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Issues and Ideas for Indian Agriculture

FARM CREDIT 07

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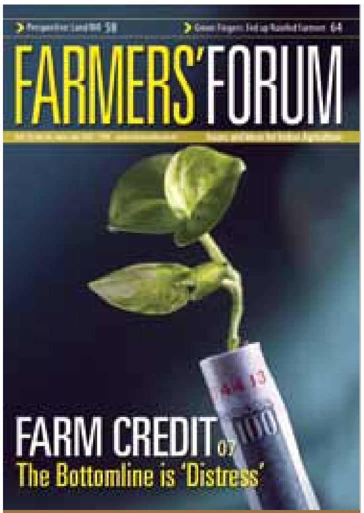

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FARM POLICY

Time to Ascertain, Audit and Amend

"The opposite of love is not hate but indifference; for, at a minimum, to love or hate someone is to have intense emotions toward them".

ELIE WIESEL, Nobel Peace Prize winner

The world is indifferent to farmers. Never mind the politically correct, ballot box directed noises, one does not even sense any emotion for this critical segment of Indian society from the public at large. That is what farmers believe and what they say in no uncertain terms when we meet during my frequent interactions with them across India. These discussions usually culminate in a mutual mulling over the question: why policy is what it is and not what it should be.

A policy is made by a complement of bureaucrats and chosen advisory councils, generally peopled by academics close to those in power at a particular time. The outcome is often impractical policies that are too unrealistically framed to be executed by any administrative setup. Policy interventions thus fail to meet the objectives and the failure is conveniently attributed to implementation and governance issues. The impact of policies is, however, felt for generations; beyond the tenure of those designing them. The next lot of bureaucrats is tasked with the follow up.

POLICIES ARE TOO UNREALISTIC AND FAIL TO MEET OBJECTIVES. FAILURE IS THEN ATTRIBUTED TO IMPLEMENTATION AND GOVERNANCE ISSUES

When programmes fail, politicians and officers come up with their new favourites and design schemes to replace the failed ones; sometimes with little change save the name and form; with little understanding of the structural issues that led to policy failures in the first place. Rather than solving the fundamental problems, those that influence policy want quick and, eventually, expensive solutions to address the fallout of the self-inflicted problems.

Most of the proposed beneficiaries of the national food security act are farmers but rather than empowering farmers to be self-sufficient and grow what they want to eat, policy-makers passionately debate the mechanism of delivery of cheap food grain to farmers, either through cash transfer or kind. Such measures are mandatory in times of crises like droughts but can hardly be recommended as a long-term solution for inclusive growth.

The point is that enabling self-sufficiency for every farmer family

is possible and preferable to life time support that is impossible to deliver, as has been proved in developed countries. What seems to be impossible is changing mindsets about farmers. Post the spurt in food prices in 2007, farmers are increasingly being considered as mere suppliers of cheap food!

In his budget speech, the finance minister said that agriculture grew at 3.6 per cent over the past five-year period. What he seemed to want to avoid was saying that agriculture grew at only 1.50 per cent last year. Most of this growth has come from allied activities like animal husbandry, poultry and fisheries, which are more essential for livelihood security. Farmers have responded to market demand not on account of government policy but in spite of policy continuing to focus on crop cultivation.

More than 60 per cent of poor farmers in India have no access to institutional credit but this is obviously not what the government would have one believe. The public is deceived as it unconditionally accepts government figures on credit as the gospel truth without examining what exists between the lines. The direct credit to farmers by scheduled commercial banks increased from Rs 21,499 crore in 1993-94 to Rs 51,229 crore in 2002 and to Rs 5,10,728 crore in 2011-2013. This would have represented a whopping increase had the figures not represented a sleight of hand. The trick has been to increase items that qualify as agriculture credit thus increasing the number of activities being quantified. Farmers would rather have only the credit that they receive or access directly to be quoted as agriculture credit. This is why the true components of agriculture credit to farmers needs to be investigated and the impact understood.

RATHER THAN SOLVING BASIC PROBLEMS, POLICY-MAKERS WANT QUICK AND EXPENSIVE SOLUTIONS. ENABLING SELF-SUFFICIENCY FOR FARMERS IS POSSIBLE AND PREFERABLE TO A LIFE TIME OF SUPPORT

There is also the issue of loan waiver that has been investigated and where major irregularities have been detected. In the process, what has been missed is that the one-time loan waiver of around Rs 60,000 crore is a pittance compared to what the industry gets every year, courtesy the Debt Recovery Tribunal. Farmers too deserve a similar agency. What is structured for the industry as matter of routine is touted as a big-ticket favour for the farming community, even when it comes after decades.

The Bharat Krishak Samaj (BKS) wrote to all members of parliament, chief ministers and the top echelons of the bureaucracy to force a Comptroller and Auditor General audit for farm credit but to no avail. The Reserve Bank of India too has been very evasive in its answers. Indeed, the BKS extends an open invitation to any Member of Parliament to explain what exactly constitutes agriculture credit and is reasonably confident that none would be forthcoming from any of Indian policy-makers. ●

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To the Editor

Time for policy rethink

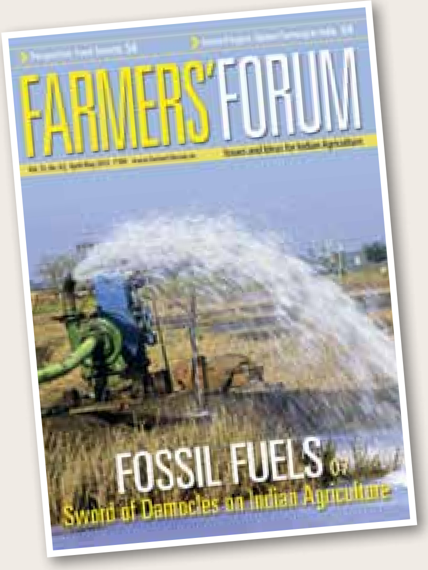
Sir; Your editorial 'Budget 2013: Good Signals and Glaring Gaps' (*Farmers' Forum*, April-May, 2013) on farm subsidy provides a perceptive analysis of the situation that only a farmer can give. The problem in India is that policy-makers have little idea of the complexities that dominate the farm sector and most of them believe that farm subsidy is something that can be wished away. It is far more complex and doing away with subsidy has to go hand in hand with a host of supplementary and complementary measures that would strengthen agriculture from its roots. Only then will the farmer benefit, achieve self reliance and have his sense of pride in his profession restored.

Irshad Khan,
New Delhi

Elusive growth

Sir; Surinder Sud's analysis: 'Budget 2013-14 and Indian agriculture: lofty goals; lacunae aplenty' (*Farmers' Forum*, April-May, 2013) is amongst his best. Sud goes right into the heart of the matter when he explains that the finance minister chose not to allude to the bitter truth that the coveted aim of pushing up agriculture growth to four per cent a year – which is deemed desirable for achieving the overall economic growth of above eight per cent – has remained elusive in all the recent five year plans. One looks forward to such illuminating articles by economists in *Farmers' Forum*.

Naresh Manash,
Pathankot, Punjab



With a pinch of salt

Sir; Pratap Narayan's insight, 'Eliminating the fertilizer subsidy: reality and myth' (*Farmers' Forum*, April-May, 2013) presents the facts of the case very objectively but I will not be surprised if his views are used to reduce the actual subsidy given to farmers. The industry will always propose policies that appear to be in favour of farmers but are actually just ways for the industry to make risk-free profits. Beware, of industry spokespersons.

Sanjay Mehta,
New Delhi

Farmers' Forum website www.farmersforum.in is now up and running. Log in to check out all earlier numbers.

No opiate for farmers

Sir; As usual your Green Fingers column: 'Opium Farming in India: nothing pleasing about it' (*Farmers' Forum*, April-May, 2013) is interesting and serves as an eye-opener for those who believe that opium farmers earn huge profits. It was extremely important for the plight of the farmers to be highlighted in the manner that you have done and hopefully, there will be someone now to sort out the mess that the opium farmer finds himself in.

Govind Garg,
Mandsour, Madhya Pradesh

Spread the right message

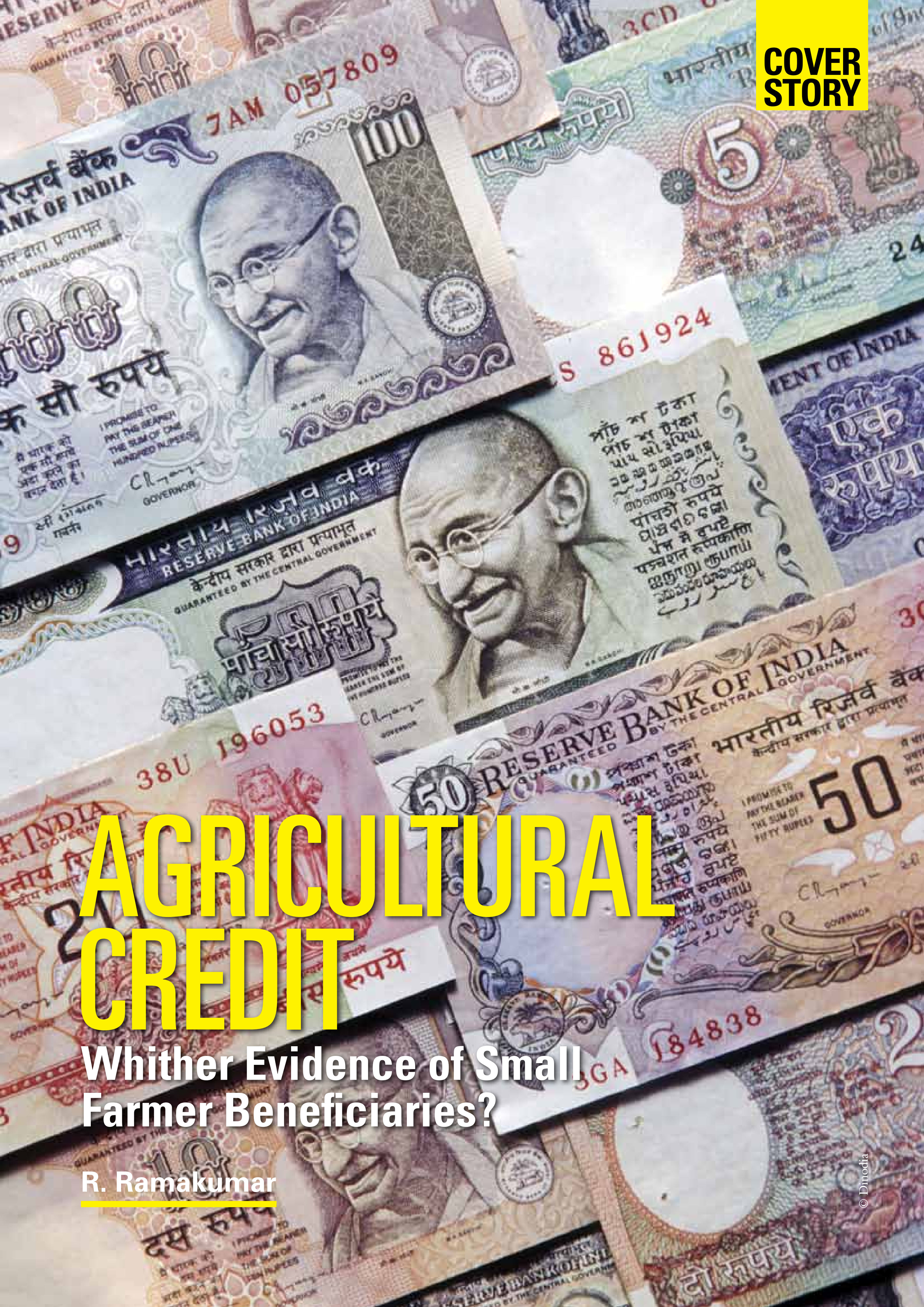
Sir; Apropos of your report: 'Fossil Fuels: sword of Damocles on Indian agriculture' on the proceedings of the conference organized by Farmers' Forum on "Fossil Fuels in Agriculture" (*Farmers' Forum*, April-May, 2013), it is very important that you continue to increase awareness of the critical issues around Indian agriculture through such seminars.

Sumit Singh,
Bikaner, Rajasthan

Ignoring innovation

Sir; 'No Justice For the rural scientist' by Bharat Dogra (*Farmers' Forum*, April-May, 2013) poignantly presents the plight of a brilliant innovator, Mangal Singh. His contribution is an inspirational one and the disregard for it is a shocking commentary on the manner in which such grassroots-level innovation falls by the wayside and the country is deprived of its benefits.

Lalit Sharma,
Bhiwadi, Rajasthan



COVER STORY

AGRICULTURAL CREDIT

Whither Evidence of Small Farmer Beneficiaries?

R. Ramakumar

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Credit supply is an important determinant of investment in agriculture and India has strongly pursued a policy of "social and development banking" in the rural areas since the nationalization of commercial banks in 1969. As a result, formal institutions of credit provision, mainly commercial banks, emerged as important sources of finance to agriculture displacing usurious moneylenders and landlords. The policy of social and development banking was a supply-led policy; it aimed at augmenting the supply of credit to rural areas and that too at an affordable interest rate (Shetty, 2006; Chavan, 2005).

Three aspects of the post-1969 policy of social and development banking stand out:

- First, according to the new branch licensing policy, commercial banks were required to open four branches in unbanked rural areas for every branch opened in metropolitan or port areas. As a result, if there were only 1,443 rural branches of banks in 1969, there were 35,134 rural branches by 1991.
- Second, according to the policy of priority sector lending, 40 per cent of the net bank credit was to be compulsorily provided to those sectors of the economy (or sections of the society) that would not get timely and adequate credit in the absence of binding targets. These sectors were, typically, loans to farmers for agriculture and allied activities (18 per cent), micro and small enterprises, poor people for housing, students for education and other low-income groups and weaker sections (10 per cent).
- Third, according to the differential interest rate scheme of 1974, loans were provided at concessional interest rates on advances made by public banks to selected low income groups to engage in productive and gainful activities. The differential rate of interest was fixed uniformly at four per cent per annum; two per cent below the bank rate.

There is little quarrel among economists on the effect that the increased flow of credit after 1969 had on agricultural growth in India. Increased availability of credit from public banks helped small and marginal farmers adopt costlier new technologies and farming practices, which were a part of the green revolution strategy.

Yet, in the early-1990s, the policy of social and development banking was criticized by the proponents of financial liberalization. All the three aspects of the aforementioned rural credit expansion were sought to be undone. The


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Committee on the Financial System (Narasimham Committee) argued that banks should function on a commercial basis and profitability should be the prime concern in their activities (RBI, 1991). Thus, banks were to be permitted to close rural branches, in the name of rationalization of branch networks. Priority sector norms were increasingly diluted. It was argued that banks should be given a free hand to charge rates of interest as administering interest rates would lead to financial repression.

As a consequence, the period of financial liberalization after 1991 was a period of reversal for the achievements of social and development banking. It is by now well documented that the trends that emerged in India in the 1990s with respect to the supply of rural credit in general and agricultural credit in particular, were deeply disturbing.

In the 1990s, there was:

(a) large-scale closure of commercial bank branches in rural areas;

(b) a widening of inter-state inequalities in credit provision and a fall in the proportion of bank credit directed towards regions where banking

Increase in credit flow was an integral part of the so-called "New Deal for Rural India" promised by the United Progressive Alliance (UPA) government

was historically underdeveloped;

(c) a sharp fall in the growth of credit flow to agriculture;

(d) increased sidelining of small and marginal farmers in the supply of agricultural credit;

(e) increased exclusion of the disadvantaged and dispossessed sections of the population from the formal financial system and

(f) strengthening of the hold of moneylenders on rural debt portfolios (for details, see the collected papers in Ramachandran and Swaminathan, 2005; Shetty, 2006; Chavan, 2005, 2007).

In 2004, the government announced its intent to double the flow of credit to agriculture over a period of three years. Increase in credit flow was an integral part of the so-called "New Deal for Rural India" promised by the United Progressive Alliance (UPA) government. A "comprehensive credit policy" was announced in June 2004, which included the commitment to enhance agricultural credit flow by 30 per cent every year, financing of 100 farmers per branch (thus, 50 lakh farmers in a year), two to three new investments in agricultural projects per branch every year and a host of debt relief measures, such as debt restructuring, one-time settlement and financial assistance to redeem loans from moneylenders (see Ministry of Agriculture, 2007).

From 2004 onwards, it is regularly claimed in official circles, that the flow of credit to agriculture has been increasing at a rapid rate, even surpassing its annual targets (Ministry of Finance, 2007; NABARD, 2006). In fact, an impression is often gained from official statements that the problem of agricultural credit has been set right with the doubling of credit flow and the concurrent expansion of micro-credit.

It would be worthwhile to examine the trends in agricultural credit in the 2000s and the claim of the government that the problem of agricultural credit has been set right after 2004.

Historically, agricultural credit has comprised mainly of credit provided directly to cultivators, which is called "direct finance to agriculture". Within direct finance to agriculture, short-term credit or credit for seasonal agricultural operations has accounted for a significant share. Short-term loans to agriculture are referred to as "crop loans", as they are advanced for crop cultivation against the hypothecation of the crop to be cultivated by the farmer. Crop loans are provided as cash or in kind, such as the supply of fertilizers and seeds.

Apart from crop loans, direct finance also includes credit for medium and long-term investment in agriculture. The second component of agricultural finance is called "indirect finance", which does not go directly to cultivators but to institutions that support agricultural production in rural areas. The typical forms of indirect finance to agriculture were loans to input dealers for their role in the provision of agricultural inputs and loans to electricity boards for supplying power to cultivators.

In the 1990s, when India began to implement the policy of financial sector liberalization, there was a significant slowdown in the growth of commercial bank credit to agriculture compared to the 1980s[1]. As *Table 1* shows, after recording an annual rate of growth of 6.8 per cent between 1981 and 1990, agricultural credit grew at just 2.6 per cent per annum between 1991 and 2001. Further, the growth rate of agricultural credit in the 1990s was less than the growth rate of the rural population in the corresponding period (Chavan, 2002).

The slowdown in agricultural credit in the 1990s appears to have been reversed after year 2000. Between 2002 and 2011, agricultural credit grew by 17.6 per cent per annum, which was significantly higher than the growth rate recorded for the 1990s. The increase in the growth rate of agricultural credit in the 2000s was so significant that the level of credit reached in 2011 was considerably higher than what it would have been if credit had grown in the 1990s and 2000s at the growth rate of the 1980s.

There are three distinct features of the growth in agricultural credit, which have had a major role in determining the extent of increase in credit supply as well as its distribution within the agricultural sector.

Table 1 Rate of growth of credit to agriculture, total bank credit and agricultural GDP, 1972 to 2011 (per cent/ per annum)

Period	Annual growth rates (%)		
	Credit to agriculture	Total bank credit	Agricultural GDP
1972-1980	16.1	8.4	2.3
1981-1990	6.8	8.0	3.5
1991-2001	2.6	7.3	2.8
2002-2011	17.6	15.7	3.3

Source: Chavan, 2012.

