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Issues and Ideas for Indian Agriculture

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BUDGET 2011-12

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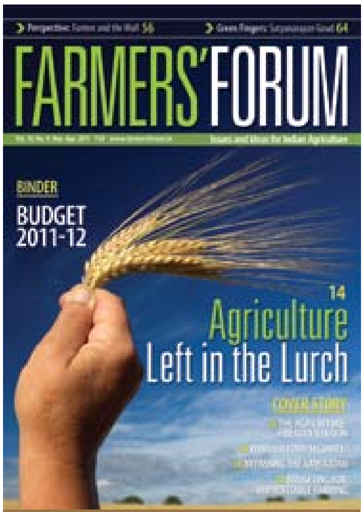
Agriculture Left in the Lurch

COVER STORY



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Hiatus between Words and Deeds

"Agriculture development is central to our growth strategy. Measures taken during the current year have started attracting private investment in agriculture and agro-processing activities. This process has to be deepened further."

– Finance Minister, **Pranab Mukherjee,** Union Budget 2011-12

Truth to tell, the Rashtriya Krishi Vikas Yojana, touted as the prime driver of Indian agriculture is neither *rashtriya* (pan-Indian), nor quite focused on *krishi vikas* (agricultural development) and nor is it a competent *yojana* (plan). Therein lies the problem.

The India of the 9 per cent growth that is being lauded by the world and by the managers of the Indian economy is run by well-meaning people. The philosophy of inclusive development, too, is an unexceptional one. Yet the Budget – that purportedly pushes this noble agenda through – leaves one wondering if the provisions and allocations will actually help the intended beneficiaries or only do collateral good.

THE INDIA OF THE 9 PER CENT GROWTH THAT IS BEING LAUDED BY THE WORLD AND BY THE MANAGERS OF THE INDIAN ECONOMY IS RUN BY WELL-MEANING PEOPLE

Worse, it has led to suspicion about the actual intent of the Finance Minister, whose pronouncements may well be likened to the famous "Ashwatthama hatah" statement of King Yudhister in the Kurukshetra battle described in the epic, Mahabharata. Thus, Pranab Mukherjee makes loud statements about his concern for the farmer and Indian agriculture (see boxes on his Budget speech). Yet, like Yudhister – the Dharmaputra in Mahabharata (who never told a lie) – he is guilty of being economical with the truth. When asked by the commander-in-chief of the Kaurava army, Dronacharya, whether his son, Aswatthama, the mighty warrior, was dead, Yudhister loudly said: "Ashwatthama hatah!" (Ashwatthama is dead) and then, in an aside, added: "Naro Va Kunjaro" (be it great warrior or elephant). Dronacharya, heartbroken by the confirmation of the news of his son's death, disarmed himself and left the battlefield to meditate. That was when Dhirshtadyumna of the Pandava army killed him. This was deceit of the highest order. In hiding more than

IT NEEDS TO BE BORNE IN MIND THOUGH THAT ONE IMPORTANT SET OF BENEFICIARIES OF THESE INCENTIVES WILL BE THOSE WITH THE FINANCIAL WHEREWITHAL TO MAKE SUCH INVESTMENTS

it reveals, the Budget exposes itself to such a charge.

Like in any other form of enterprise, credit is vital for sustenance in agriculture and, over the years, it has been established that the corporate and technology sectors have far greater ability to manipulate the system to commandeer the greatest share of credit and other benefits; sometimes even an entirely unintended privilege, making the concept of agriculture credit a misnomer. Mr Mukherjee's announcement makes it appear that the farmers will get loans for Rs 4,25,000 crore ($80 billion) and, if they are good, at rate of 4 per cent.

Ask how much of this humungous sum was availed of by the farmer at a subvention rate last year and what is the quantum of cash loan to farmers? A close inspection may reveal that the agro-industries sector was the beneficiary and not the farmer. Now compare this with the annual write-off of industrial loans – which take place regularly without a whimper of protest – and the figures, every year, will be higher than the one-time agriculture loan write-off.

It is also important to ask the question around the much talked about "food inflation" that affects everyone. Yet consider food inflation from the farmer's point of view: In 1981 – I was still at school in Ajmer – my elders say, the price of both gold and cotton was Rs 400 per 10 grams and per quintal respectively. Today, 30 years later, my cotton crop sells at Rs 4,000, while gold sells for Rs 22,000.

The point is that the price of cotton has increased by 10 times and gold by 55 times over the same period. Gold has been a standard against which wealth is measured and the point need not be elaborated any further. If this is the kind of inflation that those in power are worried about, farmers are even more worried.

Where possibly the Budget will make a long-term difference to the food industry, is in the promotion of food storing, processing and preservation infrastructure. These were immediate imperatives given the wastage of food in the government godowns. It needs to be borne in mind though that one important set of beneficiaries of these incentives will be those with the financial wherewithal to make such investments. Hopefully, however, efficient supply chain management with clearance of production and distribution bottlenecks will help reduce the price difference between the wholesale and the retail prices; or increase the farmer's share in consumer price; leave a little more in the farmer's hand; and possibly help tackle inflationary pressures. Hopefully also, a reformed Agriculture Produce Marketing Act will also support these measures.

Even so, these financial incentives for private warehousing point to the government

Agriculture Sector: Key Indicators

(per cent)

Sl. No.	Item	2008-09	2009-10	2010-11 (Advance Estimates)
1	GDP—Share and Growth (at 2004-05 prices)			
	Growth in GDP in agriculture & allied sectors	-0.1	0.4	5.4
	Share in GDP—Agriculture and allied sectors	15.7	14.6	14.2
	Agriculture	13.3	12.3	
	Forestry and logging	1.6	1.5	
	Fishing	0.8	0.8	
2	Share in Total Gross Capital Formation in the Country (at 2004-05 prices)			
	Share of Agriculture & Allied Sectors in total Gross Capital Formation	8.3	7.7	
	Agriculture	7.7	7.1	
	Forestry and logging	0.07	0.06	
	Fisheries	0.56	0.54	
3	Agricultural Imports & Exports (at current prices)			
	Agricultural imports to national imports	2.71	4.38	
	Agricultural exports to national exports	10.22	10.59	
4	Employment in the agriculture sector as share of total workers as per census 2001	58.2		

Source : Central Statistics Office and Department of Agriculture and Cooperation.

In His Own Words


Photo: Anindito Mukherjee

Production bottlenecks

"The recent spurt in food prices was driven by increase in the prices of items like fruits and vegetables, milk, meat, poultry and fish, which account for more than 70 per cent of the WPI basket for primary food items. Removal of production and distribution bottlenecks for these items will be the focus of my attention this year. I propose to make allocations for these schemes under the ongoing Rashtriya Krishi Vikas Yojana for an early take off. The total allocation of RKVY is being increased from Rs 6,755 crore in 2010-11 to Rs 7,860 crore in 2011-12."

Credit flows

"To get the best from their land, farmers need access to affordable credit. Banks have been consistently meeting the targets set for agriculture credit flow in the past few years. For the year 2011-12, I am raising the target of credit flow to the farmers from Rs 3,75,000 crore this year to Rs 4,75,000 crore in 2011-12. Banks have been asked to step up direct lending for agriculture and credit to small and marginal farmers..."

Foodgrain procurement

"The years 2008 to 2010 saw very high levels of foodgrain procurement. On January 1, 2011, the foodgrain stock in Central pool reached 470 lakh metric tonnes, 2.7 times higher than 174 lakh metric tonnes on January 1, 2007. The storage capacity for such large quantities requires augmentation. Process to create new storage capacity of 150 lakh metric tonnes through private entrepreneurs and warehousing corporations has been fast tracked. Decision to create 20 lakh metric tonnes of storage capacity under Public Entrepreneurs Guarantee (PEG) Scheme through modern silos has been taken.

Subvention schemes

"The existing interest subvention scheme of providing short-term crop loans to farmers at seven per cent interest will be continued during 2011-12. In the last Budget, I had provided an additional two per cent interest subvention to those farmers who repay their crop loans on time. The response to this scheme has been good. In order to provide further incentive to these farmers, I propose to enhance the additional subvention to three per cent in 2011-12. Thus, the effective rate of interest for such farmers will be four per cent per annum..."

Pulse villages

"Government's initiative on pulses has received a positive response from the farmers. As per the second advance estimates, a record production of 165 lakh tonnes of pulses is expected this year as against 147 lakh tonnes last year. While consolidating these gains, we must strive to attain self-sufficiency in production of pulses within next three years. I propose to provide an amount of Rs 300 crore to promote 60,000 pulses villages in rainfed areas for increasing crop productivity and strengthening market linkages..."

Rice-based East

"The Green Revolution in eastern region is waiting to happen. To realise the potential of the region, last year's initiative will be continued in 2011-12 with a further allocation of Rs 400 cror.

Supply measures

"We also have to improve the supply response of agriculture to the expanding domestic demand. Determined measures on both these issues will help address the structural concerns on inflation management. It will also ensure a more stable macroeconomic environment for continued high growth..."

Demand for foodgrains

"While the need to maximise crop yields to meet the growing demand for food grains is critical, we have to sustain agricultural productivity in the long run. There has been deterioration in soil health due to removal of crop residues and indiscriminate use of chemical fertilisers, aided by distorted prices.

To address these issues, the government proposes to promote organic farming methods, combining modern technology with traditional farming practices like green manuring, biological pest control and weed management..."

– **Pranab Mukherjee,** Union Budget 2011-12

GCF in Agriculture and Allied Activities (₹ crore at 2004-05 prices)

Year	GDP	Agriculture & allied activities		GCF/GDP in agriculture & allied activities	GCF in agriculture as per cent of total
		GCF	GDP		
2004-05	29,71,464	76,096	5,65,426	13.46	2.56
2005-06	32,54,216	86,611	5,94,487	14.57	2.66
2006-07	35,66,011	90,710	6,19,190	14.65	2.54
2007-08	38,98,958	1,05,034	6,55,080	16.03	2.69
2008-09P	41,62,509	1,28,659	6,54,118	19.67	3.09
2009-10QE	44,93,743	1,33,377	6,56,975	20.3	2.97

Source : Central Statistics Office. Notes: P- provisional. Q-quick estimates.

STRANGELY, THE GOVERNMENT HAS CHOSEN TO EXTEND IT TO THE STILL FERTILE EASTERN REGION WITHOUT ANY ANNOUNCED POLICY MEASURES TO ENSURE THAT THE MISTAKES ARE NOT REPEATED

vacating space for the private sector in critical areas where its own dominating presence would be necessary to bulldoze change. Such withdrawal from public space is equally obvious in the irrigation sector that is still in a shambles and finds no succour in the Budget.

Even the industrious Punjab farmer – indeed the government of Punjab – is shifting focus to industry. The Green Revolution pushed beyond its legitimate objective and propped up by illegitimate wherewithal in the shape of chemicals has now started showing shockingly deleterious results in the north. Strangely, the government has chosen to extend it to the still fertile eastern region without any announced policy measures to ensure that the mistakes are not repeated.

The Finance Minister's superficial statement around this: "while the need to maximise crop yields to meet the growing demand for foodgrains is critical, we have to sustain agricultural productivity in the long run. There has been deterioration in soil health due to removal of crop residues and indiscriminate use of chemical fertilisers, aided by distorted prices", does not indicate a clear roadmap on how this major problem is to be addressed. His proposed solution: "the government proposes to promote organic farming methods, combining modern technology with traditional farming practices like green manuring, biological pest control and weed management", does not inspire hope that he has the answers; welcome though these measures may be.

