

An analytical study of constraints and measures in inclusive agriculture growth of India

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Agriculture has an important place in terms of employment generation, share in GDP and food security in India. However, population pressure, underdeveloped agro processing industry, slow development of livestock business, division & fragmentation of land, declining direct & indirect financial support, climate unpredictability and lack of awareness about the market are the major obstacles in development of agriculture in India. The average size of operational land holding has reduced to almost one hectare and four fifth holdings are marginal and small. Such uneconomic operational land holding is unable to provide livelihood for farmers and agricultural labourers. Similarly, the complicated and lengthy process of credit supply has adversely affected the easy availability of institutional credit in rural areas. About 10 percent of total credit is provided by the SCB in rural areas. Government has to systematically focus on the issues of agriculture and rural areas to prohibit the migration, unemployment, mass poverty and most important food security. Affordable & easy availability of credit, promotion of agro based and allied services, expansion of knowledge-based extension services and climate mitigation policy measures should be formulated for inclusive agriculture and rural development. This paper mainly focuses on constraints in inclusive agriculture growth and measures to sustainable and inclusive rural development. Paper is divided into two parts, one, issues of agriculture and second, policy measures and conclusion.

Key Words : Agriculture, Credit, Development, Inclusive growth, Operational holding, Rural

Introduction:

Notwithstanding significant efforts made by the government to improve the standard of living of the farmers during 65 years of planning, a large number of farmers are surviving in economic distress in India. Agriculture is largely facing the issue of (1) high population pressure (2) lack of nonfarm employment opportunities (3) Inadequacy of financial services (4) climate change (5) Illiteracy about linkages with world market and (6) underdeveloped agro based industries and agro-subsidiary business. Consequently, more than two third of the rural population is living below the poverty line in India¹. [This figure is calculated from the absolute number of BPL people estimated according to the Method developed by Tendulkar & Report of the expert group to review the methodology for measurement of poverty (2024), Government of India, Planning Commission, New Delhi] Similarly, a large number of farmers have reported willingness to leave farm business if better employment

opportunities will be available and simultaneously migrate towards urban areas.

Unless appropriate policies and programs are put in place, migration of rural peoples to urban areas could lead to increasing urban unemployment and social discontent. New migrants join the urban poor and live in overcrowded slum areas. Therefore, inclusive growth policies need to consider agriculture and rural development to prevent the migration of rural people to urban areas in India. As well as, investment in agro supporting business is essential to obtain high returns from farm production through market competition. This paper examines the factors responsible for agrarian distress and importance of inclusive agriculture rather rural development to inclusive growth of overall India. The agriculture policies and programs recommended here should be viewed as one component of a broader strategy to achieve inclusive growth.

The paper is divided into three sections. The first section reviews status and key challenges of agriculture and rural development in India. The second section discusses possible strategies to deal with those challenges and the third conclusion.

Objectives:

1. To ascertain the key issues of the agriculture sector in India.
2. To recommend the policies and programs for inclusive rural development.

Why Agriculture and Rural Development important for inclusive growth of nation:

Agriculture sector plays a significant role in the economic growth in India. It has not only provided food security to the nation but also surplus production for export. Despite continuous declining share in GDP and export agriculture is the main employment provider in the nation. Recently, 56 percent of the population is associated with the agriculture sector. However, agriculture and farmers themselves are continuously under the pressure of economic distress during the planning period. Therefore, it is not possible to achieve inclusive economic growth of a nation without consideration of inclusive agriculture growth.