Table 2: Shares of direct and indirect finance to agriculture in total credit to agriculture from scheduled commercial banks, India, 1985 to 2010 (in per cent)

Year	Share in total agricultural credit (per cent)		
	Direct finance	Indirect finance	Total
1985	83.2	16.8	100.0
1990	86.8	13.2	100.0
2000	84.5	15.5	100.0
2005	76.1	23.9	100.0
2006	72.1	27.9	100.0
2007	74.5	25.5	100.0
2008	77.5	22.5	100.0
2009	77.1	22.9	100.0
2010	76.1	23.9	100.0

Source: 'Basic Statistical Returns', Reserve Bank of India, various issues.

Role of indirect finance: A significant proportion of the increase in total bank credit to agriculture in the 2000s was accounted for by indirect finance to agriculture. Of the total increase in credit supply to agriculture between 2000 and 2011, about one-third was contributed by indirect finance.

In the decade of the 1990s and after, the share of indirect finance in total agricultural finance has consistently risen (*Table 2*). Between 1985 and 1990, there was a fall in the share of indirect finance in total agricultural finance; the share began to rise after 1990 to reach 15.5 per cent in 2000, 23.9 per cent in 2005 and 25.5 per cent in 2007. Thus, while the share of indirect finance in total agricultural finance had begun to rise in the 1990s, its increase in the 2000s was considerably faster.

From the 1990s onwards, the definition of what constitutes indirect finance to agriculture has been

1 The slowdown in the growth of agricultural credit flow in the 1990s had prompted Y. V. Reddy, the present [2003-2008] Governor of the Reserve Bank of India to note that: …the flow of credit to rural areas by [public sector] banks in recent years has not been up to the mark…In fact, the very purpose of deregulation of interest rates for this sector, which was expected to encourage banks to lend higher, does not seem to have served its purpose fully (Reddy, 2001, pp. 4-5).

The widening of the scope of indirect finance has, in all likelihood, influenced the growth of indirect finance from the mid-1990s

broadened significantly by the RBI.[2] The widening of the scope of indirect finance has, in all likelihood, influenced the growth of indirect finance from the mid-1990s. The major changes introduced in the definition of indirect finance are:

- Till 1993, only direct finance to agriculture was considered as a part of the priority sector target of 18 per cent for agriculture and allied activities. From October 1993 onwards, direct and indirect finance were considered together for meeting the priority sector target.
- In October 1993, it was stipulated that for indirect finance to agriculture, only up to one-fourth of the total agricultural advances would be considered while meeting the priority sector target of 18 per cent for agriculture. However, indirect finance over and above one-fourth of total agricultural advances was brought into the reckoning while meeting the overall target of 40 per cent for priority sector advances.
- From May 1994, loans up to Rs 5 lakh for financing distribution of inputs for allied activities in agriculture, such as cattle feed and poultry feed, were considered as indirect finances to agriculture. The upper limits were revised and fixed at Rs 15 lakh in April 2000, Rs 25 lakh in April 2002 and Rs 40 lakh in October 2004.
- From June 1996 onwards, loans to dealers in drip irrigation systems, sprinkler irrigation systems and agricultural machinery were considered as indirect finances to agriculture. From October 2002 onwards, the credit limit to these dealers was raised from Rs 10 lakh to Rs 20 lakh; it was further raised to Rs 30 lakh in October 2004. Till April 2003, only loans to those dealers located in rural or semi-urban areas were under the ambit of indirect finances. However, from April 2003 onwards, all dealers, irrespective of their location, were treated as eligible for such advances.

2 Similar changes have been introduced in the 1990s by the RBI in the definition of priority sector also. According to Y. V. Reddy, "…coverage of definition of priority sector lending has been broadened significantly in the recent years, thus overestimating credit flows to actual agricultural operations in recent years" (Reddy, 2001, p. 5). See Shetty, 2006 for a list of changes in the definition of priority sector.

COVER STORY

From August 2001 onwards, loans extended under the scheme for financing "agriclinics" and "agri-business centres" were considered as indirect finance to agriculture

Loans extended to State Electricity Boards (SEBs) for reimbursement of expenditure towards providing low-tension connection to individual farmers from step-down points for energizing wells were always classified as indirect finance to agriculture. From 2001 onwards, loans to SEBs for systems improvement under the Special Project Agriculture (SI-SPA) were also considered as indirect finance to agriculture. From July 2005 onwards, loans to power distribution corporations or companies, emerging out of the bifurcation or restructuring of SEBs as part of power sector reforms were also considered as indirect finance to agriculture.

- From August 2001 onwards, loans extended under the scheme for financing "agriclinics" and "agri-business centres" were considered as indirect finance to agriculture.
- From July 2001 onwards, subscription to the bonds issued by Rural Electrification Corporation (REC) exclusively for financing the pump set energization programme in rural and semi-urban areas was considered as indirect finance to agriculture.[3]
- From April 2000 onwards, loans from banks to Non-Banking Financial Companies (NBFCs) for on-lending to agriculture were considered as indirect finance to agriculture.
- From November 2002 onwards, loans for the construction and running of storage facilities (warehouse, market yards, godowns, silos and cold storages) in the producing areas and loans to cold storage units located in rural areas, which were used for hiring and/or storing mainly agricultural produce, were considered as indirect finance to agriculture. However, from May 2004 onwards, loans to storage units, including cold storage units, that were designed to store agricultural produce, irrespective of their location, were treated as indirect finance to agriculture.
- From May 2004 onwards, if the securitized assets of a bank represented indirect finances to agriculture, investment by banks in such assets was considered as indirect finance to agriculture.

3 However, in July 2004, it was decided not to consider the investments made by banks after April 1, 2005 in the bonds of Rural Electrification Corporation (REC) under indirect finance to agriculture.

- From April 2007 onwards, two-thirds of loans given to corporates, partnership firms and institutions for agricultural and allied activities (such as beekeeping, piggery, poultry, fishery and dairy) in excess of Rs 1 crore in aggregate per borrower was considered as indirect finance to agriculture.
- From April 2007 onwards, loans to food-based and agro-based processing units with investments in plant and machinery up to Rs 10 crore (other than the units run by individuals, Self Help Groups and co-operatives in rural areas) were considered as indirect finance to agriculture.

Thus indirect finance to agriculture expanded thus rapidly since the late-1990s, significantly aiding the growth of total agricultural credit. Most of the definitional changes that either expanded the ambit of indirect finance or steeply raised ceilings on loan sizes cited earlier also took place since the late-1990s. In other words, the task of banks to follow the government's directive in 2004 to double agricultural credit became considerably easier given the major changes in the definition of indirect finance.

Increase in indirect finance is necessary to improve the capacity of farmers to absorb more direct finance. However, the promotion of indirect finance should not lead to an undermining of direct finance. The RBI's "Advisory Committee on Flow of Credit to Agriculture and Related Activities" in 2004 noted the demand made by banks to relax the stipulation that indirect finance to agriculture should not exceed 4.5 per cent of the net bank credit.[4] This stipulation was earlier put in place in order to channel bank finance directly to farmers. The Advisory Committee rejected this demand by banks and noted that "indirect lending needs to be subject to certain limitations, lest banks neglect direct finance for agricultural production, which may jeopardize the goal of achieving annual growth of four per cent in agricultural production" (RBI, 2004, p. 32).[5]

Increase in agricultural loans with large credit limits: much of the increase in the total advances to agriculture in the 2000s was on account of a sharp increase in the number of loans with size of Rs 10 crore and above and, particularly, Rs 25 crore and above. *Table 3* provides the distribution of the amount of agricultural advances (direct and indirect) by credit limit size classes of loans for the period 1985 to 2010. A comparison of figures for 1990 with those of 2010 shows that the shares in total of advances with credit limit "less than Rs 2 lakh" have shrunk significantly. The share in total advances of advances with a credit limit of less than Rs 2 lakh declined from 82.6 per cent in 1990 to 44.3 per cent in 2010. On the other hand, the share in total advances of advances with credit limit above Rs 10 crore increased sharply from 1.3 per cent in 1990 to 20.4 per cent in 2010.

Table 3: Distribution of amount outstanding under total agricultural advances by scheduled commercial banks, by credit limit size-classes of loans (per cent)

Credit limit size class of loans (Rs)	Share of amount outstanding in total amount outstanding (%)			
	1990	2000	2005	2010
Less than 2 lakh	82.6	67.6	51.9	44.3
2 lakh to 10 lakh	4.3	11.7	17.9	22.6
10 lakh to 1 crore	7.6	6.6	6.4	6.4
1 crore to 10 crore	4.2	6.7	8.0	6.3
10 crore to 25 crore	1.3	1.7	3.3	2.7
Above 25 crore		5.7	12.6	17.7
Total advances	100.0	100.0	100.0	100.0

Source: 'Basic Statistical Returns', Reserve Bank of India, various issues.

To a large extent, the expansion of agricultural advances with large credit limits can be explained by the growth of indirect finance to agriculture. More than half of the indirect finance to agriculture was accounted for by loans with a credit limit of above Rs 25 crore in 2010.

The growing shift in recent times towards loans with large credit limits is closely related to the changes in official policy on agriculture in India, which increasingly favours the growth of a capital-intensive and export-oriented production pattern in agriculture. The changes in the definition of indirect finance to agriculture since the late-1990s have also been in line with the new emphasis in official policy.

4 It may be reiterated here that indirect finance to agriculture over and above 4.5 per cent of the net bank credit is considered under total priority sector credit. This provision has provided an easy route for banks to meet the overall target set for priority sector credit.

5 It is a different matter, however, that many of the changes in the definition of indirect finance to agriculture in 2004 were made on the basis of the report of the same Advisory Committee.

Urbanization of agricultural credit: There was an increased provision of agricultural credit from bank branches in urban areas in the 2000s (Chavan, 2009). The share of agricultural credit in rural areas, which are commonly associated with agricultural activities, saw a fall during this period (*Table 4*). In 2011, about one-third of total agricultural credit and one-fourth of direct agricultural credit was outstanding in bank branches located in the urban areas. This again implied a relative diversion of agricultural credit towards urban-based dealers (as part of indirect credit) and urban-based corporates (as part of direct credit) and away from farmers based in rural areas.

Increasing disconnect between credit and investment: The changes in the nature of agricultural credit in the 2000s also led to a growing disconnect between credit and investment in agriculture. First, there was a sharp fall in the share of long-term credit (that aids investment) and a sharp rise in the share of short-term credit in the lending of commercial banks of India after 1991 (*Figure 1*). In 1990-91, the share of long-term credit in total agricultural credit was about 66 per cent, which fell to 44.4 per cent in 2008-09. On the other hand, the share of short-term credit in total agricultural credit rose from 34.1 per cent in 1990-91 to 55.6 per cent in 2008-09. The sharp decline in lending of long-term loans is likely to have significantly contributed to the fall of agricultural investment in the 1990s and 2000s.

Table 4: Share of agricultural credit outstanding in rural and urban areas 1990-2011 (per cent)

Year	Rural areas	Urban areas	Total
	Total agricultural credit		
	Period I		
1990	85.1	14.9	100.0
1994	83.4	16.6	100.0
	Period II		
1995	83.7	16.3	100.0
2005	69.3	30.7	100.0
	Period III		
2006	62.4	37.6	100.0
2011	66.9	33.1	100.0
	Direct agricultural credit		
	Period I		
1990	88.8	11.2	100.0
1994	89.0	11.0	100.0
	Period II		
1995	88.6	11.4	100.0
2005	84.3	15.7	100.0
	Period III		
2006	80.0	20.0	100.0
2011	74.4	25.6	100.0

Source: Chavan, 2012.

Second, as a result, the difference between agricultural credit and gross capital formation in agriculture was almost insignificant till 2001-02 (*Figure 2*). Credit and capital formation were roughly at similar levels as well, as they moved together every year. However, after 2001-02, trends in credit and capital formation began to diverge. From 2002-03 onwards, agricultural credit grew rapidly

Figure 1: Shares of long-term and short-term credit in total agricultural credit, scheduled commercial banks, India, 1990-91 to 2008-09 (per cent)

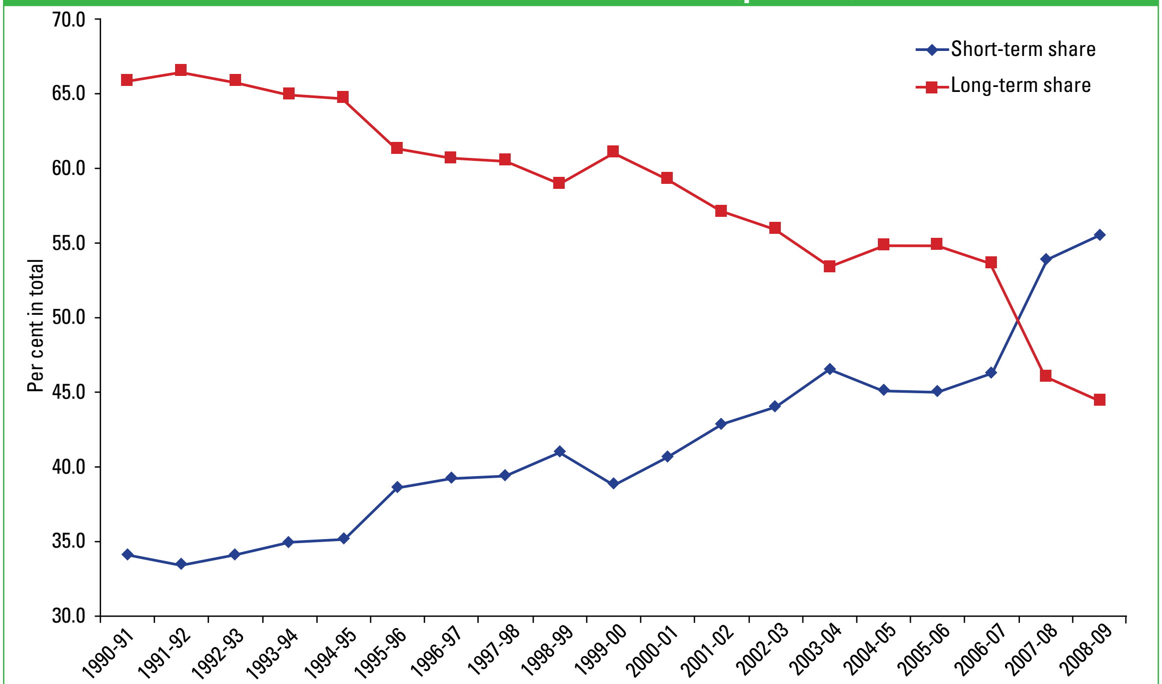
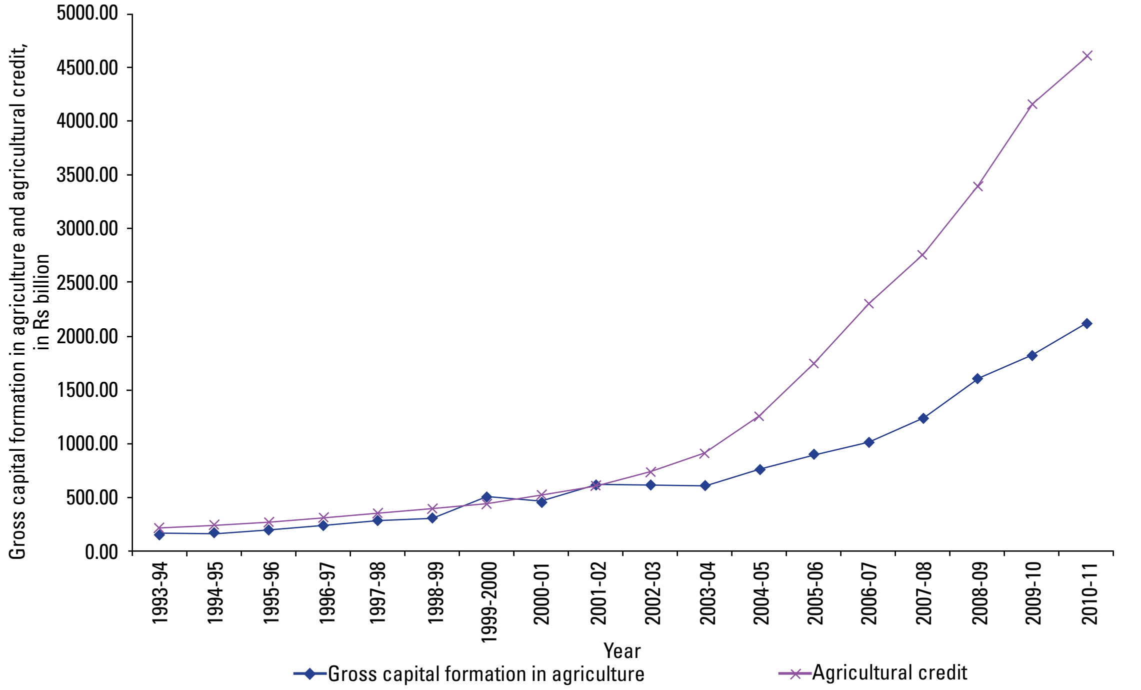


Figure 2: Trends in gross capital formation in agriculture and allied sectors and agricultural credit, at current prices, 1993-94 to 2010-11, India, in Rs billion



Source: Compiled from various CSO and RBI reports.

An increasingly smaller portion of credit supplied to agriculture was transformed into capital investment in agriculture in the 2000s

compared to capital formation in agriculture and the difference between the amounts of agricultural credit and agricultural capital formation grew. In other words, only an increasingly smaller portion of credit supplied to agriculture was transformed into capital investment in agriculture in the 2000s.

The increase in the supply of credit to agriculture has been claimed to be one of the most significant achievements in the agricultural sector after 2004. A critical examination of secondary data on banking leads to four conclusions that may be thus summarized:

- First, the growth rate of credit flow to agriculture from commercial banks in the period 2002 to 2011 was 17.6 per cent per annum, which was significantly higher than the corresponding growth rate in the period between 1991 and 2001. However, contrary to general perception, this revival of credit flow to agriculture cannot be attributed to the announcement of the government in 2004 to double credit flow to agriculture in three years. In fact, the revival had begun in the late-1990s itself.
- Second, the extent of revival of credit flow to agriculture in the 2000s would have been far less impressive in the absence of a sharp growth in indirect finance to agriculture. About one-third of the increase in credit flow to agriculture between 2002 and 2011 was on account of the increase in indirect finance. This growth did not originate from a growth in the traditional components of indirect finance, such as loans for the supply of inputs, power and credit to agriculture. The sharp growth in indirect finance in the 2000s was, in all likelihood, a result of a series of definitional changes effected since the second half of the 1990s. These definitional changes broadly involved (a) the addition of new forms of financing commercial, export-oriented and capital-intensive agriculture; and (b) raising the credit limit of many existing forms of indirect financing. Indeed, meeting the task of doubling agricultural credit appears to have become much easier for banks as a result of these definitional changes.

- Third, the entire growth of indirect finance to agriculture in the 2000s originated from a major expansion of loans with a credit limit of more than Rs 10 crore and particularly more than Rs 25 crore. These large loans advanced towards financing the new activities added to the definition of indirect advances since the late-1990s.
- Fourth, while direct finance to agriculture also grew rapidly in the 2000s, there was a major rise in the share of direct advances with a credit limit of more than Rs 1 crore between 2000 and 2010. Much of these large-sized advances were made towards financing large agri-business oriented enterprises.