Where does it leave the poor Indian farmer in the short and long run? What does it mean for inclusive growth? The point that is being reiterated by large and small farmers the country over is that farming is no longer worth its while. That is a horrific future to contemplate.

Yet, why is India, hailed as the technological wonder, contemplating such a future amidst threatened food insecurity? India is governed by the good, committed people with the best of intentions. The question is whether the country is being best advised on agriculture? Do these advisors have the best understanding of the complexities of Indian agriculture spread over a vast range of agro-climatic regions? Wrong understanding and wrong interpretations of signals lead to incorrect action; often action by rote. What is needed is dynamism at the policy level for transformative change to happen. It does not matter whether or not the Finance Minister's heart lies in the right place. As was said in a Batman movie: "It is not what you are inside, it is what you do that defines you".

Ajay Vir Jakhar
Editor

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Photo: Darias Martin

Letters to the Editor

Professional advocacy

The Pre-Budget Wish List prepared by Bharat Krishak Samaj (*Farmers' Forum*, February 2011) is very commendable work. It covers almost all the ministries and thus brings out the every possible demand of the Indian agriculture. Now the responsibility rests on the Finance Minister of India. It is very important to become professional in one's approach to policy advocacy. In the West, the farmers are a small percentage of the total population but they wield far more influence on government policy than in India and other developing countries.

Dr Ghazi Farooq, *Vancouver Island (Canada)*

Wanted: R&D updates

Farmers' Forum is a very informative journal with every issue giving valuable information on every aspect from dairy to soil to water. It helps me in upgrading my knowledge with the latest policy issues. I wish the magazine well and hope that it will keep informing and educating farmers like me especially with updates on agriculture research and development.

C. Durai Raj, *Erode (Tamil Nadu)*

Lost to rats

Apropos your interview with Siraj Hussain, 'Only 54,000 tonnes damaged foodstocks ... rats are not the problem!' (*Farmers' Forum*, February 2011), where he admits that there are 54,000 tonnes of damaged food stocks, the question to him is who is responsible for the loss of such a huge quantity of foodgrains. If rats and rodents are not the problem then how did such big loss happen?

Satinder Shah, *Muzzafarpur (Bihar)*

Good read on Breed

Farmers' Forum, (February 2011) provides detailed information about the dairy industry and I have been particularly helped by the information on local breeds and cross breeds. Readers could use this knowledge and enhance their income.

Yograj Singh, *Kanpur (U.P.)*

Losing land

Apropos your article, Green fingers, *Farmers' Forum* (February 2011), 'Face in the Crowd', land is being acquired around cities and one is unable to stop the loss of arable land. Your story explains the true picture. I enjoy the Green Fingers segment of the magazine that provides insights into the lives of farmers, explains why and how they succeed after overcoming the odds. Keep it up!

Laxmana Pandit, *Mayurbhanj (Orissa)*

Facing the consequences

Apropos of Ajay Vir Jakhar's article, Rajni Devi's troubled terrain–*Farmers' Forum* (February 2011), I am horrified at the price differential between the compensation paid in 1976 and current-day prices. The farmer who has been dispossessed knows exactly what has happened to his heritage. How do you expect large numbers of farmers who have been this cheated to accept things with equanimity? Is this not a sure recipe for the rise of the ultras?

Dipankar Sen, *Kolkata (West Bengal)*


Photo: Eduardtrag

BUDGET 2011-12

Failing to Solve the Food-Farm Conundrum

"Slow agricultural growth is a concern for policymakers as some two-thirds of India's people depend on rural employment for a living. Current agricultural practices are neither economically nor environmentally sustainable and India's yields for many agricultural commodities are low. Poorly maintained irrigation systems and almost universal lack of good extension services are among the factors responsible. Farmers' access to markets is hampered by poor roads, rudimentary market infrastructure, and excessive regulation."
– World Bank: India Country Overview 2008

It is not a little unfortunate that the segment of the economy that supports the largest number of Indians should also be the most sluggish. Yet on paper, at least, Indian agriculture has shaken itself out of the slough of despair and is registering happier growth. Even so, it has grown at no more than 5.4 per cent and after abysmal growth rates of -0.1 (2008-09) and 0.4 (2009-10). Also, despite the turnaround hype, it accounts for no more than 14.2 per cent of the country's gross domestic product, representing a decline from 16.6 per cent in 2009-10 and 15.7 per cent in 2008-09.

How do these numbers fit into 9 per cent or more growth that the country says it is headed for? How do these numbers fit in with the concept of achieving inclusive growth that is the government overarching ambition? From a pure management perspective what is the message going out when the sector that encompasses every Indian – and should be the primary growth driver – does not quite perform? What is the message when food remains the critical need of the country; food insecurity faces the country and agriculture is far from being poised to deliver? Finally, what is the message when the Finance Minister tends to gloss over these worrisome aspects when preparing his annual Budget?

Photo: Vasant Dave

The Budget does not do enough to make agriculture the driving force for the Indian economy and many of its allocations are misplaced

It goes without saying that the Union Budget 2011-12 does not answer these questions notwithstanding the substantial list of pro-agriculture announcements that it contains (see Box: *All for the sake of agriculture*). Yet the *Economic Survey* tells the country what the job ahead is: "the agriculture sector needs to grow at 8.5 per cent during 2011-12 to achieve the Plan target of average 4 per cent growth per year." It also begins with a note of optimism that is not entirely justified by the detailed analysis that it presents on Indian agriculture.

To ask a very simple question: what is it that inspires hope in a sector? The fact that the average Indian looks at it with interest. How does the average Indian consider agriculture: even youth from well-to-do-agricultural families want to quit farming because it has ceased to be a remunerative profession.

A cross-section of writers on Indian agriculture commenting on the Budget – from apolitical to political personalities – have generally agreed that the Budget does not do enough to make agriculture the driving force for the Indian economy and that many of its allocations are misplaced and may only help the larger corporates engaging in the agriculture space. They also make the point that the government has chosen to ignore the considered recommendations of its own committees that may well have helped the cause of Indian agriculture.

> Increasing agriculture production and productivity is a necessary condition not only for ensuring national food security, livelihood security, and nutritional security but also for sustaining the high levels of growth envisaged in the current Plan
>
> – *Economic Survey*, 2010-11

In his article, 'Agriculture: left in the lurch', Naresh Minocha, senior journalist, specialising in agriculture, makes the point that "what the Budget does not say is more important than what it does say" and emphasises the government's disregard for the National Policy for Farmers placed in Parliament in November 2007 or even the National Agricultural Policy, unveiled in July 2000. The UPA does not attempt to measure the growth and direction of agriculture against the goals and milestones specified in the two policies but creates a hype around a few new schemes with paltry allocations. Why else would the government commence a National Mission on Seeds with investment of Rs 50 crore only, for instance?

This on the one hand, and on the other comes the brutal 63.63 per cent cut in the total allocation for crop insurance to Rs 1,150 crore from Rs 3,162 crore. The point is that in its preoccupation with the governance deficit and ethical deficit, the intelligentsia of the country has ceased to be concerned about the lopsided growth in agriculture

> A holistic approach, simultaneously working on agricultural research, development, dissemination of technology and provision of agricultural inputs such as quality seed, fertilisers, pesticides, and irrigation, would help achieve the critical levels of productivity needed.
>
> – *Economic Survey*, 2010-11

and its impact on food security.

Surinder Sud, Consulting Editor, *Business Standard*, admits in his article, 'The agriculture-friendly illusion', that while the Union Budget 2011-12 seems, *prima facie*, pro-agriculture and farmer-friendly the fine print does not fully uphold this image. The pro-agriculture feeling comes largely from the fact that the Finance Minister, Pranab Mukherjee, has identified some of the key ills of the farm sector truthfully and has followed up by making the right kind of noises about them in his Budget speech. The Budget also appears farmer-friendly because it has mooted some measures that can potentially benefit the farmers. However, the good intentions have not been matched by fiscal allocations to produce perceptible results. As a result, the net impact of the Budgetary proposals on agriculture may not be too significant.

Focusing on agricultural marketing, Surinder Sud points out the Budget speech has merely spelt out the weaknesses that denied remunerative prices to the producers even when the consumers paid high prices. "The huge differences between wholesale and retail prices and between markets in different parts of the country are just not acceptable. These are at the expense of remunerative prices for farmers and competitive prices for consumers," maintained Mukherjee. Elaborating this point, he further said: "The government-regulated *mandis* sometimes prevent retailers from integrating their enterprises with the farmers." Despite diagnosing the ills of the agricultural marketing system with such clarity, however, the Finance Minister fell short of stipulating any concrete remedial action. All he said was: "There is a need for the state governments to review and enforce a reformed Agricultural Produce Marketing Act urgently."

What about the *aam aadmi*, the common man? In his article, 'Bypassing the *aam aadmi*', Suneet Chopra, Joint Secretary, All India Agricultural Workers Union and Member, Central Committee, CPI (M), expressed no surprise that the Budget has ignored the comman man: "indeed, most Budgets have been doing so for nearly two decades now, with devastating effect on India's food security, inflation, declining rural employment and increasing income inequality between the urban and rural sectors, leading to the withering away of resources of the rural masses, which still constitute in excess of 60 per cent of India's population. Once more the Budget has given the *aam aadmi* the go by."

Bhavdeep Kang, commentator on agriculture and food policy, says in her article 'Budgeting for unprofitable farming' that in terms of agriculture, Budget 2011 is distinguished by a mind-numbing lack of creativity. What does the Budget appear to offer?

- Higher flow of funds to rural India and increased credit for agriculture
- Lower interest rates for farmers
- Direct cash transfer to small farmers approved
- Allocations made for addressing crop shortages
- Heavy investment in storage infrastructure and food processing to streamline supply chain management
- Attempts to rationalise the gap between wholesale and retail prices and helping to control food inflation.

She asks what all this means on the ground? "Are large doses of institutional credit the answer to agrarian distress and declining crop yields? If that were so, farmers' suicides would be a thing of the past and crop productivity would be shooting up", she points out.

In a similar refrain, P. Muralidhar Rao, National

> Things are looking bright in the current year with a relative good monsoon and the agriculture sector is expected to grow at 5.4 per cent as per the 2010-11 advance estimates. There is a marked improvement in the gross capital formation also in agriculture sector.
>
> – *Economic Survey*, 2010-11

Photo: Ieva Verikaite

Secretary, BJP and former convenor of the Swadeshi Jagran Manch, in his article 'Whither food security?' focuses on the lip service paid to the proposed National Food Security Bill without a supporting allocation, reducing it to an exercise in empty rhetoric. His worry is enhanced by the fact that there is no framework to include the vast majority of people like farmers, rural workers and those in the unorganised sector. In effect, he says, the Budget has failed to address the genuine problems of the agricultural sector and farming communities. The minuscule corporate minority, accountable for speculative growth, which has always been the largest beneficiary, will continue to reap a rich harvest.

In these confused times, it would be well worth asking the fundamental question around the need to free agriculture from the stranglehold of the finance ministry and to give it an independent Budget along with a new structure that would be focused on decentralisation; understanding the farming compulsions of the different states that can never be understood by a centralised body. Indeed, in times such as the present when there is so much lip service being paid to the concept of decentralised planning, it is imperative that agriculture – that is a grassroots business – be allowed to chart out its own course in consultation with the people who know best because it is they who make the farms come alive.