First, the rural population is solely dependent on farming in India. The increasing population pressure on farm business created the issue of unviable size of operational holding. This population pressure can be transformed for productive purposes and increasing productivity of the rural labour force. Second, the yield of all major crops is comparatively lower than the developed countries of the world. It represents the agriculture sector has a potential and an opportunity to increase yield. Third, rainfed farming is seasonal. Most of the farmers are taking seasonal and single crops. The productivity of rainfed crops is less than the national average yield and developed nation. This rainfed farm area has more fertility than irrigated land. India has more than 60 percent rainfed cultivable land. The use of hidden potential of rainfed land can boost agriculture growth. Fourth, economic distress among farmers and agriculture labourers leads to migration towards urban areas. But the industrial and service sector is unable to provide sufficient employment opportunities. Similarly, high migration growth has continuously increased pressure on urban infrastructure. Fifth, poverty is largely spread in rural areas despite systematic effort. An appropriate policy decision for inclusive and sustainable development

of agriculture may inborn poverty eradication programmes². Here, key issues of agriculture have been discussed to ascertain the measures.

1. Population pressure and unviable land holdings:

An increasing population pressure on agriculture has created the issue of declining size of operational holdings and increasing number of landless labourers.

Table 1: Absolute and Relative rural population in India (population in Millions)

Year	Total Population	Rural Population	Cultivators	Agricultural Labourers	Total Rural Workforce	CAGR
1951	36.11	29.86 (82.7)	69.9 (71.9)	27.3 (28.1)	97.2	-
1961	43.92	36.03 (82.0)	99.6 (76.0)	31.5 (24.0)	131.1	2.19
1971	54.82	43.90 (80.1)	78.2 (62.2)	47.5 (37.8)	125.7	2.07
1981	68.33	52.39 (76.7)	92.5 (62.5)	55.5 (37.5)	148	2.21
1991	84.64	62.89 (74.3)	110.7 (59.7)	74.6 (40.3)	185.3	2.43
2001	102.87	74.26 (72.2)	127.3 (54.4)	106.8 (45.6)	234.1	2.66
2011	121.08	83.37 (68.9)	118.7 (45.1)	144.3 (54.9)	263	2.75

Source: Agriculture Statistics at a Glance 2014

Note: CAGR is calculated average annual decadal.

During 1951-2011, the compound annual growth rate (CAGR) of population was 2.03 percent against the 1.72 percent of the rural population. Consequently, rural workforce has been increasing simultaneously with significant reduction in size of operational holding overall India.

The rural population was 29.86 crore in 1951 and increased up to 83.37 crore during 2011 with the CAGR of 1.67 percent. However, the CAGR of agricultural labour has been 2.81 percent and 0.89 of cultivators' workforce during the same period. Therefore, the number of operational holdings has increased from 71.01 million to 138.35 million during 1970-71 to 2010-11 with a growth rate of 1.3 percent. It has reduced the size of operational holdings. The average size of operational holding was 2.28 ha in 1970-71 and 1.15 ha in 2011. The average size of operation holding was 0.35 ha and 1.45 ha of small farmers during the same period. Similarly, the CAGR of marginal and small operational holdings was 2.18 percent during 1971-2011, which was higher than 1.73 percent of the rural population. It is found that the production cost of marginal and small farmers is higher and it has adversely affected the income of farmers. The income of small and marginal farmers is inadequate to fulfil the family requirements³. The average monthly consumption expenditure of 40 percent farmers was more than income during

Jan-Dec 2013 all over India [Government of India (2014). Key Indicators of Situation of Agricultural Households in India", NSSO 70th Round, Ministry of Statistics and Programme Implementation] In short, the increasing population in rural areas has adversely affected not only agriculture development but also dependent households.

2. Inadequacy of financial services:

Easy access to credit is the most important issue of farmers. The rural branch network saw tremendous growth after the nationalisation of banks. The percentage of rural branches of commercial banks was 17.6 per cent in 1969 and steadily increased to 58.2 per cent in 1990. However, financial sector reforms after 1991 systematically undermined the institutional credit arrangements for agriculture in India⁴⁻⁵. The total offices of SCB were 60220 in 1991 and 65919 in 2001 all over India.