In sum, there is little evidence to argue that the major beneficiaries of the revival in agricultural credit in the 2000s have been the small and marginal farmers. •

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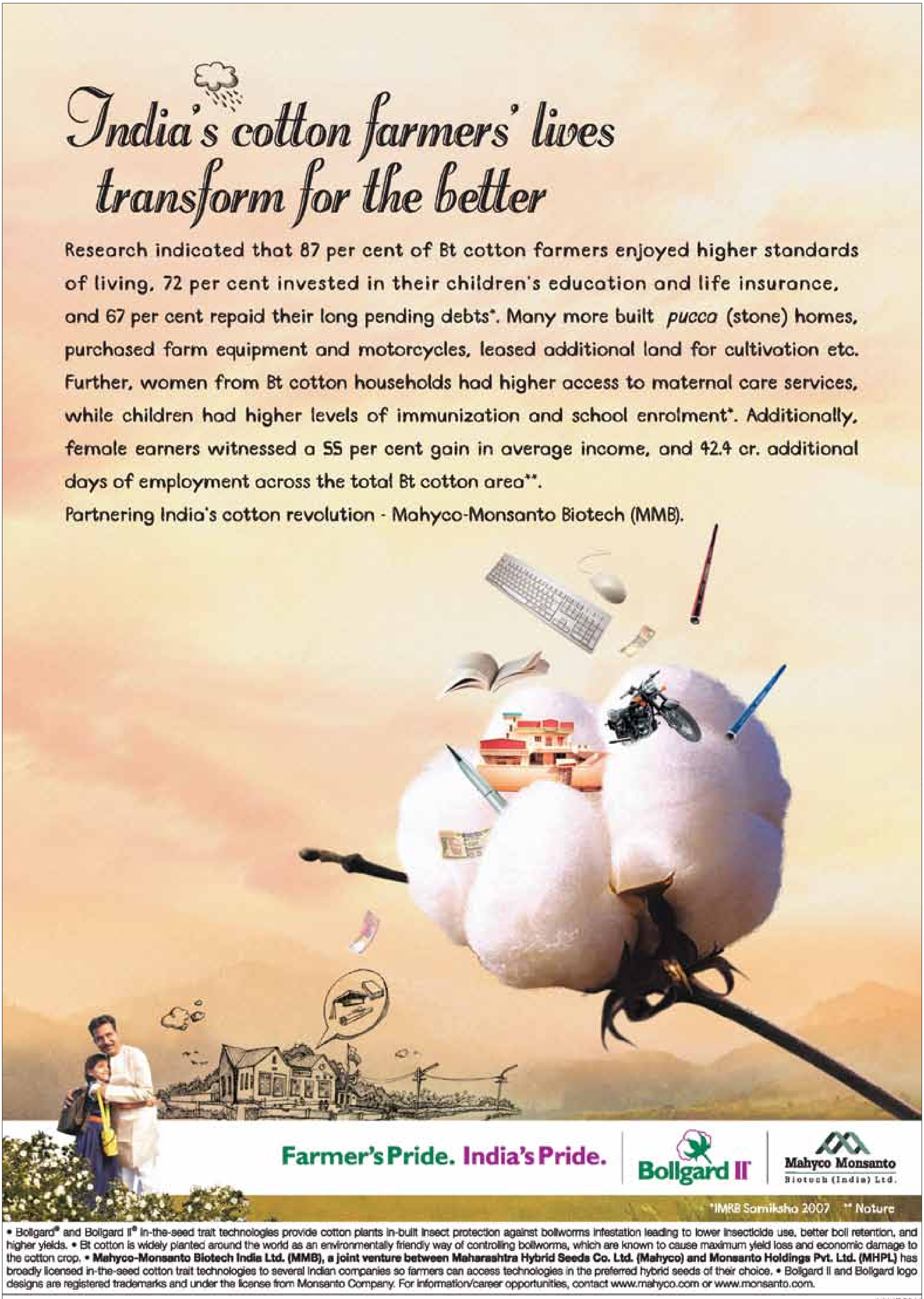
India's cotton farmers' lives transform for the better
Research indicated that 87 per cent of Bt cotton farmers enjoyed higher standards of living, 72 per cent invested in their children's education and life insurance, and 67 per cent repaid their long pending debts*. Many more built *pucca* (stone) homes, purchased farm equipment and motorcycles, leased additional land for cultivation etc. Further, women from Bt cotton households had higher access to maternal care services, while children had higher levels of immunization and school enrolment*. Additionally, female earners witnessed a 55 per cent gain in average income, and 42.4 cr. additional days of employment across the total Bt cotton area**.
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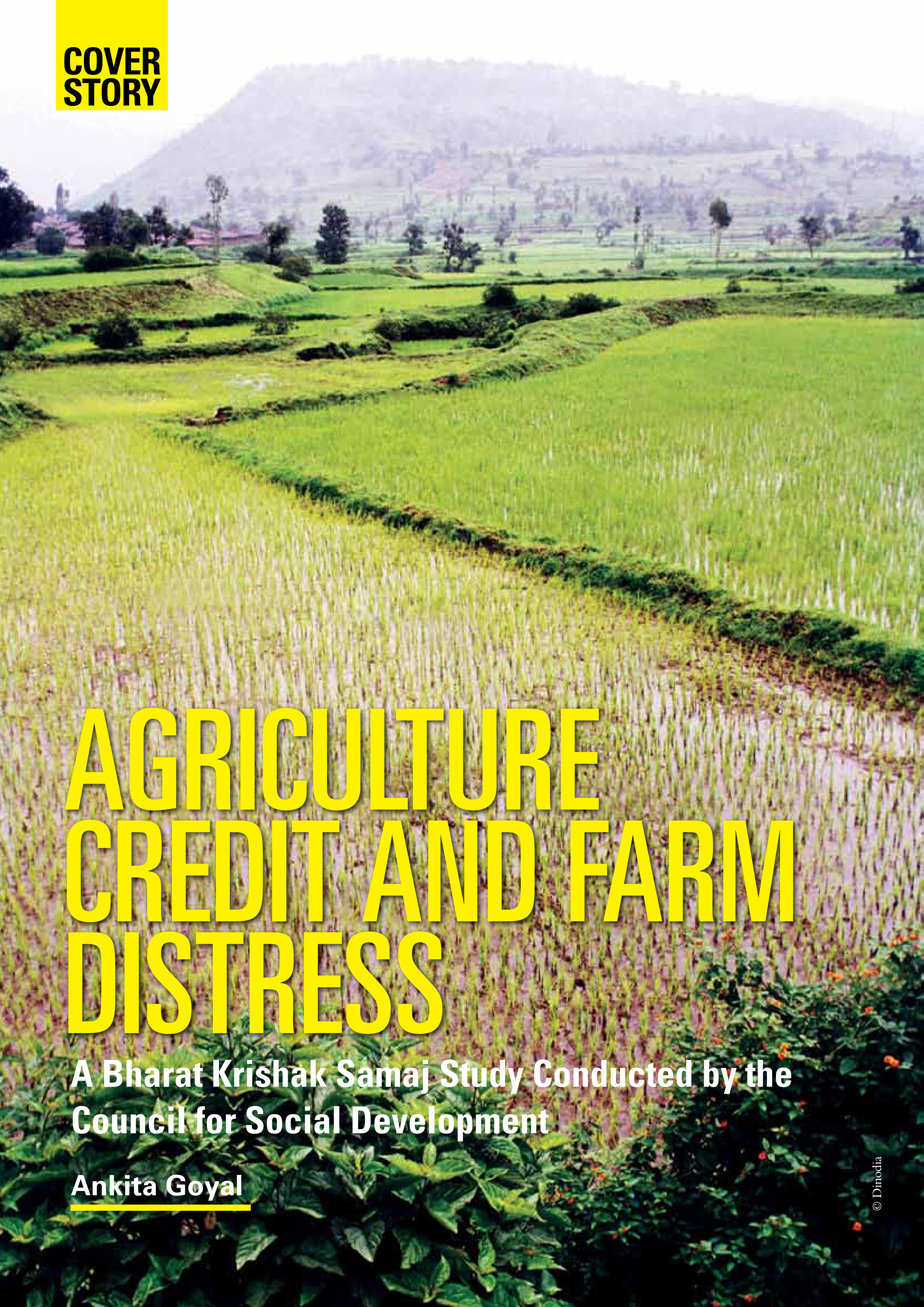

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COVER STORY

AGRICULTURE CREDIT AND FARM DISTRESS

A Bharat Krishak Samaj Study Conducted by the Council for Social Development

Ankita Goyal

Agriculture is the most important sector in India in terms of the population dependent on it and yet one that suffers from the worst constraints. There are various physical, institutional, infrastructural and technological factors affecting agriculture in India: climate, soil, topography, market, transport facilities, labour, irrigation facilities, adequate availability of quality seeds and other inputs. Then there are issues with electrification, power availability, capital and government policies amongst others.

Capital is a critical constraint and refers to the credit required for the purchase of inputs and machinery. In a poor agricultural country like India, where savings are negligible among the small farmers, agricultural credit has a major impact on farm productivity, as is borne out by the study commissioned by the Bharat Krishak Samaj and conducted by the Council for Social Development.

Its objectives were as follows:

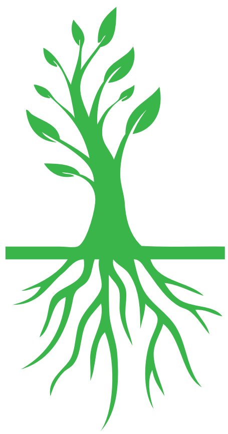
1. To analyze the trends in credit disbursed to agriculture and allied activities in India
2. To examine farm size category wise credit availability from various sources (institutional and non-institutional) in selected states
3. To identify the credit-related problems of farmers in areas with high incidence of farm suicides.

The study is based on secondary and primary data in the states of Maharashtra and Punjab. For the purpose of preliminary farm level data, a household survey was conducted in the two states: in Ludhiana and Sangrur in Punjab and in Buldhana and Yavatmal in Maharashtra. These districts have reported relatively high incidence of suicides by the farmers and were specifically selected to help understand the credit related problems of farmers.

One block/cluster of villages was selected from each of the four districts in consultation with local district level officers and 100 farm households of different size groups were chosen from each of the selected block/cluster, forming a sample of around 400 farm households for the study. Further, farming households in each block were divided into three categories based on their net cultivated area (NCA) into small (less than two hectares), medium (between two and four hectares) and large (above four hectares). A detailed questionnaire was prepared to collect primary data. Information was also gathered from such banks and agricultural credit institutions that the majority of the farmers in a selected block took credit from. The results of the analyses of both secondary and primary data were used to arrive at conclusions.

Globally, directed credit programmes, involving loans on preferential terms and conditions to priority sectors were considered a major tool of development policy in both developed and developing countries in the 1960s, 1970s and mid-1980s. In India, the credit policy for the year 1967-68, recognized, for the first time, the need for increased involvement of commercial banks in financing of the priority sectors: agriculture, exports and small-scale industries. In July 1969, 14 major commercial banks were nationalized so that lack of credit support no longer remained an obstacle to any viable productive endeavour, irrespective of whether the borrower was big or small.

In effect, it further pressed for priority sector lending. A formal description of the priority sector was done in 1972 on the basis of the report submitted by the Informal Study Group on Statistics relating to advances to the priority sectors constituted by the Reserve Bank of India (RBI) in



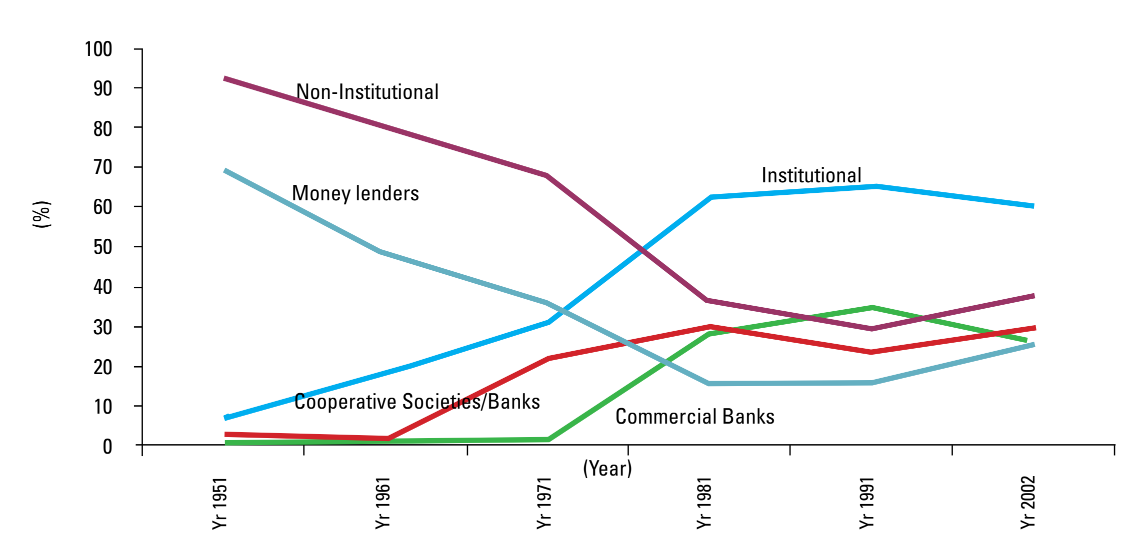
Ludhiana and Sangrur in Punjab and Buldwana and Yavatmal in Maharashtra were the districts chosen for the survey because of their higher incidence of farm suicides

Table 1: Shares in total debt of farmer households

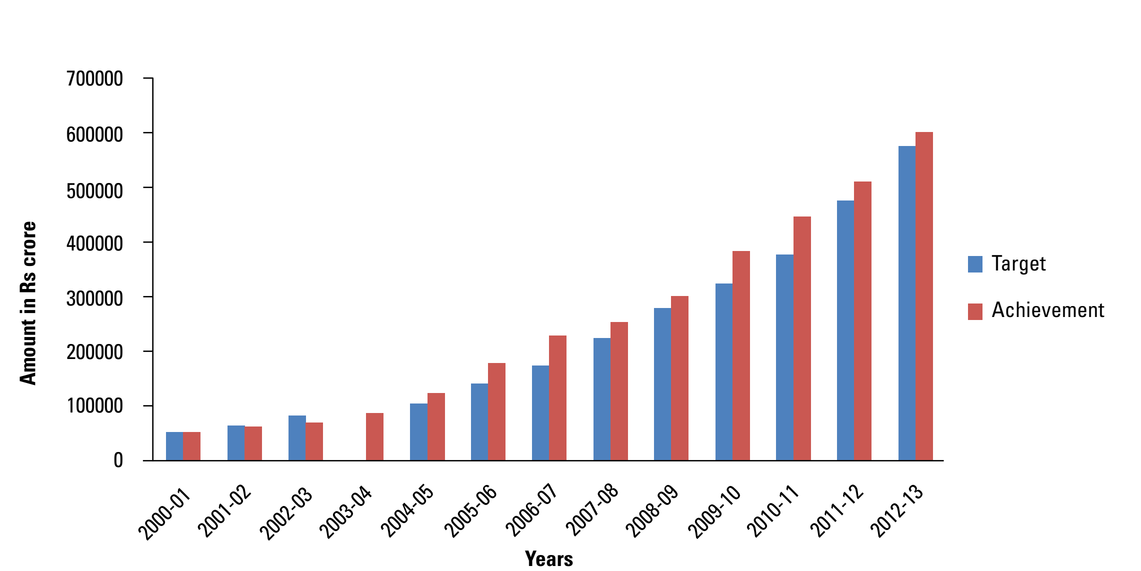
Source of debt	1951	1961	1971	1981	1991	2002
Institutional	**7.3**	**18.7**	**31.7**	**63.2**	**66.3**	**61.1**
Cooperative Societies/Banks	3.3	2.6	22.0	29.8	23.6	30.2
Commercial Banks	0.9	0.6	2.4	28.8	35.2	26.3
Non-institutional	**92.7**	**81.3**	**68.3**	**36.8**	**30.6**	**38.9**
Money Lenders	69.7	49.2	36.1	16.1	17.5	26.8
Unspecified	-	-	-	-	3.1	-
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: All India Debt and Investment Survey, NSSO, various rounds.

Graph 1: Shares in total debt of farmer households



Graph 2: Credit disbursed to agriculture (in Rs crore)



Source: Economic Survey, various issues.

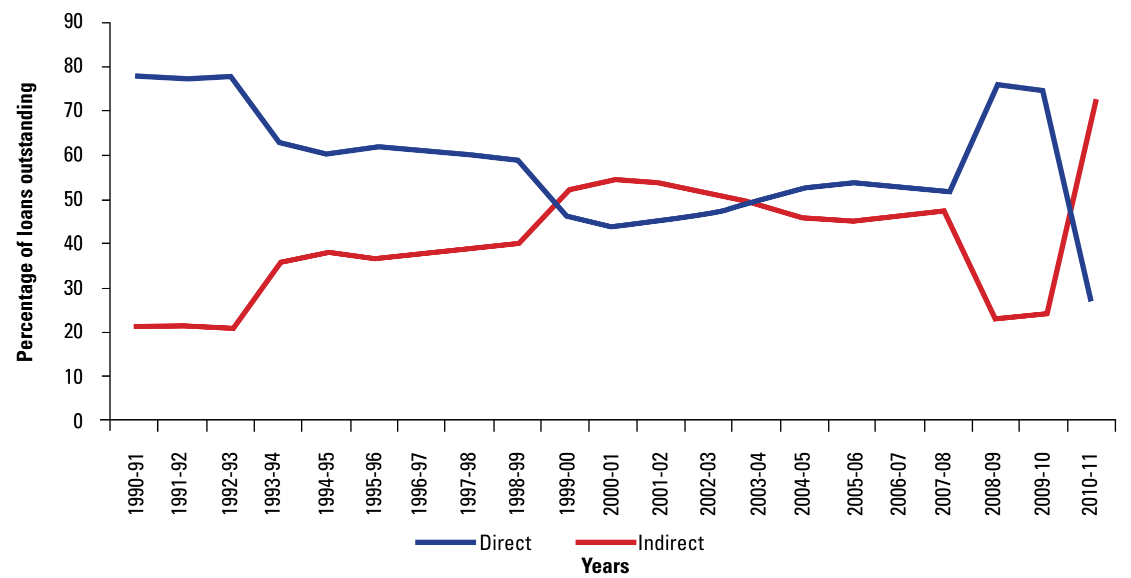
May 1971. Since then, several changes with new areas and sectors have been brought within the purview of the priority sector.

The agricultural credit system of India consists of informal and formal sources or institutional sources of credit. The informal sources include commission agents, traders, private moneylenders, friends, relatives and such like. Three major channels for disbursement of formal credit include commercial banks, co-operatives and micro-finance institutions (MFI) covering the length and breadth of the country.

