt Building	23,322 (91)	16,023 (69)	+22%
In Rented Building	8,39 (03)	2,826 (12)	-09%
In rent free Panchayat or village society buildings	1,489 (06)	1,687 (07)	-01%
Community Health Centres	5,624	3,346	--
In Govt Building	5,438 (97)	2,822 (84)	+13%
In Rented Building	8 (<1)	5 (<1)	00%
In rent free Panchayat or village society buildings	178 (03)	254 (08)	-05%

Remark: Figures in parenthesis are percentages/proportion for each of the sub-groups.

*The last column reflects the increase or decrease, in each of the sub-group as proportion in 2017, in comparison of year 2005.

institutions such as All India Institute of Medical Sciences (AIIMS).

Human resources for Health in India:

Allopathic doctors in India: At the end of Dec 2017, there were 1,041,395 Allopathic doctors

registered with Medical Council of India. The estimates suggest that there are nearly 750,000 to 800,000 practicing allopathic medical doctors in India. This translates to around one doctor for every 1,500 people in the country. However, only 114,969 (nearly 14-16%) of total allopathic doctors

Table 3: Coverage by rural health infrastructure in India, 2017

	Health Sub-Centres	Primary Health Centres	Community Health Centres
Average number of villages covered	4	25	114
Average rural population covered (Status as in 2017)	5,337	32,505	148,248
Average rural area covered (in Sq. Km)	18.90	115.15	525.17
Average radial distance covered in Km	2.45	6.05	12.93

Table 4: Status of amenities/services available at SHC, PHC and CHC in India, 2017

Health Sub-Centres (N=156,231)		Primary Health Centres (N=25,650)		Community Health Centres (N=5,624)	
Functioning as per IPHS*	17,204 (11.0)	Functioning as per IPHS*	3,303 (12.9)	Functioning as per IPHS*	912 (16.2)
		Functioning 24*7	10,044 (39.2)	With four specialist	454 (8.0)
		With Labour room	17,688 (69.0)	With functional labour room	4,696 (83.5)
		With Operation theatre (OT)	9,422 (36.7)	With functional Operation Theatre (OT)	4,696 (83.5)
		Without landline Telephone	11,732 (45.7)	With functional X ray	5,624 (100)
				With functional laboratory	5,303 (94.3)
		With atleast 4 beds	19,559 (76.3)	With atleast 30 beds	4,083 (72.6)
		Without a computer	8,962 (34.9)	With computer and stats assistant for MIS/ Accountant	4,843 (86.1)
		With Referral transport available	14,171 (55.3)	With referral transport available	5,217 (92.8)
		Registered RKS	22,077 (86.0)	With registered RKS	5,116 (91.0)
With ANM quarters	86,525 (55.4)			With quarter for specialist doctors	2,816 (50.0)
ANM living at HSC	48,781 (31.2)			With specialist doctor living in quarter	1,770 (31.5)
Without regular water supply	31,985 (20.5)	Without regular water supply	1,695 (6.6)		
Without regular electricity supply	37,387(23.9)	Without regular electricity supply	920 (3.6)		
Without all-weather motorable road	15,536 (9.9)	Without all-weather motorable road	1,361 (5.3)		

*IPHS: Indian Public Health Standards. These standards have been drafted by the government to ensure quality in health services at public facilities. RKS: Rogi Kalyan Samiti or Patient Welfare Committees. ANM: Auxiliary Nurse Midwife.

Table 5: Selected public and private training institutions with annual intake, 2017

S. No.	Course	No. of Institutions	Admission/ intake capacity
Medical and dental facilities			
	MBBS	476	52,646
	Dental colleges	313	27,060
Other training facilities supported by Union Govt			
	HFWTC	65	NA
	ANM-TC	357	NA
	MPW (male) training schools	68	NA
Nursing and Pharmacy			
	General Nurse Midwife	3,215	129,926
	Auxiliary Nurse Midwife	1,909	55,263
	Basic BSc (Nursing)	1,936	96,475
	Post Basic BSc	775	24,415
	Post basic Diploma	292	4,131
	MSc (Nursing)	643	12,617
	Pharmacy (diploma)	777	46,795
AYUSH: Under graduate courses			
	Ayurveda	338	21,387
	Unani	49	2,705
	Siddha	09	520
	Naturopathy	25	1,630
	Homoeopathy	201	13,909
	Total AYUSH	622	40,151

NA: Not available

are working in the government sector. Average population served by Government doctor in India is 11,082. Approximately, 85% registered allopathic doctors are working in private sector in India. Besides the allopathic qualified practitioners, health services in India are also offered by practitioners of Indigenous System of Medicine: Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH) and Nurses play an important role in the process (Table 6).

of health staffs: In addition to doctors and specialists, there is shortage of other categories of health staff. There was shortfall of nearly 10,000 ANM and Health Worker (F) at HSC and PHCs. Of total 31,274 PHCs and CHCs, there was a shortfall of 12,511 laboratory technicians; 7092 Pharmacists, 13,194 nursing staff. Amongst 5,624 CHCs, there was shortfall of 3,629 radiographers. The shortfall of staff in various sub-groups varies

Availability of specialist doctors at

CHCs: At least 4 specialists are expected to be available at each CHC in India. However, against a requirement of 22,496 specialist doctors, only 4,156 were available at 5,624 CHCs across in India at the end March 2017. Overall, there was a shortfall of 18,347 or 81.6% specialists against requirement. There was shortfall of 86.5% surgeons; 74.1%, obstetricians & gynaecologists; 84.6% general physicians and 81% paediatricians at CHCs in the country.

Availability of other category



Table 6: Registered AYUSH Practitioners and registered nurses & pharmacists in India, 2017

AYUSH practitioners registered in India		Nurses and pharmacists registered in India	
Ayurveda	428,884	Auxiliary Nurse Midwives (ANM)	841,279
Unani	49,566	General Nurse Midwives (GNM)	1,980,536
Siddha	8,505	Lady Health Visitors (LHV)	56,367
Naturopathy	2,242	Pharmacists	907,132
Homoeopathy	284,471		
Total AYUSH	773,668		

upto 70% across Indian states. Considering that, a health team with appropriate mix is needed, due to shortfall of staff, public health facilities are yet to realise their full potential.

Majority of medical doctors and nurses in India (approximately 85-90%) and nearly almost half of hospital beds are in private sector in India. Besides qualified private service providers, a large number of unqualified non-degree allopathic practitioners (NDAP) practice allopathic medicine in India and are the only caregivers available to rural and poor people. Though this is not allowed as per Indian laws, these “unqualified providers” are widely prevalent in the country, which have been documented in various studies and reportedly deliver a vast proportion of health services.

Challenges and Way Forward:

The Union and state governments in India have created a vast network of public health infrastructure in the country. Alongside, the intake academic institutions in health sector (medical, nursing and AYUSH) has also been augmented. However, even with the existing rural infrastructure, there is need for additional 35,000 (19%) HSC; 6,500 (22%) PHCs , and 2,200 (30%) CHCs in India. There are inter-state and intra-state variations in availability of health facilities and human resources as well.

An appropriate mix of inputs (infrastructure, human resources and supplies) is required to deliver the desired health

services. However, this lack of appropriate mix of infrastructure at rural health facilities is another well recognised challenge of Indian health systems. This is partly attributable that the government primary healthcare system in rural India, with nearly 185,000 facilities, delivers only 8-10% of total outpatient services availed by people.

The Government of India announced flagship Ayushman Bharat program (ABP) in February 2018. One of the components of this program aims to upgrade 150,000 of the existing HSCs and PHCs into Health & Wellness Centres (HWCs) by Dec 2022. The opportunity to set up HWCs should be used to address the existing and well-known challenges in rural healthcare system in India. The attention should be given to bring the right mix to health facilities and enable them deliver services. There has to be focus on addressing inequitable distribution of facilities and human resources in addition to create additional facilities to meet population norms.

The Government of India has also started on National Health Resource Repository (NHRR), which aims to collect information on existing health



Box 1: Health Service Delivery Structure in India

Primary healthcare

- a. Health Sub Centres (HSC):
 - A Health sub-centre (also called as Sub-centre) is considered the first contact point of community with government health system, the lowest level of health facilities in rural India.
 - Each HSC is planned for 5,000 persons in plains and for 3,000 in hilly, tribal and 'difficult to reach' areas.
 - The staff usually consists of an Auxiliary Nurse Midwife (ANM), one health worker (male) and one voluntary worker. There is no medical doctor in the HSC.
- b. Primary Health Centre (PHC):
 - The PHC in India is often called first contact point between the community and any government medical officer. At least one medical doctor is posted in each PHC.
 - PHCs are planned for every 30,000 persons in plains and 20,000 in hilly, tribal and 'difficult to reach' areas. Each PHC has some six sub-centres in its catchment area.
 - There is a recommended provision of 6 beds at every PHC; there are no specialist services available at this level.
- c. Community Health Centre (CHC):
 - A CHC is the referral unit for PHCs in its catchment area, with provision of specialist atleast in 4 subject areas (General Medicine, General Surgery, Gynaecology and Obstetrics and Paediatrics). The provision of other specialist such as Anaesthetists and ophthalmologists is also recommended as per need.
 - CHCs in India are planned for every 120,000 people in plains and 80,000 in hilly, tribal and 'difficult to reach' areas. Each CHC has 4 PHCs in its catchment area.
 - There is a recommended provision of 30 beds at every CHC

Secondary level care:

- a. Sub-Divisional Hospital (SDH)/ Taluka Hospitals (TH):
 - A Sub Divisional Hospital (also called Sub District Hospital, SDH or Taluka Hospital) is a referral unit usually situated in towns.
 - As a hospital, the SDH provides comparatively more services and has more specialist than a CHC.
- b. District Hospital (DH):
 - A District Hospital as defined by Indian Public health Standard is 'a hospital at secondary referral level responsible for a district of a defined geographical area containing a defined population'.
 - These are expected to have around 12-15 speciality services available. These are planned with bed strength of 101-500.

Tertiary level care

- a. Medical College & associated Hospitals (MC& AH):
 - The Medical College & associated Hospitals are institutions planned with all type of health services, including super-speciality facilities.