However, rural SCB offices were 35206 in 1991 and declined to 32562 in 2001. In other words, the percentage of rural SCB branches to total branches had declined from 58.6 to 43 percent during the same period. Further, the number of rural branches has increased slightly up to 33923, but the share of rural SCB branches has declined to 37.3 percent in 2011. Similarly, the number of accounts opened by SCB has considerably declined in the first decade of economic reforms period. It was 324.65 lakh in 1991 and declined to 225.1 lakh in 2001, indicating 31 percent reduction in rural account. Thereafter, banking policy has changed focus towards the rural areas and the number of rural accounts has significantly increased and touched to 400.18 lakh in 2011. Nevertheless, the share of rural accounts in total accounts of SCB has declined from 52.4 percent to 43 percent between periods of 1991-2001 and further 33.1 percent in 2011.

Table 2: Share of Rural SCB Offices, Rural Credit and Account holders during 1991-2011

Year	Rural branches	Percent to total branches	Outstanding Rural credit (Rs. in crore)	Percent to total credit	Number of Rural Account (Lakhs)	Percent to total number of Account
1991	35206	58.5	26644	21.45	324.65	52.4
2001	32562	49.4	68882	12.8	225.11	43
2011	33923	37.3	392449	9.6	400.18	33.1
CAGR 1991-2011	-0.17	-	13.7	-	1.0	-

Source : Handbook of Statistics on Indian Economy 2014-15, Reserve Bank of India⁶

The credit outstanding amount of rural areas has been also examined (Table 2). The outstanding rural credit of SCB had continuously increased during the reform period. It had Rs. 26644 crores in 1991, which was 21.5 percent of the total outstanding amount. An outstanding amount of rural credit was Rs. 392449 crores in 2011 but the share of rural outstanding amount in total outstanding credit has declined to 9.6 percent. It clearly

shows the role of SCB is negligible in rural areas while providing credit.

Table 3: Share of Direct Credit of Agriculture and allied Activities to of Agriculture and Allied Activities during 1990-91 to 2007-08

Year	Credit to Agriculture and Allied Activates			
	Direct	Indirect	Total	share of direct credit in total credit (Agriculture & allied Activities)
1977-78	2155	684	2839	75.9
1990-91	10188	2645	12833	79.4
2000-01	48187	99413	147600	32.6
2007-08	194953	199009	393962	49.5

Source : Handbook of Statistics on the Indian Economy 2014-15, Reserve Bank of India.

Similarly, more than 70 percent farmers are marginal and small land holders. These farmers have a need for sufficient access to credit. Public and private sector banks are playing an important role in financial support to the agriculture sector. The annual average growth rate of credit to agriculture and allied activities was 11.7 percent during 1978-79 to 1990-91 and increased to 24.9 percent during 1990-91 to 2000-01.

However, there are two distinct features of growth in agricultural and allied activities credit, that has a major role in determining the extent of increase in credit supply as well as its distribution within the agricultural sector. First, significant increase in the indirect credit to agriculture. Second, medium and large farmers benefited relatively in large numbers from credit. The share of direct credit in total agriculture credit was almost 76 percent in 1977-78 and declined to 32.6 percent in 2000-01. It represents the benefit of credit to agriculture and allied activities taken by non-farm business activities during economic reforms period. Nevertheless, bank policy has become favourable to direct credit to the agriculture sector since 2000 and therefore the share of direct credit has increased to 50 percent in 2007-08.

Table 4: Direct Finance to farmers by SCB all over India (in Percent)

Marginal Land Holders				
Year	Operational holdings	Operational Area	Account holders	Amount disbursed to farmers
1990-91	59.4	15	3.1	30.2
2000-01	62.9	18.7	3.2	25.8
2010-11	67.1	22.5	10	24.4
Small Land Holders				
1990-91	18.8	17.4	6.1	24.3

2000-01	18.9	20.2	8.2	25.1
2010-11	17.9	22.1	39.1	30.4
Medium and Large Farmers				
1990-91	21.7	67.5	3.9	45.5
2000-01	18.2	61.5	4.3	49.2
2010-11	15.0	55.4	16.1	45.2

