

## Kurukshetra Summary September 2018

### Agriculture for Rural Transformation

- NSSO data highlights 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. About 60% of the income per month is received from cultivation and farming followed by 32% from wages.
- Due to high dependency of rural population on agriculture, agricultural development is central to all strategies of rural development.

#### Issues with earlier approach:

- 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.
- Huge regional disparities were also observed in seed, fertilizer and marketing services and infrastructure and the post-harvest infrastructure.

#### Government Initiatives:

##### A. Higher Investment for Inclusive Development

- The public spending in agriculture and allied sectors has increased significantly by Central Government during 2014 to 2018.
- The sizeable increase has been effected in livestock sector to raise the income of 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.

- Long Term Irrigation Fund was established in NABARD in 2015-16 which was further augmented.
- 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 in NABARD to achieve the goal 'Per Drop More Crop'.
- Dairy Processing and Infrastructure Development Fund in NABARD.
- Fisheries & Aquaculture Infrastructure Development Fund (FAIDF) and Animal Husbandry Infrastructure Development Fund (AHIDF) for financing infrastructure requirement of fisheries animal husbandry sector.

**B. Making Natural Resources More productive and Rewarding**

- Land and water, due to depletion and deterioration, has become the limiting factors for agri based activities.
- The **availability of land per household** is 1.16 ha and **water** at 1544 m<sup>3</sup> per capita per annum.
- For increasing the operational holdings, NITI Aayog suggested a **Model Act on Agricultural Land Leasing**. This will promote land leasing for optimum land use and occupational diversification.
- There exists a *strong inverse relationship* of rural poverty with irrigation expansion. Bringing irrigation to a rainfed land *increases the productivity by 2.5 times*.
- 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.
- To rectify this, the Government undertook an initiative to bring convergence within the water sector through **Pradhan Mantri Krishi Sinchai Yojana (PMKSY)**.
- The PMKSY aims at end-to-end solution in irrigation supply chain from source to farm level applications. Their *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 irrigating and higher on-farm water use efficiency.
- As a result of diversified agriculture through micro irrigation 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.
- 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.

**C. Raising Farm Productivity to Boost Income of Rural Households:**

- Seed and fertilizers have been central to augmenting productivity. Government established 125 **seed hubs** in leading state Agricultural Universities and ICAR Institutes.
- **Soil health card scheme** is operational to economize the fertilizer use. It helps farmers know the fertility status of his farm and get crop-specific prescription for the right mix of fertilizers and manure. It results into balanced saving on his costs and also improve the soil health.
- **Neem coating** has been introduced to reduce the leakage 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. 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 NCT region has been given top priority through a new scheme to manage the crop residue at farmer's fields through farm mechanization.

#### D. Relieving the Rural Households from Risk

- The **Pradhan Mantri Fasal Bima Yojana (PMFBY)** has been launched in January 2016 by subsuming multiple insurance schemes like National Agricultural Insurance Scheme, Modified NAIS, etc. 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.

#### E. Rural and Agriculture Financial Inclusions

- The empirical studies of the past indicated *an increase of \$2 per capita per month income in a farm household due to institutional credit*.
- 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 this regard –
  - Interest subvention on the short-term crop loan upto Rs. 3 lakh and
  - Broad basing the Kisan Credit Card (KCC) schemes 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 percent rate of interest. **Post-harvest loans** are also being granted against Negotiable Warehouse Receipts with benefit of interest subvention.
- The Government made agricultural credit more inclusive by provision of institutional credit to *tenants or lessee cultivators, animals rearers and the aquaculture*.

#### F. Diversified Income Augmenting Activities

- Diversification towards high value commodities can enhance the income of farmers substantially. The rapid decline in rural poverty in Andhra Pradesh and Gujarat could be attributed to diversification in their farming during last 15 years.
- Special attention has been given to **Medicinal & Aromatic Plants** as a focus towards diversified farming and income augmentation.
- 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.

#### G. Rural Infrastructure Development

- Rural 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

- The primary space of marketing in 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.

#### **H. 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.
- 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.
- GrAMs will provide systematic linkage to realise the vision of unified national market by bringing primary post production activities to farmers at village level.

#### **I. Remunerative Price of 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)
- Government took a pathbreaking decision to provide MSP equivalent or more than 150% of the cost of production.
- The implementation of MSP, for the first time, is being made inclusive. NITI Aayog has suggested three mechanisms of **market assurance, price deficiency payment and procurement by private stockists on MSP.**
- To have agricultural market 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 this Model Act.
- Government has 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).
- **National Agricultural Market (e-NAM)** was launched on 15<sup>th</sup> April 2016. It is aimed at ushering in much needed agriculture marketing reforms to enable farmers to get better price of their produce.