It is difficult for the cloistered corridors of the North Block to deliver programmes and policies that demand a walk in the fresh air; in the verdant fields of Indian agriculture that will soon turn brown if starved of funds and understanding that only micro-planning from the lowest possible level can provide. ●

Brinda Karat in the Rajya Sabha on the Union Budget

We know the chorus of voices from corporate India saying, 'Cut subsidies; cut subsidies'. And, they have started cutting subsidies on fertilisers and on kerosene; and, on food. What about fertilisers? At a time when farmers of the country are in such acute distress – you have two lakhs cases of suicides of farmers staring you on the face – and you are removing subsidies and substituting with the so-called Direct Cash Transfer.... What exactly is going to happen when this cut in subsidy starts working? The first point is that the prices of fertilisers are going to shoot up. Today, it is Rs 5,300 per tonne of urea. The global price today is Rs 16,000 to Rs 18,000 per tonne of urea. We are importing, approximately, 70 lakh tonnes every year. We

are not using our entire installed capacity, which is about 200 lakh tonnes. Seven fertiliser units in India are closed down. The government is doing nothing to open them and we are importing fertilisers. What does this mean? Once you remove the subsidy on fertilisers, the fertiliser prices are going to shoot up. ... . This government wants to introduce private participation in the fertiliser sector. They are waiting for that. They are waiting for complete deregulation of the fertiliser sector. Just as you did with petrol, you are going to do it with fertilisers and you are going to make farmers suffer. Therefore, I entirely oppose this cut in fertiliser subsidy. It is an anti-farmer step and I demand that the government should withdraw this cut in subsidy.

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I, Ajay Vir Jakhar, do hereby declare and confirm that the above particulars of Farmers' Forum English Bi-monthly are correct and true.

Place: New Delhi
Dated: 1st March, 2011

Sd/-
Ajay Vir Jakhar
Signature of Editor, Printer & Publisher

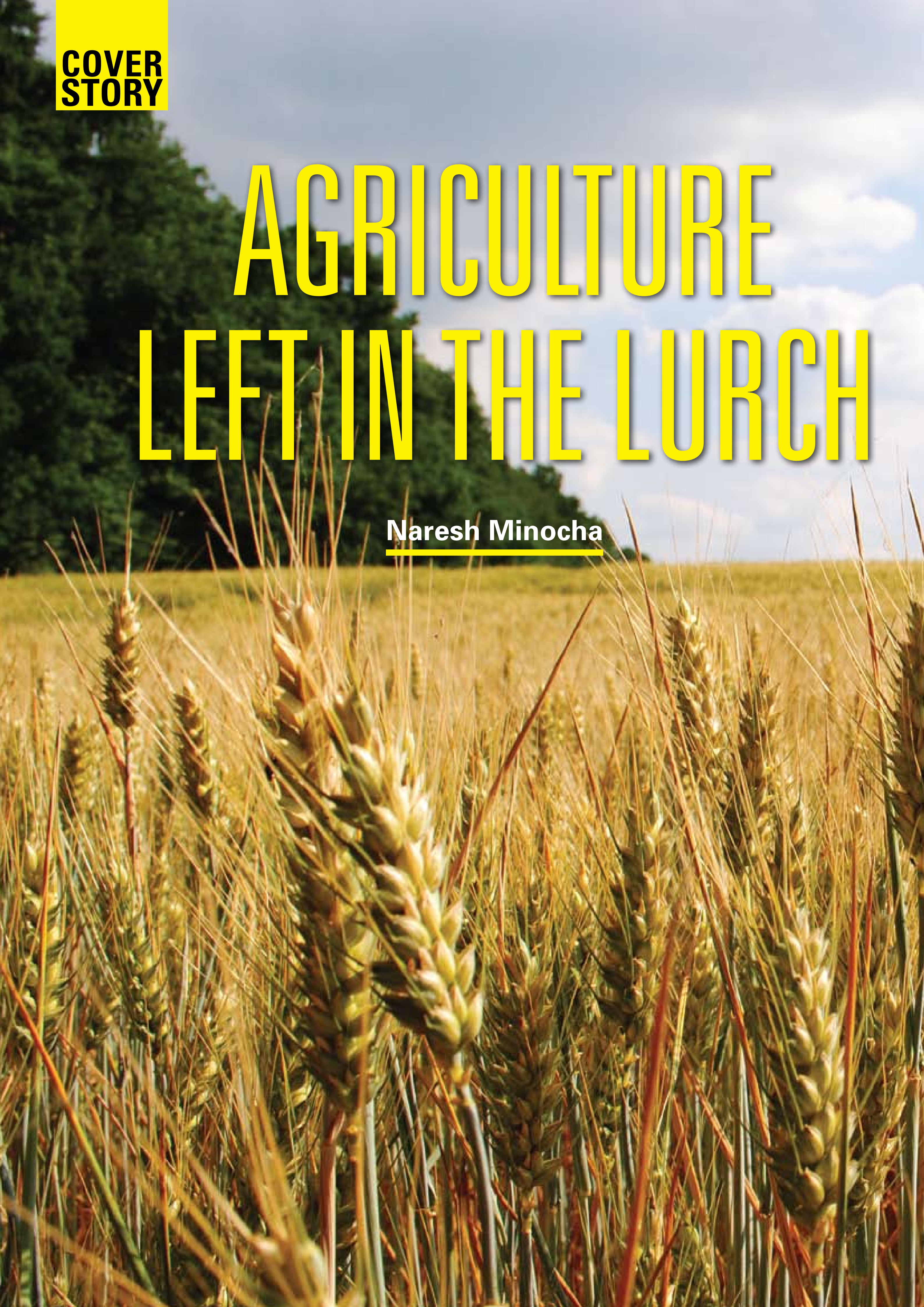
All for the sake of agriculture

- National Food Security Bill to be introduced in the Parliament
- Plan outlay for agriculture and allied sector up 19.79 per cent (Rs 14,744 crore)
- Agricultural credit to increase to Rs 4,75,000 crore (2012) from Rs 3,75,000 crore (2011)
- Rural Infrastructure Development Fund XVII corpus increased to Rs 18,000 crore (2012) from Rs 16,000 crore (2011); focus on warehousing
- Interest subvention up 1 per cent (from 2 to 3 per cent) for short-term crop loans to reward responsible farmers, for timely repayment
- NABARD to see phased shoring up by Rs 3,000 crore to handle greater credit disbursement with Rs 10,000 crore allocated to its Short-Term Rural Credit Fund (2012)
- Rashtriya Krishi Vikas Yojana gets Rs 7,860 crore, up from Rs 6,755 crore in 2011
- National Horticulture Mission gets Rs 1,700 crore (including Rs 500 crore for the North East and Himalayan states)
- National Food Security Mission gets Rs 1,350 crore
- Macro Management in Agriculture gets Rs 780 crore
- National Mission on Micro Irrigation gets Rs 1,150 crore
- National Agricultural Insurance Scheme gets Rs 700 crore (Rs 150 crore for Modified National Agriculture Insurance Scheme)
- Integrated oilseeds, oil palms, pulses and maize development gets Rs 550 crore
- Improving supply chain for horticulture and dairy products
- Promotion of organic farming methods alongside use of modern technology blended with traditional practices
- Rs 400 crore for better rice-based cropping system in the eastern region
- Pulses promotion programme focusing on 60,000 pulses in rainfed villages gets Rs 300 crore
- Oil palm plantation gets Rs 300 crore to increase acreage by 60,000 hectares and produce a targeted annual 3 lakh metric tonnes of palm oil in 5 years
- Vegetable cluster promotion gets Rs 300 crore for better vegetable at competitive prices
- Promotion of *bajra, jowar, ragi* and other nutritious/medicinal millets, gets Rs 300 crore
- Accelerated Fodder Development Programme gets Rs 300 crore to benefit farmers in 25,000 villages
- Plans for another15 Mega Food Parks in 2011
- Focus on increased storage capacity through private entrepreneurs and warehousing corporations; capital investment made eligible for viability gap funding of the Finance Ministry
- Cold chains and post-harvest storage recognised as infrastructure sub-sector
- Full excise exemption to air-conditioning equipment and refrigeration panels for cold chain infrastructure
- Excise exemption to conveyor belts used in cold storages, *mandis* and warehouses
- State governments to review and enforce a reformed Agriculture Produce Marketing regime
- Basic customs duty reduced for specified agricultural machinery to 2.50 from 5 per cent.
- Concession extended to parts of such machinery to encourage domestic production.

COVER STORY

AGRICULTURE LEFT IN THE LURCH

Naresh Minocha



*"Unless our farmers are adequately remunerated
for their hard work and devotion,
it will not be possible to feed 1.15 billion people…."*

– Congress Economic Resolution, December 2010

As always, the agriculture sector has been left in the lurch by Mr Pranab Mukherjee in his Union Budget 2011-12.

Yet, consider the compassionate statements made by the ruling party in the recent past: "The low rate of capital formation in agriculture is a cause of worry. The diversion of agricultural land for non-agricultural purposes is another serious concern. The Indian National Congress calls upon the government to address these challenges and redouble its efforts to make agriculture a viable and vibrant sector of the Indian economy."

That was the Congress, the lead partner of the United Progressive Alliance (UPA), incorporating this clarion call in its economic resolution passed at its 83rd Plenary Session in New Delhi in December 2010. It did kindle some hope in certain quarters for fresh and substantive initiatives in the run-up to the Union Budget presented by Finance Minister, Pranab Mukherjee, on February 28, 2011. Instead, the Budget proved to be another letdown for agriculture, whose share in the booming economy is declining year after year. Agriculture accounted for an estimated 14.2 per cent share of the gross domestic product (GDP) in 2010-11, which was an exceptional year in which it registered a 5.4 per cent growth.

Most of the farm graduates seek employment in the organised sector and are not interested in going back to villages. This Budget lacks a vision for farmers

Agriculture is, however, still the laggard compared to the manufacturing sector and the fastest-growing services sector. What makes the situation more dismal is that the level of growth in agriculture continues to be lower than the overall GDP growth. This is in spite of all the thrust given by the UPA since mid-2004 when it first came to power.

The average annual growth in agricultural GDP has been 2.9 per cent, against the projected 4 per cent growth in the 11th Five Year Plan ending March 31, 2012. It is obvious that the juggling of existing projects and schemes, which often involves renaming them and tinkering with their Budgetary allocations, has failed to yield satisfactory results in successive Budgets.

Shelved reports

How indifferent the latest Budget is towards the farming community can be gauged by its silence on crucial issues. The resolution of these have been recommended time and again by different expert committees, including those constituted by the UPA itself. What the Budget does not say is more important than what it does say. Before discussing a probable blueprint for agricultural renaissance embedded in shelved reports, a look at the Budget numbers would set the backdrop for reinventing the Budget.

The Budget for 2011-12, at best, constitutes a *status quo* approach towards agriculture. The farming sector's frustration with it was aptly captured in a headline: Union Budget 2011-12: Vidarbha farmers and farm widows say 'it's peanuts' that appeared in the *Vidarbha Times*, a niche media run by an NGO. That the farming community is upset with the Budget became clear from an official release about the post-Budget meeting between a Bhartiya Kisan Union (BKU) delegation and the Prime Minister, Dr Manmohan Singh, on March 8.

The release said: "The delegation raised a number of issues, including remunerative prices for farm

produce, amendment to the Land Acquisition Act, 4 per cent rate of interest for loans other than crop loan, effective implementation of the minimum support price mechanism, due consideration of sensitivities about GM crops, protecting the interests of Indian farmers while engaging with WTO, FTA… health insurance for farmers, ensuring farmers' interests while framing the Seed Bill and separate Budget for agriculture like Railways".

