

## Some Agricultural Risks in India

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**Abstract:** *In a world of rising population, diminishing arable land, mounting agricultural debts and increasing uncertainties in farm incomes, there is a great need for management of risks in the agriculture sector. The enterprise of agriculture is subject to great many uncertainties. Yet more people in India earn their livelihood from this sector than from all other sectors put together. In rural India, households that depend on income from agriculture (either self-employed or as agricultural labour) accounted for nearly 70% of population (estimates from Survey of Consumption Expenditures, National Sample Survey, 1999/00). This includes large number of the poor who have little means of coping with adversities. Poor households that were self-employed in agriculture account for 28% of all rural poverty while poor households that are primarily dependent on agricultural labour account for 47% of all rural poverty. Thus, 75% of all rural poor are in households that are dependent on agriculture, in one way or the other. The same survey shows that 77% of all poverty is rural. Thus 58% of all poor are in households that are dependent on agricultural income in rural areas. Risk and uncertainty are inescapable factors in agriculture. The uncertainties of weather, yields, prices, government policies, global markets, and other factors can cause wide swings in agricultural income. All these risks must be properly managed to achieve satisfactory management in agriculture. It involves choosing among alternatives that reduce the financial effects of such uncertainties.*

**Keywords:** *Debt, Rural India, Agriculture, Agriculture Labour, Agriculture Risk, Farmers*

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### I. Introduction

In India, agricultural risks are exacerbated by a variety of factors, ranging from weather variability, frequent natural disasters, uncertainties in yields and prices, weak rural infrastructure, imperfect markets and inadequate and sub-optimal financial services including the limited span and design of risk mitigation instruments such as credit and insurance. These factors not only endanger the livelihood and incomes of small farmers but also undermine the viability of the agriculture sector and its potential to become a part of the solution to the problem of endemic poverty of farmers and agricultural labour. The critical nature of agriculture with respect to rural transformation and the national economy, considered alongside its inherent structural characteristics, requires substantial governmental and financial sector interventions in order to not only ensure the food and nutritional security of households in the farming community but also generate savings and investments in this grossly under-funded sector. The poor infiltration and development of various risk management tools in India also represents huge opportunities for the emerging agricultural insurance and commodity markets in terms of pulling producers out of the poverty trap by insulating them from income shocks and ensuring that a fair share of the price goes to the producer.

Farmers use a variety of formal and informal techniques to manage and mitigate risk, ranging from the use of drought resistant crop varieties to reduced consumption and sale of assets. The Government is also implementing a large number of schemes to provide succour to farmers facing adversity.

### II. Characteristics Of Indian Agriculture

At the time of independence, the agricultural economy of the country was characterized by a stagnant economy with wide regional diversities, lower resource availability, inadequate institutional support and acute poverty. The period prior to independence was marked by the retrogression of agriculture sector and ended by leaving the country with perhaps the world's most refractory land problem (Thorner and Thorner 1958). Land reforms were taken up as an immediate measure to correct the skewed distribution of land and inadequacies in the land market. Land reforms were directed towards favouring the peasant cultivator through tenancy reforms, abolition of intermediaries and bringing equity in access to land and other resources. Laws of inheritance and land fragmentation led to marginalization of agriculture.

Indian agriculture is characterized by small holdings and farmers operating less than one hectare of land accounted for roughly 60 per cent of the more than 106 million farming families in 1990-91, operating just 15 per cent of the total area. In addition to this, another 20 million families operate between 1 to 2 hectares of land and they share roughly one fifth of the total holdings (GOI 2001).

The Community Development (CD) Programme initiated in 1952 for the development of villages by co-ordination of the activities related to agriculture, animal husbandry, infrastructure and extension at block level helped creating rural infrastructure across blocks. National Extension Service programme was also initiated along with the CD programme. The emphasis from the sixties onwards was to increase agricultural production. This had a twin goal: first, to make India self-sufficient in food grain so that its food security was assured and second, to ensure that farming activity brought prosperity to the farmers and raised those above the level of subsistence to which most of them were accustomed.

The sixties witnessed two important interventions in agricultural development. One was in the form of Intensive Agricultural District Programme (IADP) of 1960-61 for selected districts in the country and the other, as Intensive Agricultural Area Programme (IAAP) of 1964-65. In the following years, we witnessed the advent of green revolution. The high yielding variety seeds, fertilizer and irrigation technology helped boost food grain production in the country in the following years. The impact of technological change was felt throughout the country but more vigorously in a few states and for a few crops. Commercialization of agriculture is not a new phenomenon. Crops like cotton, sugarcane, jute and tobacco are being grown since time immemorial. However, commercialization accelerated during the last two decades. The area under food grain crops is being substituted by non-food grains / cash crops.