#### J. Integrating Small and Marginal Farmers with Value Chain

- Over 3500 **Formers Producers Organisations** (FPOs) formed under various initiatives in the country. They are real carrier of transformation for small and marginal farmers of rural India. NABARD under its **Producer Organization Development Fund** (PODF) has provided credit plus assistance.
- 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.

#### Conclusion:

- The recent initiatives have made agriculture more inclusive with suitable blend of food security along with income security priorities.
- However it will only sustain if reforms are mainstreamed along with developmental plans.

#### Promoting Livelihood Through NRLM

- National Rural Livelihood Mission (NRLM) is promoting community based organisations (CBOs) as the corner-stone of its strategy for addressing the goal of poverty eradication.
- CBOs has been defined 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.
- NRLM has set for itself a target to mobilize nine crore poor households spread across all the villages in the country.

#### **Strategies Adopted by NRLM**

- (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.

#### **Approach:**

- 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.

- Various components of NRLM include *social mobilization, inclusion, institutional building, training, linkages, and convergence for livelihood promotion*.
- However, 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.
- 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.

### **Structure of CBOs:**

- A multi-layered structure of CBOs is visualized under NRLM. The three-tier structure consists of **SHGs, Village Organizations (VOs) and Cluster Level Federations (CLFs)** with some variations seen in few states due to local contingencies.
- **Self Help Groups (SHGs)** -- 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 *Panchasutra* wherein besides forming their own bye-laws they display regularity in meetings, savings, inter-loaning, repayment and book-keeping.
- The SHGs will subsequently open a bank account for savings and get themselves graded to receive revolving fund 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.
- **Village Organisations (VOs)** - 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.
- 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.
- **Cluster Level Federation (CLFs)** are being formed for a cluster of villages by integrating all the VOs. The primary responsibilities include monitoring and grading VOs, channelize CIF, facilitate convergence etc..

### **Functions of CBOs:**

- Financial Services 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.

- 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.
- 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 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.
- Many states continue to face difficulties in establishing both savings and credit linkages. 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.
- 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:** Many diverse non-financial services are being rendered by VOs which fall into five categories viz., formation of SHGs/FPOs, training and audit, social issues and legal counselling, livelihood promotion, and convergence.
- Many VOs pursue social issues like gender discrimination, public advocacy, creating public facilities, school monitoring, and legal counselling.

#### **Sustainability of CBOs:**

- The sustainability of CBOs is a multi-dimensional goal of attaining self-reliance, autonomy and role clarity.
- 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.
- 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.
- 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:**

- 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.
- 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.

### **Financial Inclusion for Inclusive Growth**

- **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.

### **Past Initiatives & their Impact:**

- Some of the major steps taken by the Government include nationalization of Banks during 1969 & 1980.
- The **nationalization of banks** was coupled with introduction of **priority sector 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 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.
- 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. This program has been recognized as the **largest micro finance program in the world**.
- As a result, the reach of the formal financial system improved in the rural areas and the access to credit for the disadvantaged section increased.



- However, the All India Debt and Investment Survey (AIDIS), 2003 presented a fairly poor picture of reach of institutional credit in rural areas. The survey revealed that *43 per cent of rural households continue to rely on informal finance.*
- 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 (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.
- 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, thus strengthening the livelihoods of the poor.
- In this direction, a flagship program called the '**Pradhan Mantri Jan-Dhan Yojana (PMJDY)**' was launched in 2014.
- The plan envisaged universal access to banking facilities with at least one basic banking accounts for every households (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 channelling all Government benefits to 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 centres 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 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.
- 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.

**Success so far:**

- 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 for 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 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.
- 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.
- 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 transfer (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.
- 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.
- PMJDY 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 are against 50.5 per cent in March 2010.

**Way Forward:**

- Through 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.

#### **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).

#### **MGNREGS: Empowering Rural India**

- The Mahatma Gandhi National Rural employment Guarantee Scheme – the flagship programme of the government aims at enhancing livelihood security of rural poor 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.
- 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.
- It is 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. It has *strengthened the process of participatory democracy* through economic decentralization and by giving significant roles to the Panchayati Raj Institutions.
- 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.