Source: (1) Handbook of Statistics on the Indian Economy 2014-15, Reserve Bank of India (2) Agriculture Census of India 2010-11

There is a dominant position of medium and large farmers while disbursing the loan. The share of marginal and small farmers in total operational holdings has been increased from 78.2 percent to 85 percent between 1990-91 and 2010-11 and, correspondingly, their share in the operated area from 32.4 percent to 44.6 percent. However, the share of marginal & small farmers in agriculture credit disbursement has remained constant at 54 percent during the same period. In the case of marginal farmers, share in the area operated increased but share in agriculture credit has declined from 30.2 percent to 24.4 percent. For medium and large farmers, the share in area operated has declined but share in agriculture credit flow has been constant during economic reforms period (Table 4). A decline in the credit flow with an increase in the number of marginal holdings illustrates the “non-inclusive” stance of commercial banks. Further, there is regional imbalance in distribution of credit⁷.

3. Ecological factors:

An increasing temperature, unpredictable rainfall, more frequent extreme weather and higher severity of pest and disease are drastic ecological changes and have adverse impact on food production in India⁸⁻¹⁰. An almost 146.82 Mha estimated area suffers from various forms of land degradation due to water and wind erosion and other complex problems like alkalinity/salinity and soil acidity due to water logging in India¹¹⁻¹⁵.

Moreover, groundwater depletion and pollution of water in major parts of the nation are becoming significant problems (GOI, 2009). It is found 29 percent of groundwater blocks to be in the semi-critical, critical, or overexploited categories, with the situation deteriorating rapidly (World Bank, 2011). If the current irrigation practices continue, agriculture may face serious food shortages in future. Similarly, an annual mean surface temperature rose by the end of this century, ranging from 3°C to 5°C (under A2 scenario) and 2.5°C to 4°C (under B2 scenario), with the warming more pronounced in the northern parts of India.

4. Illiteracy about linkages with national and international market:

Large numbers of farmers are marginal and small and they retain a limited share of their production for sale in the market. The bargaining and holding capacity of farmers is comparatively poor and most of the farmers sell produce in the local market immediately

after harvest. Therefore, traders and agents purposefully decline the price of agriculture produce during harvest period and exploit them. It is observed that the value of produce and nature of produce has positively correlated to marketing cost¹⁶. It means higher the market value, higher is marketing cost and higher the chance of perishables higher is the marketing cost. Consequently, a large share of consumer price of products goes in the hands of traders. Linking farmers to international and national markets is essential to raise their productivity and standards of living through maximum return of consumer price of product. People are unaware about the national and international market prices and demand. It is found that only 8 percent farmers had some idea about the WTO, 19 percent knew about the minimum support prices and 18 were aware about the bio fertilizers¹⁷

5. Underdeveloped agro-based industries and subsidiary business

The large population was mainly dependent on cultivation, followed by 22 percent on wage/ salaried employment as their main source of income. The population engaged in non-agriculture enterprises activity was less than 5 percent, livestock 3.7 percent and other agriculture activities 1.1 percent (NSSO 2008). Therefore, heavy pressure of being dependent on agriculture creates issues of underemployment and disguised unemployment. It adversely affected the level of income and standard of living of the rural population. Similarly, among educated persons in the age group 15 – 29 years, the rural unemployment rate was 12 per cent. This educated population has migrated towards urban areas. This brain drain of rural areas should be prohibited through appropriate policy decisions.

Farming is the seasonal activity in more than 60 percent rainfed area and maximum six months get employment. Similarly, gambling of monsoon and price vulnerability of agriculture produce has an intensive impact on income of farmers and indirectly on rural economy. It is essential to develop agro subsidiary business and agro based industries to increase employment opportunities, reducing risk and value addition to agriculture products. Diversification of agricultural production portfolio to livestock is an effective way of accelerating agricultural growth and reducing rural poverty¹⁸.