Little vision

Agricultural expert and Rajya Sabha Member, M. S. Swaminathan, aptly voiced the concerns of all stakeholders in his formal reaction to the Budget proposals: The Budget "lacks a vision and a strategy for keeping farmers on the farm and for attracting and retaining youth in farming. While the Finance Minister emphasised the need for reaping a demographic dividend from our youthful population, there is no strategy or programme for attracting and retaining youth in farming. Most of the farm graduates seek employment in the organised sector and are not interested in going back to villages. The major deficiency of this Budget is that it has not addressed two of the goals of the National Policy for Farmers (NPF) placed in Parliament on November 2007".

The NPF is a virtually forgotten document. The Agriculture Coordination Committee (ACC) under the chairmanship of the Prime Minister was supposed to oversee and coordinate the integrated implementation of this policy. Information on ACC's decisions on the NPF is not available in the public domain. Like the NPF, the National Agricultural Policy, unveiled in July 2000, is as good as any other document in the National Archives.

The Budget contains some striking dissonances between words and deed:

- The UPA has made no attempt to measure the growth and direction of agriculture against the goals and milestones specified in the two policies. The Finance Minister has tried to create hype by weaving in a few new schemes in the Budget. These initiatives are only notional as they have been backed with paltry outlays.
- The Department of Agriculture and Cooperation (DAC) in the Agriculture Ministry would, for instance, launch a National Mission on Seeds with investment of Rs 50 crore in 2011-12 to improve the availability of quality seeds.

- The DAC would also launch a new scheme for rehabilitation and reconstruction of cooperatives with a Budgetary outlay of Rs 25 crore.
- It would constitute a Cooperative Rehabilitation and Reconstruction Fund (CRPF) for channeling aid to sick cooperatives that have some chance of being turned around.
- Another scheme provides for interest subsidy (interest subvention in the Finance Ministry's jargon) on loans provided by the National Cooperative Development Corporation (NCDC) to cooperatives. The allocation for this new scheme is Rs 80 crore.

Lucky 3

The paltry allocations apparently restrained Mr Mukherjee from making a reference to them in his Budget speech. He, however, peppered his speech with selective disclosures about enhanced allocations for some schemes and a few new ones bearing catchy names.

He thus announced a hike in allocation for UPA's flagship programme, the Rashtriya Krishi Vikas Yojana (RKVY), to Rs 7,660 crore in 2011-12 from Rs 6,755 crore in 2010-11. Some other schemes that figured in his speech with identical outlays of Rs 300 crore each are: Promotion of Vegetable Clusters near cities, National Mission on Protein Supplements, scheme for increasing production of 'Nutri-cereals' (millets such as *bajra*), scheme for promotion of oil palm plantations and the Accelerated Fodder Development Programme. The only justification that Mr Mukherjee had for the modest allocation of Rs 300 crore for each scheme was that three happened to be his lucky number. Would Mr Mukherjee's luck have dissipated had he added one more zero to all such allocations?

The Finance Minister announced an increase in agricultural credit disbursement target to Rs 4,75,000

Table: Juggling with Agriculture & Rural Development funding

(Outlay in Rs crore)

Department	2010-11 revised outlay	2011-12 Budget outlay	% change
Agri & Cooperative	17695.48	17522.87	-0.97
Agri Research & Education	5165.00	4957.60	-4.02
Animal Husbandry	1355.70	1696.25	25.11
Fertilizers	55215.00	50245.00	-9.00
Food & PDS	68021.08	61606.01	-9.4
Food Processing	409.72	610.09	48.90
Rural Development	76378.15	74143.72	-2.92
Land Resources	2666.05	2706.20	1.50
Drinking Water	10584.94	11005.24	3.97

(Source: Demand for Grants document 2011-12)

crore from Rs 3,75,000 crore. He also offered a lollipop of additional reduction in the interest rate by 1 per cent for those farmers who repaid past loans on time. They currently get a 2 per cent reduction in the interest rate. Mr Mukherjee has raised the incentive for timely repayment of loans to 3 per cent, thereby reducing the effective interest rate on short-term crop loans to four per cent from 7 per cent. What Mukherjee did not disclose is that the 4 per cent interest rate was recommended by the National Commission on Farmers (NCF) in October 2006.

Mukherjee did not find it worthwhile even to mention the WGAP's report in his Budget speech, leave aside taking action on some of its 150 recommendations

The UPA government has thus taken four and a half years to implement this recommendation.

Ignored recommendations

It is another matter that the UPA never cared to issue an action taken report on the NCF's recommendations spread over five volumes submitted during 2004-06.

The latest Budget, like all previous UPA Budgets, has shown a marked indifference towards the urgency for providing relief to farmers groaning under the burden of expensive loans taken from money lenders, microfinance institutions and other non-banking entities.

Expert committees have recommended debt swap of informal loans taken by farming community. An independent expert panel constituted by the National Bank for Agriculture and Rural Development (NABARD), for instance, recommended the swapping of informal loans with agricultural loans to be arranged from banks. In its report titled 'Action Plan to Address Agrarian Distress in India', the panel said that the proposed scheme could be implemented as "cash neutral to the exchequer".

What makes the panel's report credible is that it prepared an implementable action plan for easing the agrarian crisis by studying the reports of half a dozen previous committees including one on agricultural distress chaired by S.S. Johl and the NCF.

Ducking the bouncers

The Finance Ministry continues to duck the issue of rescuing farmers from the clutches of money-lenders and other informal debt channels. The Parliamentary Standing Committee (PSC) for the Finance Ministry last year chided the government for not taking a direct call on this issue. In its report submitted in March 2010, the PSC said: "While the emphasis made in the Committee's recommendation has been on setting up a Money Lenders Debt Redemption Fund as recommended by the Expert Group on Agricultural Indebtedness, the Government have merely chosen to inform about the proposed constitution of a Taskforce to examine the matter relating to loans availed from private money lenders. It is obvious from the action taken note that the government have chosen to be evasive...”

The Finance Ministry has similarly avoided formulating an agricultural credit guarantee scheme to protect the banks against loan defaults up to Rs 100,000 as recommended by the NABARD panel.

Restructuring of loans and debt relief is not the sole problem of agriculture. The government is very generous when it comes to providing interest rate subsidies to industries such as textiles for modernisation and expansion projects and doling outright grants to companies under the garb of public private partnership or under special investment schemes such as the one for semiconductor and allied electronic components industries.

The UPA's unashamed bias towards the manufacturing and services sectors is too obvious from the annual revenue forgone as disclosed in the receipts Budget. It shows that the government chose to sacrifice revenue collection of a whopping Rs 511,630 crore during 2010-11 through innumerable excise, customs, corporation tax and personal income tax concessions. This amounts to 72 per cent of estimated collection of these four taxes (Rs 710,543 crore) in the same year. Put simply, the government preferred to fritter away the opportunity to collect Rs 3 for every one rupee it collected as tax.

The figure for revenue forgone would become more mind-blowing if one of the factors in the sacrifice of non-revenue opportunities such as licence fees or mining rights frittered away in a year. In spite of the 2G scam that involved sale of mobile telephone licences in 2008 at 2001 prices, Mukherjee has not incorporated any statement in the Budget on non-tax revenue foregone.

Consider the other chicaneries: Mukherjee's selective disclosure about allocations for certain agricultural schemes masks the fact that he has reduced the total allocations for DAC as well as Department of Agricultural Research and Education (DARE).

- The DAC's allocation has been reduced by 0.97 per cent to Rs 17,522.87 crore in 2011-12 from the revised provision of Rs 17,695.48 crore.
- The DARE's outlay has been reduced by 4.02 per cent to Rs 4,957 crore from the revised estimate of Rs 5,165 crore.

The Finance Minister, however, increased the allocation for the Department of Animal Husbandry, Dairying and Fisheries by 25.11 per cent to Rs 1,696.25 crore from the revised provision of Rs 1,355.7 crore. The Budget has also cut the total fertiliser subsidy by nine per cent to Rs 49,997.87 crore from the revised Budget estimate of Rs 54,976.68 crore in 2010-11. Besides, it has pruned the total allocation for the Department of Food and Public Distribution (that includes food storage and warehousing) by 9.4 per cent to Rs 61,606 crore from revised estimate of Rs 68,021 crore.

Axing crop insurance

Buried underneath the mountains of Budgetary statistics is the brutal cut in the total allocation for crop insurance by 63.63 per cent to Rs 1,150 crore from Rs 3,162 crore. Crop insurance is not only the key to the mitigation of risks faced by farmers but also a facilitator for prevention of loan defaults that become unavoidable in the event of crop failures due to drought, floods, hailstorms and such others. (See Box: *Outline of an Agricultural renaissance Budget*).

Here too Mukherjee has steered clear of recommendations made by the NCF, the NAFED panel and the Working Group on Agriculture Production (WGAP) that submitted its report to the Prime Minister in December 2010. The WGAP, headed by Haryana Chief Minister Bhupinder Singh Hooda, has recommended: “A comprehensive policy for insurance coverage of all important food crops and livestock needs to be put in place on priority and the same should be implemented with additional funding support from the Centre, with village as a unit instead of the block”.

Mukherjee did not find it worthwhile even to mention the WGAP's report in his Budget speech, leave aside taking action on some of its 150 recommendations. The WGAP was constituted by the Core Group of Central Ministers and State Chief Ministers on Prices of Essential Commodities (Core Group) in April 2010 at its first meeting held

The figure for revenue forgone would become more mind-blowing if one factor in the sacrifice of non-revenue opportunities such as licence fees or mining rights is frittered

under the Chairmanship of the Prime Minister.

One WGAP recommendation that can be implemented through the Budget reads: "A consolidation exercise should be taken up by the Planning Commission to convert existing CSSs (centrally sponsored schemes) into a few focussed schemes." Instead, the Budget provides for more such schemes.

The WGAP's recommendation is of great importance as agriculture is a state subject but the Centre likes to have an extensive say in agricultural development by partly and thinly funding numerous CSSs. The states reluctantly cough up their share of funds for CSS to avail of the central funds even when the schemes do not fit into their developmental agenda.

Like the WGAP, the 13th Finance Commission (FC) had last year recommended that "initiatives should be taken to reduce the number of Centrally Sponsored Schemes and to restore the predominance of formula-based plan transfers."

Mr Mukherjee also preferred to gloss over the agriculture and irrigation-related recommendations of the Commission on Centre-State Relations (CCSR) that submitted its reports in March 2010. Referring to the constitutional bias towards a strong Centre working to curtail state's powers under List II of the Constitution, the commission had considered specific instances of central interventions in agriculture, "resulting to the disadvantage of states".

The UPA government thus ought to take a call on the CSSR's recommendations that have direct bearing on agriculture, water and rural development. The states certainly need more funds and flexibility to manage agriculture in their respective domain. However, the Budget has neither reviewed capital formation for agriculture nor provided for an integrated approach towards it.

The Committee on Capital Formation in Agriculture in March 2003, stated: "Agricultural development cannot be ensured by confining attention to the activities within the boundaries of agricultural fields. It should encompass activities fully or partially meant for agriculture such as production of fertilisers and pesticides, development of agricultural markets, rural roads and communication; augmentation of facilities for agricultural credit for small and marginal farmers, agricultural education, research and development of agricultural technology, which are the main source of

increasing production under the limited availability of natural resources. For monitoring agricultural growth it is necessary to have a broader measure of agricultural capital formation that includes capital formation in all these activities, which can be called capital formation for agriculture in comparison with capital formation in agriculture."