- These facilities usually have bed strengths of 500 or more. However, the condition of medical colleges in India varies
- b. Apex institutions, speciality centres and referral and research centres
 - There are designated apex institutions in India, which are expected to work as research institute and state of the art care in public sector.
 - Institute such as All India Institute of Medical Sciences, Post graduate Institution of Medical Education and Research (PGIMER), Chandigarh and Jawaharlal Institute of Post graduate Medical Education and Research (JIPMER), Puducherry are under this category.
 - In addition, there are a number of institutions dealing with specific health condition only such as National Institute of Mental Health and Neurological Sciences (NIMHANS), Bengaluru.

facilities, providers and services available at the facilities. The initial attention is on urban areas and secondary and tertiary level facilities. NHRR can consider prioritising the rural health facilities for listing. The information on rural health facilities, generated through NHRR could become baseline for future information system, which should be designed to get a 'real time' online platform on the line of 'electronic Vaccine Intelligence Network (eVIN) used for cold chain system monitoring under universal immunization program (UIP) in India. Such system for health infrastructure can be used for programmatic decision making as well as posting of human resources and ensuring availability of health services for people of India.

Conclusion:

The vast rural health infrastructure in India has the capacity and potential to deliver more services than it currently does. This can be strengthened and enabled by ensuring appropriate input mix (facilities, supplies and human resources) deployed based upon 'real time' information system. The health and wellness centres under Ayushman Bharat program and National Health Resource Repository (NHRR) initiatives of Government of India are two emerging opportunities to implement

innovative solutions to already well recognised challenges of rural healthcare system in India. The process needs to be evidently informed and guided by experts and practitioners of rural health in India.

All these are considered public health facilities and are funded by either the union or state governments. Availing services at these facilities usually these not involved any direct payment with a few exceptions of user charges levied by some states (i.e., for registration) and for select services (i.e., diagnostics or radiology services).

Endnotes:

¹ The 'infrastructure' is generally associated with the buildings and facilities only. However, 'service delivery perspective' of infrastructure is about an optimum mix of physical structure/building and human resources, as both are required to deliver the desired health services.

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Kurukshetra

FORTHCOMING ISSUE

October 2018

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Pune Village Communities open their Household Toilets to Wari Pilgrims

People from homes along the route of the famous Wari pilgrimage route in Pune of Maharashtra, are opening up their toilets for the use of pilgrims during their 15-day travel, their destination being Pandharpur.

The Palkhi or procession which is a 333 year old glorious tradition of Maharashtra, observed across the state began this year on July 6, 2018 and ended on 22nd July, 2018. Over 10 lakh pilgrims or Warkaris normally join this procession from within the state and outside.

The annual pilgrimage culminates in Pandharpur, the seat of the Hindu god Vithoba. In honour of the deity, the palanquin processions carry foot prints of the saints Dnyaneshwar and Tukaram. While the Dnyaneshwar procession leaves from Alandi, Tukaram's procession begins at Dehu. Upon reaching Pandharpur on Ashadi Ekadashi, these devotees take a holy dip in the sacred Chandrabhaga River before proceeding to visit the Vitthal temple.



During the 250 km walk, the travelers normally make 15 halts on each of the routes in certain villages. It is common for residents of those villages to offer food and refreshment. During the last two years, as a part of the Swachh Bharat Mission Grameen (SBM-G) campaign more than two lakh toilets were built across the district. Even though community toilets numbering 500 were set up on one route and 700 on the second route, they were never adequate to meet the requirement of the masses on their long walk. The challenge each year was enormous.

However, this year was different. The CEO, Zilla Parishad (ZP) Pune, Mr. Suraj Mandhare had made an innovative appeal to the village communities. He requested all private households on the pilgrimage routes to offer their private toilets, most of which were constructed under the Swachh Bharat Abhiyan during the last 2 years for the use of these Warkaris (pilgrims). A white flag has been set up on every toilet to indicate that it is freely available for the use of the weary travelers. The procession is certainly colourful with people carrying red and yellow flags. Hence the flags pointing to toilets are white – so they stand apart “To my greatest surprise, people have started responding to this appeal overwhelmingly. Even the economically disadvantaged are opening their homes for the pilgrims,” the CEO said. The appeal was made through block officials, gram sevaks and schools teachers, the message also carried in newspapers and through posters. He was happy that the sanctity of the whole ceremony was preserved during and after the pilgrimage.

In addition, most of the arrangements on the Palkhi route such as water supply and health facilities have been completed by the Zilla Parishad, Pune administration. Further, the ZP office has introduced the provision of medical aid through motorcycles for quicker access and a control room has been set up to operate day and night.

Community Involvement, Participation to Ensure Sustainability in Araria

Araria is one of the most backward districts in Bihar as per various parameters. However, it has set a benchmark by crossing 50 per cent sanitation coverage, despite enormous challenges. To maintain the sustainability, the district administration is ensuring community involvement and participation.

One of the 38 districts of Bihar, Araria made up of 9 Blocks is primarily a rural district where 93% of the total population lives in rural areas. As per the National Health Survey findings of 2008, the district lagged behind the all India average in seven out of eight indicators as also in two additional health related indicators. Agriculture labourers dominate the labour force (64.7%) which is almost double of the national average.

Under the circumstances, taking the sanitation coverage up from 24.50% to 50.24% has been very challenging, to say the least. As many as 1,65,949 toilets were built in the last 158 days (between 1st January and 8th August, 2018) taking the sanitation coverage from 24.50% to 50.05%, under the inspirational leadership of District Collector.

Other challenges could be attributed to change in leadership at both block and panchayat levels. Not letting this hinder progress, the DC carried out regular and robust monitoring and motivation of his team, inspiring officials to go the extra mile towards bringing about sanitation.

The IEC activities initiated in the village brought forth the most positive results. These included triggering in mission mode to ensure community participation in construction of toilets.



The district still has a long way to go to achieve its target and ensure future sustainability. But the officials believe that the communities have to be brought on board in every village, to make the mission a success.

A sanitation park was also set up in every block with a model toilet to inspire communities. In addition, a pool of swachhagrahis was created who went from home to home to motivate families and bring about behaviour change. There was also a pool of masons in place to take care of toilet construction.



A Swachh Independence Day for Kalaburagi

To motivate and mobilize people to accept swachhata as a way of life, the Zila Panchayat of Kalaburagi district in Karnataka, demonstrated the steps to handwashing to an audience of over 5000 people at the Police Parade grounds during the Independence Day celebrations. The demonstration was unique as it emphasized Gandhiji's call for sanitation. It comprised a formation of the number 72 in tricolor, to mark the 72nd Independence Day. The theme of the event was Swachh Meva Jayate and it included the Swachh Survekshan Logo.



The mass demonstration-drill depicting the best practices of handwashing was conducted by over 600 students of residential schools from all over the district. The deadline for the district to achieve open defecation free (ODF) status is 2nd October, 2018.

Handwashing practice, popularized by UNICEF, is a basic habit to improve sanitation. It may be noted that handwashing with soap is one of the most effective ways to prevent diarrhoea and respiratory infections. Safe water, adequate sanitation and hygiene education which are integral to the WASH programme are key to a healthy living. To promote these practices in the rural areas, the Zila Panchayat of Kalaburagi has been relentlessly working and has taken up several IEC campaigns in this regard.

It began with a skit in local dialect where students were keen to celebrate Independence Day by partaking of sweets. However, before they could eat them, they first cleaned their hands. Thereafter, they demonstrated to the public, the 8 steps to handwashing which included use of soap for cleaning and hand towels for drying their hands.

The importance of WASH practices was narrated thereafter, with a view to bringing about behavioural change among all who gathered there. The event highlighted the fact that students are key to ODF sustainability and that sanitation is an integral component of nation building.

Chandil School in Jharkhand leads the way in sanitation

The Rajkiye Samposhit +2 High School in Chandil of Seraikella-Kharsawan district in Jharkhand is among the cleanest schools in the region, in terms of sanitation and the facilities it provides to its students. As a result, sanitation has become a way of life for its students and faculty, alike. According to ZSBP- Seraikella-Kharsawan, Avinash Kaur, the school with strength of 1000 students with equal number of girls and boys has made a name for itself in sanitation practices. A walk through the campus will reveal spick and span surroundings. Aside from providing quality education and an environment where children learn by doing, it has well maintained drinking water and toilets facilities – separate for boys and girls.



A recent addition to this school which is located in an ODF (open defecation free) block is the sanitary napkin vending machine to cater to the adolescent girls who have been oriented to safe practices of menstrual hygiene management (MHM). The students are well versed with the importance of observing safe sanitation practices for themselves and their families. They are serving as the ambassadors of swachhata, often promoting cleanliness through theatre and mime dance performances within the school and across the village communities.

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SPMRM: BRIDGING RURAL-URBAN DIVIDE

Dr. Kavita G. Kalkoti

Shyama Prasad Mukherji Rurban Mission (SPMRM) is aimed at developing rural areas which are connected to urban areas and have potential to grow if they can be served by the advanced infrastructure of the proximate cities. The vision statement of SPMRM is 'Development of a cluster of villages that preserve and nurture the essence of rural community life with focus on equity and inclusiveness without compromising with the facilities perceived to be essentially urban in nature, thus creating a cluster of "Rurban villages".'

India has majority of its population in rural areas. However, in recent times there has been a shift in the character of geographical location of villages and towns. Large parts of rural areas in the country are no longer stand-alone settlements but mostly a part of a cluster of settlements, which are relatively close to each other. These clusters show potential for growth, are capable of exposing economic opportunities to gain from locational and competitive advantages.

Plans and policies have a major role to play in any society. Sustainability of these plans are imperative if the aim of any plan has to be achieved. In most parts of the world social, financial and plenary inclusion is of concern. The United Nations (UN) has defined 17 Sustainable Development Goals (SDGs) in 2015. Sustainable development is when the present development happens in a manner that does not hamper the ability of future

generations to enjoy the benefit of their work and use of resources for development. Compromising the ability of future generations to meet their needs is possible through intensive efforts towards constructing an inclusive, sustainable and resilient future for people and planet. The SDGs given by UN to this end are: No Poverty, Zero Hunger, Good Health and Well-being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Work and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequality, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life Below Water, Life on Land, Peace and Justice Strong Institutions, Partnerships to achieve the Goal.

In pursuance of these well thought goals, the Indian government has introduced the Shyama Prasad Mukherji Rurban Mission (SPMRM), aimed



at developing rural areas which are connected to urban areas and have potential to grow if they can be served by the advanced infrastructure of the proximate cities. As Prime Minister says, “The Shyama Prasad Mukherji Rurban Mission (SPMRM) is an attempt to make our rural areas socially, economically and physically sustainable regions. The Mission strives to strengthen rural areas by providing economic, social and infrastructure amenities, thus leading to sustainable and balanced regional development in the country.”