The share of livestock in GDP was 3.46 percent and 29.2 percent in agriculture production during 2012-13 in India (GOI 2014). Animal husbandry is the important subsidiary business to increase income, level of employment and increasing confidence among farmers. However, the growth rate of increasing numbers of livestock is comparatively poor during the planning period. It had 0.9 percent during 1950-51 to 2010-11 and 0.4 percent during economic reforms period (1992-2012). Consequently, farmers are under pressure to meet basic needs.

Similarly, the food processing industry is a high-profit sector due to its immense potential for value addition. The Indian food processing industry accounts 32 percent of the country's total food market and ranked fifth in terms of production, consumption, export and expected growth. It contributes around 14 percent of manufacturing GDP, 13 per cent in exports and 6 percent of total industrial investment. However, it is developed in the production of winery, sugar, dairy products. India has a huge potential to develop the food processing industry. It will help to increase employment in rural areas and ensure

prices for agricultural produce.

Agriculture, Rural Development and Economic Inclusive growth:

The opportunities for rural people outside agriculture are limited. Therefore, a high level of unemployment among the educated is found in rural areas. Agriculture itself is a measure to reduce the level of poverty and unemployment. The researcher has discussed the major helping factors for inclusive rural development.

i. Suggestion to improve supply of credit:

1. Every farmer/ laborer should be adopted by a financial institution.
2. Loan procedure is lengthy and complicated. It must be done simple and disbursement of loan shall be easy to the rural area.
3. Mortgage of land for loan should be declared not necessary.
4. Banks should provide credit to tenants at a concessional rate of interest.
5. Kisan Credit Cards should be issued to women farmers, even if the title of land is not in their names.
6. Reduce the rate of interest for crop loans to 4 percent. if possible, zero percent with Government support.
7. Interest on loans in areas hit by drought and floods and for crops under heavy pest infestation needs to be waived.
8. Ensured transparent credit disbursement by involving panchayats, farmers' organizations, other civil society organisations and district administration to farmers. A credit disbursal system should become free from corruption.
9. Micro-finance should become livelihood finance by linking credit to essential support services so that credit becomes the pathway to sustainable livelihoods.
10. The Self-Help Group movement can be strengthened by setting up at the Block or District level Self Help Group Capacity Building and Mentoring Centres.
11. Crop insurance through SHGs can be promoted.
12. An Agricultural Risk Fund should be established to provide farmers relief in the case of successive droughts or other natural calamities including disease outbreaks.
13. The money lenders must be registered as cooperative credit societies and the government should fix the upper limit of interest rate to them.

ii. Suggestions to improve knowledge and skill of farming community:

1. The central government should establish support services and extension services in every village.
2. These extension services operate through the agricultural universities and Panchayat samiti.
3. The main goal of the extension system must be to provide knowledge of global trends and government policies related to on farm and off farm practices, enterprise development and market linkages.
4. Farm school must be opened in each block in order to spread their innovative and knowledgeable message and methods. These schools have services of soil testing,

water testing, seeds quality test, major crop quality test.

5. The farm schools must be connected with KVS and KVS should be upgraded according to global changes.
6. To achieve the goal of knowledgeable and skilled farmers, the government must open a new television channel, which provides 24 hours knowledge of farm related issues to the public.
7. Most of the rural farmers have taken formal education. These peoples must provide skilled education of farm and subsidiary, processing of agriculture produce through farm schools, Krishi Vidyan Kendra's and from establishing new training centres. It will be beneficial to improve the farm yield and increase the employment level in rural areas.

iii. Suggestion to reducing risk of climate change:

1. Reduce crop insurance premium to increase area under insurance coverage.
2. Price volatility or income volatility insurance schemes must be implemented.
3. More research is required on rainfed crops.
4. Compulsory drip or sprinkler irrigation should be employed according to the needs of each farmer to increase the efficiency of water.