Subsistence farming where the farming family essentially tilled the land to produce something for its own consumption was from a business standpoint, a low risk activity. The system was characterized by lower dependence on purchased inputs (like seed, fertilizer, plant protection chemicals and even labour). However, this may not be so any longer and even small and marginal farmers are responding to market signals. The proportionate area allocated for food grain crops is being replaced by cash crops and this has very great implication for crop insurance. Farmers try to maximize the expected net income and at the same time try to minimize their dependence on market for staple food. Thus, they choose a mix of staple food crops and cash crops. Staple food crops (mainly cereals) also provide fodder for livestock, which is an indispensable asset with the poor.

### **III. Indian Agriculture, Major Types Of Risks**

Management of risk in agriculture is one of the major concerns of the decision makers and policy planners, as risk in farm output is considered as the primary cause for low level of farm level investments and agrarian distress. Both, in turn, have implications for output growth. In order to develop mechanisms and strategies to mitigate risk in agriculture it is imperative to know the sources and magnitude of fluctuations involved in agricultural output. Farmers are exposed to risk from rainfall variability, market price fluctuations, credit uncertainty and adoption of new technology. The diversities in the sources of risks require a variety of instruments for protecting the farmers. In India, these include crop insurance, rainfall insurance, farm income insurance and a calamity relief fund. Most of these measures other than crop insurance are in the experimental stage. Different sources of risk that affect agriculture are classified below.

- Production Risk
- Price or Market Risk
- Financial and Credit Risk
- Institutional Risk
- Human or Personal Risk
- Legal / Policy Risk
- Resource Risk
- Health Risks
- Assets Risks
- Technology Risk

### **IV. Initiatives Taken By The Government For Increasing Flow Of Credit To Reduce The Risks In Agriculture**

#### **(i).Farm credit package:**

Government of India in its Farm Credit Package announced in June 2004, advised banks to double credit to agriculture sector in three years, i.e., by 2006-07. In the subsequent annual budgets, Government of India announced targets for credit to agriculture to ensure adequate credit flow to the sector. The flow of agriculture credit since 2003-04 has consistently exceeded the target. Agriculture credit flow has increased from Rs.86981 crore in 2003-04 to Rs. 468291 crore in 2010-11. The target for the 2011-12 was fixed at Rs.475000 crore and achievement as on 31.03.2012 is Rs. 511029 crore ( as per provisional figures given by NABARD) forming more than 107% of the target. The target of credit flow for the year 2012-13 has been fixed at Rs. 575000 crore and achievement as on October, 2012 is Rs.308025 crore.

**(ii). Interest subvention to farmers:** Government of India announced an interest subvention scheme in 2006-07 to enable banks to provide short term credit to agriculture (crop loan) upto Rs.3 lakh at 7% interest to farmers. Further, to incentivise prompt repayment, in the Union Budget for 2009-10, Government of India announced an additional interest subvention of 1% to those farmers who repay their short term crop loans promptly and on or before due date. This was subsequently raised to 2% in 2010-11 and 3% in 2011-12 and 2012-13 also. Thus, farmers, who promptly repay their crop loans, are now extended loans at an effective interest rate of 4% p.a. As proposed in the Union Budget 2013-14, Interest subvention scheme for short-term crop loans to be continued scheme extended for crop loans borrowed from private sector scheduled commercial banks

**(iii). Extension of interest subvention scheme to post harvest loans:**

In order to discourage distress sale by farmers and to encourage them to store their produce in warehousing against warehouse receipts, the benefit of interest subvention scheme has been extended to small and marginal farmers having Kisan Credit Card for a further period of upto six month post harvest on the same rate as available to crop loan against negotiable warehouse receipt for keeping their produce in warehouses.

**(iv) Collateral free loans:** The limit of collateral free farm loan has been increased from Rs.50,000 to Rs.1,00,000.

**(v). Guidelines for providing relief in event of occurrence of natural calamities:**

Reserve Bank has put in place a mechanism to address situations arising out of natural calamities. The banks have been issued necessary guidelines for undertaking necessary credit relief measures in event of occurrence of natural calamities. The guidelines, inter alia, contain directions to banks to ensure that the meetings of District Consultative Committees or State Level Bankers' Committees are convened at the earliest to evolve a co-ordinated action plan for implementation of the relief programme in collaboration with the State/district authorities. Banks have been advised to provide conversion/ rescheduling of loans and consider moratorium period of at least one year in all cases of restructuring. To enhance awareness, the banks are also required to give adequate publicity to their disaster management arrangements, including the helpline numbers. Further, the banks have been advised not to insist for additional collateral security for such restructured loans. Asset classification for restructured loans will remain the same as prevalent at the time of restructuring for a period of one year as per extant guidelines. The relief measures initiated and undertaken are required to be reviewed periodically in the weekly/fortnightly meetings of specially constituted Task Forces or sub Committees of the SLBC till such time as conditions are normalized.