The rural areas can be helped by further provisioning economic, social and physical infrastructure facilities in these clusters. The Mission aims at developing 300 Rurban clusters, in the next five years.

The Premise:

No scheme can succeed in isolation. One needs to understand the premise or the status of rural and urban issues in India. There are some major parameters which will impact the performance, or hamper the success possibility of the scheme. They include Basic infrastructure development which is on the top priority of the government. The other major factor is dependence on agriculture as an occupation. It is estimated that percentage of agricultural workers in total work force would drop to 25.7% by 2050 from 58.2% in 2001. Thus, there is a need to enhance the level of farm mechanization in the country. Due to intensive involvement of labour in different farm operations, the cost of production of many crops is quite high. The third major factor influencing the scheme is Complexities of beneficiaries about which is discussed below:

Migration:

In India, migration patterns are broadly consistent with the popular conception. More people migrate from less affluent states and districts, and the most affluent states receive the largest number of migrants. A large population is migrating to cities such as Delhi, Mumbai, Bengaluru from Jharkhand, Bihar, Orissa, Chhattisgarh, Uttar Pradesh and Madhya Pradesh for jobs and a better standard of living.

According to the Economic Survey'17, 8 to 9 million people migrate for work opportunities within India annually. The survey noted that there



has been a rise in migration, which is supplemented by economic growth. The rate at which women migrated was almost twice the rate of which men migrated in the 2000s. By 2050, it is estimated that more than half of India will be living in urban India. After consequent droughts in the recent past, a large number of people from Marathwada, Bundelkh and and Telangana migrated to cities.

Small holdings:

The average farm size in India is small (1.15 ha) and has shown a steady declining trend since 1970-71. The small and marginal land holdings (less than 2.0 ha) account for 72 per cent of land holdings. This is an area of concern as profitability of agricultural industry is affected. Viability of farming activities becomes difficult. The increase in agricultural production is a good sign but the fact that farmers have small holdings indicates that the number of people sharing this advantage is more. Fragmented holdings is an issue which makes it difficult for financial inclusion.

Reasons for Not using Formal Sector:

A study on barriers to owning an account in a bank conducted on a global scale gives a clear perspective on financial inclusion problems. Respondents were allowed to give multiple reasons for not having an account at a financial institution. Globally, the most common reason is lack of enough money to use an account: 59 per cent of adults without an account identified this as a reason, and 16 percent cited it as the only reason. The next most common reasons are that the respondent has no need for an account and that a family member already has one. (Each by about 30 per cent).

The other reasons reported (in declining order of frequency) were accounts being too expensive, financial institutions being too far

and digital infrastructure in the clusters within a period of 3 years.

153 Integrated Cluster Action Plans (ICAPs), which are the blue prints of investment for each cluster, have been approved for 29 States and one UT of Dadra & Nagar Haveli.

A 'Rurban cluster', would be a cluster of geographically contiguous **villages with a population of about 25000 to 50000 in plain and coastal areas** and with a population of **5000 to 15000 in desert, hilly or tribal areas**. As far as practicable, clusters of villages would follow administrative convergence units of Gram Panchayats and shall be within a single block/tehsil for administrative convenience.

Selected Rurban clusters would be developed under the scheme by providing training to enable economic activities through skill development, entrepreneurship and necessary infrastructure amenities.

To make this plan a success, it is desirable that clusters will have: (i) Skill development training (ii) Agro Processing, Storage and Warehousing. (iii) Mobile health unit. (iv) Upgraded school/ higher education facilities. (v) Sanitation (vi) Piped water supply. (vii) Solid and liquid waste management. (viii) Village streets and drains. (ix) Street lights (x) Inter-village road connectivity. (xi) Public transport. (xii) LPG gas connections (xiii) Digital literacy. (xiv) Citizen Service Centres (CSC). Agriculture and allied activities will be given special emphasis.

The State Government can identify already existing Centrally Sponsored and State Government sponsored schemes relevant and converge their implementation in an integrated manner.

Under NRuM framework, Government of India will provide Critical Gap Funding (CGF) to the clusters. This CGF will help in filling the shortfall in funding through other government schemes in achieving the outcomes desired for the cluster.

Selection of the 'Rurban Clusters':

There will be two categories of clusters under NRuM:

- Non-Tribal and;
- Tribal;

Non-Tribal Clusters:

For selection of Non-Tribal clusters, the Ministry would provide a list of leading sub districts to each

State, based on parameters such as (i) Decadal Growth in Rural Population (ii) Decadal Growth in Non-Farm work force participation (iii) Presence of Economic Clusters (iv) Presence of places of Tourism and Pilgrimage significance and (v) Proximity to Transport Corridors. Appropriate weightages have been given to each parameter.

Within these sub districts, identified, State Governments can select the clusters by considering parameters of: i. Decadal growth in Rural Population. ii. Rise in Land Values. iii. Decadal growth in Non- Farm Work force participation. iv. Percentage Enrollment of girls in secondary schools. v. Percentage Households with Bank accounts under Pradhan Mantri Jan Dhan Yojana. vi. Performance in Swachh Bharat Mission (Grameen). vii. Good Governance Initiatives by Gram Panchayats. Any other factor which the States may consider relevant may also be included. Weightage of 80% would be given for the first 4 parameters and the States will have the flexibility to choose the last three parameters, subject to a total weightage of 20%.

While selecting the Rurban cluster the State may identify a large village/gram panchayat that are growth centers with resources available in the area that could potentially lead to an economic transformation. These growth centers could be block headquarter villages or census towns. The clusters could later be formed by identifying geographically contiguous villages/gram panchayats within a radius of 5–10 km (or radius appropriate to the population density and geography of the region) around the identified growth center.

Tribal Clusters:

For identification of the tribal clusters, the Ministry would select the leading sub districts falling within the top 100 tribal districts of the country, based on the Scheduled Tribes population. The selection of these sub districts would be based on parameters such as (i) Decadal growth in Tribal Population (ii) Current Tribal Literacy Rate (iii) Decadal growth in Non- Farm Work force participation (iv) Decadal growth in Rural Population and (v) Presence of Economic Clusters. Appropriate weightages have been given for each of these parameters while selecting the sub districts.

Within these sub districts, identified, State Governments can select the clusters by considering

parameters of: i. Decadal growth in Tribal Population. ii. Growth in Tribal Literacy rates. iii. Decadal growth in Non- Farm Work force participation. Any other factor which the States may consider relevant may be included in addition to the above three parameters, provided the weightage for the above three parameters is not reduced below 80%.

While selecting the Rurban cluster, in addition to the quantitative aspects mentioned above, the state shall lay special emphasis on tribal areas and villages so as to ensure development of tribal areas.

The Way Forward:

Engage:

- Motivating parents, especially mothers to use the facilities (like banking, clean water, clean cooking gas, sanitation and hygiene) provided by government.
- Involve women – they are the backbone of any community. Creating a volunteer group of local women will go a long way in involving beneficiaries to help themselves and rope in others to get the benefits.

Enable :

- Quality infrastructure has to be provided for the rural and urban citizenry. Rurban clusters should have efficiency enhancements to serve rich and poor beneficiaries with equanimity. Linking urban and rural infrastructure will serve a larger population. The poor in urban areas will get a better deal.
- Resources of Rurban clusters should be earmarked and devoted towards inclusive growth. Public resources of health and education should have an even impact to achieve inclusivity in use of basic amenities.
- Focus on areas of infrastructure constraints, like improvements in road connectivity, food processing centres and access to formal banking network.
- Processes which impede implementation should be eliminated. Most people are not able to avail government schemes because processes involved are cumbersome. This also includes private sector which may be interested in assisting in Rurban schemes.
- Access to clean cooking stove alternatives linked with urban populations. Providing this

will be easy within clusters as they are already geographically connected.

Enrich:

- **Private sector involvement and interaction with the government:** Premised on government schemes and policies private participation will bring in more funds for Rurban development.
- **Linking Post Offices with various spread of information and awareness:** Post Offices have far-flung reach. Within Rurban clusters they can serve as an efficient network to benefit more people.
- **Formation of Joint Liability Groups:** Responsibility can be shared among parties, local bodies, private sector and Rurban scheme offices. A team which can cohesively implement Rurban plans will help in achieving objectives.
- Use of smart cards in rural banks will ensure ease of transactions and direct transfers to beneficiary accounts. This will minimise transaction costs incurred by banks and donors and government.
- Inclusiveness of plans and their implementation is inevitable for sustainable development. Equitable economic growth with more opportunities for all will reduce inequalities.

Conclusion:

The rural urban needs are different. Nowadays however, this physical divide has been obliterated with the connectivity of these two domains. Access to mobile phones and internet has widened the accessibilities to rural beneficiaries and more importantly enabled them to communicate easily with everyone. Due to this, there is need to have a plan that can co-ordinate with other schemes. Benefits of various schemes is enhanced if synergies can be created with the scheme. Rurban mission itself is an example of how government can link the rural to urban so that facilities of urban and abilities of rural can merge to enable the overall success of schemes. This will lead to achievement of much required inclusiveness i.e. *Sabka Saath, Sabka Vikas*.

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DIGITAL TECHNOLOGY: CONNECTING RURAL INDIA

K.M. Singh and Pushpa Singh

Quick dissemination of technological information from the research system to farmers in the field and reporting of farmers' feedback to the research system is one of the critical inputs in transfer of technology. Digital technology is one of the means whose potential can be exploited to bridge the gap between research system and farming system. Recent years have seen an increase in the use of Digital technology in almost all spheres of rural lives, despite persisting problems of access, connectivity, literacy, content, and costs.

Exponential growth of internet user, invention of modern communication devices, significant development in cloud and grid computing etc. have helped digital technology to flourish in the last decade. Broadband internet access is seen as central for societal innovation because storing of large datasets and live communication requires good connectivity. Until recently, connectivity in rural areas was limited to slow dial-up lines. Satellite connections now make broadband access possible in remote areas. Use of mobile phones has seen an enormous increase in recent years. New wireless technologies such as MESH and WiMAX, and new generation mobile phone networks, will provide high speed internet services at sharply reduced costs, thereby dramatically increasing internet coverage in rural areas. Various access tools are converging, becoming cheaper and more flexible. New mobile phones and laptops provide omnipresent access with ample functionality for communication, transactions and transfer of data.