Mukherjee selectively talked about rural projects including a proposal to provide rural broadband connectivity to all 2,50,000 *panchayats* in the country in three years. He, however, forgot rural roads that are so crucial for transport of both inputs and output from the farms.

The fertiliser effect

What he also did not mention was the fact that UPA has made farmers more vulnerable to global prices and supply risks in the area of fertilisers by its failure to allocate gas to new urea projects and its continued confused approach towards subsidy. It is small wonder that this downslide in capital formation for agriculture has caught the attention of fertiliser multinationals vis-à-vis Indian markets.

In its annual report for 2010, Canada-based Potash Corporation has, for instance, noted that India's imports of diammonium phosphate (DAP) soared nearly threefold since 2007 to a record 7.6 million tonnes in 2010. Indian companies now account for approximately 40 per cent of the global solid phosphate trade. "India's rising demand is a major driver of world trade," it says. The story of growing dependence on imports of urea and NPK complex fertilisers is similar.

The slow and lopsided growth in agriculture and its consequent adverse impact on food security and national security has not rattled opinion leaders as yet. They remain glued to issues such as governance deficit, ethical deficit, Budget deficit, corruption and inflation.

Never too late

- It is, however, still not too late to pay attention to the agricultural deficit and the arrest drift from self-reliance to import-reliance and, finally, to ship-to-mouth living through which India passed in the sixties; the PL-480 era.
- One hopes that Mukherjee would give the requisite thrust to agriculture before the Budget is passed or through supplementary demand for grants later in the year.
- The UPA should herald an agricultural revival through the 2012-13 Budget and build up the momentum in the forthcoming five-year plan beginning April 1, 2012.

It is time to move beyond the Congress' ritual recitation of what Jawaharlal Nehru had reportedly said: "Everything else can wait but agriculture cannot." The government must present the next Budget in the Nehruvian spirit.

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Outline of an Agricultural Renaissance Budget

Through the instrument of Budget, the Union Government can revive the sagging fortunes of farming and thus prevent hunger and malnutrition. Such a Budget should give highest priority to mitigation of all risks that farming community faces. What are the two categories of risks that Indian agriculture faces?

- Fickleness of monsoon is the biggest and the most common risk that farmers face. Monsoon invariably causes droughts of various types and duration in some parts of the country and floods in others. Both calamities could result in total crop failure.
- The other natural risks faced by farmers include hailstorms, untimely and unseasonal rains, crop and livestock diseases and such like. The cumulative impact of all nature-related risks makes agriculture a high-risk business.

The answer lies in the government arranging insurance cover against all kinds of risks faced by farmers in crop farming, animal husbandry and other related activities that come under the definition of the agriculture sector. Two issues need to be emphasised here:

- This would open up a window of opportunity for the educated rural youth who can be trained to serve as insurance and financial service providers to farmers.
- It is high time the government moves out of the pilot mode of implementation of crop insurance schemes.

The Working Group on Risk Management in Agriculture (WGRMA) for the XIth Five Year Plan (2007–2012) says: "It will be in order for crop insurance to be regarded as a support measure in which the government plays an important role because of the benefit it provides to the farmers and to the entire national economy through forward and backward linkages. Society can, thus, significantly gain from more efficient sharing of crop and natural disaster risks. The principle behind the evaluation of crop insurance schemes all over the world is along these lines and, hence, receives the active support and finance of governments."

The lion's share of the premium for crop insurance is chipped in the governments in both developed and developing countries. The WGRMA showed that the subsidy in premium borne by the US government ranges between 70 per cent and 75 per cent. Canada and the Philippines subsidise 70 per cent of the premium.

- The next Budget, thus, must provide for at least 75 per cent of insurance subsidy from the Union government, irrespective of the type of insurance scheme.
- In the case of small and marginal farmers, the Centre should convince the states to share the balance 25 per cent premium in equal proportion with the farmers.

The second component of the proposed Budget should address the challenge of mitigating price and market risks faced by farmers.

- They should also be provided insurance cover against risk of price crash especially in the case of perishables. As such, crops are not covered by minimum support price mechanism, the farmers periodically face market glut, leading to price crash.
- The so-called market intervention schemes implemented through entities like NAFED are of limited use. This, after more than half the farmers sold their produce at distress prices.

- The government should extend the mechanism of price stabilisation fund from the plantation crops to all perishable produce.

According to an FAO policy brief titled 'Risk Management as a Pillar in Agriculture and Food Security Policies – India Case Study', "The critical nature of agriculture with respect to rural transformation and the national economy, considered alongside its inherent structural characteristics, requires substantial governmental and financial sector interventions in order to not only ensure the food and nutritional security of households in the farming community but also generate savings and investments in this grossly under-funded sector."

The brief, published in July 2008, adds: "The poor infiltration and development of various risk management tools in India also represents huge opportunities for the emerging agricultural insurance and commodity markets in terms of pulling producers out of the poverty trap by insulating them from income shocks and ensuring that a fair share of the price goes to the producer."

The third initiative under the proposed Budget should be to provide remunerative prices to farmers for all crops whose costs and prices are calculated by Commission for Agricultural Costs and Prices (CACP).

- It is pertinent here to factor in the recommendation of the Working Group on Agriculture Production that submitted its report to Prime Minister in December 2010 under the chairmanship of Haryana Chief Minister, Bhupinder Singh Hooda.

- It said: "The Working Group supports acceptance of the National Commission on Farmers' report suggesting 50 per cent higher price over the actual cost of cultivation or adoption of Bureau of Industrial Cost and Prices (BICP) formula used for estimating industrial costs."

The fourth component of an agricultural revival Budget should be a massive thrust to implement irrigation projects of all types. Simultaneously, the government should complement this effort with a time-bound programme for spread of fertigation to improve both irrigation and fertiliser use efficiency. Fertigation is the application of liquid fertilisers along with irrigation water through drip irrigation system. The mass-scale use of such irrigation techniques would not only reduce fertiliser consumption and thus subsidy but also reduce water requirement thereby making available water to more number of farmers and crops.

The fifth component should see the Finance Ministry unveiling a project to transform the Indian Post Office (IPO) as the platform to serve rural poor people for both micro-savings and micro-credit. This would not only usher in financial inclusion for rural poor but also generate part-time employment for rural youth who can double insurance, saving and credit facilitators. More such activities can be conceived to upgrade such rural youth into agents of change in the countryside.

In an expert panel's report prepared last year on 'Harnessing the India Post Network for Financial Inclusion', which recommended that "India Post should deliver lightweight, low-cost bank accounts to all Indian citizens and especially to the financially excluded population."

The sixth component of the proposed Budget should be substantial increase in investment in rural road projects. A similar effort is required for rural electrification.

The seventh component should be national campaign to bridge the gap between agricultural research centres and farms.

- This should be backed by clampdown on NGOs that misguide farmers against genetically modified crops.
- The evergreen revolution can only come with seeds that help farmers break yield barriers year after year.

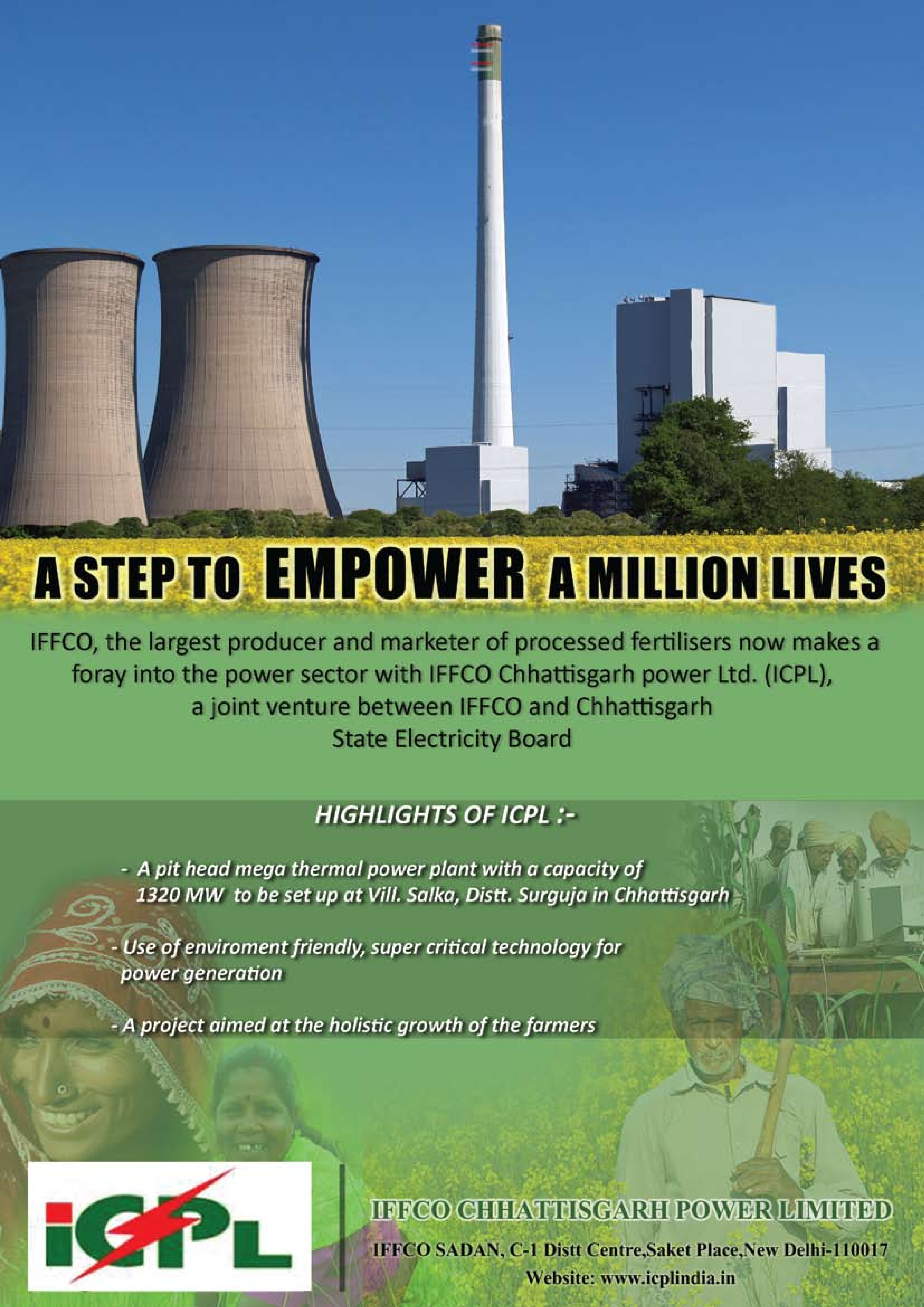
The eighth component of the Budget should be a centrally-sponsored scheme of agricultural and institutional reforms. Under this, the centre should give grants to states that undertake reforms that benefit farmers, consumers and the economy as a whole.

These include implementation of the Agricultural Produce Marketing Committee (APMC) Act, contract farming and credible efforts to improve the lot of agricultural labourers.

The reforms should also ensure that the farmers do not fall in the trap of exploiting short-term gains at the cost of long-term future of agriculture. An obvious case in point is the reckless exploitation of groundwater on the strength of free supply of electricity and skewed nature of subsidies that encourage farmers to rely heavily on urea and avoid unsubsidised fertilisers.