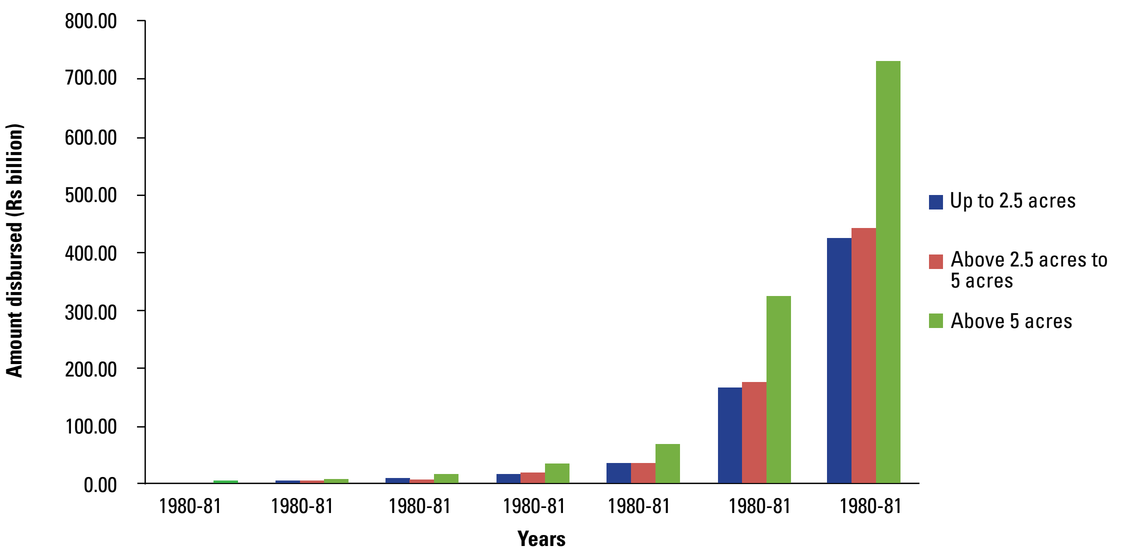
Table 1 and *Graph 1* clearly show the transition from 1951 (when more than 90 per cent of the farming debt came from informal sources, especially money lenders) to 2002, the last round of AIDIS Survey (All India Debt and Investment Survey), where the situation has almost been reversed. However, 2002 witnessed an increase in the percentage of debt from money lenders to a level greater than that in 1981. The status 10 years since remains to be seen from the next round of AIDIS.

It is, however, noted that even with increasing outreach of banks and other financial institutions in rural areas, offering attractive interest rates, the farmers' dependence on informal sources like *arhtias* (commission agents), friends/relatives

Graph 3: Direct and indirect loans outstanding to agriculture & allied activities (%)



Graph 4: Direct finance to farmers according to size of land holding (Rs. billion)



Source: Handbook of Monetary Statistics of India.

has not diminished. It is thus imperative to look at the trends in institutional credit disbursed to agriculture in the recent years.

Within the institutional credit disbursed to agriculture, when one looks at the targets and achievements for the last 20 years, from 1990-91 till 2010-11, it is seen that the targeted disbursement of agriculture credit has increased at a compound growth rate of more than 18 per cent while the actual credit disbursed to agriculture grew at a compound growth rate of nearly 22 per cent. During this period, the percentage of target achieved increased from 69 per cent to almost 120 per cent in these two decades.

At the outset, the increase in credit disbursed to agriculture, by almost Rs 5,50,000 crore, in 13 years, mainly since 2005-06, looks very encouraging from the farm sector perspective. The RBI categorizes agriculture sector lending under priority sector along with small scale industries, small businesses/service enterprises, micro credit, education loans and housing loans. Agriculture sector lending has been classified as direct finance and that for agriculture and allied activities as indirect finance. The RBI issues regular notifications and circulars revising the definition, credit limit, targets and such others under direct and indirect credit to agriculture.

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Table2: Distribution of loans by size class

Years	% Number of households under different categories of farming households				% Amount disbursed under different categories of farming households		
	Marginal	Small	Medium	Large	Marginal	Small	Others
1995-96	61.59	18.73	18.47	1.20	26.14	25.50	48.37
2000-01	62.89	18.94	17.16	1.01	25.76	25.09	49.15
2005-06	64.78	18.53	15.86	0.83	25.06	26.25	48.69
2009-10*	65.11	18.51	15.62	0.80	26.64	27.70	45.66

Source: Agriculture Census and RBI, various issues.
* *2009-10 values have been calculated based on the compound growth rate of the last ten years.*

In March 1980, the scheduled commercial banks were advised to raise their proportion of priority sector advances from 33.3 to 40 per cent of aggregate advances by 1985

In March 1980, the scheduled commercial banks were advised to raise their proportion of priority sector advances from 33.3 to 40 per cent of aggregate advances by 1985. Of this 40 per cent, the commercial banks were mandated to earmark 18 per cent of total annual lending to agricultural sector as part of priority sector lending. Earlier, only direct finance to farmers was considered in the 18 per cent target. That was expanded to include indirect finance in 1993.

The RBI defines agriculture credit as direct finance and indirect finance. Direct finance to agriculture comprises loans to individuals, corporates and institutions. This includes crop loans for raising crops, advances against hypothecation of agricultural produce for a period less than a year, loans to small and marginal farmers for purchase of land for agricultural purposes, loans to distressed farmers indebted to non-institutional lenders, loans granted for pre-harvest and post-harvest activities and such others. Finance up to an aggregate amount of Rs 1 crore per borrower can be granted as direct loan by scheduled commercial banks.

Indirect finances for agriculture and allied activities comprise loans to food and agro-based processing units with investments in plant and machinery, credit for purchase and distribution of fertilizers, pesticides, seeds and other inputs such as cattle feed, finance for setting up of agri-clinics and agri-business centres, finance to dealers in agricultural machinery, loans for construction

Table 3: Growth rates of direct and indirect finances according to size of credit limit for 2000-2010 (per cent)

Size of Credit Limit	Direct Finances		Indirect Finances	
	No of accounts	Amount outstanding	No of accounts	Amount outstanding
Rs 25,000 and less	1.3	5.7	4.5	10.1
Above Rs 25,000 and up to Rs 2 lakh	25.1	26.6	23.4	25.5
Above Rs 2 lakh and up to Rs 5 lakh	32.7	34.8	30.9	30.1
Above Rs 5 lakh and up to Rs 10 lakh	43.1	42.9	22.6	22.4
Above Rs 10 lakh and up to Rs 25 lakh	36.5	35.2	16.4	18.1
Above Rs 25 lakh and up to Rs 50 lakh	27.9	27.3	17.7	19.7
Above Rs 50 lakh and up to Rs 1 crore	30.5	30.4	18.7	20.7
Above Rs 1 crore and up to Rs 4 crore	28.3	31.4	22.5	24.4
Above Rs 4 crore and up to Rs 6 crore	29.0	28.1	20.1	20.0
Above Rs 6 crore and up to Rs 10 crore	30.7	33.9	19.8	20.3
Above Rs 10 crore and up to Rs 25 crore	37.4	43.0	21.9	22.8
Above Rs 25 crore	43.5	51.8	32.1	39.7

Source: Calculated from Basic Statistical returns of Scheduled Commercial Banks, RBI, various issues.

Table 4: Distribution of outstanding advances of scheduled commercial banks to agriculture under various heads

Outstanding advances to agriculture under various heads	Amount outstanding (crore)				GR (%)
	2008	2009	2010	2011	
Loans to individual farmers	176619	221477	264493	306827	14.8
Loans to corporates, partnership firms, credit limit up to Rs 1 crore	20156	11108	25712	15050	-7.0
Loans to corporates, partnership firms, credit limit above Rs 1 crore	27240	33831	39491	54121	18.7
Loans granted to pre and post harvest activities	7626	11027	8579	14630	17.7
Loans to food and agro based processing units with investment in P&M up to Rs 10 crore	13993	21794	28443	27044	17.9
Agri-clinics and agri-business centres	1248	932	199	3540	29.8
Loans to farmers through PACS/FSS/LAMPS	1542	600	1294	880	-13.1
Loans to NBFCs for on lending to individuals. Farmers or their SHGs/JLGs	1038	2628	5530	6678	59.2
Loans to NGOs/MFIs for on lending to individuals. Farmers or their SHGs/JLGs	665	1201	2957	1869	29.5
Other types of indirect finance for agriculture and allied activities	46737	69118	78504	62159	7.4

and running of storage facilities, loans to *arthias* for extending credit to farmers, loans sanctioned to NGOs – self help groups (SHG) promoting institutions – for on-lending to members of SHGs, loans granted to regional rural banks (RRBs) for on-lending to agriculture and allied activities sector and such others.

The credit limit for each of the categories under direct and indirect finances has been revised from time to time and additions have been made to widen the scope of direct as well as indirect institutional credit.

Graph 3 gives us an idea about the changes in the proportion of total direct loans issued and total indirect loans issued by various financial institutions in the past two decades. Total direct credit includes direct credit from co-operatives, state governments, scheduled commercial banks and regional rural banks. Total indirect credit includes indirect finances from co-operatives, scheduled commercial banks, regional rural banks and the Rural Electrification Corporation.

It is observed that direct credit outstanding constituted around 80 per cent of the total agricultural loans issued up till 1992-93. It then experienced a dip in 1993-94 to linger at around 60 per cent till 1999-2000. This coincides with the RBI notification in 1993 that stated that direct and indirect finances be considered together to meet the priority sector target of 18 per cent. Since 1993, the proportion of indirect finances increased and exceeded the share of direct financing in 1998-99. The share of indirect financing peaked in 2000-01 to reach 55 per cent of the total agricultural finance. In 2008-09 and 2009-10, direct finance again accounted for more than 70 per cent of total credit issued to the agriculture sector, again falling sharply and making way for indirect finance to constitute more than 73 per cent of the total agriculture credit outstanding.

The pattern of credit disbursement according to farm size class shows how the marginal and the small farmers have responded to the increases

Table 5: Distribution of sample households and average annual income for different land classes

State	District	Land class	No. of households	Average annual income (Rs)
Maharashtra	**Buldhana**	Large	1	920000
		Medium	30	230433
		Small	69	109623
	Buldhana Total		**100**	**153970**
	Yavatmal	Large	1	250000
		Medium	41	96585
		Small	59	55025
	Yavatmal Total		**100**	**73827**
Maharashtra Average			**200**	**113898**
Punjab	**Ludhiana**	Landless	9	305089
		Large	3	1961667
		Medium	37	548352
		Small	51	350703
	Ludhiana Total		**100**	**468057**
	Sangrur	Large	6	1219333
		Medium	41	548197
		Small	53	202236
	Sangrur Total		**100**	**405106**
Punjab Average			**200**	**436581**

in credit limits and the over-all sharp increase in agriculture credit disbursed.

Direct finance to farmers has picked up since 2000-01 for all the farming household categories and increased at an average compound rate of 35 per cent between 2000-01 and 2005-06. Over the years, the increase in the amount disbursed under direct finance from the scheduled commercial banks has been uniform for the marginal, small and other classes of farming households. However, on comparing the number of households, according to operational holdings to the amount disbursed, it is clear that the pattern has been similar since 1995-96, with more than 60 per cent of households that fall under the category of marginal farming households having a claim to only about 25 per cent of the finances disbursed, while less than 20 per cent households with more than five acres operational holding account for close to 50 per cent of the credit disbursed by the commercial banks.

The RBI revises the credit limits through regular notifications to banks. To analyze the trend in changes in the direct and indirect finances according to size of credit limit, consider the changes in the number of accounts and amount outstanding in different credit limit categories in the last decade. *Table 3* gives the trend growth rates of direct and indirect finances for different credit limits.

It is observed that in the case of direct finances, the growth rate has been the highest for the credit limit between Rs 5 lakh to Rs 10 lakh and above Rs 25 crore. The number of accounts has increased at a trend growth rate of around 43 per cent for both classes of credit limit and amount outstanding has grown by 43 per cent and 52 per cent for the respective classes. The outstanding advances to agriculture of the scheduled commercial banks have shown a high rate of growth of 59.2 per cent in case of loans to non-banking financial companies (NBFCs) and 29.5 per cent in case of NGOs for on-lending to individual farmers or SHGs and also for loans to agri-clinics and agri-business centres. Loans to corporates, partnership firms, credit limit up to Rs 1 crore, which constitutes direct credit, have actually seen a negative growth of seven per cent in the period 2008 to 2011.

As earlier stated, for the purpose of the study, a detailed primary survey was done in two districts each in Punjab and Maharashtra. Ludhiana and Sangrur in Punjab and Yavatmal and Buldhana in Maharashtra were chosen due to high incidence of credit-related farm distress and farmer suicides. There were 100 farming households surveyed from a cluster of five villages in each of the four tehsils/ blocks: Pakhowal in Ludhiana, Lehragaga in Sangrur, Pusad in Yavatmal and Buldhana in Buldhana. The distribution of sample households was as follows:

The number of households in each land class was chosen as a proportion of the actual distribution of households in each of the villages. The average annual income includes income of the household from crop cultivation, livestock rearing, fisheries, hiring out labour/ agricultural

On an average only 30 per cent of the farmers had Kisan Credit Cards. Buldhana, Maharashtra, was the best amongst the four districts with around 44 per cent of the farmers having the cards

machinery and implements, renting out land as well as lending money. It was observed that many small farmers supplemented their income from crop cultivation by hiring out land and by working as wage labourers.

Asked if the farmers had Kisan Credit Cards (KCC), on an average only 30 per cent of the farmers replied in affirmative. The Buldhana district of Maharashtra fared best amongst the four districts with around 44 per cent of the farmers holding KCCs. Punjab, the supposedly more developed and forward state, had only around 20 per cent of its small farmers holding KCC.

It was observed that loans from institutional sources like commercial banks, co-operatives and such others had not replaced the money lenders. An average of 86 per cent of the farmers surveyed in Maharashtra and 90 per cent surveyed in Punjab had applied for loans from financial institutions and with 99 per cent success rate. However, such loans were only an additional source of credit along with the traditional sources like arhtias, friends and relatives, money lenders. Money lenders serve as easy and comfortable source of credit to farmers especially marginal and small farmers, due to their easy access and very often non-requirement of collateral. It was, seen that, a single farmer had taken loan from eight to 10 money lenders at the same time as a single loan did not cover expenses of a single year's activities. Since these money lenders were generally from the same village and known to farmers, it was much easier to get loan from them even if it meant a much higher rate of interest (five per cent per month in many cases).

There are schemes by financial institutions providing attractive rates of interest on loans for agricultural activities. For instance, in Yavatmal district, crop loans were given at zero rate of interest for a financial year (April to March) and only in case of failure to repay the loan in a year, was interest charged.

What has been noted is:

- The farmer's lack of knowledge, especially in Maharashtra, where the farmer did not know what rate of interest was being charged and the date of repayment of loan taken from the bank.
- There is little provision to cover the farmer in case of natural calamity or crop failure due to some reason.
- To repay loan from one source, farmers seek loans from other sources and the spiral keeps building up.

The other major observation is that credit taken from financial institutions in the name of agriculture and related activities, was not always spent on crop cultivation. More than 50 per cent of the farmers acknowledged having used it for other reasons such as health or for social functions like marriage. It implies that having no alternate employment option, the farmers are dependent on the risky and not so conducive choice of livelihood: agriculture.

In the course of the survey of farmers as well as banks serving in the blocks under study, there was not a single borrower taking a loan for setting up agri-business or agri-clinics. Nor was there a distributor of inputs such as fertilizers or seed. This implies that a farmer in an under developed area needs a simple crop loan; a direct short term loan as defined by the RBI. Thus, the pictures showing agriculture credit booming in the last decade are hardly corroborated by the ground reality of the actually needy farmers.

The situation on the field is still very grim and fails to validate the overall picture of perennially increasing disbursement of agriculture credit from institutional sources. The farmer is still in the same straits as he was 60 years ago or, perhaps, much worse, owing to the rising retail prices and falling returns from farming.

What are the possible solutions for extricating the farmer from the ever increasing debt trap?

Table 6: Percentage of individuals under different land classes with Kisan Credit Cards

District	Size Class	Whether Having KCC (%) Yes	No
Buldhana	Large	0	100
	Medium	47	53
	Small	43	57
	Total	44	56
Yavatmal	Large	100	0
	Medium	24	76
	Small	17	83
	Total	21	79
Ludhiana	Landless	0	100
	Large	33	67
	Medium	46	54
	Small	37	63
	Total	37	63
Sangrur	Large	33	67
	Medium	10	90
	Small	8	92
	Total	10	90

- Offering him remunerative prices for his produce and keeping him secure from the price fluctuations in the open market. Insuring the farmers against the natural calamities that destroy their crops, leaving them bereft of any source of income to run their households.
- Providing alternative employment opportunities for farmers to supplement their earnings from the field. ●

The writer works with the Council for Social Development.

Multiple Approaches to Agriculture Revitalization:

Focusing on the Silver Lining

Ashish Bahuguna, ***Secretary, Department of Agriculture and Cooperation in the Ministry of Agriculture, Government of India, in a conversation with*** **Ajay Jakhar** ***and*** **Paranjoy Guha Thakurta** ***on the state of India's agriculture.***

Paranjoy Guha Thakurta(PGT): We have a few general questions on the current state of India's agriculture. There is an impression that the government pays lip service to the cause of farmers. Notwithstanding the cliché that India lives in its villages the farm sector has been neglected. As all economies develop, the share of agriculture in the gross domestic product (GDP) shrinks but the share of the population dependent on agriculture also shrinks. That is not expected in India. The big structural problem is that possibly more than half the population, is directly dependent on agriculture while the share of agriculture in India's GDP has shrunk to 14 per cent.