Conclusion:

Agriculture is facing manmade and natural issues in India. The intensity of population pressure, finance, climate change, price vulnerability and unemployment has been acute in rural areas. The share of SCB rural branches has declined from 58.5 percent to 37 percent and share in credit to agriculture and allied activities declined to 21 percent to almost 10 percent during 1991-2011. Whereas, the share of direct finance in total agriculture finance and share of marginal and small farmers also seen gradually increasing while rapid increase in area under marginal and small holdings during economic reforms period. It has adversely affected directly on income and indirectly on agriculture growth. Therefore, policy makers should focus on the increasing income of rural people to achieve the goal of inclusive growth. The extension of agro based industries, agro subsidiary business through government support is essential to creating employment opportunities and income generation. It will help to reduce the excess labour force that works in the agriculture sector and the agriculture growth rate by preventing division & fragmentation of agricultural land. Similarly, agro based and agro subsidiary business shall be beneficial to increase the value of agriculture produce, reduce climate risk, avoid wastage of perishable agricultural produce and dependency of population.

References:

1. Government of India (2014), "Basic Animal Husbandry and Fisheries Statistics", Ministry of Agriculture, Department of Animal Husbandry and Fisheries, New Delhi, Pp. 99.
2. Héctor Garduño et al (2011), "India groundwater governance Case study", Water Unit, Transport, Water and ICT Department, Sustainable Development, World Bank,

Washington.

3. Vyas (2011), "Strengthening small farm sector", Yojana Vol.. 55, January 2011, PP. 18-21.
4. Satish P. (2006), "Institutional Credit, Indebtedness and Suicides in Punjab", Economic & Political Weekly, Vol. Vol. XLI (38), June 30, 2006, P.P. 2754-2761
5. Pallavi Chavan and R Ramakumar (2007), "Revival of Agricultural Credit in the 2000s: An Explanation" Economic & Political Weekly, Vol - XLII (52) , December 29, 2007.
6. RBI (2015), "Handbook of Statistics on Indian Economy 2014-15", Reserve Bank of India.
7. Mehrotra, Nirupam (2011): "Agriculture Credit: The Truth behind the Aggregate Numbers", *Economic and Political Weekly*, Vol. XLVI, No.42, October 15.\
8. Patel Amrit (2010), "Climate Change and Agriculture", Kurukshetra, Vol. 58 (5), Ministry of Rural Development, Government of India, PP. 1-7.
9. Gahukar R. (2009), "Food security: The challenges of climate change and bio energy", Current Science, Vol. 96 (1), 10, Jan 2009, PP. 26-28.
10. Kumar K & Parikh J. (1998), "Climate change impacts on Indian agriculture: the Ricardian approach", In Measuring the impact of climate change on Indian agriculture, edited by A Dinar, R Mendelsohn, R Evenson, J Parikh, A Sanghi, K Kumar, J Mckinsey, and S Lonergan [World Bank Technical Paper No. 402], Washington.
11. Government of India (2008), "Employment and Unemployment Situation in India", NSSO 62nd Round, Ministry of Statistics and Programme Implementation, Government of India.
12. Government of India (2009), "State of Environment Report 2008", Ministry of Environment and Forests, Government of India, 2009, PP. 74.
13. Government of India (2011), "Agriculture Census of India 2010-11", Ministry of Agriculture, Government of India, New Delhi.
14. Government of India (2014), "Key Indicators of Situation of Agricultural Households in India", NSSO 70th Round, Ministry of Statistics and Programme Implementation, Government of India.
15. Government of India (2015), "Agriculture Statistics at a Glance 2014", Ministry of Agriculture, Government of India.
16. Chakraborty K (2005), "Marketing Costs and Margins of Agricultural Produce in Tripura." Agricultural Marketing, vol. XLVIII (1), April- June 2005, PP. 04-08.
17. Bhalla (2006), "Conditions of Indian Peasantry", National Book Trust, New Delhi.
18. BIRTHAL et al (2012), "Livestock for Higher, Sustainable and Inclusive Agricultural Growth", Economic & Political Weekly, Vol. 47 (26-27), 30 Jun, 2012.