**(vi) Interest subvention for loan restructured in the drought affected states in 2012:** The standing guidelines of Reserve Bank of India (RBI) provide for rescheduling of short term crop loans upon declaration of natural calamity including drought. Such rescheduling of crop loans converts them into term loans for which normal rate of interest are applicable. Due to deficient rainfall this year in some parts of the country, the matter of providing relief to the farmers of the drought affected areas has been under the consideration of the Government. In order to provide relief to drought affected farmers, it has been decided that in cases where such loan are restructured due to drought, the interest subvention of 2% which is already available for short term crop loans to Public Sector Banks, Cooperative Banks and Regional Rural Banks will continue to be available for the current financial year on the full restructured amount.

**(vii). Kisan Credit Card Scheme:** In order to ensure that all eligible farmers are provided with hassle free and timely credit for their agricultural operation, Kisan Credit Card Scheme for farmers was introduced in 1998-99 to enable the farmers to purchase agricultural inputs such as seeds, fertilisers, pesticides, etc. The Kisan Credit Card Scheme is in operation throughout the country and is implemented by Commercial Banks, Coop. Banks and RRBs. The scheme has facilitated in augmenting credit flow for agricultural activities. The scope of the KCC has been broad-based to include term credit and consumption needs. All farmers including Small farmers, Marginal farmers, Share croppers, oral lessee and tenant farmers are eligible to be covered under the Scheme. The card holders are covered under Personal Accident Insurance Scheme (PAIS) against accidental death/permanent disability.

**(viii). Agriculture Debt Waiver and Debt Relief Scheme, (ADWDRS) 2008:**

To mitigate the distress of farming community in general and small and marginal farmers in particular and to declog the institutional credit channels and make farmers eligible for fresh credit, the Debt Waiver and Debt Relief Scheme, 2008 was announced in the Union Budget for 2008-09. The scheme covered direct agricultural loans disbursed (i) between 31 March 1997 and 31 March 2007 (ii) overdue as on 31 December 2007 and (iii) remaining unpaid until 29 February 2008. In the case of small and marginal farmers, short term

production loans (subject to a ceiling in respect of plantation and horticulture) and installments of investment loans overdue were covered, while in the case of the other farmers, one time settlement was extended under which a rebate of 25% of the eligible amount was given on the condition that the farmer repays the balance 75% in three installments. The debt waiver exercise was completed by 30th June 2008, whereas the debt relief exercise was closed in June 2010 after granting a few extensions. The Government of India has so far sanctioned Rs.52, 516.86 crore in 5 installments as reimbursement to the banks under the scheme. Out of this Rs.29,275.81 crore was passed on to NABARD for reimbursement to RRBs and Co-operative banks and an amount of Rs.23,159.76 crore has been reimbursed to scheduled commercial banks, Local Area banks and Urban Co-operative banks.

### **National Agriculture Insurance Scheme (NAIS)**

The Government of India experimented with a comprehensive crop insurance scheme which failed. The Government then introduced in 1999-2000, a new scheme titled “National Agricultural Insurance Scheme” (NAIS) or “Rashtriya Krishi Bima Yojana” (RKBY). NAIS envisages coverage of all food crops (cereals and pulses), oilseeds, horticultural and commercial crops. It covers all farmers, both loanees and non-loaneees, under the scheme. The premium rates vary from 1.5 percent to 3.5 percent of sum assured for food crops. In the case of horticultural and commercial crops, actuarial rates are charged. Small and marginal farmers are entitled to a subsidy of 50 percent of the premium charged- the subsidy is shared equally between the Government of India and the States. The subsidy is to be phased out over a period of 5 years. NAIS operates on the basis of

1. Area approach- defined areas for each notified crop for widespread calamities.
2. On individual basis- for localized calamities such as hailstorms, landslides, cyclones and floods.

Under the scheme, each state is required to reach the level Gram Panchayat as the unit of insurance in a maximum period of 3 years. Agriculture Insurance Corporation of India is implementing the scheme.

## **V. Conclusion**

In India, agricultural risks are exacerbated by a variety of factors, ranging from weather variability, frequent natural disasters, uncertainties in yields and prices, weak rural infrastructure, imperfect markets and inadequate and sub-optimal financial services. These factors not only endanger the livelihood and incomes of small farmers but also undermine the viability of the agriculture sector and its potential to become a part of the solution to the problem of the endemic poverty of farmers.

Agriculture is a dominant sector of our economy and credit plays an important role in increasing agriculture production. Availability and access to adequate, timely and low cost credit from institutional sources is of great importance especially to small and marginal farmers. Along with other inputs, credit is essential for establishing sustainable and profitable farming systems. Most of the farmers are small producers engaged in agricultural activities in areas of widely varying potential. Experience has shown that easy access to financial services at affordable cost positively affects the productivity, asset formation, income and food security of the rural poor. The major concern of the Government is therefore, to bring all the farmer households within the banking fold and promote complete financial inclusion.

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