The National Alliance for Mission 2007 and the Common Service Centre Scheme to establish tele-centers country-wide in India are clear examples of the government's dedication to enhance rural access. Ensuring sustainability is a major challenge. Cost-sharing arrangements between local stakeholders, such as health centers, farmers' organizations, schools and local governmental bodies are taking place. Also, payments for local services can generate revenues to sustain tele-centers. Price information projects in India report that farmers are willing to pay for price information from the gains

made through access to it. Rural information centers also provide a learning environment for farmer groups on the use of Digital technology but also on jointly solving problems in their livelihoods.

Digital support to Agriculture:

Agriculture is the backbone of rural economy in India. The vast majority of poor people live in rural areas and derive their livelihoods directly or indirectly from agriculture. Increasing the efficiency, productivity and sustainability of small-scale farms is an area where digital technology can make a significant contribution. Farming involves risks and uncertainties, with farmers facing many threats from poor soils, drought, erosion and pests. Digital technology can deliver useful information to farmers about agriculture like crop care and animal husbandry, fertilizer and feedstock inputs, pest control, seed sourcing and market prices.

Quick dissemination of technological information from the research system to farmers in the field and reporting of farmers' feedback to the research system is one of the critical inputs in transfer of technology. Digital technology is one of the means whose potential can be exploited to bridge the gap between research system and farming system.



Recent years have seen an increase in the use of Digital technology in almost all spheres of rural lives, despite persisting problems of access, connectivity, literacy, content, and costs. Dissemination of knowledge through appropriate delivery methods plays an important role and it can be multiplied manifold by modern digital technology applications such as Internet services and mobile phones etc. Information provided through modern information technology gadgets should be need-based, demand-driven, site-specific and in local language. This development of communications infrastructure, especially in the area of telecommunications, brings with it both opportunities and challenges. Agricultural technology transfer, which depends to a large extent on information exchange between and among farmers on one hand, and a broad range of other actors on the other hand, has been identified as one area in which digital technology can have a particularly significant impact.

Farmers need dynamic information relating to cultivation, management, meteorological and marketing factors as related to crops, livestock, fisheries, agro-forestry and agro-processing. It is also important to address the need for demand driven and value added information, which is time and location specific. Apart from information related to farming, farmers urgently need access to information about education, healthcare, Government policies, product prices, market-led entrepreneurship opportunities etc.

Digital technology is proving a boon to the farmers in realizing their needs effectively and empowering them with latest knowledge and global trend. Digital technology includes a converging spectrum of technologies that consist primarily of telecommunications (such as telephony, cable, satellite, and computer networks), computing (computers, Intranet, Internet, software and mobile phones) and broadcasting (Radio and TV technologies). Digital technology plays a major role in storage, process, retrieval and dissemination of information to farmers at distant places. It has shown its strength

in implementing sustainable socio-economic development and poverty alleviation programs by providing ample job opportunities all over the world.

Harnessing the right technology available can offer multiple issues of governance in agriculture sector providing most needed timely relief to distressed farmers, cutting delays, inefficiencies, corruption and costs. One can create geo-tagged databank of all farmers' fields as well as all water bodies village wise with actual volumes etc. Crop insurance schemes cover farmers who see huge delay in getting the payment when crop is damaged. By adopting the right technology, farmers can be paid back within a week. Use of smart phones, artificial intelligence and local weather data can be used to provide immediate relief to the farmers.

Some of the telecom companies have developed a platform for farmers offering access to real time market prices irrespective of distance. Private sector-led Agriwatch (www.agriwatch.com) and e-Choupal programme (www.itcportal.com/ruraldevp_philosophy/echoupal.htm) support several million farmers with price information, tender and transaction facilities. Digital technology is making processes more efficient and transparent. It helps in making laws

and land titles more accessible. Global Positioning Systems (GPS) linked to Geographical Information Systems (GIS), digital cameras and internet, help rural communities to document and communicate their situation. Rural communities benefit from better access to credit and rural banking facilities. Recent mobile banking initiatives offer further scope to reduce costs and stimulate local trade.

Digital Technology for Capacity-building :

Communities and farmer organizations can be helped through the use of digital technology to strengthen their own capacities and better represent their constituencies when negotiating input and output prices, land claims, resource rights and infrastructure projects. Digital technology enables rural communities to interact with other stakeholders, thus reducing social isolation. It widens the perspective of local communities in terms of national or global developments, opens up new business opportunities and allows easier contact with friends and relatives. Digital technology helps in making laws and land titles more accessible. Global Positioning Systems (GPS) linked to Geographical Information Systems (GIS), digital cameras and internet, helps rural communities to document and communicate their situation. Rural communities benefit from better access to credit and rural banking facilities. Recent mobile banking initiatives offer further scope to reduce costs and stimulate local trade. The Indian AMUL programme automates milk collection and payments for its 500,000 members, thereby enhancing transparency of the milk volume and quality collected and ensuring fair payments to farmers.

Digital Technology and Service Delivery:

Huge gap exists between information residing in agricultural knowledge centres and rural communities. At local level, multi-stakeholder mechanisms are important to make relevant information accessible to end users. Intermediary organizations have to connect rural communities to



available knowledge. Users will increasingly want tailor-made, quality answers to their questions. In the Agricultural Clinics in India, customers get answers within one to two days. Mobile Q&A services are being piloted in India. At national level, mechanisms need to be in place to ensure learning and information sharing.

Transforming Rural India:

Digital technology is becoming the facilitator of socio-economic development in rural India with its obvious facilities by way of health, education, financial services and employment avenues, etc. Digital technology offering can be classified into:

Empowerment: e-Choupal comes up as fine example of empowerment with efficient supply-chain system empowering the farmers with timely and relevant information enabling them better returns for their produce. Due to its community centric approach, it gives other offerings also to the farmers' like insurance and farm management practices. **Aadhar** is another such tool, which has empowered the masses by confirming their identities and is good example of digital technology solution attempting to provide access to monetary benefits by establishing the correct identity and this way rural economy is also expanding.

Enablement: The practice of e-governance, which creates transparency and governance through IT has empowered the citizens. Successful implementation of e-governance in the areas like- maintenance of land records is a big step in



removing the malpractices and creating assurance of rightful ownership.

Market expansion: Indian rural market is going under transformation with better access to information. With the help of IT, farmers can use the services of FMC and can get better value for their product. Market expansion with the help of digital technology can be seen through various examples, like, in the recent years, the village and heritage tourism in remote areas of the country has picked up a huge momentum and this has been done on account of awareness being created by the online portals, attracting more visitors as compared to the past. Direct connect through e-commerce has facilitated large number of artisans and agro-based small enterprises in rural areas. Women's livelihood is being facilitated amongst the weavers' community in the north eastern states by marketing their product through the internet medium. In India, ICT applications such as *Warana, Drishtee, e-Chaupal, E-Seva, Lokmitra, E-Post, Gramdoot, Gyandoot, Tarahaat, Dhan, Akshaya, Honeybee, Praja* are quite successful in achieving their objectives.

e-Extension (e- Soil Health card Programme): This is the programme of Deptt. of Agriculture, Gujarat which aims to analyze the soil of all the villages of the state and proposes to provide online guidance to farmers on their soil health condition, fertilizer usage and alternative cropping pattern.

AGRISNET uses state-of-the-art broadband satellite technology to establish the network within the country.

AGMARKNET is a comprehensive database which links together all the important agricultural produce markets in the country.

Agri Business Centres: It provides a web based solution to the small and medium farmers as well as owners of large landholdings. It brings on a single platform all the stakeholders in agribusiness like farmers and farmer groups, institutions and autonomous bodies, agro machinery and farm equipment makers, cold chain tech., commodity brokers, cooperatives, food processors, pre and post harvest management experts, packaging technology providers, insurance companies, warehousing and logistics agencies, surveyors and certification agencies.

e-KRISHI VIPANAN: It professionalizes and reorganizes the agriculture trading business of Mandi Board by installing cost effective digital infrastructure using latest advancement in digital technology by collecting and delivering real time information online. It makes the operations more effective, totally transparent, benefiting all stakeholders (farmers, traders & the government), empowering them through accurate and timely information for effective decision making.

Query Redressal Services: This empowers the farmer community through effective, need-based interventions. It enhances livelihood promotion of farmer community through information dissemination and extension services, using digital technology as a tool. The project helps the farming community by making available a 10000 plus network of experts to them. Any queries from farmers are forwarded to the ISAP central office from where it is routed to the relevant experts.

Kisan Call Centres: The sole objective is to make agriculture knowledge available at free of cost to the farmers as and when desired. Queries related to agriculture and allied sectors are being addressed through the Kisan Call Centres, instantly, in the local language by the experts of State departments, SAUs, ICAR institutions etc. There are call centres for every state which are expected to handle traffic from any part of the country. SMS using telephone and computer interact with farmers to understand the problem and answer the queries at a call centre. The infrastructure is placed at three locations namely-a professionally managed call centre (level-I), a response centre in each organization, where services of SMS

are made available (level-II) and the Nodal Cell (level-III).

Tata Kisan Kendra: The concept of precision farming being implemented by the TKKs has the potential to catapult rural India from the bullock-cart age into the new era of satellites and IT. TCL's extension services, brought to farmers through the TKKs, use remote-sensing technology to analyze soil, inform about crop health, pest attacks and coverage of various crops predicting the final output. This helps farmers adapt quickly to changing conditions. The result: healthier crops, higher yields and enhanced incomes for farmers.

e-Choupal: ITC's Agri Business Division launched it in June 2000 in which village internet kiosks managed by farmers - called *sanchalaks* - themselves, enable the agricultural community access ready information in their local language on the weather & market prices, disseminate knowledge on scientific farm practices and risk management, facilitate the sale of farm inputs (now with embedded knowledge) and purchase farm produce from the farmers' doorsteps (decision making is now information-based).

e-Sagu: The word 'Sagu' meaning 'cultivation' in Telugu language, aims to improve farm

productivity by delivering high quality personalized (farm-specific) agro-expert advice in a timely manner to each farm at the farmers door-steps without farmer asking a question. The advice is provided on a regular basis (typically once a week) from sowing to harvesting which reduces the cost of cultivation and increases the farm productivity as well as quality of agri-commodities.