#### **Modified Version:**

- After recent modifications in the scheme implementations asset creation has actually emerged as a chief attraction for MG-NREGS.
- 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.

- During the fourth meeting of Governing Council of NITI Aayog in June, 2018 Government took a decision on policy coordination between agriculture sector and MGNREGA, particularly in pre-sowing and post-harvest activities.
- 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 was constituted.
- Earlier version of MGNREGA was based on adhocism, operated on a demand-driven method and largely laying emphasis on creation of temporary jobs.
- But the new dispensation has changed it to make the scheme target-driven and hence more result oriented.

**Geo-tagging assures Transparency:**

- The Government added a provision 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”.
- Hence, in the new structure, the **number of works under the scheme has gone up from eight to 23.**
- Geo-tagging of created assets have increased the transparency and accountability.

**Impact:**

- 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 Livelihood Mission (NRLM) - compliant Self-Help Groups”** in the assets list.
- Now, few findings suggest without MGNREGS it would be difficult to create assets in individual lands.
- In terms of tangible results, 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 values crops.
- It has played a much larger role in *revitalizing the labour market* in rural areas. The MGNREGA is like a safety net. At time, workers are also able to use it as a bargaining tool for extraction of higher wages.
- 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.
- However, 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.

### Health Services in Rural India

- The public health facilities in India are organised in three-tier structure of primary, secondary and tertiary levels.
- 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.

#### Health Service Infrastructure:

- 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.
- 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 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.

#### Health Education Infrastructure:

- The health education and training infrastructure in India has also grown over a period of time.
- IN addition to graduate courses, there are post-graduate (PG) seats of 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 institutions such as All India Institute of Medical Sciences (AIIMS).

#### Human Resources for Health in India:

- **Allopathic doctors in 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. Average population served by Government doctor in India is 11,0821.
- **Availability of specialist doctors at CHCs:** At least 4 specialist 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 requirements.
- **Availability of other category of health staffs:** In addition to doctors and specialist, there is shortage of other categories of health staff. The shortfall of staff in various sub-groups varies 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.
- Besides qualified private service providers, a larger number of unqualified non-degree allopathic practitioners (NDAP) practice allopathic medicine in India and are the only caregivers available to rural and poor people.

#### **Challenges and Way Forward:**

- 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.
- **Lack of appropriate mix of infrastructure** at rural health facilities is another well recognised challenge of Indian health systems.
- 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 Government of India has also started on **National Health Resources Repository (NHRR)**, which aims to collect information on existing health facilities, providers and services available at the facilities.
- 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.

#### **SPMRM Bridging Rural-Urban Divide**

- 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.

#### **Challenges:**

- There are some major parameters which will hamper the success possibility of the scheme. They include **Basic infrastructure development**.
- 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.
- The third major factor influencing the scheme is **Complexities of beneficiaries** about which is discussed below:

**(a) Migration**

- More people migrate from less affluent states and districts. According to the Economic Survey 17, 8 to 9 million people migrate for work opportunities within India annually.
- By 2050, it is estimated that more than half of India will be living in urban India.

**(b) Small holdings**

- The average farm size in India is small (1.15 ha). The small and marginal land holdings (less than 2.0 ha) account for 72 per cent of land holdings.
- Fragmented holdings is an issue which makes it difficult for financial inclusion.

**(c) Not using Formal Sector:**

- The most common reason is lack of enough money to use an account. The other reasons were accounts being too expensive, financial institutions being too far way, lack of necessary documents, inability to get an account, lack of trust in financial institutions, and religious reasons.
- Fixed transaction costs and annual fees tend to make small transactions unaffordable for large parts of the population in developing economies.

**(d) Increase in Urban Population:**

- Achieving the sustainability of cities entails integration of **four pillars-social development, economic development, environmental management, and effective urban governance**.
- According to the UN World Cities Report 2016, by 2030, India is expected to be home to seven mega-cities with population above 10 million.
- According to Census 2011, 377.1 million Indians comprising 31.16 per cent of the country's population live in urban areas.
- Many Indian cities are now struggling with problems of poverty, inadequate provision of urban services, congestion, air pollution, sizeable slum population, affordable housing, and public transport.

**Shyama Prasad Mukerjee National Rurban Mission:**

- In this context, the Indian government has introduced the **Shyama Prasad Mukherji Rurban Mission (SPMRM)**. It 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.
- It is an attempt to make our rural areas socially, economically and physically sustainable regions. The Mission aims at developing 300 Rurban clusters, in the next five years.
- Objectives of the programme are :
  - i. Bridge the rural urban divide- economic technological and those related to facilities and services.
  - ii. Spreading development in the region
  - iii. Attracting investment in the rural areas
  - iv. Stimulating local economic development with emphasis on reduction of poverty and unemployment in rural areas.