The Finance Minister can add more ideas by issuing a white paper on Agricultural Renaissance Budget for 2011-12 and invite public comments. He can weave in innovative ideas that would come up during the consultative process.

The time has come to radically alter the Budget-making process. Let the beginning be made with agriculture.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HIGHLIGHTS OF ICPL :-
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- Use of enviroment friendly, super critical technology for power generation
- A project aimed at the holistic growth of the farmers
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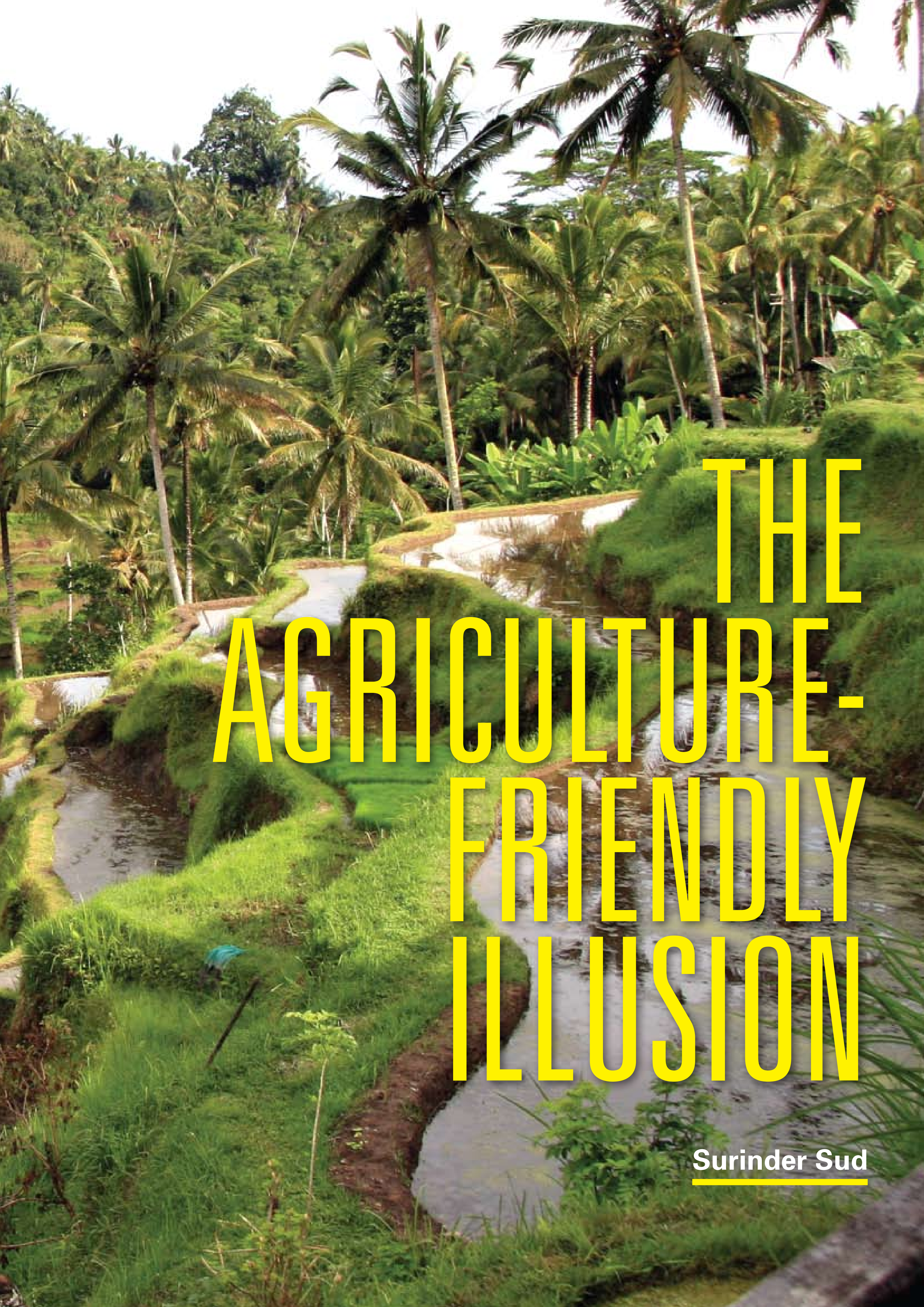

THE AGRICULTURE-FRIENDLY ILLUSION

Surinder Sud

The Union Budget 2011-12 seems, *prima facie*, pro-agriculture and farmer-friendly. The fineprint, however, does not fully uphold this image. The pro-agriculture feeling comes largely from the fact that the Finance Minister, Pranab Mukherjee, has identified some of the key ills of the farm sector truthfully and has followed up by making the right kind of noises about them in his Budget speech. The Budget also appears farmer-friendly because it has mooted some measures that can potentially benefit the farmers.

However, the downside of the Budget, which makes the agriculture-friendly image an illusion, is that the good intentions have not been matched by fiscal allocations to produce perceptible results. As a result, the net impact of the Budgetary proposals on agriculture may not be too significant.

Meagre benefits

The only proposal that may directly benefit the farmers is the mooted increase in subsidy on the interest chargeable on agricultural loans but this measure also carries some riders that considerably dilute its impact. Though the Finance Minister has categorically stated in his Budget speech that agricultural development is 'Central' to the government's growth strategy, the funds earmarked for this purpose defy this intent.

The Central Plan outlay for agriculture and allied sectors (taken together) has been pitched only at Rs 14,744 crore for 2011-12. This is just Rs 382 crore, or 2.65 per cent, higher than the revised estimates of Rs 14,362 crore for 2010-11. If general inflation, currently at between 8 and 9 per cent is taken into reckoning, the financial provision would work out lower than last year's actual spending.

Plus and minus

No doubt the Finance Minister has announced a robust hike of Rs 1,105 crore in the allocation for the ongoing Rashtriya Krishi Vikas Yojana but this increase seems to be at the cost of a cut in the Budgetary allocations for some other developmental schemes of the agriculture ministry. This is clear from the demand for grants (read allocation) for the ministry that, instead of being enhanced, have actually been scaled down by Rs 172.61 crore. The total amount proposed for 2011 for the ministry is Rs 17,522.87 crore, against the revised estimates of Rs 17,695.48 crore for 2010-11.

Of course, the new areas picked up by the Finance Minister for focused attention during the next year are well-chosen. These include: extension of the Green Revolution to the eastern region; integrated development of 60,000 pulse villages in rainfed areas; promotion of oil palm; development of vegetable clusters around urban centres; popularisation of production and consumption of nutri-cereals (millets and coarse grains); accelerated fodder development; promotion of sustainable agriculture; and supplementing people's diets with proteins through livestock development, dairy

Accelerated Fodder Development Programme
"Adequate availability of fodder is essential for sustained production of milk. It is necessary to accelerate the production of fodder through intensive promotion of technologies to ensure its availability throughout the year. I propose to provide Rs 300 crore for Accelerated Fodder Development Programme, which will benefit farmers in 25,000 villages..."
– **Pranab Mukherjee**, Union Budget 2011-12

Finance Minister has allocated Rs 300 crore for promoting a whole lot of activities and ventures aimed at producing protein-rich foods, such as milk, eggs, poultry

farming, piggery, goat rearing and fisheries. These are really the areas that have been neglected in the past and now need urgent attention.

However, the funds earmarked for six of these areas are paltry Rs 300 crore each, which is nothing considering the magnitude of the task under each head. The scheme for developing 60,000 pulse villages can be a case in point. The allocation means that each village gets just Rs 50,000 which may not suffice even to cover the administrative expenses, let alone initiating any worthwhile measures to incentivise farmers to produce more pulses.

Likewise, in the case of fodder development, which is essential for sustainable growth in milk production, as many as 25,000 villages are targeted to be covered under the Accelerated Fodder Development Programme. However, the sum allocated for this purpose, too, is a meagre Rs 300 crore, which will be insufficient even to supply good seeds of forage crops to such large number of livestock-owning farmers.

In another proposal, the Finance Minister has allocated Rs 300 crore for promoting a whole lot of activities and ventures aimed at producing protein-rich foods, such as milk, eggs, poultry and other meats, fish and the like. All these are individually very vast sectors. Most of these are, of course, already growing at rates far higher than the growth in crop production. That is, however, due chiefly to private investment and efforts rather than any significant motivation from the government. A funding of merely Rs 300 crore for all of them put together is unlikely to make any difference.

Small wonder then that M. S. Swaminathan, made some critical observations about resource allocation for the farm sector in a recent interview with a national economic daily, *Business Standard*. He said: "Revenue foregone in corporate taxes is Rs 3.75 lakh crore and you give Rs 300 crore for a second green revolution. It is all lip service."

Pale green

Indeed, the same is true also of the much-needed plan to revolutionise agriculture in the east, in the way it happened in the north-west in the late 1960s and 1970s. This is an idea whose time really came long ago though it is still not too late to work towards it. Compared to the north-west, the eastern region is agriculturally far better endowed. It has deep and fertile soils, plenty of sweet water and copious sunshine. However, only Rs 400 crore have been set apart to do the miracle of ushering in the green revolution in as many as seven states: Assam, West Bengal, Orissa, Bihar, Jharkhand, eastern Uttar Pradesh and Chhattisgarh. One can well imagine how much each state will get and what can be achieved with that. Indeed, even if Rs 400 crore had been given to each of these states, the objective of ushering in the Green Revolution would still have been difficult to achieve. Much more needs to be done for this purpose.

The Finance Minister did not forget to talk about sustainable agriculture to maintain land productivity. Going further, he listed distorted pricing leading to indiscriminate use of chemical fertilisers among the reasons for deteriorating soil health. He also very rightly prescribed promotion of organic farming practices, such as biological control of pests and weeds and green manuring, to restore soil health. He was quiet when it came to allocating funds for this purpose.

So much so for the well-conceived and much-needed new government programmes and interventions in the agricultural sector. Among the other significant announcements of the Finance Minister meant for farmers' welfare, is the hike in the target of credit flow to the farm sector from Rs 3,75,000 crore this year to Rs 4,75,000 crore for the next fiscal. Going further, he declared an increase in subsidy on interest charged by the banks on agricultural loans from those farmers who repay their dues on time. This will bring down the effective rate of interest chargeable from such farmers to just 4 per cent – the level suggested by the National Commission on Farmers headed by M. S. Swaminathan.

Inaccessible credit

However, the worry is that this will prompt the banks to lend more money to the same set of borrower-farmers who are regular in repayment (usually large farmers). Small and marginal farmers, who actually need and truly deserve cheaper finance, may be left out because they are, at times, forced, even against their will, to default in repayment of loans due to natural disasters and other factors beyond their control. Such a trend is, in fact, already visible. While the total disbursal of agricultural credit has risen several folds since 2004, when the government had announced a target for doubling the flow of credit in three years, the number of farmers linked to the banking sector has not increased in the same proportion.

Mukherjee himself conceded in Parliament during his intervention in the debate on the Budget that only 38 per cent (32,919) of the total 87,051 bank branches of the scheduled commercial banks were in rural areas and only 40 per cent of the country's population had bank accounts. Though he did not give the break-up of the number of bank account holders to indicate how many rural households are linked to the banking sector it would surely be less than 40 per cent, which is the overall proportion of the population utilising banking services. This shows that the bulk of the farmers still have to depend for their credit needs on the informal sector, notably moneylenders, who charge exorbitant interest.