AKASHGANGA: It was established at a time when information technology was almost unknown in the villages of India. AKASHGANGA's success demonstrates the potential of information technology to impact livelihoods in poor, rural communities and that even illiterate or semi-literate people can adopt IT-based systems when they see substantial benefits and when the systems are deployed in purposeful, easy-to-use ways.

Decision Support System for Agro-technology Transfer (DSSAT):

DSSAT is a software package integrating the effects of soil, crop phenotype, weather and management options that allows users to ask "what if" questions and simulate results by conducting, in minutes on a desktop computer, experiments that would otherwise consume a significant part



of an agronomist's career. The user can then simulate multi-year outcomes of crop management strategies for different crops at any location in the world. DSSAT also provides for validation of crop model outputs, thus allowing users to compare simulated outcomes with observed results. Crop model validation is accomplished by inputting the user's minimum data, running the model then comparing outputs. By simulating probable outcomes of crop management strategies, DSSAT offers users information with which to rapidly appraise new crops, products and practices for adoption.

Agricultural Markets: Agricultural Marketing in India has evolved from being restricted to catering to local demand by having market Yards within the range of farms to one which now aims to have interconnectivity between markets of other States to have value dispersion between farms and consumers. Emerging changes in agriculture marketing environment of the country i.e. electronic market, model act, warehousing, pledge loan, contract farming etc. are ushering in opportunities for new formats of markets which are effective in responding to demand and supply. These changes require investment in infrastructure, infusion of technology.

Electronic National Agriculture Market (eNAM) is envisioned as a unified national electronic market bringing Inter-connectivity to markets across the country. The diffusion of ENAM is through Organizations and intended through change in policy. The diffusion will be faster if the desired policy changes are made in the organization followed by change management in organizations.

eNAM for agriculture marketing can be regarded as technology which will bring a social change in markets. The social change in relationships and networks that work between buyer and seller as they exist in traditional markets will change as the technology enabled eNAM is adopted in agricultural markets. Successful adoption/diffusion will depend on easing the adoption barriers that can be categorized as technological and organizational. The eNAM portal launched by the government in April 2016 has 45.4 lakh farmers and 451 mandies registered on it. eNAM aims for integration of marketing process and flow of goods to be achieved by bringing interconnectivity



of markets through information technology. The unified online agricultural market initiatives were launched in Karnataka in 2014. The success of UMP in Karnataka has acted as an innovator for the next stage of technology innovation in public domain i.e. eNAM. The early adopters of eNAM are Himachal Pradesh, Telangana, Haryana, Uttar Pradesh, Andhra Pradesh, Madhya Pradesh and Gujarat. Efficient markets require good infrastructure, good governance and innovation-oriented institutions which aims to provide market information, establish grades and standards, manage risk and create better opportunity to enhance income and upgrade the existing markets and marketing system to integrate with National Markets.

Empowering Farmers:

Technical and institutional innovations that reduce transaction cost have proven to be enablers especially the wider use of information technologies- mobile phone, the internet, social networks for vertical coordination arrangements with farmers or producer organization. Producer organization including agricultural co-operatives plays an important role in supporting farmers to trade in the market place and understand the trends in marketing. FPO and collective action can help to enhance farmers' competitiveness and increase their advantage in emerging marketing system of eNAM. Collaboration between FPO and Private sector built on their Extension functionaries have a key role to play in engaging farmers with markets. SWOT analysis of the market, organizing commodity based farmer's interest groups and

farm management capacity building, backward and forward linkage, Farmer's exposure to market intelligence and guidance for a quality decision about the market. Empowering farmers by linking them to eNAM information, services and Linkages through Market Led Extension is a long-term solution.

Way Ahead:

India has proved its strength in Digital technology related activities all over the world. The Indian Government's IT task force and the National Working Group on "Taking IT to the Masses" and many other private entrepreneurs are working on how Digital technology can fulfill the needs of rural poor. New creative ways are being explored by which the communication technologies can help to eradicate poverty and generate employment in rural India. These efforts can be achieved by integrating digital technology into local level development planning and work. The "National Commission on farmers" (<http://krishakayog.gov.in/>) under the chairmanship of Dr. M.S. Swaminathan had recommended harnessing the benefits of Digital technology for improving the socio-economic status of rural people by suggesting the establishment of "Rural Knowledge Centers" all over the country using modern Digital technology tools.

The role of Digital technology to enhance food security and support rural livelihoods is increasingly recognized and was officially endorsed at the World Summit on the Information Society (WSIS) 2003-2005. This includes the use of computers, internet, geographical information systems, mobile phones, as well as traditional media such as radio or TV.

Awareness of up-to-date market information on prices for commodities, inputs and consumer trends can improve farmers' livelihoods substantially and have a dramatic impact on their negotiating position. Such information is instrumental in making decisions about future crops and commodities and about the best time and place to sell and buy goods. Simple websites to match offer and demand of agricultural produce are a start of more complex agricultural trade systems. These sites tend to evolve from local selling/buying websites and price-information

systems, to systems offering marketing and trading functions.

It is a known fact that information to sustain and increase agricultural production is spread over different agencies, notably farmers, universities, research institutes, extension services, commercial enterprises, and non-governmental organizations (NGOs). However, this knowledge is often poorly documented or hard to access. In India, organizations attempt to capture local knowledge, such as in the Honey Bee programme, if the information does not exist, intermediary organizations can help to generate it, make it accessible and influence research agendas. The Tele-Support project collects farmers' questions, repackage answers from local research institutes and universities on video and in local language, store online (www.telesupport.org) and send feedback into the local community.

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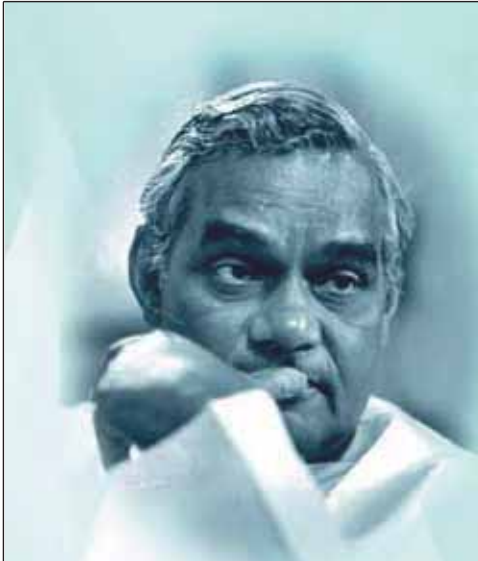
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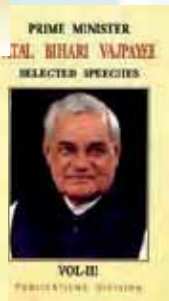
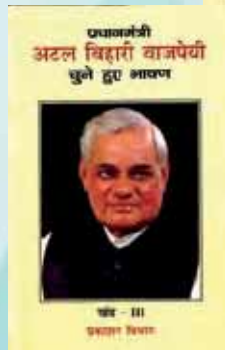
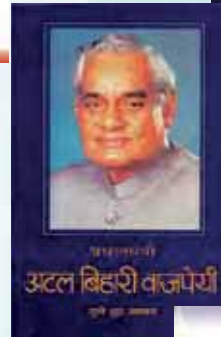
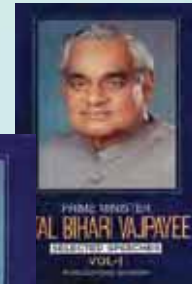
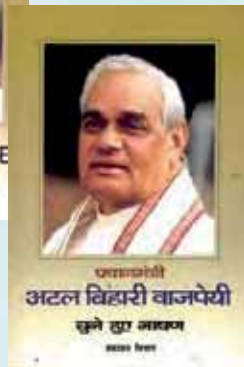
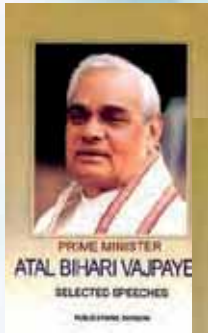
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*I have a vision of India:
an India free of hunger and fear,
an India free of illiteracy and want.*
- Atal Bihari Vajpayee



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WOMEN: DRIVING FORCE OF DEVELOPMENT

Dr. Shahin Razi

Rural women are key agents for achieving the transformational economic, environmental and social changes required for sustainable development. Empowering them is crucial not only to the well-being of individual families & rural communities, but also to overall economic productivity given women's large presence in the agricultural work force. To restore their rightful & dignified status, the present government has initiated empowerment programmes for rural women that provide a solid foundation to nurture the inner strength & self-esteem for the rural women.

Rural development aims at improving rural people's livelihoods in an equitable and sustainable manner, both socially and environmentally, through better access to assets (natural, physical, human, technological and social capital) and services, and control over productive capital.

Sustainable rural development refers to improving the quality of life for the rural poor by developing capacities that promote community participation, health and education, food security, environmental protection and sustainable economic growth thereby enabling community members to leave the cycle of poverty & achieve their full potential. Sustainable rural development is vital to economic, social and environmental viability of nations. A healthy & dynamic agricultural sector is an important foundation of

rural development, generating strong linkages to other economic sectors.

Rural women are the key agents for achieving the transformational economic, environmental and social changes required for sustainable development. But limited access to credit, health care and education are among the many challenges they face, which are further aggravated by the global food & economic crises & climate change. Empowering them is crucial not only to the well-being of individual families & rural communities but, also to overall economic productivity given women's large presence in the agricultural work force. Developing multiple roles every single day, women are undoubtedly the backbone of any society. However, they have also been an ignored fraction of the society in many parts of the world. A woman is the nucleus of the family, particularly in





rural India. She not only collects water, fuel, wood, fodder and food, but also plays a significant role in preserving the culture, grooming the children and shaping their destiny.

Therefore, empowerment of women that will have lasting impacts must involve consciousness raising before the social construction of gender, which subordinates women in the family, class, caste, religion or society can be changed. Empowerment is a multi-faceted, multi-dimensional & multi-layered concept. Women's empowerment is a process in which women gain greater share of control over resources – material, human & intellectual, like knowledge information, ideas & financial resources like money – and access to money & control over decision making in the home, community, society & nation and to gain “power”.

To restore their rightful & dignified status, the present government has initiated empowerment programmes for rural women that provide a solid foundation to nurture the inner strength & self-esteem for the rural women.