- The emphasis is to **develop the thematic economic strengths** of the clusters, provide required amenities to support this, apart from saturating basic, social and digital infrastructure in the clusters within a period of 3 years.
- A 'Rurban cluster', would be 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.
- Select Rurban clusters would be developed under the scheme by providing training to enable economic activities through skill development, entrepreneurship and necessary infrastructure amenities.
- 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 to the Clusters.
- There will be two categories of clusters under NRuM :
  - Non-Tribal and;
  - Tribal

#### **The Way Forward:**

##### **Engage:**

- Motivating parents, especially mothers to use the facilities (like banking, clean water, clean cooking gas, sanitation and hygiene) and Involve women

##### **Enable:**

- Rurban clusters should have efficiency enhancement to serve rich and poor beneficiary with equanimity.
- Resource of Rurban clusters should be earmarked and devoted towards inclusive growth.

##### **Enrich:**

- Private sector involvement and interaction with the government
- Linking Post Offices with various spread of information and awareness
- Formation of Joint Liability Groups.

##### **Conclusion:**

- Nowadays physical divide between rural and urban areas has been obliterated.
- Due to this, there is need to have a plan that can co-ordinate with other schemes. 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.



### Digital Technology Connecting Rural India

- The National Alliance for Mission 2007 and the Common Service Centre Scheme to establish tele-centres country-wide in India are clear examples of the governments' dedication to enhance rural access.

#### **Need For Digital Technology for Rural Development:**

##### **A. Digital Support to Agriculture:**

- It can deliver useful information to farmers about agriculture like crop care and animal husbandry, fertilizer and feedstock inputs etc.
- Quick dissemination of technological information from the research system to farmers in the field and reporting of farmer's feedback to the research system is also possible through Digital technology.
- It can offer solutions to multiple issues of governance in agriculture sector such as 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.
- Private sector-led **Agriwatch and e-Choupal** programme support several million farmers with prices information, tender and transaction facilities.

##### **B. Digital Technology for Capacity-building:**

- Digital technology enables rural communities to interact with other stakeholders, thus reducing social isolation.
- It helps in making laws and land titles more accessible.
- 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.

##### **C. Digital Technology and Service Delivery:**

- 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.

##### **D. Transforming Rural India:**

- 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. **Aadhar** is another such tool, which has empowered the masses by confirming their identities.
  - **Enablement:** The practice of e-governance, which creates transparency and governance through IT has empowered the citizens.
  - **Market expansion:** 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 throughonline portals.

- Direct connect through e-commerce has facilitated large number of artisans and agro-based small enterprises in rural areas.
- In India, ICT applications such as *Warana, Drishtee, e-Choupal, E-Seva, Lokmitra, E-Post, Gramdoot, Gyandoot, Tarahaat, Dhan, Akshaya, Honeybee, Praja* are quite successful in achieving their objectives.

### Few examples:

- **E-Extension** (e-Soil Health card Programme): This is the programme of Dept. 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.
- **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.
- **Query Redressal Services**: This empowers the farmer community through effective, need-based interventions.
- **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 in the local language.
- **e-Sagu**: It 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-step without farmer asking a questions.
- **AKSHGANGA**: It was established at a time when information technology was almost unknown in the villages of India.

### 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.
- DSSAT also provides for validation of crop model outputs, thus allowing users to compare simulated outcomes with observed results.
- By simulating probable outcomes of crop management strategies, DSSAT offers users information to rapidly appraise new crops, products and practices for adoptions.

### Agricultural Markets:

- It 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.
- **Electric National Agriculture Market (eNAM)** is envisioned as a unified national electronic market bringing Inter-connectivity to markers across the country.
- **eNAM** for agriculture marketing can be regarded as technology which will brings a social change in markets.
- **eNAM** aims for integration of marketing process and flow of goods to be achieved by bringing interconnectivity of markets through information technology.

**Way Ahead:**

- The “**National Commission on Farmers**” 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 Centres” 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**.
- 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.
- It is a known fact that information to sustain and increase agricultural production is spread over different agencies. However, this knowledge is often poorly documented or hard to access.
- Tele-Support project collects farmers’ question, repackage answers from local research institutes and universities on video and in local language store online and send feedback into the local community.