This apart, the Budget did not address the problem concerning loans advanced against the warehousing receipts that have now been given the status of negotiable instrument or legal tender. These receipts are issued by the warehouses against the farmers' produce kept in their custody. The banks are supposed to lend to the farmers up to 70 per cent of the value of the produced stored in the warehouse. The glitch, however, is that the banks charge arbitrarily decided interest, often as high as 11 per cent, on the loans

Agriculture Produce Marketing Act

"The recent episode of inflation in vegetables and fruits has exposed serious flaws in our supply chains. The government regulated mandis sometimes prevent retailers from integrating their enterprises with the farmers. There is need for the State governments to review and enforce a reformed Agriculture Produce Marketing Act urgently..."

– **Pranab Mukherjee**, Union Budget 2011-12

National Mission for Protein Supplements
"The consumption of foods rich in animal protein and other nutrients has risen of late, with demand growing faster than production. The National Mission for Protein Supplements is being launched in 2011-12 with an allocation of Rs 300 crore. It will take up activities to promote animal based protein production through livestock development, dairy farming, piggery, goat rearing and fisheries in selected blocks..."
– **Pranab Mukherjee**, Union Budget 2011-12

advanced against the warehousing receipts. Unless this interest rate is also lowered through subsidy and brought at par with the interest charged on crop loans, the very purpose of making the warehousing receipts negotiable instrument for the purpose of bank loans is defeated.

Problems sans solutions

In the case of agricultural marketing, the Budget speech has merely spelt out the weaknesses that denied remunerative prices to the producers even when the consumers paid high prices. "The huge differences between wholesale and retail prices and between markets in different parts of the country are just not acceptable. These are at the expense of remunerative prices for farmers and competitive prices for consumers," maintained Mukherjee. Elaborating this point, he said: "The government regulated mandis sometimes prevent retailers from integrating their enterprises with the farmers."

However, despite diagnosing the ills of the agricultural marketing system with such clarity, the Finance Minister fell short of stipulating any concrete remedial action. All he said towards this end was: "There is need for the state governments to review and enforce a reformed Agricultural Produce Marketing Act urgently."

All this goes to show that the Budget 2011-11 is really high on promises but low on modalities and allocation of resources to fulfill these commitments.

The author is Consulting Editor, *Business Standard*

COVER STORY

WHITHER FOOD SECURITY?

P. Muralidhar Rao


ROHIT MARKETING

Presented in the face of an impending food insecurity that haunts the nation, the Union Budget, 2011-12 is but a routine exercise in accounting and jugglery of figures, devoid of any bold initiatives or innovative directions that could have charted out a new growth story. Nor is there a framework to include the vast majority of people like farmers, rural workers and those in the unorganised sector. In effect, it has failed to address the genuine problems of the agricultural sector and farming communities. The minuscule corporate minority, accountable for speculative growth, which has always been the largest beneficiary, will continue to reap a rich harvest.

Lip service has been paid to the proposed National Food Security Bill but without a supporting allocation, reducing it to an exercise in empty rhetoric. The initial promise that the majority of the population would be covered under the scheme has been belied, and UPA leaders and the government agencies concerned make it clear that the geographical and demographic spread will be severely limited, creating doubts about the government's sincerity vis-à-vis food security.

Abysmal food availablility

The per capita availability of foodgrains continues to fall alarmingly. India is import-dependent in terms of pulses and oilseeds and has had to import wheat and sugar in the recent past. The situation in terms of pulses, the main source of protein, is particularly shocking because its per capita availability is almost half of what it was in the 1950s. In 2009, per capita availability of foodgrains was 440 gm; abysmal by global standards.

India is far behind China and other Asian nations in terms of the hunger index, not to mention Europe and the US. The malnutrition levels in the country are comparable to those in sub-Saharan Africa. The incidence of anaemia among women is about two out of three and more than 42 per cent of all children upto 6 years is malnourished.

The problem of food security cannot be addressed without a drastic change in mindsets vis-à-vis agriculture. Instead of treating it as a growth escalator, the Finance Minister has chosen to neglect it entirely. While claiming to have increased allocation in real terms, in percentage terms, the allocation is lower than in last year – from 2.86 per cent of the gross domestic product to 2.46 per cent!

Credit for corporates

The increased credit flow of Rs 100,000 crore is not helpful unless it is directed towards servicing the needs of real farmers. Eventually, the big corporations that supply agri-inputs to the farmers are the real beneficiaries of the government's lending policies.

The interest subvention scheme, effectively allowing farm loans at 4 per cent, is a welcome step but the overriding problem of the farmer is his inability to repay debts on time. The solution to this basic issue lies elsewhere. No farmer would be unwilling to repay debt. Unfortunately, the pricing policy is biased against his interest and makes the business of farming non-remunerative. The Budget makes no attempt to address this fundamental grievance. Farming as a profession has not remained attractive and the youth from agricultural communities is desperate to migrate to other occupations. Consequently, there is a lot of

India is far behind China & other Asian nations in terms of hunger index, not to mention Europe and US. The malnutrition levels in the country are comparable to those in sub-Saharan Africa

stress on urban resources.

The proposed East India Green Revolution should incorporate the lessons learnt in the states of Punjab, Haryana and Andhra Pradesh, otherwise the problems faced by the agricultural sector and the farmers in this region, will multiply. This Budget falls woefully short in terms of promoting sustainable agricultural practices.

Ignored irrigation

Another gap in the Budget has been its failure to address the issue of irrigation. There is no thrust on creating new irrigation infrastructure or maintaining and restoring existing waterbodies, ponds and tanks. These number in the millions and have been consistently neglected and become dysfunctional. Desilting and restoration of these bodies is vital for the survival of agriculture.

The government has squandered yet another opportunity to address the pressing problems of the agricultural sector. The mainstay of the Indian economy, which accounts for 50 per cent of its employment but only 15 per cent of its GDP, could have emerged as a driver for inclusive and sustainable growth. Regrettably, it has been allowed to languish. ●

The author is National Secretary, BJP and former convenor of the Swadeshi Jagran Manch

COVER STORY

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BYPASSING THE *aam aadmi*

Suneet Chopra

When one runs with the hare and hunts with the hounds, the hare must always be the loser. The Union Budget 2011-12 plays with the rural hare and the corporate hound and achieves the foregone conclusion. Indeed, most Budgets have been doing so for nearly two decades now, with devastating effect on India's food security and resulting in inflation, declining rural employment amidst increasing income inequality between the urban and rural sectors. The overall outcome has been the withering away of the resources of the rural masses that still constitute more than 60 per cent of India's population. Once more the Budget has given the *aam aadmi* the go by.

Poor pay; rich prosper

The Rs 11,500-crore direct tax concession to the better off is to be offset by the increase of Rs 11,300 crore indirect tax collection from the ordinary people. This is consistent with policies of successive governments of making the already poor pay for the prosperity of the rich.

The agricultural sector, whose share of the gross domestic product has plummeted from 31.4 per cent in 1991 to a miserable 14.2 per cent in 2010 – even while it has to support more than half of India's population – has again been starved of the resources that it badly needs. It has seen a cutback from Rs 17,695 crore in 2010-11 to Rs 17,523 crore in 2011-12, while rural development has been chopped from Rs 89,629 to Rs 87,845 crore.

Subsidies on fertilisers have been reduced by 9 per cent, on food by 9.4 per cent and, on oil, by a massive 38.5 per cent, representing a cut of Rs 20,000 crore. This will be devastating for the rural masses, more than 70 per cent of which is below the 2,200 calorie line, reflecting the growing poverty of Indian villages, where 33 lakh farmers have been joining the ranks of the landless each year since 1991.

Misjudging private motives

This policy has been pursued under the erroneous belief that if the government pulls back from the agrarian sector, private investment will rush in to take its place. There is enough experience to suggest that this does not happen. On the contrary, the flight of government investment from agriculture and rural development has led to private investment following suit.

Significantly, the government had decided to increase credit at 4 per cent interest to those rural borrowers who have paid their previous dues, the very thing for which they were excluded from the debt-relief programmes earlier. Also, it is evident from the Finance Minister's exhortation to banks

to give more loans to poor and marginal farmers that in earlier years the lion's share of rural credit went to agro-industries instead. It is evident that he does not believe that anything is going to change this time.

Suspect allocations

Consider the rural drinking water programme. It got Rs 8,099 crore, which is Rs 400 crore less than the amount actually spent on the programme last year. The Indira Awas Yojana allocation was again stagnant at Rs 8,996 crore though given the increase in the price of cement and building materials because of ongoing government policies, it is clearly insufficient.

Consider some other aspects of the allocations:

- The PM Gram Sadak Yojana allocation at Rs 18,217 crore is short of last year's allocation by more than Rs 1,600 crore. Last year the expenditure was Rs 19,886.
- The National Mission for Protein Supplements, organic farming and extending the Green Revolution to the eastern region sounds good but knowing the flood-prone character of the region, with no allocation of irrigation facilities to match it, it seems a non-starter. This failure to meet the urgent demand to improve the rural infrastructure will no doubt affect employment as well.
- Despite linking wages of the Mahatma Gandhi National Rural Employment Guarantee Act to inflation, the outlay for the scheme has been brought down by Rs 100 crore to Rs 40,000 crore, even though the ministry asked for Rs 63,000 crore. So, a serious attempt at employment growth seems out of question.

To add to this there is the ominous threat of more free trade agreements, fluctuations in agrarian prices and the already ruinous crisis the peasantry faces today, which has resulted in 2,16,500 farmer suicides over the last decade and a half, with the figure peaking at 17,368 in 2008-09. The Budget does nothing to reassure farmers and the agricultural labour that the government is concerned about their suicides and hunger deaths. It seems to have gone on as if it is business as usual.

The Budget does nothing to reassure farmers and the agricultural labour that the government is concerned about suicides. It seems to have gone on as if it is business as usual

This essentially means going ahead with the corporatisation of agriculture and unleashing speculators on the agrarian market, forcing both distress sales and distress production. All these are likely to go on as before. Ashok Gulati, Director of the International Food Policy Research Institute states: "It is an average Budget and lacks the reforms agriculture needed. The steps cannot give you sustained growth in agriculture."

M. S. Swaminathan, Chairman of the Farmers Commission, saw the Budget as an opportunity missed on the global scale to make Indian agriculture pay, while several members of the National Advisory Council, headed by Congress President, Sonia Gandhi, spoke of it as being "unimaginative". These are understatements.

If one looks at the allocations for public health schemes, with the national vector borne disease control programme reduced by 23 per cent, routine immunisation by 17 per cent, the national TB control programme by 11 per cent and the trachoma and blindness control programme by four per cent, one realises that this Budget will deepen the crisis of in many other spheres along with hurting agricultural viability.

On the cards then are more sale of land, more suicides and more insecurity of life and livelihood in the rural areas. This seems to be the price the majority of Indian citizens will have to pay to ensure that a handful of corporates profit from increasing ruin and misery, as the Budget seems to be bent on promoting.