Government Empowerment Programmes For Rural Women

- **Deen Dayal Upadhyay Antyodaya Yojana (DAY-NRLM): Ajeevika** is a major project of Ministry of Rural Development. It focuses on rural women and aims to achieve universal social mobilization by involving rural women. At least one woman member from each identified poor rural household, is to be brought under the Self Help Group (SHG) network in a time bound manner NRLM has devised special strategies to reach out to all these vulnerable communities

and help them graduate out of poverty.

There are other two important components of Ajeevika, relevant for improvement of livelihoods of rural women. **Deen Dayal Upadhyay Grameen Kaushalya Yojana (DDU-GKY)** aims to skill rural youth who are poor and provide them with jobs having regular monthly wages or above the minimum wages. It is one of the clusters of initiatives and full social inclusion of the candidates is ensured by the mandatory coverage of socially disadvantaged group, where one third of the persons covered should be women. **Mahila Kisan Sashaktikaran**

Pariyojana (MKSP) is another component that aims to improve the present status of women in Agriculture and to enhance the opportunities for empowerment.

- **Empowering Elected Women Representatives (EWRs):** Ministry of Women & Child Development has launched an extensive training programme with an objective of empowering Elected Women Representative (EWRs) and to help them assume the leadership roles expected of them and guide their villages for a more prosperous future. Past experience at the grassroots level has led to the realization that capacity building of EWRs is critical to empower women to participate effectively in governance processes. An empowered EWRs can ensure that the same can be translated among women in her community. This percolation of knowledge, awareness and legal empowerment will help safeguard their basic rights and entitlements. Women's representation in local governments can actually make a difference with her prime focus on development issues like health, education and livelihood which are mostly overlooked by male members.
- **Rastriya Mahila Kosh (RMK):** Rastriya Mahila Kosh (RMK), of Ministry of Women & Child Development, extends micro-credit to the women in the informal sector through a client friendly, without collateral and in a hassle-free manner for income generation activities. RMK has taken a number of promotional measures to popularize the concept of micro financing, enterprise development, thrift and credit,

formation and strengthening of Women-SHG through intermediary organizations. Education of credit management has been integrated with the provision of credit, along with literary and skill training for individual women, leadership training among groups for self management.

- **Mahila Shakti Kendra (MSK)** : In order to support rural women and provide them with convergent support, Ministry of Women & Child Development, Government of India approved a new scheme namely Mahila Shakti Kendra (MSK) as a sub scheme under the **Umbrella Scheme of Mission for Protection and Empowerment for Women** for implementation during 2017-18 upto 2019-20 to empower rural women through community participation. MSK Scheme is envisaged to provide an interface for rural women to approach the government for availing their entitlement and for empowering them through training and capacity building. Convergent support is being proposed for equal access to healthcare, quality education, career and vocational guidance, employment, health and safety, social security and digital literacy at Gram Panchayats level in selected districts / blocks across the country with a view to create an environment in which women realize their full potential. The scheme is committed to play an important role for empowerment of rural women especially in the most backward 115 districts of the country.

Community engagement through **College Students Volunteers** is envisioned in 115 most backward districts as part of the MSK Block level initiatives. Student volunteers will play an instrumental role in awareness generation regarding various important government schemes / programmes as well as social issue and association with NSS / NCC cadre students will also be an option. The scheme at the block level will provide an opportunity to Student Volunteers to participate in the development process by bringing change in their own communities and ensuring that women are not left behind and are equal



partners in India's progress. At the national, state, block level, websites/IT tools will be made available for monitoring and feedback. Web based/online feedback mechanism will be developed for submission of queries, feedback and grievance redressal.

- **National Repository of Information for Women (NARI)** : Ministry of Women & Child Development, has also prepared a portal namely National Repository of Information for Women (NARI) that will provide citizen easy access to information on government schemes and initiative for women. Rural women can access these schemes on their own or with the help of various frontline workers associated with government schemes at the ground level. The portal summarizes over 350 government schemes and other important information for the benefit of women, with more being added every day. Portal also provides information to women on issues affecting their lives – for example, there are tips on good nutrition, suggestions for health check-ups, information on major diseases, tips for job search and interview, investment and savings advice, information on crimes against women and reporting procedures, contacts of legal aid cells and much more. All the information on various schemes / programmes relevant for women will be updated on a regular basis This will be used by MSK staff to improve access and utilization of government schemes by rural women at the ground level.
- **Beti Bachao Beti Padhao (BBBP)** : Beti Bachao Beti Padhao (BBBP), the flagship scheme was

launched initially to address the declining Child Sex Ratio. As it graduated, it broadened and took under its ambit other concerns such as strict enforcement of PC & PNDDT Act, provisions to motivate higher education for girls and related issues of disempowerment of women on a life-cycle continuum. Since its inception in 2015, it has been independently growing widely in local domains as well.

All India expansion of BBBP to cover all 640 districts was launched by the Prime Minister on 08.03.2018 for deeper positive impact on CSR with an outlay of Rs. 1133 crore during 2017-18 to 2019-20 which will include multi-sectoral intervention in 244 districts in addition to existing 161, where physical implementation of the scheme will happen while 235 districts, will be covered through Alert District Media, Advocacy and Outreach.

- **National Nutrition Mission (NNM):** To deal with the problem of malnutrition, government has set-up the **National Nutrition Mission (NNM)** with a budget of Rs. 9046 Crore. The aim is to achieve an improvement in the nutritional status of children of 0-6 years and pregnant and lactating women in a time bound manner, during the coming three years beginning 2017-18, with defined targets. Some of them are to prevent and reduce stunting in children (0-6 years) by 6% @ 2% p.a., prevent and reduced under nutrition in children (0-6 years) by 6% @ 2% p.a., reduce the prevalence of Anaemia among young children (6-59 months) by 9% @ 3% p.a.; reduce the prevalence of Anaemia among women and adolescent girls in the age group of 15-49 years by 9% @ 3% p.a.; reduce low birth weight by 6% @ 2% p.a.
- **Pradhan Mantri Matru Vandana Yojana (PMMVY):** The Pradhan Mantri Matru Vandana Yojana (PMMVY) is a maternity benefit programme that has been made a pan-India phenomenon since 31st December, 2016. The beneficiaries would receive cash incentive of Rs. 6000/- during pregnancy and after institutional delivery. The scheme implementation guidelines, the software for its roll out i.e. PMMVY – CAS and its user manual were launched on 01.09.2017. Under

PMMVY, Rs. 2016.37 crores to all 36 states / UTs had been sanctioned during 2017-18 with a release of Rs. 1991.72 crores.

- In 2017, government notified **Supplementary, Nutrition (ICDS) Rules, 2017** to regulate entitlement of 'nutrient dense food' for every pregnant and lactating woman till 6 months to 6 years for 300 days in a year.
- In 2015, **Swadhar Graeh** scheme was launched to cater to primary needs of women in difficult circumstances. Setting up of shelter, food, clothing, medical treatment and care are exclusively provided, meanwhile, they are provided with legal guidance to enable their readjustment in family/society. Rehabilitation for their emotional and economic state is rendered to enable them to start life afresh. Presently, 561 Swadhar Greh are functioning in the country benefiting 17,291 women. In addition, one widow home with 1000 inmates capacity, has been constructed at Sunrakh Bangar, Vrindavan.
- **Mahila Shakti Kendra** scheme was launched in 2017 to address women's issues at the rural level wherein over 3 lakh student volunteers would be engaged in 115 most backward districts for three years. These volunteers, mobilized from local colleges, NCC, NSS, NYK etc. will work with local women to help them access government schemes for their benefit and to provide 'one stop convergent support services for their skill development, employment, digital literacy, health and nutrition.



- **Mahila Police Volunteers (MPVs)** will prove to be an effective alternative against the local police for women. MPVs were launched in all States and UTs to serve as a public-police interface and facilitate women in distress. The MPVs report incidences of domestic violence, child marriage, dowry harassment, and violence faced by women in public spaces, initiated in 2016, the MPVs is operational in 5 States.
- **Mahila e-Haat** is an initiative to economically empower women through financial inclusion. The government launched a bilingual portal Mahila e-Haat, a direct online digital marketing platform for women entrepreneurs/SHGs/NGOs in March 2016. It received over 1450 lakh visitors. Women entrepreneurs/SHGs / NGOs from 22 states showcased approximately 1800 products / services. It has 23000 registered SHGs with 3 lakh beneficiaries. In 6 months, women entrepreneurs/ SHGs / NGOs have transacted business of over Rs. 20 lakh.

The **Pradhan Mantri Ujjwala Yojana** is an effective scheme to aid poor section of Indian society. The programme is anticipated to be implemented over a period of three years till fiscal 2018-19. The intent of this scheme is to make cooking gas (LPG) available to women from families that are financially backward. It is estimated that the P.M. Ujjwala Yojana will assist approximately 1 crore 50 lakh households that presently live below the poverty line. The programme is also expected to cover five crore such households in all.

The main objectives of P. M. Ujjwala Yojana are the following :

- Enhance the status of women and caring for their health.
- Help to decrease air pollution due to use of fossil fuel.
- Lessening the serious health risks related with cooking based on fossil fuels.
- Reducing the number of deaths due to unclean cooking fuels, which is almost 5 lakh every year in India.
- Preventing young children from acute respiratory illness caused due to indoor air pollution by burning the fossil fuels.

This Yojana is basically a social welfare scheme to help the poor rural women. For holistic empowerment of rural women to happen, an effective convergence of all aspects impacting a women's life is needed – be it social, economic or political. The process of empowering rural women is a continuous process. The need of the hour is to make women realize their potential, make them aware of the bright future that awaits them, guide them and nurture them. Growth is never merely by chance, it is the result of forces working together. And in India, the forces are marching in the right direction to take the nation to new horizons.

Conclusion:

Empowerment means having control over one's life as an individual. To women, it means freedom from gender-based discrimination. Women are the most important tool to ensure any nation's development. In the words of Prime Minister Narendra Modi "Empowering women tantamounts to empowering the entire family." In India however, for women especially rural women, the struggle for empowerment starts from birth, from the fact that the girl child has to fight even for her right to be born. Realising this, the government has taken many initiatives to make women empowerment the prime focus of the government.