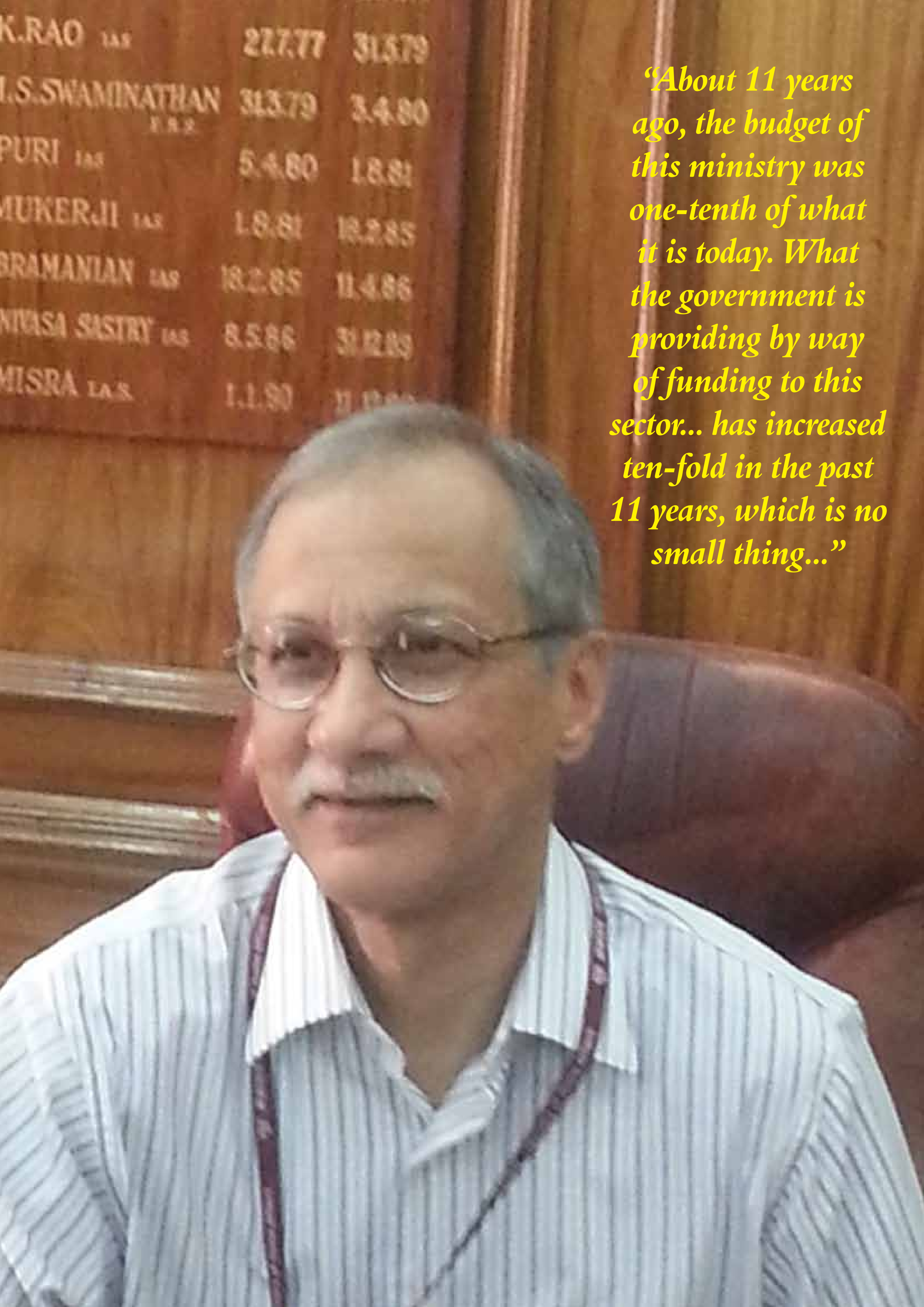
Ashish Bahuguna: Obviously much more needs to be done for agriculture. We need to look at it in context. I have been in this ministry for a fairly long time now. I was a joint secretary in 2002. About 11 years ago, this ministry's budget was one-tenth of what it is today. How do you gauge the engagement of the government in this sector? One of the ways, though not perfect and probably not the correct way, is by looking at what the government provides by way of funding to this sector. That has increased ten-fold in the past 11 years, which is no small thing.

PGT: It is doubling each year?

Ashish Bahuguna: I am not very sure of the math but, no, doubling would go in geometric progression. It has increased substantially over the past 10 years. Whether this and the other initiatives of the government have led to the increased growth in agriculture during the last plan period as compared to the previous two plans remains to be examined. What has actually been done in the sector is that an element of incentivization has been introduced for the state governments to increase their relative share in the plan outlays for agriculture. That by itself pumps a lot of money into this sector.

Perhaps not all of it is being used as effectively or as efficiently as it should be but it is certainly going into this sector and starting to pay dividends. However, a lot more needs to be done and we are more or less on track.

In the 11th plan period, which ended on March 31, 2012, the average growth rate in agriculture is actually 3.8 per cent. The agriculture and allied sectors, including fisheries at 3.8 per cent, saw a growth rate of 3.64 per cent but were dragged down by forestry and logging that stood at 2.2. The



"About 11 years ago, the budget of this ministry was one-tenth of what it is today. What the government is providing by way of funding to this sector... has increased ten-fold in the past 11 years, which is no small thing..."

slow rate of growth in forestry and logging is not necessarily a bad thing, especially the logging part of it. So, 3.8 per cent compared to 2.5 and 2.4 is a fairly big jump. It is the silver lining that we need to look at. We tend to be a bit pessimistic as a country.

PGT: You are saying that in the 11th plan period the rate of growth was 3.8 per cent against 2.5 per cent in the 10th plan?
Ashish Bahuguna: Following 2.4 per cent in the 9th plan. While the growth rate had not really plateaued, it was a very Hindu rate of growth.

Ajay Jakhar(AJ): The finance minister said that the growth rate was 3.5 per cent.
Ashish Bahuguna: 3.64 per cent is actually what he had said.

AJ: What I was trying to say was that last year the growth rate was 1.5 per cent or something.
Ashish Bahuguna: That will happen but it is not correct to gauge progress in agriculture on a year-to-year basis. You have to average it out, compare it to the trienniums. A year-to-year thing will neither be accurate nor fair.

Possibly the government could do much better to facilitate people migrating from agriculture to non-agriculture, through development of non-farm employment

AJ: It is not like an industry.
Ashish Bahuguna: If you go into detail, you will find that a lot of states hitherto considered backward, like Madhya Pradesh have actually progressed. The food production basket has increased and has broadened tremendously.

PGT : Which other state besides Madhya Pradesh?
Ashish Bahuguna: Chhattisgarh, Odisha, Assam, Bihar, Jharkhand. The most spectacular gains are in Madhya Pradesh. Jharkhand has shown very good progress although even now it is a very difficult state to work in. The point is that it is a burden to expect agriculture with less than 14 per cent share of the GDP and with more than 55 per cent people directly dependent on it to provide desired results. It is a burden on the agricultural sector that there is a disproportionate share of people dependent on it because of a lack of opportunities outside the sector. Possibly the government could do much better to facilitate people migrating from agriculture to non-agriculture, whether it is at the farm level through development of non-farm employment opportunities, or to urban areas. I do not consider migration to be a dirty word.

PGT: Let us understand the two points that you made on the issue of migration. One of the purposes of having a programme like the Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) is to actually stem migration from rural to urban areas, especially during the green season. You have to look at the National Sample Survey Organization (NSSO) data.
Ashish Bahuguna: I think migration may be segregated into two portions. One is forced migration by way of circumstances and the second is voluntary. The National Rural Employment Guarantee Act (NREGA) does actually manage to stem the forced migration part, which is a good thing.

PGT: You are saying there is nothing wrong with voluntary migration?
Ashish Bahuguna: Voluntary migration is something that will happen whether you like it or not. In fact, one should like it because it is a sign of progress. Unfortunately in India, migration from the rural areas to the urban areas is viewed as a black mark.

PGT: Let us consider the recent statistics from the NSSO, of the first half between 2000 and 2005. Approximately, 30 million new jobs were created, 20 million being created by people moving out of agriculture. That is one part of the story. The other part is that almost all of them found employment in construction in urban areas and small towns. One may not call it forced migration but there is little positive about such migration because it involved insecure, hazardous and poorly-paid work.
Ashish Bahuguna: I agree with you entirely. That is why I say that the government could do much more in providing for employment opportunities, facilitating or promoting employment opportunities outside agriculture, whether in the rural or in the urban areas. The skill development foundation is possibly a way in the right direction but it could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expand its activities much more. You are absolutely right. As of now, migration is not being facilitated, it is happening. It is happening out of two different sets of circumstances. One is, of course, forced migration, where there are inadequate opportunities in the rural area. It also stems from the viability of agriculture being in question.

PGT: Before dealing with viability of agriculture, we would like to ask you some related questions. Even if agriculture is growing at 3.5 or 3.8 per cent, the other sectors of the economy are growing faster, especially the services sector. Perhaps the current year is a bad year for industry with the GDP growing at between five or six per cent. The growth rate of agriculture is still lower than the growth rates of the rest of the economy. The share of agriculture is shrinking and, in fact, we are today in a situation where the automobiles and transportation sector as a whole is about to overtake the 14 per cent mark of agriculture but this sector does not provide jobs to even 10 per cent of the population while agriculture provides for more than half. This structural problem continues. Do you see any other way of changing this other than creating quality jobs, decent jobs in the services industry sector?
Ashish Bahuguna: Let me try and respond to this in a bit of a roundabout manner. One of the problems that agriculture is confronted with today is that the average size of land holdings has now dropped to a level of 1.16 hectares, which is generally considered to be economically unviable. For a holding of that size, the farmer either goes in for high-value crop cultivation with the requisite logistical support, both for inputs as well as the marketing facilities that is still a distant dream for large parts of the country or there must be a very good aggregating mechanism that can aggregate farmers and pool their resources to help them in marketing. Neither of these exists and the size of the land holdings is shrinking day by day.

PGT: Further fragmentation...
Ashish Bahuguna: Further fragmentation will add to the pressure that the individual farmer is under, both in terms of viability as well as organizational feasibility of the entire agricultural operations. Now we probably need to revisit our land loss. This possibly goes against the political point of view of most political parties and most sections of the country.

PGT: You are talking about the political leadership giving homestead land, small amounts of land and here you are talking about the need for consolidation of holdings?
Ashish Bahuguna: Absolutely!

PGT: In a sense, it is perceived to be the opposite of land reforms?
Ashish Bahuguna: It is, it has been and I think

that now it is a major stumbling block to the viability of agriculture. NREGA for instance has managed to push up wages in the rural areas. Naturally, that adds to the cost of production. So farmers have to now look for other options, such as mechanization of micro holdings, which is extremely difficult. One has to aggregate. The economies of scale have to work in this sector as well. This sector is no different from other sectors. The law of economics has to prevail here as well and the farmer must be provided with a conducive working environment. Without that, to expect the farm sector to miraculously turn around by itself and deliver sufficient returns to the farmers, bringing all round prosperity, would be a bit of wishful thinking.

AJ: You have talked of increasing wages because of NREGA. The Commission on Agricultural Costs and Prices (CACP) has consistently said that it does not build in all the wage increases into the price that it recommends because the price will be very high and consumers would suffer.
Ashish Bahuguna: I think you have misunderstood what the CACP is saying. The cost of cultivation is taken into account. What dictates the recommendation is not necessarily the cost of cultivation alone. Other factors are possibly given equal or sometimes even more prominence but the cost of cultivation is fully factored in. There is generally a three-year time lag in obtaining data on cost of cultivation. That is then extrapolated with the recent price increases, the wholesale price index and everything else to give the present cost data, which is then fully factored in.

AJ: Would you recommend that CACP actually release the data of cultivation it calculates because it generally does not do so?
Ashish Bahuguna: I do not think there should be any objection to releasing this data.

PGT: There should be greater transparency.
Ashish Bahuguna: Honestly, I was not aware that this data is supposedly secret.

AJ: The data is not released.
Ashish Bahuguna: I do not see any reason for them not to release this data.

AJ: Another question is on coordination. More and more ministries are now trying to usurp the turf

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of the agriculture ministry, especially the ministries of environment, rural development ministry and commerce, because their decisions are affecting the farmer's prosperity.
Ashish Bahuguna: 'Usurp' is a very strong word!

PGT: The ministry of agriculture is operating in a silo and there are other ministries and departments, including some in Krishi Bhawan itself such as the ministries of rural development and, of course, water resources. There is the commerce ministry whose decisions to either allow or ban the export of a particular product have an impact on farmers. The problem is the absence of coordination among different departments and ministries of the government. I will give you an example from 2009 that concerns Mr Sharad Pawar and sugar. India exported sugar at Rs 12 a kilo and eight months later imported sugar at twice the price. This is just one example of how the absence of coordination can lead to undesirable outcomes.
Ashish Bahuguna: I do not agree with you. I do not think there was absence of coordination. The example you gave was a lack of appropriate information prompting a certain set of decisions

In the past two years the government has generally refrained from trying to intervene in import and export related issues. It is trying to give stability and consistency to the trade regime

that ought not to have been taken at that time. That is a separate issue altogether. As far as major policy issues are concerned, they are not decided at the level of an individual ministry, they are decided by the government and the views of all departments are taken into account. Sometimes those decisions may not be to the liking of specific or individual ministries. That happens in government because there is a need to balance the interests of various sections of the population. Over the past couple of years at least, there has been a lot of support especially from the department of commerce and the department of food.

PGT: What about Civil Supplies and Consumer Affairs?

Ashish Bahuguna: From the departments of civil supplies and consumer affairs as well. For instance, on issues relating to exports, one would have seen that in the past two years the government has generally refrained from trying to intervene in import and export related issues. It is trying to provide a fair degree of stability and consistency to the trade regime. There will always be issues on which there will be differences of opinion but no department can do whatever it feels is appropriate. The government has to balance various interests and sometimes there are conflicts.

To consider one example in the edible oil sector, probably in 2009, there was this huge price increase of edible oils, the government had allowed imports of crude edible oils at zero per cent duty and this continued for a long time. Now, in February of this year, it has been increased to 2.5 per cent, which we feel is inadequate. There is need for a regime where the domestic producers are incentivized to cultivate more. It is the same in the case of pulses as well. There are our differences of opinion. Sometimes some views prevail and at other times others do.

AJ: As per India's obligations to the World Trade Organization, the government can impose customs duty of up to 300 per cent on imports of crude oil, although the actual duty rate is 2.5 per cent.
Ashish Bahuguna: Fair enough.

AJ: To speak of another sector, do you think cotton should be treated as an agricultural commodity rather than as an input commodity for the textile industry?
Ashish Bahuguna: It is treated as an agricultural commodity and one has to recognize that it is a very important raw material for the country and a lot of exports are very inextricably linked with cotton. Over the past two years cotton trade has been allowed to function more or less without restrictions despite a substantial drop in production this year.

AJ: I believe that farmers are being forced to subsidize the inefficiency of the textile industry and the textile industry is not increasing efficiency levels. If it increases its efficiency, the prices of cotton could go up and there will be less pressure on the industry.
Ashish Bahuguna: I am not disagreeing with you. By coincidence, I have worked in the Ministry of Textiles some 20 or 30 years ago. Looking specifically at the cotton sector, two years ago the Ministry of Agriculture finally got its act together and at least its production estimates of cotton were brought on an even keel. Earlier, the cotton production estimates of the ministry were always about two-third the estimates of the Ministry of Textiles. With such estimates, it was out of the question to visualize a surplus for export because as per our estimates the surpluses did not exist. Despite all this, all stakeholders are entitled to press their views. The textiles industry is a very cohesive unit and unfortunately the farmers of the country do not have much of a voice. A lot of people profess to speak on behalf of the farmers but when it comes to the actual nuts and bolts, there is a lack of visible action. The textile industry is very forthright and forceful in its recommendation but despite that and despite what the press has been reporting in the past two and a half months, exports of cotton are continuing.

AJ: Do you think the agriculture ministry should have had the rural development and the environment ministries under it? There are not more than three or four countries in the world that have a separate rural development ministry. Many developed countries in the world such as Germany, have the same minister heading the environment and agriculture ministries because it leads to better coordination between the two.
Ashish Bahuguna: I do not think it will be even practical or feasible. It is also not fair to compare how a ministry works in the west and how a ministry or department works in the government of India. In fact, most of these ministries were carved out of agriculture, some in the 60s, some in the 70s and 80s. Even within the Ministry of Agriculture, within our divisions, there are different points of view. Sometimes there may be some kind of a compromise. A position taken by one need not necessarily be the only position. Any situation must be considered in the overall interests of the country and sometimes interests converge, sometimes they do not. We have to face that.

PGT: You have here the CACP recommending a certain minimum support price. Say you have the Food Corporation of India, a public sector organization, responsible for procuring foodgrain from certain parts of the country. Then, you have a public distribution system that is giving the same foodgrain at a subsidized rate and distributing it in different parts of the country. The difference is this huge subsidy that one does not talk about, about Rs 85,000 crore in the last budget. If you enact the food security law in its present form, this is likely to go up by another Rs 35,000 crore to Rs 40,000 crore. One is talking of about Rs 1,25,000 crore.

This balance between making farming remunerative and attractive to the farmer and ensuring that consumers receive foodgrain at a relatively lower price is one area where the government as a whole has failed miserably, especially if you look at not just foodgrain, rice and wheat but other products like the high-protein items, fruits, vegetables and dairy products. The horrific inflation that one has seen in these products in the last few

> Two years ago the Ministry of Agriculture finally got its act together and at least its production estimates of cotton were brought on an even keel

years has, in a sense, caused a tremendous amount of social turmoil in this country and many would argue that this has been one of the biggest failures of the government in the recent past.

Ashish Bahuguna: I am not sure of the point you are getting at.

PGT: I am saying, that for some people, subsidy is supposed to be a dirty word but there is no alternative to having high subsidies if one is to ensure remunerative prices to farmers and low prices to consumers. It may have worked to some extent with foodgrain but has not happened in the case of high-protein items that see high food inflation. Today, as food habits are changing, people are eating relatively less cereals, more of the high-protein items, fruits, vegetables, dairy products, poultry etcetera. We have a situation where the real incomes of the poor of the country have shrunk because of the high food inflation and the farmers are unhappy. You have a lose-lose situation and many people believe that this has been the biggest failure of the government in the recent past.

Ashish Bahuguna: Yes, absolutely. I am not sure that is the way to go about it.

PGT: What is the way forward then?

Ashish Bahuguna: It is true that there has been high food inflation over the past few years and that the food consumption basket of the poor has also changed and improved over time, especially of fruits and vegetables, one can see a steady movement up the food chain. Over the next 10 years, the horticulture, dairy, poultry and animal husbandry sectors will possibly come to account for 40 to 45 per cent of the agricultural GDP from about 35 per cent at present. However, despite everything the economy of this country is improving, even if not at the pace that we desire. There has been a qualitative change in lifestyle over the last 50 years. I can speak for myself and I am sure so can you. The food that I have been eating has changed. Likewise, the food habits of even the poor have changed.

PGT: I do not deny our food habits have changed for the better but I am saying that food inflation by

Having a regime where the purchase pricing and distribution pricing for the same commodity are different is creating tremendous distortions in the market

Ashish Bahuguna: What you seem to be implying – and I use the term 'seem' advisedly – is for the need for a procurement distribution mechanism for the other items as well, horticulture and others. I am not sure whether that would be the right way to go. My view and obviously not the government's view, is that having a regime in which the purchase pricing and distribution pricing for the same commodity are different, is creating tremendous distortions in the market. That is something that the government should not be trying to do because it is trying to reconcile two opposites. What I am trying to say is that if you procure wheat or rice at a certain level and distribute it at a much lower level...

PGT: One-tenth the price...

Ashish Bahuguna: ...the distortions it creates in the economy are impossible to handle. They not only promote continuation of what are sometimes unsustainable cultivation practices but they also get into this vicious cycle of leakages and…

PGT: Corruption...

its very nature affects the poor farmer more than it affects the rich because the poor spend a higher proportion of their income on food. What food inflation does in fact is widen inequalities.

Ashish Bahuguna: I am not disagreeing with you but despite all this, the poor will first purchase his requirement of cereals, then move on to pulses, then to fruits and vegetables, then to eggs, meat and fish. There is a kind of hierarchy of priorities as far as the food basket is concerned. You are right, prices do compress the purchasing power yet, over time, the food consumption pattern of even the poor has changed.

AJ: The farmers are also seriously concerned about the pace of research and development in the public sector. It seems to be lagging in the last many years and that has got a lot to do with the dropping morale of the scientist in the public sector and maybe even the private sector. There is also a funding problem for extensions. The state governments are supposed to be giving the extensions and do not have the resources to actually transfer even the available knowledge.