Therefore, the role of rural women outside the home has become an important feature of the social and economic life of the country and in the years to come this will become still more significant. From this point of view, greater attention will have to be paid to the problems of training and development of rural women. The education of rural girls, therefore, should be emphasized not only on grounds of social justice, but also because it accelerates social transformation. In addition, the government programmes promoting women education and skill development should be pursued more vigorously. It is a challenging task and it requires multipronged efforts. With a strong determination, commitment and involvement of people and organisations with philanthropic motive and a rational outlook, this problem can be solved and hurdle be overcome for promoting empowerment of rural women.

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UNLEASHING POTENTIAL OF NORTH EAST INDIA

MK Srivastav

Creating an enabling environment is the first condition to harness the physical resources of the North East region for the welfare of its people. It needs to be addressed on a priority basis. To achieve the sustainable development, we have to move to next phase of development and change as the Prime Minister has urged the nation that the time for incremental change is over and we must now move into a phase of decisive and transformational change.

India Will only Gain If the North East Gains: The eight states namely Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura located in the north and east corner of the country known as North East India/Region (NEI/NER) or Seven Sisters and One Brother. Underlining the significance of the states of the region, Prime Minister has awarded the region with a new name as AshtaLaxami and visualised that *“Yeh Bharat ke bhagya ko badalne ki ashta lakshmi hai”*. Prime Minister on 65th Plenary Session of North Eastern Council (NEC) said “ I see no reason why the North East region of the country cannot develop. I am also convinced that India can move forward if all the regions develop including the North East region”.

Potentials to be Unleashed:

The Region covers an area of 2, 63,179 sq. km, approximately eight per cent of the country's total geographical area and is home to around 3.76 per cent of the total population the

country (NCERT-2017). Out of total area of the region, 98 per cent are International boundaries. Each of the States has its own history. There is a significant difference between the states and also within each State in terms of language, ethnic stock, cultural diversity, economy and polity. The region is the habitat to over 200 of the 635 tribal groups scheduled in the country and each of the tribal groups in the States has their own culture, tradition and governance systems. So, the region is a beautiful example of unity in diversity.

The region is blessed with exceptional natural beauty, floral and faunal biodiversity, abundant mineral, water and forests resources, and tourism potential. However, several factors, such as isolation from the rest of the country because of its location and terrain, migration, low investment, low revenue generation, lower level of industrial and social-political disturbances for a few years have subdued the realization of the natural, social and economic potential of these States.



Table-1

States/UTs.	Total No. of Households	No. of Households with at least one Exclusion	Total No. of Households for Inclusion	Total no. of Households with Deprivation
Arunachal Pradesh	201842	118987	82855	72937
Assam	5743835	1689138	4054697	2892859
Manipur	448163	147003	301160	236653
Mizoram	111626	44437	67189	66499
Meghalaya	485897	151711	334186	327506
Nagaland	284310	97323	186987	182441
Tripura	697062	165435	531627	361664
Sikkim	88723	39442	49281	33480
Total	179787342	70754027	109033315	87264055

(Sources: Lok Sabha Unstarred Question No. 3857 dated- 09.08.2018.)

Majority of population of the region is rural and heavily dependent on subsistence agriculture, horticulture, handloom and forest for livelihoods. The region is yet to harness the enormous potential of the resources for the benefit of its inhabitants.

Sabka Sath Sabka Vikas: Framework of Development

It is true that the region has made some progress in poverty reduction and ensuring access to the basic amenities and services which are essential for a dignified human existence but still it remains a concern in all the NER States. It is worthwhile to mention that the nature of poverty between the valley and the hills is quite different. But because of the egalitarian foundation of tribal societies which form a majority of the population in the hill areas of the region, there is no case of the 'abject poverty as found in many other parts of India. But, the people of this beautiful region are yet to gain the fruits of development.

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)

MGNREGA came into force to generate employment and enhancing the livelihood security of people in rural areas by guaranteeing hundred days of wage-employment in a financial year to a rural household, whose adult members volunteer to do unskilled manual work. There are three prime aspects of MGNREGA, generation employment,

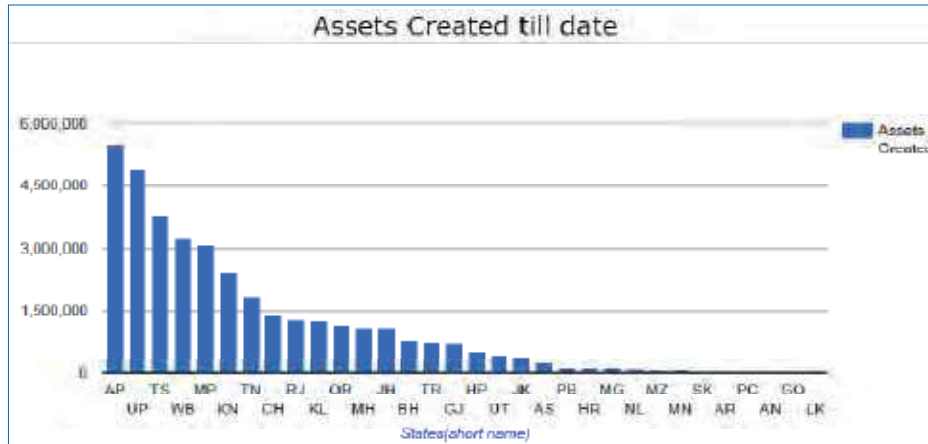
creation assets with a focus on natural resources management and agriculture activities. This is a demand driven programme emplacing bottom-up approach for the planning of employment strategy and works. The planning and priority of works are taken up at the Gram Sabha level and implemented by the Gram Panchayat in most of part of the country except some of the States in North East India such as Meghalaya, Mizoram, Nagaland, Hill Areas of Manipur, Assam and Tripura. These States and Areas have community-based tradition Local-self Government. The employment provided to the Households in the North East States in Tables-2:

Table-2

States	Households provided employment (In lakh)	
	2016-17	2017-18
Arunachal Pradesh	2.03	1.42
Assam	15.71	16.86
Manipur	5.16	4.91
Meghalaya	4.15	4.27
Mizoram	1.89	1.91
Nagaland	4.18	4.10
Sikkim	0.68	0.64
Tripura	5.77	5.23
Total	512.22	511.82

The table on households provided employment in the States of North East shows the

Graph 1:



The graph-1 shows that the North East states are lagging far behind to the states outside the region, even the performance of NE States in terms of creation of durable assets are below than other Hilly states of the Country.

In order to integrate MGNREGA with agricultural operations, the State has been advised to take at least 60% of the works in terms

comparatively low employment generation and even in many states, the number of households provided employment are less compare to the 2016-17. The reasons are the lack of proper planning and implementation, lack of awareness regarding the benefit of the programme, Non-effective Panchayati Raj Institution, Hilly terrain, incompatibility of permissible works, size and density of population in the states.

Schedule-I of MGNREGA exclusively deals with the menu of works for the creation of durable assets with a focus on natural resources management and support to the agricultural operation. It also supports the SHGs under NRLM by creating certain infrastructure. Rural connectivity is another prime dimension of work that has created a tremendous impact on the connectivity of rural areas and created the opportunity of employment to the rural inhabitants.



of cost under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in a district for creation of such productive assets that is directly linked to agriculture and allied activities for increasing agricultural productivity. The Table-3 given below shows the State-wise percentage of expenditure on Agriculture and allied activities.

Table 3:
Percentage of expenditure on Agriculture and Allied Activities in FY 2017-18 as on 27.03.2018

State	%age
Arunachal Pradesh	48.12
Assam	50.28
Manipur	58.58
Meghalaya	54.88
Mizoram	71.23
Nagaland	62.79
Sikkim	81.91
Tripura	71.51
Total	69.1

(Source: Lok Sabha Unstarred Question No. 6309 dated 05.04.2018)

The table shows that the four States Sikkim, Tripura, Mizoram and Nagaland have conformed the advice and accorded higher importance to the expenditure on creating agri-based assets in their respective States. In fact, the percentage expenditure is higher than the national average. While the other States, are also catching

Table 4:
Targets allocated, house constructed under PMAY-G (Units in Nos.)

State Name	Targets allocated by MoRD	Houses Constructed	Achievement %age*	Houses under construction
Arunachal Pradesh	11221	0	0.00	11221
Assam	259814	38594	14.85	221220
Manipur	9740	114	1.17	9626
Meghalaya	20745	395	1.90	20350
Mizoram	6600	1507	22.83	5093
Nagaland	8481	0	0.00	8481
Sikkim	1957	528	26.98	1429
Tripura	24989	5314	21.27	19675
Total	9989825	4255873	42.60	5733952

(Data reported by States/UTs on Awaasoft as on 19.07.2018; *Calculated by author
(Source: Rajya Sabha Starred Question No. 47 on 23.07.2018)

the momentum towards strengthening the agricultural operation in their state with help of MGNREGA.

Pradhan Mantri Awaas Yojana-Gramin (PMAY-G):

Under the scheme, a total of 42.56 lakh houses, as on 19.07.2018, have been constructed against the target of constructing 1.0 crore houses by March 2019. The targets were allocated to the States on the basis of housing deprivation parameters as per SECC, 201. The beneficiaries are provided with the unit assistance of Rs 1.20 lakh for plain areas and Rs 1.30 lakh for the hilly,

difficult, and Integrated Action Plan (IAP) areas. Apart from the unit assistance, they are entitled to 90-95 days of employment under MGNREGS and Rs 12,000 for constructing toilets under SBM.

The Table 4 on Targets allocated, house constructed under PMAY-G shows that achievement percentage of NE States compare to the national average (42.60) is very low. Even they are yet to come close to the national average. It also shows that achievement percentage of some of the States (Arunachal Pradesh and Nagaland) is nil.

Table 5:
Details of road length sanctioned and constructed under PMGSY upto June 2018

State Name	Length of road works cleared (km)	Length of road works completed (km)	Completion %age*
Arunachal Pradesh	8,885.34	6,728.04	75.72
Assam	27,358.74	17,815.45	65.12
Manipur	9,640.47	6,294.04	65.29
Meghalaya	2,731.33	1,711.64	62.67
Mizoram	4,167.98	2,945.78	70.68
Nagaland	3,893.37	3,530.37	90.68
Sikkim	4,794.50	3,673.03	76.61
Tripura	4,952.47	4,175.02	84.30
Total	665,737.94	556,389.37	83.57

*Calculated by Author

Pradhan Mantri Gram Sadak Yojana

Road connectivity is called as lifeline of the development. The connectivity especially rural connectivity in the States of North East region is extremely poor and the constructed roads are especially rural roads are highly vulnerable to the landslide and other vulnerability caused due to the Hilly terrain. The Pradhan Mantri Gram Sadak Yojana (PMGSY) is a successful intervention initiated by the Union Government. Under this scheme, an one-time special intervention is provide for enhancing rural connectivity, by single lane all-weather road, to the eligible unconnected habitations in the core network. The eligibility

condition for unconnected habitations in States is 250 plus population while in plain areas it is more than 500 populations. The details of State-wise roads constructed under PMGSY are given in the Table-5 as below.

The table shows that from inception till June 2018, 6, 65,737.94 Km road length has been sanctioned, out of which 5, 56,389.37 Km has been completed by incurring an expenditure of Rs. 183,095.37 crore at the national level. The state-wise data for the North East State shows that completion percentage of Sikkim is around 91 per cent followed by Tripura (84.30%) while the completion rate in remaining six states is

Table 6:
Number of Beneficiaries under IGNOAPS, IGWPS and IGDPS

States	2016-2017			2017-2018		
	IGNOAPS	IGWPS	IGDPS	IGNOAPS	IGWPS	IGDPS
Arunachal Pradesh	29290	3565	1284	29290	3565	1284
Assam	707927	137463	18916	707927	137463	18916
Manipur	56045	8043	1007	56045	8043	1007
Meghalaya	77980	8498	969	77980	8498	969
Mizoram	25251	1925	400	25251	1925	400
Nagaland	44530	3720	960	44530	3720	960
Sikkim	16418	1614	817	16418	1614	817
Tripura	141510	17927	2144	141510	17927	2144
Sub Total	1098951	182755	26497	1098951	182755	26497
GRAND TOTAL	21396057	5726184	701623	21245655	5846459	712358

Table 7:
Total House Holds Mobilized and No. SHGs promoted

State	Total House Holds Mobilized (Cumulative Progress)	No. of SHGs promoted (Cumulative Progress)	%age achievement*
Assam	1754627	167775	9.56
Arunachal Pradesh	14086	1580	11.22
Manipur	17291	1506	8.71
Meghalaya	51857	5060	9.76
Mizoram	37923	3983	10.50
Nagaland	42140	4554	10.81
Sikkim	17299	1693	9.79
Tripura	51224	5672	11.07
Total	52567122	4664593	8.87

(Source: Rajya Sabha Unstarred Question No.1391 dated 30.07.2018; * Calculated by Author)

below than the national average (83.57%). These states have put additional efforts to provide rural connectivity that will help in boosting the rural economy.

National Social Assistance Programme (NSAP):

The National Social Assistance Programme (NSAP) is implemented by the government as a key welfare initiative. State-wise details of beneficiaries covered under IGNOAPS, IGNWPS and IGDPS during the last three years is given below in Table-6:

Deen Dayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM):

Accorded the highest priority to the livelihood security, the Government of India with State Government is implementing Deen Dayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM) across the country in a mission mode with the objective to provide livelihood security through promoting self-employment by organizing the rural poor women into Self Help Groups (SHGs) and continuously nurturing and supporting them to take economic activities till they attain appreciable increase in incomes over a period of time to improve their quality of life and come out of abject poverty. The programme aims to ensure that at least one woman member from each rural poor household (about 9 crore) is brought into the fold of women SHGs and their federations within a definite time frame. Total Households mobilized and no. SHGs promoted, so far, is given below in Table 7.

The table on Total Households mobilized and no. SHGs promoted shows that there is a huge gap between household mobilized and SHGs promoted. As far as the performance of NE States is concerned, it presents a mixed picture. Majority of the States are performing above the national average (8.87%), only the State of Manipur is the below the National Average.

Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)

Giving utmost importance to employment through the skill development and promote rural livelihoods, Deen Dayal Upadhyaya Grameen

Kaushalya Yojana (DDU-GKY) has been launched as a placement linked skill development program for rural poor youth under NRLM.

Table 8:
Number of Persons Imparted Skill Training and Placements till October, 2017

State	No. of Candidates trained	No. of Candidates placed in jobs	%age of Placement*
Assam	8980	6426	71.56
Sikkim	304	275	90.46
Tripura	1140	274	24.04
Total	385663	202256	52.44

**Calculated by Author*

The Table-8 on trained and placement under DDU-GKY shows that current placement achievement is at 52% against the target is 70% of trained candidates. As far as the NE States are concerned, the achievement is good except for Tripura. Other states are still in the process of implementation of the programme.

Conclusion:

North East Region is truly a wonderful region. The States of the region presents a picture of change and development in a relatively difficult and disadvantaged region, and in complex & diverse society. North East Region Vision 2020 observed that the people in the region, like those in the rest of the country, have a vision of achieving prosperity and happiness for their children, if not for themselves. It is worthy to mention here that the realizing the potential that the region has, will require significant changes including the thinking of the people residing in the region and outside. Creating an enabling environment is the first condition to harness the physical resources of the North East region for the welfare of its people. It needs to be addressed on a priority basis. To achieve the sustainable development, we have to move to next phase of development and change as the Prime Minister has urged the nation that the time for incremental change is over and we must now move into a phase of decisive and transformational change.

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Construction Time under PMAY-G down to 114 days from 314

The re-structured rural housing scheme Pradhan Mantri Awas Yojana – Gramin (PMAY-G) with the objective of “Housing for All by 2022” was launched by Hon’ble Prime Minister on 20th November, 2016 with a target of 2.95 crore houses to be constructed by 2022 in phases. In the first phase, the target is construction of one crore pucca houses by 31st March, 2019.



A total of 1.07 crore rural houses have been completed over the last four years (2014-15 to 2017-18) which includes completion of 38.20 lakh Pradhan Mantri Awas Yojana – Gramin (PMAY-G) houses and 68.64 lakh IAY houses that were sanctioned in 2014-15 and 2015-16 and prior to that. If the figures of the current financial year are also added to this achievement under the rural housing scheme, the achievement from 2014-15 till date becomes 1.13 crore completed rural houses.

The confidence on timely completion is further strengthened by a recent study conducted by National Institute of Public Finance and Policy (NIPFP), New Delhi, which has concluded that the average time of construction of a house under PMAY-G has gone down to 114 days as against 314 days under the erstwhile rural housing scheme, i.e. IAY. In view of the availability of 240 days till March, 2019, and keeping in view the current pace of construction of PMAY-G houses and various initiatives of the Ministry to closely track the progress of construction, the target of completion of 1.00 crore pucca houses under PMAY-G would be achieved by March, 2019. As a result, the government would have constructed 1.70 crore rural houses between April, 2014 and March, 2019.

Integrated Systems for Doubling Farmers' Income by 2022

Scientifically designed and tailor-made Integrated Farming Systems (IFS) are being promoted to achieve the vision of Hon’ble Prime Minister Shri Narendra Modi of “Doubling Farmers’ Income by 2022”. These Integrated Farming Systems can be classified as natural and intentional integrated systems. The intentional integrated systems addresses the multiple objectives of increased production, profit, cost-reduction through recycling, family nutrition, sustainability, ecological security, employment generation, economic efficiency and social equity.



High-yielding grain varieties heavily dependent on chemical fertilisers were used to reduce India’s dependence on food imports and meet the country’s food requirement. However later, due to the use of low fertilizers, productivity fell leading to decline in the income of farmers. Economic Survey of India 2017-18 indicates that over a period of 10 years, the share of income of farmers from crop production increased by only 1% while it increased by 7% for livestock. Location specific integration of field crops, orchard, floriculture, agro-forestry, livestock such as dairy, poultry, piggery, fishery and other less land requiring activities such as mushroom, apiary, and boundary plantations are also being done for improving the livelihood of marginal and small households.

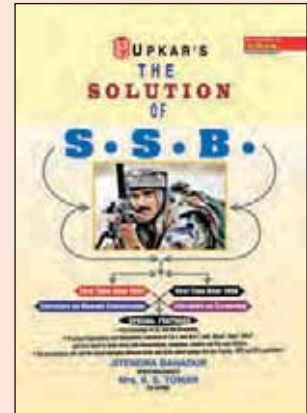
ICAR has partnered with 25 State Agricultural universities (SAUs), 5 research institutes and 1 Central University through All India Co-ordinated Research Project (AICRP) and developed 45 Integrated Farming System (IFS) models suitable to 23 states and 1 Union Territory for providing better production and income.

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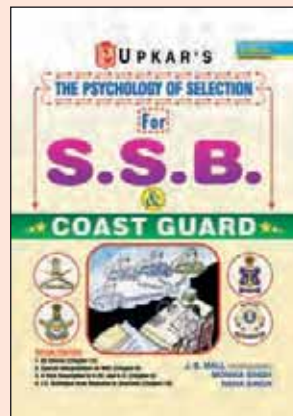
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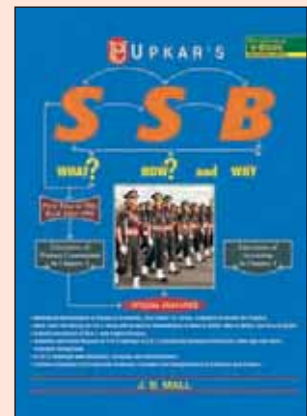
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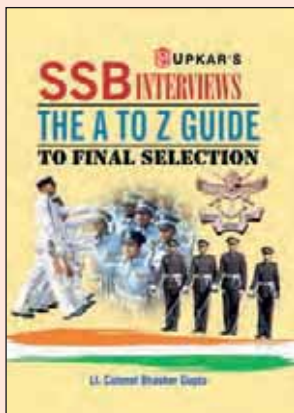
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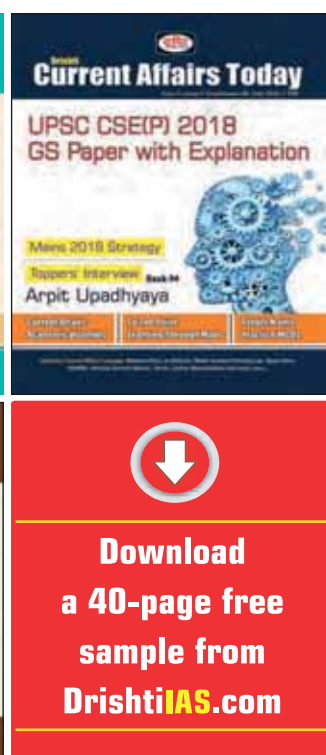
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