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Ashish Bahuguna: These are two separate things. What we need to do more efficiently and effectively is the management of research. The Indian Council of Agricultural Research (ICAR) is a large organization and its director-general has an enormous amount on his plate. Research is being conducted. What is not being done as efficiently or as effectively as one would have liked is creation of synergies in research in the same crop among different institutes. That has not happened. As far as research budgets are concerned, they have been increased over the past two or three years. What is more necessary is the management of the research.

On the moral side you are probably referring to the genetically modified (GM) and the biotechnology issues. The latter frustrates us a bit because things are at a complete standstill. We are of the firm opinion that biotechnology is a tool that we need to harness and exploit to our advantage. We are quite clear that we will exploit it in the areas we want to. We are also quite clear that we will only exploit it after being fully satisfied, first and foremost, with its safety and then its efficacy. I do not think we should dream of putting research and science in the background and hope for all problems, whether real or imaginary, to be resolved even before doing research. You cannot block science like this. If we block science we will be increasing our dependence. A lot of the time the debate on GM moves from issue to issue and one is whether GM science is valid or not; or, whether it is safe. The other issues on that debate relate to monopolies and multinationals.

PGT: Seeds...terminator seeds
Ashish Bahuguna: Terminator is an outdated concept.

PGT: Not terminator seeds; the monopoly issue on who provides the seeds and the price of seeds.
Ashish Bahuguna: What I am saying is that if we do not conduct research on GM, we will be increasing our dependency on either the companies or the countries that are doing this research. At some point, with our increasing population, with shrinking resources, with

technology fatigue, we have to bring in new technologies. The requirements of the people are changing; tastes are changing. The consumer requires something more than mere cereals. He needs fortified cereals, nutrient-rich cereals, taste, quality and so on. One has to exploit technology. Whether GM is the best or not will only be proven after research. To dismiss it out of hand even before adequate trials take place, before any conclusion is reached is wrong. There is too much of fear mongering in this. Of course, the Supreme Court is seized of this matter and hopefully will come out with a verdict in the best interests of the country.

PGT: The issue of extension..,

Ashish Bahuguna: Extension is certainly a weak area. The extension machinery should be the driver of agriculture, the engines of agricultural growth. The extension machinery in the states as well as in the centre, to a large extent, was last strengthened during the World Bank Training and Visit programme during the green revolution. There were extension personnel in the late 60s and early 70s. After that, almost no state saw any fresh induction of people in the agriculture sector. The extension personnel was being whittled down by natural attrition. Technology is growing at a very fast pace and the extension personnel needs to be the best qualified people in agriculture because it comprises people who understand the technology in order to be able to disseminate it among the farmers.

PGT: The crucial link among the laboratory and the farm…

Ashish Bahuguna: In the states, the rural development department has been increasing focus on construction. In many states, even the agriculture extension worker has been roped in.

Whether GM is the best or not will only be proven after research. To dismiss it out of hand even before adequate trials take place, before any conclusion is reached, is wrong

AJ: To make toilets.

Ashish Bahuguna: For construction activities, which is not their job. That is actually a very serious matter and has been a great concern. Over the past two years, under a programme, which provides support to the state extension agencies, the government of India has given 90 per cent funds and created 18,000 posts of extension personnel across the country, of which 14,000 have been filled. There has been some strengthening but the challenge still remains in many states. Sometimes, there is this tendency to prescribe the lowest qualification for jobs at the lowest rung because they are not very well paying. Often the people in charge of extension at the village level do not really have the wherewithal or the intellectual capacity to provide the advice that the farmer needs.

So, first, the training programme of the extension personnel is something that we are laying a lot of priority on. Second, we have to be able to use Information Communication Technology (ICT) in a much better way. The experience has been patchy across states. We have kisan call centres operating across the country with toll-free numbers and, over the past couple of years, the quality of services they provide have improved tremendously. This is something that we will continue to upgrade. There are many other initiatives in various parts of the country.

Everybody hears of these SMS-related advisories that are just the starting point because one cannot prescribe one solution to everybody every time. A lot of the time it just gives information on *mandi* prices. In Karnataka, there is a very good project underway where these cellphone devices give photographic evidence to the scientists and there is real time advice. In one season itself, the increase in production and productivity was phenomenal. There are many small initiatives and there is no one-size-fits-all kind of solution for the entire country. Each state and region will come up with its own solutions and one has to accommodate as many of them as possible. The challenge is to funnel them into one programme, so the farmers get the right benefit. The farmer's portal to be hosted on the agriculture ministry's website is still under construction. The intention is to provide access in all Indian languages but to start with it is being built in English and Hindi. The states are being requested to do it in their vernacular. The portal will be interactive and cover every issue that the farmer is confronted with. A fair amount of information is already uploaded.

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Over the past two years, the government has created 18,000 posts of extension personnel across the country

PGT: The trend in public investments in agriculture is now being reversed but the quality of investment is a huge problem. One notable case is irrigation. Even today, 60 per cent of the total cropped area is rain-fed and one has seen the obsession with large projects, big dams, because contractors and politicians make a lot of money. One has seen what is happening in Maharashtra as we are talking. Everybody says that the same amount of money could be better utilized by having small projects. I think the absence of water management is one of the terrible weaknesses of Indian agriculture.

Ashish Bahuguna: Absolutely and you may point it out as a lack of the coordination mechanism. For instance the micro-irrigation system that we are trying to promote for quite some time is extremely popular in the arid belt of the country, especially Karnataka, Gujarat, Maharashtra, Rajasthan and now in Madhya Pradesh and Chhattisgarh as well. They could, however, be much more popular if we promoted the use of "fertigation" through these devices. I think half the utility of these devices is not being captured because as of now the fertilizer policy does not allow subsidy on water-soluble fertilizers.

PGT: On the whole, the imbalances in the subsidy strategy is encouraging the use of urea alone to the exclusion of others.

Ashish Bahuguna: Yes. What we have been trying to do is asset building through our schemes, land and water development through the NREGA programme. Under the schemes, we provide for farm pond structures in a limited way. Maharashtra has done a lot of work on farm ponds under the RKVY scheme. In times of stress, drought or deficiency in rainfall, these are actually oases in the middle of a desert. This has become popular in Rajasthan and in some other states as well. We are trying to promote water harvesting. Again, we are only addressing one part of the problem. There are other issues. For example, what are the kind of subsidies that we are giving on water? How should a farmer who is getting free water be incentivized to use it more efficiently and not waste it?

Maharashtra has done a lot of work on farm ponds under the RKVY scheme. In times of stress, these are actually oases in the middle of a desert

PGT: It is the same story with power.

Ashish Bahuguna: Yes. So, these are the issues that also need to be addressed. Only addressing one end of the problem is not going to provide solutions. The government needs to act as a unit to deal with the major issues confronting them not only in agriculture but in any sector for that matter.

PGT: Another worry is the slow progress with the Agricultural Produce Marketing Committee Act (APMC Act) vis-à-vis having a uniform system for India.

Ashish Bahuguna: We cannot impose a uniform system across states just because we wish it. For instance, Punjab's revenue out of the APMC and the allied cess, duties and taxes that the state imposes on the marketing and trading of agricultural produce is close to Rs 5,000 crore a year.

AJ: 99 per cent of that is foodgrain.

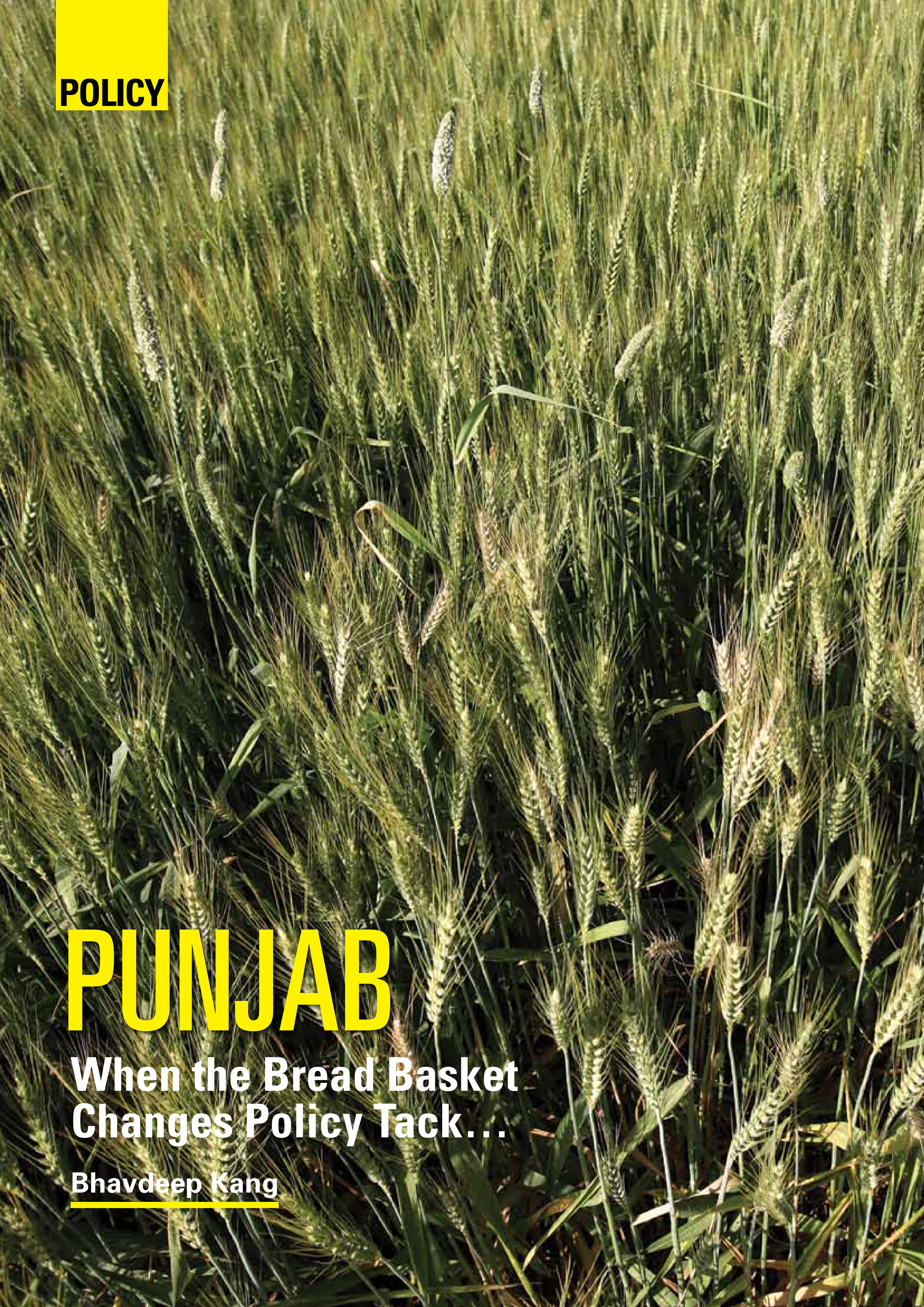
Ashish Bahuguna: Whatever that is. The point is that one may wish the exemption of wheat. Now it is a huge revenue loss for the state government. We have requested the new Finance Commission to look at this problem like the VAT regime in which some mechanism was drawn up. Here too, the Finance Commission has been requested to look at ways and means, some kind of arrangement, where the Act is not used for revenue realization but actually to improve price discovery, which was the rationale to begin with. Having said that, there will be variations across states. Three or four states have reformed their act fairly substantially, including Punjab.

PGT: Which are the states that have reformed the Act?

AJ: Bihar...

Ashish Bahuguna: No, Bihar has repealed it, so in that sense it is complete reform. However, I do not agree with that view because I think the infrastructure needs to be in place before you start talking about reform. Bihar has no act and no infrastructure and, therefore, price discovery is non-existent. Kerala does not have an act; it never had one. Among the states that did, Maharashtra has reformed it to a considerable degree, as has Madhya Pradesh. Punjab has reformed part of land leasing and contract farming. Uttarakhand has reformed. Delhi needs reform because it is a huge market and not a production centre. If Delhi reforms, it will have a major effect on the surrounding states – Uttarakhand, Himachal Pradesh, Punjab, Haryana, Uttar Pradesh, Rajasthan – because produce comes from all these places. I am told that some kind of reform is on the anvil. The states too are looking for results. Just reforming is not enough. Bihar can turn around and say 'we have reformed but nothing has happened after that'. It is not merely the act; it is the legislation. It is legislation plus and that plus is something that we need to get in place. ●

Ashish Bahuguna, is an officer of the Indian Administrative Service belonging to the Rajasthan cadre and is currently Secretary, Department of Agriculture and Cooperation in the Ministry of Agriculture, Government of India.



POLICY

PUNJAB

When the Bread Basket Changes Policy Tack…

Bhavdeep Kang

When the country's "food basket" seeks to radically rejig its agriculture, food policy analysts sit up and take notice. Punjab's proposed Agriculture Policy 2013 talks about drastically cutting rice production (by 1.2 million hectares), adopting genetically modified food (GM) crops in a big way and promoting the "family farm" model.

Given that the state remains the largest contributor of wheat and rice to central food stocks, this has serious implications for the Public Distribution System. Also, given that it is produces the world's second largest marketable surplus of rice and third largest of wheat, one could argue that the policy, drafted by a state government panel, has global implications.

The policy acknowledges the crisis in Punjab's agriculture in all its alarming dimensions. The state's agricultural growth was a mere 1.6 per cent in the 11th five-year plan period, as compared to 3.4 per cent for the rest of the country. There is a clear admission that the current system is unsustainable and that the Green Revolution has had severe ecological and economic outcomes.

The document stresses the water crisis. Four decades ago, it was hard to find a place in Punjab where the water table was below 10 metres; now 92 per cent of the state has levels far lower and the remaining has saline water. The area irrigated by canals has fallen by 5.5 lakh hectares.

"Overuse of electricity (has) put serious strain on the state exchequer to meet the cost of free power supply to the farm sector", says the policy paper. It acknowledges the imbalances in soil fertility, accumulation of toxic heavy metals, intensified pest attacks and the ever-increasing need for inputs to maintain productivity, which has resulted in a "decline in real farm incomes and stagnation in growth".

It also points out that with other states improving yields, the procurement base for the Food Corporation of India is expanding. In the long run, Punjab will have to find other, equally lucrative, markets for its produce. Cross-border trade with Pakistan is one possibility.

While the crisis is generally accepted, the solutions proposed by the draft Agricultural Policy – drawn up by a government panel – have not satisfied anyone: farmers, government or activists. For instance, the proposals for cutting power subsidy, FDI in retail and exclusion of commission agents in delivering MSP to farmers are against the state government's

current policy. The cost of power to industry has recently been hiked in order to set off the staggering losses incurred by the state electricity board on account of power subsidy to farmers.

From the farmers' perspective, the policy is not implementable, says Bharat Krishak Samaj president, Ajay Jakhar. Referring to the proposed substitution of 1.2 million hectares of paddy with soyabean, cotton, sugarcane and maize, he says: "This will not happen until alternate crops are as profitable. Farmers will not alter their agricultural practices and crops because of environmental reasons. Their focus is on more immediate economic needs".

Encouraging maize and pulses sounds good on paper but can the centre make it as profitable as rice for the farmer by increasing minimum support prices (MSP), he asks. "MSP is given by central government. Obviously, it is more focused on reducing fiscal deficit by cutting farm subsidies and limiting increase of MSP."

Dr Ramanjaneyulu of the Centre for Sustainable Agriculture sees the policy as a ploy to lay out the red carpet for GM seed giants like Monsanto. "India soon would be maize, soya, cotton country....on all these crops Monsanto has a broader species patent. There would be forward and backward linkages for growing these crops, established by the government in the name of public private partnerships".

Crop diversification into horticulture (family farms producing vegetables, fruits and milk) is necessary, says Ajay Jakhar. However, the ideas show a lack of market intelligence: "Growing kinnow in Kandi – as suggested – may sound good but the fact is the market is saturated due to cultivation in the Sirsa district".

As for reskilling and training youth to find employment in Punjab, the truth is that no one

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Four decades ago there was no place in Punjab with water table below 10 metres. Now 92 per cent of the state has lower levels and the rest has saline water

remains unemployed if one decides to work, because there is a labour shortage in Punjab. Providing farm machines (to meet the labour shortage) on lease basis from a "cooperative service centre" is a good notion but the budget suggested one-third of what will actually be needed to make it workable. Just Rs 10 lakh a centre is inadequate; it needs to be at least Rs 30 lakh to make a difference. The reason is that the equipment is required at the same time. For example, a wheat seed drill is required by all farmers over the same fortnight. As for delivery of new technologies through the agricultural extension, the fact is that it is near defunct as there are not even enough funds to fill the existing vacancies!

While the idea of diversifying the farmers' sources of income through an animal husbandry component is excellent, improving cattle breeds is a long-term solution. What is needed immediately is better cattle feed.

Umendra Dutt of the Punjab-based Kheti Virasat Mission questions the "techno-centric" rather than "farmer-centric" approach adopted by policy-makers. There is no change in the strategy of technology supported by public policy and private sector investment. The old four-fold fix – technology, fertilizers, irrigation, credit – will continue to obtain, with no relief for indebted farmers and no real increase in farm incomes.


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The policy may be good or bad depending on how one looks at it. It is, however, an academic exercise with no indication of where the resources will come from

In particular, he questions the heavy dependence on the private sector: "Using proprietary technologies and inputs would lead to increasing costs of cultivation...promotion of private sector is never concomitant with greater accountability and this leads to serious implications for farmers".

Intensive, external-input-based farming cannot be sustainable, says Umendra Dutt. "The trouble is, technocrats in Punjab are unwilling to catch up on latest developments and decisive shifts happening elsewhere". Nor is there any mention of addressing fragmentation of holdings by making farming a collective enterprise or of providing the wherewithal for direct marketing by farmers.

While the overall approach of the policy may be questionable, Umendra Dutt agrees with some of its core suggestions. For instance, the importance of diverse sources of farm income, import substitution strategy with regard to pulses and oilseeds, emphasis on family farms for vegetable cultivation, charging power beyond a certain level of free supply, a law to stop field burning, promotion of "SRI" (the low-input, high-output organic farming technology) regulating ground water use, restoring storage capacity of natural water bodies, a price compensation fund in case of a glut in the market, an identification system for tenant cultivators and non-acquisition of fertile agricultural land.

The policy is a step forward or a lost opportunity, depending on which aspect one considers. Most of all, it is an academic exercise, with no indication of where the resources for implementation will come from. ●

The writer is a senior journalist specializing in agriculture.

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Tribal Self-reliance the Organic Way

Regi George

The Tribal Health Initiative (THI) is an organization working in the health space with the tribals in the reserved forest area in the Sittilingi Valley, district Dharmapuri, Tamil Nadu. It was started by two doctors, Regi George (author) and Lalitha Regi, specialists in anaesthesia and gynaecology. They began with a small mud and thatch hut, built for them by the tribals in 1993, in this still inaccessible area and which was to be their 'hospital' for the next three years. At that time the infant mortality in this area was very high, which made Dharmapuri one of the five worst districts with respect to health statistics.

Their first task was to bring this down and, by 2003, by running a secondary care hospital combined with an effective community health programme, they had succeeded in bringing it down to 60 in 1000 live births. There was a glitch though. The death rate plateaued and did not seem to go down any further. This is when they thought of taking up another strategy, though they were still not clear about it. What better way than ask the people; after all they had centuries of knowledge to back them up.

THI's founding principles are based on the belief that local people know what is best for them and not the 'educated', who come from cities and thrust their views of the solutions for local problems, not taking into consideration the ground realities of the complex problems that affect the lives of the rural poor or tribal communities. THI believes that 'we have lost the art of listening to people and the Gandhian principle of self reliance of a given community'. With this in mind, in order to gauge local needs, the staff and doctors went on a *padayatra* to the 21 villages catered to in its community health programme.

They split into teams and visited all the houses, and in the evenings, called a village meeting that was very well attended. The locals were very pleased that the doctors and nurses had walked to their house from so far off to just invite them for the meeting. Among the many problems expressed, agriculture touched a common chord. "This is the only thing we know and we are running at a loss", said many villagers. "If you want to make a lasting change, help us in this". Strangely, the most indebted were the bigger farmers doing 'modern' agriculture; those who had to borrow money to buy fertilizers and pesticides and then lose their crop when the rains failed. That was a pointer to the direction not to take.

THI tries to follow Gandhian values as far as possible. The doctors had earlier worked in Gandhigram near Madurai before coming to Sittilingi. We formed some farming groups, where about 10 to 15 farmers from each village would sit once a month to talk about farming, the common ground that all of them were familiar with. The meetings used to be held in the night as in the daytime they had to work and the doctors were there to guide the discussions. Though the organic approach was emphasized from the beginning, this had no takers.

The most indebted were the bigger farmers doing 'modern' agriculture; those who had to borrow money to buy fertilizers and pesticides and then lost their crop when the rains failed

They had forgotten the skill of being one with nature, and taught by government officials and other non-tribal farmers that it was an inefficient way of farming, meant only for those poor enough to buy chemicals. For the first two years progress was slow except for the regularity of meetings and the cooperation between the farmers to collectively sell their produce, who were thus able to bargain a better price with the middlemen.

One season, four farmers volunteered to devote part of their area to organic farming, more out of obligation to the doctors rather than a belief in the method. Meanwhile, THI would take them on visits to organic farms, where resource persons would talk to them on organic farming. Those who have worked with rural populations understand the difficulty of shifting the firm beliefs of rural farmers to the organic way of thinking.

For city bred people, a failed crop is not too much of a loss but for rural farmers it means that they have nothing to eat for a whole year! The four farmers grew turmeric and THI insisted that they keep accounts of all expenses they incur for the plot of organic as well as the chemical plot and in the compare the two. "If organic makes less, lets drop it", we said. Heavy rains almost wiped out that year's crop but the organic farmers' losses were much smaller because their turmeric was hardier and withstood the soaked soil. For us, this was a documentary proof that there is 'something' in organic farming that is superior to chemical farming.

The next season 15 farmers volunteered to grow cotton. At the end of the season, we had two tons of organic cotton and we were searching for buyers. Gandhigram graciously accepted to buy the cotton at Re 1 per kilo above the market price. The best part, however, was they allowed the farmers to weigh the cotton themselves. Most of the cheating by the middlemen takes place during the weighing and this single step was a huge incentive itself.

Smelling success, the next season 45 farmers decided to grow cotton organically and by the end of the season, THI was holding eight tons of cotton with no buyer in sight, as Gandhigram could not manage that quantity. The doctors were in a fix, they had just enough money to pay salaries and had

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Multinational seed and pesticide companies along with exploitative middlemen are driving rural farmers into suicide. THI does not want the farmers to reach that stage

no backup money to give the farmers. It was at this time when Mrs Nirmala, IAS, stepped in, realizing that this was good work, which should be promoted. She headed Co-optex, the handloom sector for the Tamil Nadu government. Her department bought all the cotton at Rs 4 above the market price, made organic shirts and got it inaugurated by a central minister. The shirts sold like hotcakes and the resultant publicity put Sittilingi on the organic map of India. Talk about lucky breaks!

The farming initiative has come a long way now. After more farmers joined, they registered a society called SOFA – Sittilingi Organic Farmers Association – headed by only tribal farmers. There are more than 100 farmers now with half of them organically certified by the Tamil Nadu government. More would like to join but could not be accommodated because of staff shortage.

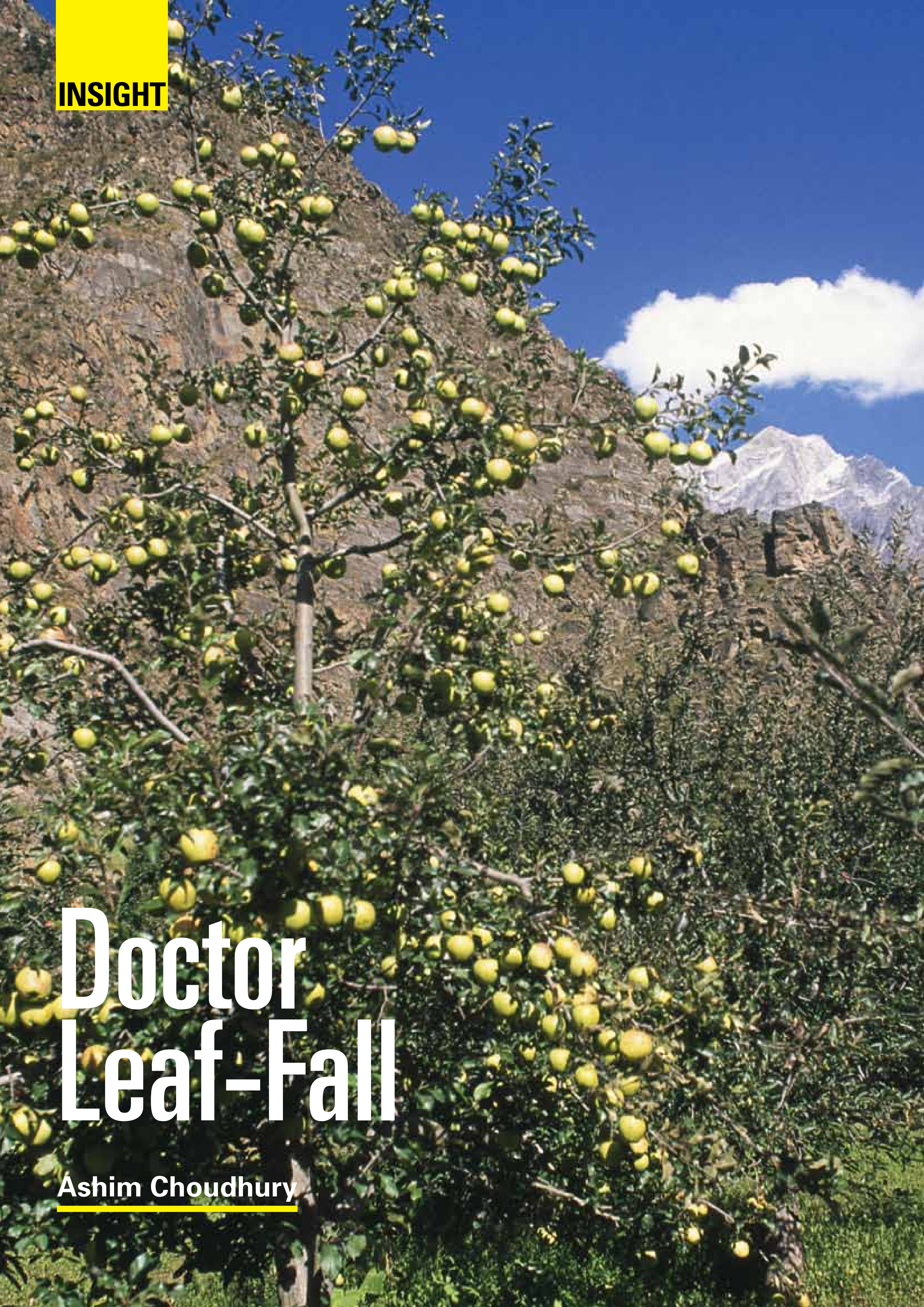
THI still helps them with the marketing, since most of this is done by email and city retail stores and the innocent tribals lack the skill to bargain for better prices. The women farmer's groups have bought de-husking and powdering machines and sell their products under the brand name 'SVAD' – Sittilingi Valley Agricultural Development – that also means good taste. They have more than 30 products in the market, of course, seasonal. Many of them are food-based as THI promotes millets.

They also make ready-to-use productes like ragi papads and organic soap. They have started making profits from last year and partially fund the farming budget. THI aims to make SOFA fully autonomous in the next three years. THIS has been supported by well-meaning organizations and hopes to achieve, in the ensuing three years, an exponential growth towards a 'green Sittilingi'. The tribal children of this valley should inherit an unpolluted and pristine land and the farmers know this.

The idea behind this initiative is to make the tribal farmer self-reliant. Multinational seed and pesticide companies along with exploitative middlemen are driving rural farmers into suicide. THI does not want the Sittilingi farmers to reach that stage. India is a land of small farmers and should remain so. That India will not be self sufficient in food if we go organic is not true. Agricultural universities and scientists, often funded by multinational seed companies, propagate this myth for their own survival. We have known organic farmers who produce as much as these fancy seeds yield without destroying Mother Earth. India lives in its villages, as Gandhiji said. That is how it should be kept. ●

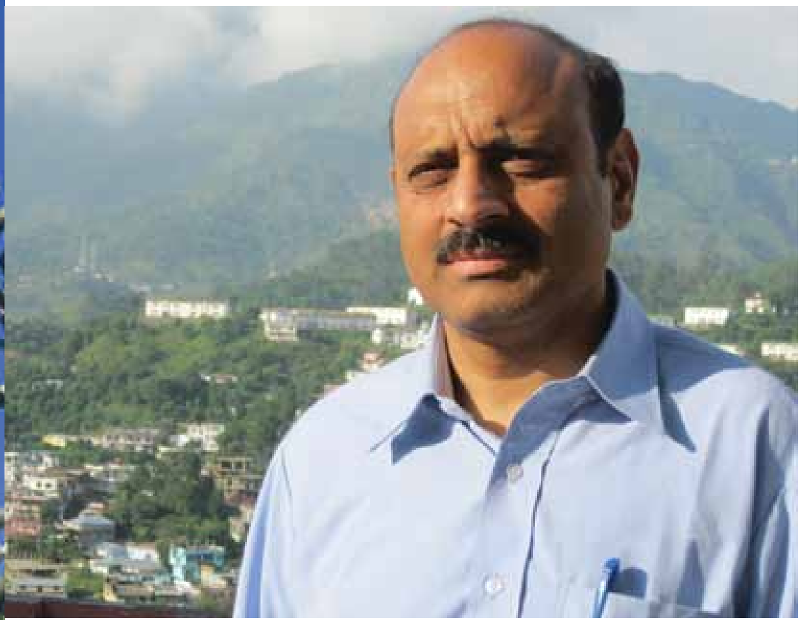
The author is a doctor working with tribals at the Sittilingi Valley, district Dharmapuri, Tamil Nadu.

INSIGHT



Doctor Leaf-Fall

Ashim Choudhury



When subsequent apple crops were destroyed in the early nineties due to premature defoliation, all of Himachal was in a state of shock. Finally, it was Dr Jagan Nath Sharma's pioneering work at the Apple Scab Monitoring and Research Laboratory, Dr Y. S. Parmar University of Horticulture and Forestry, which enabled the diagnosis and control of the new disease.

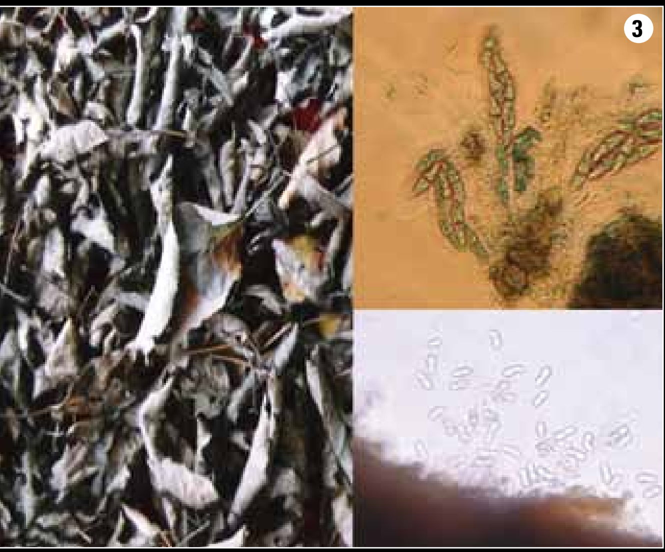
On any given day Dr Jagan Nath Sharma is an ordinary professor of plant pathology, teaching and guiding postgraduate students at the Dr Y. S. Parmar University, in Solan, Himachal Pradesh. Among the state's apple fraternity though, Sharma is a well-known man. His singular efforts led to the diagnosis – the firsttime ever – of the premature leaf-fall disease that had nearly destroyed Himachal's successive apple crops in the early nineties. To this day Dr Leaf-Fall, as his farmer friends call him, receives 10 calls a day on an average, from far-flung farmers not only in Himachal but also Kashmir, asking for remedies to tackle premature defoliation in apple trees. In 1992, when the disease, *Marssonina blotch*, was first noticed, Sharma, like other horticulture scientists in the state, was not even aware of the affliction. He was then working on the apple scab disease.

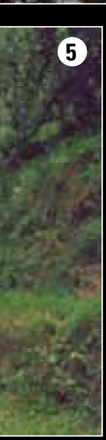
"The entire state, including the chief minister, was looking towards our university for help", recalls Dr R. C Sharma, director of research at the university. The disease that saw mature apples hanging on naked defoliated branches was also reported from Kashmir, Uttarakhand, Arunachal Pradesh and neighbouring Bhutan. "Finally, it

Premature defoliation in apple trees often occurs around June when the apples are maturing. If not sprayed judiciously with fungicides – mancozeb and carbendazim among others have been proved to be effective – the disease becomes widespread by July-August aided by the rains and humidity. Very often the disease occurs in shaded areas of the orchard and among the lowe r branches. It is less common in the south facing hill slopes as they get more sunlight. The disease manifests itself as small dark green blotches on the leaf that grow in size turning black, as the leaf turns yellow before they fall.

Very often the blotches appear on the apples as well. With leaf-fall the mature apples do not get the necessary nutrition and their quality gets severely affected. Without the protective cover of leaves the apple skin gets scalded and becomes dry. "The physiology of the plant gets disturbed and affects flowering and fruition in the next crop. There is premature flowering, before it is time for fruit development", says Dr J. N Sharma, who first detected the fungal disease. If the disease occurs consecutively for three-four seasons, the trees can turn completely barren.

The disease is caused by a fungus *Marssonina coronaria*, a relatively new pathogen in India. Fallen infected leaves are the biggest source of asexual spores or 'seeds' of the disease. "As the fungus hibernates in the fallen leaves, 90 per cent of the problem can be solved by keeping the floor of the orchard clean and composting the dead leaves", says Dr Sharma, who regularly gets calls from orchard owners for its management. For an infected orchard, the best remedy is to use broad spectrum fungicides like mancozeb and carbendazim. Four to five applications of fungicides, at three-week intervals, starting when the fruit reaches walnut size till the time it is ready for harvest, can effectively control the disease.





1. *Marssonina blotch* – the cause of premature leaf fall in apple.
2. Sub-globoid dark brown fungal colonies.
3. Infected leaf litter producing spores of the fungus.
4. Complete control of premature leaf fall of apple by fungicides.
5. Successful demonstration trail conducted at Garaog village in Kotkhai.

was through Professor Jagan's tireless research that we were able to diagnose and control the new disease that was leading to successive apple-crop failures", he says. In 2000, Sharma was given an award by the university in recognition of his pioneering contribution.

Premature defoliation in apple plantations was first noticed in 1992 around the Kotkhai apple belt of Shimla district (See Box). "Initially, it was overlooked as another disease that could be wished away. By 1995 though, the disease, found mostly in unsprayed orchards, took on epidemic proportions, spreading to all four apple districts including Shimla, Kullu, Mandi and Chamba", remembers Sharma. There were no earlier records of the disease in India. Rummaging through research papers, he found out that the disease had first appeared in Japan around 1904-05. A 1907 research paper in Germany had mentioned it. After a long hibernation the disease reappeared in Japan in 1974. There was no other reference to the disease in scientific horticulture journals.

In the early 1990s, as successive apple crops in Himachal failed due to premature defoliation, losses mounted to as much as 70 per cent. Jagan Sharma, who was till then working on apple scab at the Apple Scab Monitoring and Research Laboratory at Kothkhai, was one among several scientists who began tracking the disease. He noticed that the disease generally appeared around June when the apple fruit was maturing. It first started in the lower elevations. By July-August, helped by rain and humidity, it became widespread. He also noticed that the leaf fall was more common in shaded areas. "In 1995, Dr R. D. Sharma, head of the research station in Mashobra sent me to Jharag village of Rohru area on a fact-finding mission on a farmer's complaint. At Veepan Bragta's orchard I realized it was a fungal disease that was causing premature defoliation. I could not clearly identify what it was though", he recalls. The belief came through his field observations and partly from his scientific intuition.

However, there were other schools of thought circulating at the same time, saying that leaf-fall was a nutritional disease. Yet others said it was a result of faulty spraying. Assailed by doubts and skeptics, Dr Sharma started working on the fungus angle.

He was convinced that the disease was caused by a fungus when, from a distant point at Purag village of Kotkhai, he saw almost 100 per cent defoliation of apple trees

Some people from the scientific fraternity were quick to discredit his initial theory. One of his chief detractors was the director research at the Dr.Y. S. Parmar University, professionally his senior, who was vociferously pushing for the 'nutrition deficiency' angle. "I was feeling very low because of the aspersions cast on my theory. However, the then vice chancellor of university, Professor L. R. Verma, visited my laboratory and appreciated my work. That kept me going".

Dogged by his detractors, at one point he nearly gave it all up. "I did not want to fight the big people". In November 1996, however, while visiting affected orchards on a routine survey, he was convinced that the disease was caused by a fungus when, from a distant point at Purag village of Kotkhai, he saw almost 100 per cent defoliation of apple trees in the shady northern aspects of the hill. At the same time there was lush green foliage still present on the trees in the dry southern aspects that was sunny. He decided to go into research work again. Fortunately, a chance visit took him to the Indian Agricultural Research Institute (IARI) in Delhi for a 21-day training programme. The library at IARI was where he spent most of his time after 5 pm.

Two of his roommates at the IARI guesthouse also helped him rummage through the research material. He still remembers their names: Dr Gokulapalan from Kerala and Dilip Monga from Sirsa in Haryana. "They virtually scanned the whole library, passing on to me whatever they could find relating to my search", a grateful Sharma recalls. It was at the IARI library that his suspicions of fungal infection were confirmed when he stumbled upon the literature relating to the 1974 defoliation event in Japan. The fungal disease was called *Marssonina blotch*. That was the turning point. "It reconfirmed what I had believed all along", says the quiet professor.

On returning from the IARI he went back to Kotkhai for field trials in an orchard that had been affected for the last five years. This involved spraying 10 apple trees with broad spectrum fungicides like mancozeb and carbendazim, leaving another 10 unsprayed while another set of 10 were sprayed with a combination of nutrients. "I had to refute the nutrition angle also, you see", he explains. The results of his trials were out by June 24, 1997. Leaf-fall had occurred in the untreated trees as well as the ones sprayed with nutrients. Those treated with fungicide had lush green foliage.

The professor does not want to take all the credit. He recalls the contribution of farmers: "They helped me in the successful demonstration of this discovery on the field"

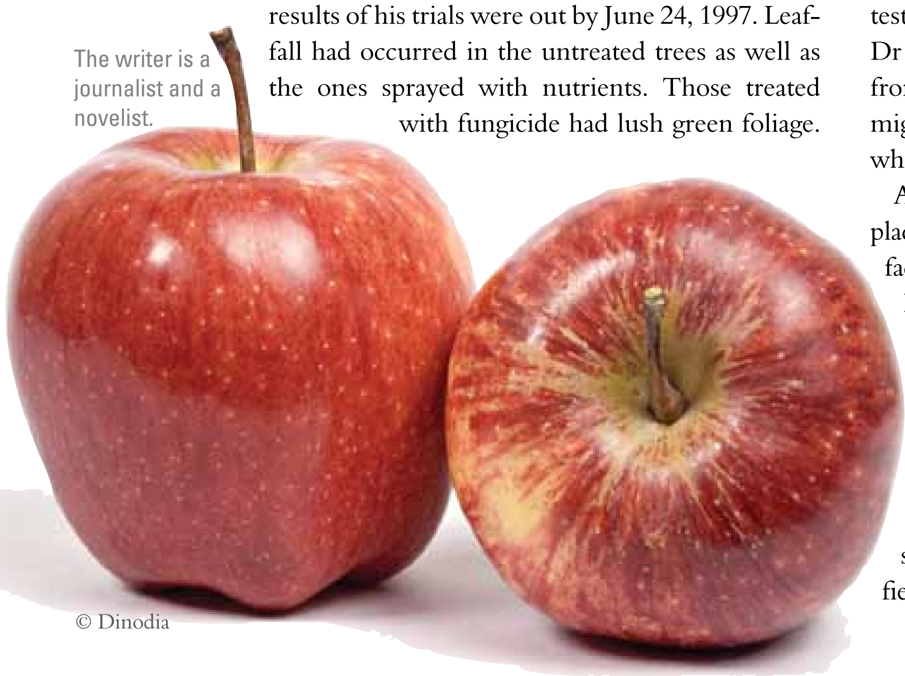
"This was clinching evidence!" he says. The results once again proved to the apple farmers and fellow scientists, including the vice chancellor, that he was right. He remembers the date, July 4, 1997 when the university scientists, leading orchardists visited the successful trials along with Prof. L. R. Verma, the then vice-chancellor. "The doubters were still not convinced though".

Tired and frustrated he wanted to give up but something made him persist. With virtually no support from any quarter, he was forced to use his personal funds to prove his point. He began the demonstration trials all over again in the Kotkhai area. "There was no one to help me except the farmers with whom I was working", he recalls. On September 23, 1998 the university held a seminar on premature leaf fall of apple at the Regional Research Station in Mashobra. Jagan Sharma presented his work before fellow scientists. Also present at the seminar were the farmers who had personally witnessed the success of his trials. The seminar endorsed his findings. It was official now; he had been right all along.

There were people who tried to usurp his research and share credit for it. Dr Sharma says that he has no "ill will; people recognize me for preventing leaf fall in the state". He is happy that his work now figures in the university's 'Package of Practices' and is followed by apple farmers facing the problem of premature defoliation. Bearing testimony to his popularity the conversation with Dr Sharma is often interrupted by phone calls from apple farmers asking for his advice. Soon he might be getting calls from China, Korea and Japan, where the disease has appeared in recent times.

Although Sharma's research has not yet found place in international journals with high 'impact factor', it has been instrumental in saving Himachal's apple industry worth over Rs 2,000 crore. Typical of the professor, he does not want to take all the credit. He wishes to recall the contribution of farmers like the late Bhagat Ram Tajta, Ravinder Chauhan, Bimal Justa, Bhisham Kanwar and Surinder Thakur along with Balbir Thakur. "They helped me in the successful demonstration of this discovery in the field", says Dr Leaf-Fall. ●

The writer is a journalist and a novelist.



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LAND BILL

Big Changes, Bigger Questions

Bhavdeep Kang

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The third – and final - avatar of the land bill (the Right to Fair Compensation, Resettlement and Rehabilitation and Transparency in Land Acquisition Bill, 2012) failed to achieve political consensus and satisfied neither industry nor landowners, even as the UPA pushed ahead with it in Parliament.

Prima facie, the bill has tried to give landowners a fair deal:

- Time-bound compensation at four times the market value of land in rural and twice in urban areas
- Consent of 80 per cent of the displaced people if land is acquired for use by private companies or 70 per cent for a public-private partnership, rehabilitation and resettlement of displaced persons even in the case of outright private purchase of land and social impact assessment before the process of land acquisition begins.

An effort has been made to give the impression that the interests of all stakeholders have been protected. Yet industry objected to the provision of rehabilitation and resettlement in the case of large private purchases of land and grumbled that social impact assessments would delay implementation of projects. In short, it wants land acquisition made painless.

Land rights activists have a reverse set of objections.

- First, to the fact that the definition of public purpose (section 3 -z[a]) is far too wide and needs to be made more “restrictive and clear”. The government should not have the discretionary power to declare anything as “infrastructure” and “public purpose”, such as manufacturing zones and industrial corridors.
- Second, that the consent provision does not apply in the case of PSUs.
- Third, the government can temporarily acquire land for up to three years without rehabilitation and resettlement.
- Fourth, market value of land is consistently under-reported, so even a four-fold increase over the last land registry – in some areas – may not accurately reflect the true value of the land.
- Fifth, land not used will go into a land bank but this is against section 93 of the original bill, which says that the land must be used for the purpose for which it was acquired.
- Sixth, by exempting 13 acts from the bill, the government has ensured that the majority of acquisition will take place under the old laws.

The most important issue is that the bill does not address the core issue of peoples’ rights to land. In effect, it partially restricts the government’s right of eminent domain. “People look at land in different ways in different places. In and around Delhi, land may be nothing more than a tradeable commodity. However, in tribal areas, the relationship people have with the land is very different”, says Anuradha Talwar, who led the agitation against land acquisition in Singur. In Mizoram, for instance, land is a community resource; the farmers are allotted plots of land to cultivate by the village committee and do not work the same plot year after year.

As Madhuresh Kumar of the National Alliance for People’s Movements observed, there is no substantive change in the basic framework of the colonial land acquisition law. The government’s right to eminent domain – which allows the state to seize private property without the owners’ consent – remains.

Perceptions of land and traditions of land use

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these numbers. The value of land in Punjab is very different from that in Madhya Pradesh (MP). In Punjab, a four-fold increase over market price may be inadequate. In MP, it may be a windfall gain.

In the latter case, a four-fold compensation would distort the land market and drive up prices. It would also encourage all kinds of criminality. Already, politicians and bureaucrats buy up land around project locations long before the projects are announced, in order to make a quick profit. This tendency would be accentuated.

Not just that. The total cost of acquiring land – purchase at four times the assessed value, plus the cost of rehabilitation and resettlement of all stakeholders – is bound to become prohibitive in most areas. It would also have a spillover effect on private purchases, as landowners would jack up their prices to at least four times the market value. Will the burden be passed on taxpayers and consumers or will it wind up discouraging projects altogether?

Under the provisions of the bill, there appears to be no way of determining the real "just" price of land. It is assumed that the excess paid over market value compensates the landowners for their suffering and hence, fulfils the principles of natural justice. Does it and can it be the same all over India?

There are large parts of India, like remote rural or scheduled areas, where the "market" for land has simply not developed. Industry is largely interested in land in such areas for mining and setting up manufacturing near mining tracts. It is precisely in these areas that the value of land is hardest to assess. Forcing communities that see land as central to their culture, identity and livelihood into a culture

Customs regarding individual ownership of land in urban and tribal areas are radically different. This makes it near impossible for a one-size-fits-all land bill to work

are not merely an ideological issue but a practical one. The requirements for land, the ownership patterns, the interest groups, vary tremendously from place to place. The size of landholdings in Rajasthan and Uttarakhand are very different. The customs regarding individual ownership of land in urban and tribal areas are radically different. This makes it near impossible for a one-size-fits-all land bill to work.

On what basis is compensation fixed at four times the market value in rural and twice the market value in urban areas? There is no rationale for

where it is treated as a commodity will precipitate a social crisis. This will result in conflicts.

Some of these lands may well be, for ecological and cultural reasons, in effect "no go" areas for industry and for government because they are beyond value. For example, the sacred groves of Meghalaya are biodiversity preserves that cannot be disturbed at any price, regardless of how much uranium ore may be deposited in their rich soils.

Anuradha Talwar says that the only way of ensuring a just process of land acquisition would be by making it mandatory for the gram sabha/

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The Supreme Court held the Vedanta project in Odisha could go forward only if the gram sabhas of the affected villages consented. It asked for the proceedings to be recorded

basti sabha to approve it – just as the consent of the gram sabha is required under the PESA (Panchayat Extension to Scheduled Areas) Act before any land can be diverted for non-agricultural purposes. Informed discussion in the local area is required, which includes all members of the sabha including the landless and indirectly-affected people. The gram sabha should also decide whether the project serves a public purpose.

It may be recalled that the Supreme Court held the Vedanta project in Odisha could go forward only if the gram sabhas of the affected villages consented. The minister for Tribal Affairs has directed that the proceedings should be recorded, so that "consent at gunpoint" is not obtained in such cases.

Empowering the people who are directly affected by these projects to decide whether or not it benefits them makes economic sense. Local opposition can hold up projects or hamper their functioning, long after the process of land acquisition is completed. In MP, the Gondwana Gomantak Party last year sponsored tribal agitations against land acquisitions which were completed a decade ago.

Talwar says that the 80 per cent consent clause is coercive – why should even 20 per cent of landowners be forced to give up their land if they do not want to? “This will invite land mafias”, she points out. “Muscle” hired by corporates harass recalcitrant landowners in different ways, like denying them right of way and other means.

Farmer activist Dr G. V. Ramanjaneyulu says there should be no acquisition of agricultural land and this provision should not be limited to the multi-cropped irrigated land – a majority of Indian farmers cultivate unirrigated lands, especially the farmers from dalit, adivasi and backward caste communities. “This is most important to preserve the farming livelihoods, local food security and national food security”.

The state government should not act as a broker for big business. Instead, even in the case of 100 per cent outright private purchase, the state government should act as a watchdog to ensure that farmers are not exploited, says Talwar.

Dr Ramanjaneyulu questions the exemption of government projects from the consent clause. It is for the local community to decide whether they want the project or not. “Prior informed consent of the affected people and prior rehabilitation and resettlement should be a requirement for all projects including government projects”.

The impact of such a sweeping change in policy is anybody’s guess. The government has not offered any perspective on the long-term social and development consequences. Nor has the BJP, which is supporting the bill because its chief ministers are party to coercive takeover of farmland. Chhattisgarh preferred to shift the Lemru elephant reserve rather than avoid coal mining.

Activists say the inherent dangers in looking at land as an economic commodity and not as livelihood have not been assessed. “There should be clear provision of livelihood-based rehabilitation and resettlement of all that affected families, instead of the current provisions, are centred around cash compensation which does not constitute fair rehabilitation”, says Ramanjaneyulu.

In fact, he believes there should be clear provisions to make this law retrospectively applicable to all pending cases of land acquisition and rehabilitation, including situations where the award has not been made or the possession of land not taken. Shockingly, reports say that only 17 per cent of affected families in all projects across India have been rehabilitated even as per the existing provisions. ●

The author is a senior journalist specializing in land and farm issues.

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Fed up Rainfed Farmers

Ajay Vir Jakhar

Not far from the killing fields of Vidharbha in Maharashtra, I am on a visit to attend a programme of the Bharat Krishak Samaj fraternity. On my way from Aurangabad to Dhule, I stop to understand the distress of Maharashtra farmers. My first stop is in village Shivrai, with a population of 2,500 in Taluk Kannad, where more than half the farmers stay on the fields adjoining the village.

Here I meet Bhaskar Ram Rao Ighe who is in his mid-50s. He owns 16 acres of land and his farm is largely dependent on the mercy of the rain gods. He grows only one crop a year. Bhaskar has an open well with which he can irrigate up to an acre and a half of his land. His choice of crop is dictated by the availability of labour. On half his land he grows cotton and, on the other half, he grows maize. He would have preferred to grow cotton but is strapped for labour.

Labour costs Rs 5 per kg for the first picking of cotton and Rs 10 per kg for the second picking and can pick up to 60 to 70 kg of cotton per day. With labour in short supply, farmers sometimes have to go to the *taluk* to get additional labour in peak harvesting season. The Commission of Agriculture Cost and Prices, however, refuses to offset all labour cost increases while recommending a minimum support price.

Bhaskar's normal cotton harvest is between eight and 10 quintals per acre. He uses fertilizers at the time of sowing and at intervals of 30 and 60 days and uses Bollgard-II seed. On the acre and half for which he has supplementary source of water, Bhaskar waters his cotton field and takes a third flush of cotton. This takes the yield up to 12 quintals per acre. It is very difficulty to accept these as the correct figures though.

Bhaskar does not own a tractor and hires services from those who operate tractors as a business. The village has 60 to 70 tractors usually of 45 hp. The cost of *nangar* ploughing and other operations for sowing a crop is Rs 2,500 per acre.

Earlier, the Maharashtra government had a monopoly on the purchase of cotton and the price the farmers received was less than what farmers in adjoining states like Gujarat got. Farmers were forced to smuggle their cotton to other states for better prices. Now, most of the cotton is sold at the doorstep, purchased by local traders. This is an absolute contrast to states like Punjab, Haryana and Rajasthan, where much of the sale take place in the *anaj* (grain) *mandi*. Farmers wonder why the price of cotton has not gone up despite a bad monsoon last year and resultant poor cotton harvest.

Bhaskar's cow gives five to six litres of milk per day and the milk can be sold at the collection centre in the village for Rs 15 per litre. There is a veterinary doctor available on call who charges a very nominal fee. In villages declared drought affected, the government has set-up *chara chavni* fodder centres where free fodder is provided to the cattle owned by farmers.

Deferred payment of electricity bills has been permitted as a part of the drought package. Depending on the size of the land holding, interest free loans of up to Rs 50,000 are available. The government supplies drinking water for one hour a day in a common place from where people can fill their utensils. The village has a school where children receive education up to class 10. There is a nurse in the village. Officers of the agriculture department also visit Bhaskar's farm. Diwali is the biggest festival.

What is shocking is the lack of irrigation facilities and lack of infrastructure. Considering the revenue generated by the state, there might have been no government intervention here. Even so, I choose to double check and make another stop to get a first-hand account of the apathy that is clearly visible.

As I travel to Dhule from Aurangabad, I cross Chalisgaon ghat, an imposing mountain barrier like the "End of the world" near Riyadh in Saudi Arabia and come to the village of Shirud in Taluk Dhulia, where I meet up with Devidas Jagannath Chitodkar. Devidas owns four acres of land that are completely dependent on rainfall.

Devidas uses no fertilizers nor does he have an open well because he cannot afford either. Whatever meagre saving he had, he spent on educating his elder son, now a teacher in a government primary school. He only uses farm yard manure. His cotton yield was only a quintal and a half per acre due to deficit rainfall while his best yield is three quintals per acre. No agriculture officer has ever visited him. Cotton is the most profitable crop; therefore everyone in the area grows cotton. He buys his seeds and agriculture inputs from a private shop. He uses no fertilizers but he does use pesticides. The soil has never been tested. Devidas informs me that if there is assured water supply on the land the price of land doubles.

Before government started distributing cheap grains inducing the farmers to grow cash crops, they grew and ate bajra and jowar. They now eat wheat

Devidas owns a cow that gives two litres of milk per day. He uses his own buffaloes for sowing and tilling his land. No drought aid has been made available to him. Normally, he picks his own cotton but when he needs to hire labour he has to shell out Rs 200 for six hours and the labourer picks between 18 kg and 20 kg. The cost of labour has doubled in the last five years and not only because of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) provisions. As Devidas sympathetically explains, the cost of living has also increased substantially; what economists will call inflation.

Both Bhaskar and Devidas depend on newspapers and Doordarshan news to figure out the price at which to sell the cotton. They also talk to others in the village and get feedback from cell phone helplines like IFFCO Kisan Sanchar Ltd.

Cheap grain is available to the people depending on their economic status; the quantity and price varies. For Rs 600, Devidas gets 50 kg of rice and 50 kg of wheat every three months. Before the government started distributing cheap grain and induced farmers to grow cash crops, the farmers grew and ate bajra and jowar. The food habits have changed and they now eat wheat. I asked the farmers if they would return to their original diet of bajra and jowar if it was provided instead of wheat but they seemed very reluctant to switch back.

Life has changed beyond recognition for both in the last few decades. There are no radios in the village any more because people prefer to watch TV and listen to radio broadcasts on cell phones. There were around 40 land line telephone connections in the villages that have been completely replaced by more than 500 mobile connections.

While Bhaskar and Devidas have much in common, access to water, government programmes and size of land holding lead to varied perceptions,

While Bhaskar and Devidas have much in common, different access to water, government programmes and size of land holding, lead to varied needs and aspirations

aspirations and different levels of frustration. Demands and aspirations are directly proportional to reduced land holdings and poverty levels. While the larger farmer blames the state government for not delivering and implementing central government policies and programmes, the smaller farmer, with no access to government funds and largesse, blames both the central and the state governments.

A common question that I generally ask farmers is what they would like to demand from the government. Bhaskar has a slew of demands like 24-hour electricity, cheaper seeds and fertilizers. If the price of fertilizer goes up, so should the price of the produce. Bhaskar elaborates: the price of DAP has increased from Rs 500 to Rs 1,200 but the price of cotton has remained constant at Rs 4,000. The smaller farmer wants the government to dig him a well so that he can draw his water and be self-sufficient for all times to come.

The village has one computer and Bhaskar proudly says that his younger son, studying in Aurangabad, owns a computer too. He does not want his children to be farmers. Farming is only for those who have no jobs. His older son works with a local bank but the youngest has no option.

On the other hand, Devidas cannot send his son to school as he is required as a farm hand. Life is in a mess with little government intervention. Devidas believes that for the first time the small rain-fed farmer is worse off than a landless peasant, while Bhaskar, who owns 16 acres, tends to disagree. The advisors to the government of India tend to subscribe to Bhaskar's views and fail to understand that small farms are unviable and something more than mere policy announcement is needed to restore them to viability.

A government can only be as good as its advisors though. That is the Indian farmer's misfortune. ●

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