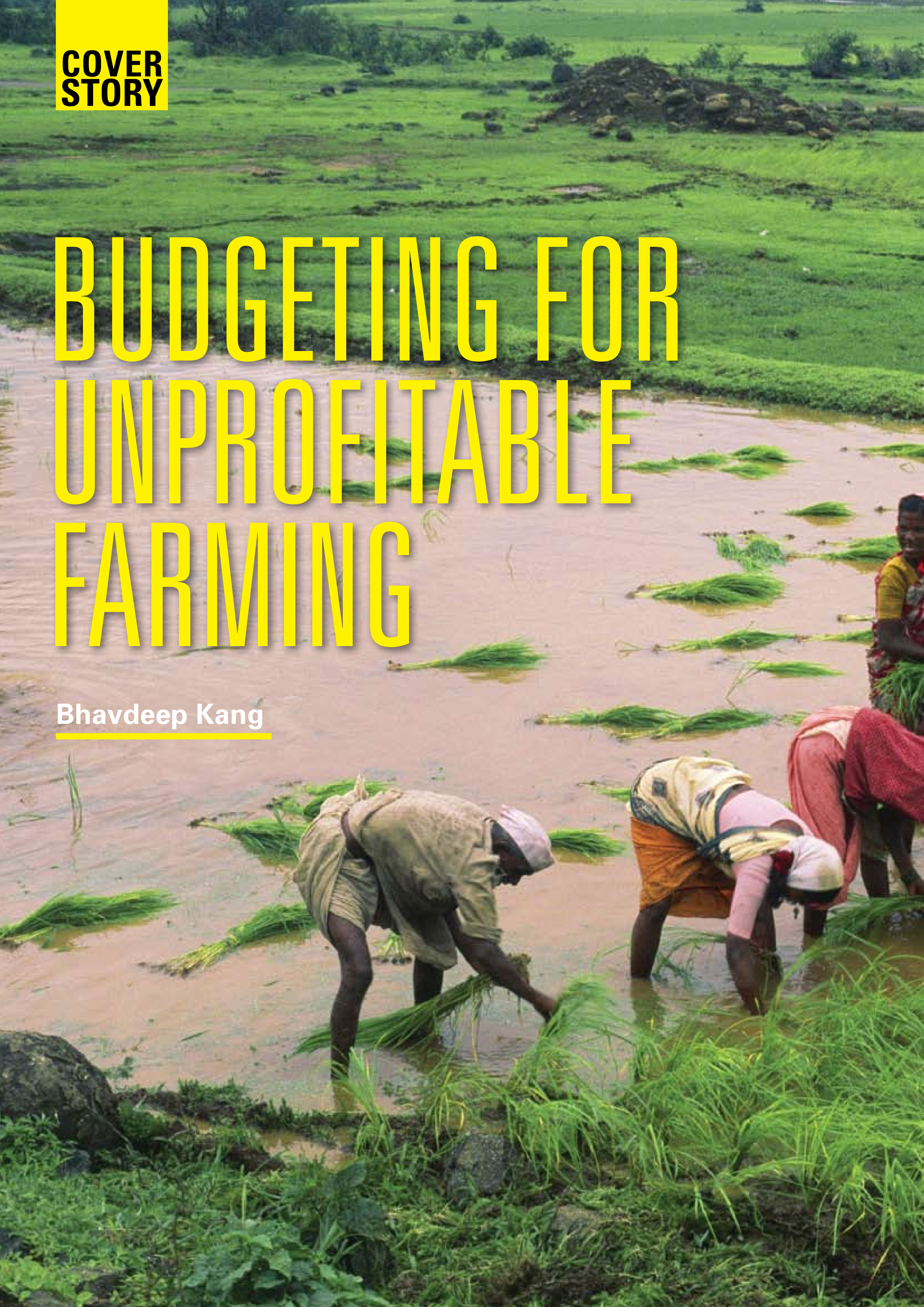
Nothing less than the reversal of these anti-people policies will do. ●

The author is Joint Secretary, All India Agricultural Workers Union; Member Central Committee CPI(M)

COVER STORY

BUDGETING FOR UNPROFITABLE FARMING

Bhavdeep Kang

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In terms of agriculture, Budget 2011 is distinguished only by a mind-numbing lack of creativity. The collective ingenuity of the North Block mandarins failed to deliver a single innovation – much less a comprehensive agenda – geared towards addressing the immediate problems of the agricultural sector: debt-driven suicides, spiralling farm input costs, water stress and declining soil fertility. All of these make the business of farming non-profitable and unsustainable for most farmers. This is bound to have a serious impact on India's already fragile food security.

What does the Budget appear to offer?

- The flow of funds to rural India has been substantially increased
- Credit has been upped
- Interest rates for farmers lowered
- Direct cash transfer to small farmers approved
- Allocations have been made for addressing crop shortages
- Heavy investment proposed in storage infrastructure and food processing to streamline supply chain management
- This should rationalise the gap between wholesale and retail prices and help to control food inflation.

of small farmers. Take the case of Madhya Pradesh that saw a large number of farmer suicides earlier this year. Reports in the local press indicated that the farmers had availed of credit for financing land leases and purchase of agricultural inputs. When frost destroyed their crop, they had no means of repaying the loans. Peepli [*Live*] has a solid basis in facts!

Micro-finance mess

The gaps in institutional credit are meant to be covered by micro-finance. This sector has attracted tremendous interest in recent years but the Andhra Pradesh experience shows that the delivery costs are very high, pushing interest rates up to unacceptable levels. Apart from capping micro-finance interest rates, strong consumer protection regulation is needed.

The Budget provides for the much-anticipated direct cash subsidy to farmers on account of fertilisers. The move, reportedly at the instance of chief economic advisor Kaushik Basu, is expected to improve delivery and prevent misappropriation by industry. The amount of subsidy and the beneficiaries will be determined by a task force.

In all likelihood, levels of corruption will increase with the cash subsidy, as the basic issue of poor governance has not been addressed. That is what

> An out-of-the-box solution would have reduced dependence on chemical fertilisers rather than merely tinker with the delivery mechanism

Ground reality

What does all this mean on the ground? Are large doses of institutional credit the answer to agrarian distress and declining crop yields? If that were so, farmer suicides would be a thing of the past and crop productivity would be shooting up. Studies conducted by institutes such as the Tata Institute for Social Sciences (TISS) and Indira Gandhi Institute of Development Research (IGIDR) have concluded that indebtedness – through both institutional and non-institutional sources of credit – is the primary reason for farmer suicides. The trend is neutral to education, social status and size of landholdings; all classes of farmers are affected.

Increasing credit flows without a supporting policy framework that safeguards farmers' rights to land and improves profitability of agriculture may well be infructuous. Short-term loans for high-cost, high-input agriculture are likely to increase indebtedness

led to the abuse of the subsidy in the first place. As with all other subsidies, the main beneficiaries will be the big farmers.

The allocation for fertiliser subsidy is conservative and may have to be revised upwards, considering that prices of all fertilisers – urea and non-urea – went up in the past year. Also, there were shortages leading to hoarding and black-marketeering. Protests by farmers on the issue of fertiliser shortage and price were a common feature last year, with the authorities resorting to *lathicharge* in some cases.

An out-of-the-box solution would have reduced dependence on chemical fertilisers rather than merely tinker with the delivery mechanism.

East India Green Revolution?

This brings one to the East India Green Revolution, an existing scheme, which did not take off last year owing to the drought in the eastern part of the country.

While the allocation of Rs 400 crore for boosting rice production in this region is welcome, the technologies to be employed are likely to have grave ecological consequences. In the long term, the loss in soil fertility and exhaustion of water sources may prove to be very expensive for the state concerned.

Consider the Punjab example. Wheat productivity has fallen by more than 22 per cent in the last decade and the value of the state's total annual farm produce has plunged from Rs 26,000 crore to Rs 22,695 crore since 1994-95. The per capita rural debt is the highest in the country and has led to pauperisation of farming families.

Interestingly, the Budget has made provisions for boosting production of coarse cereals and fodder. Over the last few decades, these crops were systematically eliminated in favour of wheat, rice and exportable produce. An education drive on the nutrition values of these cereals and on the need for quality seeds will be required to undo the damage of previous policies.

The recent shortage of fodder – again, the result of poor policies – is to be addressed by encouraging imports and improving domestic production. A ban on dry fodder being used as factory fuel would have been a welcome step.

Likewise, the neglect of pulses and oilseeds – which has led to a huge demand-supply gap in these commodities – is to be rectified through allocations of Rs 300 crore each. This is barely enough even for a pilot project. A token mention has been made of organic farming and adaptation to climate change but there is no thrust towards sustainable agriculture.

PDS problems

Big investments in storage infrastructure and, to a lesser extent, in food processing are proposed to address the wastage and improve supply chain management. This is a positive step and will streamline the foodgrain movement and preservation though it may not be the most efficient and cost-effective solution. The procurement base of the public distribution system remains narrow, with just three or four states providing the bulk of commodities. This is inefficient, adds unnecessary food miles, entails expensive infrastructure and results in wastage. Decentralised procurement and distribution would work better. In this context, the development of vegetable clusters near urban centres is a positive step.

Overall, the Budget appears to have no discernible direction in terms of agriculture. It relies on discredited Green Revolution technologies to improve agricultural production and on massive credit flow to relieve indebtedness. The five things the Budget should have had are:

- An income commission for farmers
- A cap on borrowing rates for micro-finance
- A shift towards low-input cost farming technologies
- A boost to bio-inputs and animal husbandry
- Focus on water stress and its management.

The author is a commentator on agriculture and food policy

CASE STUDY

OSMANABAD'S SURFACE AND GROUNDWATER CRISIS

Disappearing Waters; Emerging Droughts

Ajay Dandekar, Shahaji Naravade, Santosh Kumar, Anjali Kulkarni, Ram Rathod, Ramesh Jare, Vijay Kulkarni & Satteyypa Y. D.

Osmanabad, Maharashtra – a drought-prone district both in terms of ground and surface water storage – presents a good case study on droughts. The surface storage issue (examined through a case study of Koornor dam storage); the recent four decadal timeline of the groundwater storage and the issues emanating from it, present an interesting subject for examination.

A drought is a normal, recurrent feature of climate, although many erroneously consider it to be a rare and random event. It occurs in virtually all-climatic zones but its characteristics vary significantly from one region to another. A drought is a temporary aberration; it differs from aridity, which is restricted to low rainfall regions and is a permanent feature of climate. It should not be viewed as a mere physical phenomenon or a natural event.

Exacerbating a drought

The impact of a drought on society results from the interplay between a natural event (less precipitation than expected resulting from natural climatic variability) and the demand for water. Human beings often exacerbate the impact of a drought. Recent droughts in both developing and developed countries and the resulting economic and environmental impact and personal hardship have underscored the vulnerability of all societies to this “natural” hazard.

An operational definition for agriculture might compare daily precipitation values to evapotranspiration rates to determine the rate of soil moisture depletion and then express these relationships in terms of drought effects on plant behaviour (or growth and yield) at various stages of crop development. A definition such as this could be used in an operational assessment of drought severity and impacts by tracking meteorological variables, soil moisture and crop conditions during the growing season, continually re-evaluating the potential impact of these conditions on final yield.

Operational definitions can also be used to analyse drought frequency, severity and duration for a given historical period. Such definitions, however, require weather data on hourly, daily, monthly, or other timescales and, possibly, impact data (such as crop yield), depending on the nature of the definition being applied.

The sequence of impact associated with meteorological, agricultural and hydrological drought further emphasises their differences. When a drought begins, the agricultural sector is usually the first to be affected because of its heavy dependence on stored soil water. Soil water can be rapidly depleted during extended dry periods. If precipitation deficiencies continue, people dependent on other sources of water will begin to feel the effects of the shortage. Those who rely on surface water (such as reservoirs and lakes) and subsurface water, like groundwater, are usually the last to be affected. A short-term drought over three to six months may have little impact on these sectors, depending on the characteristics of the hydrologic system and water use requirements.

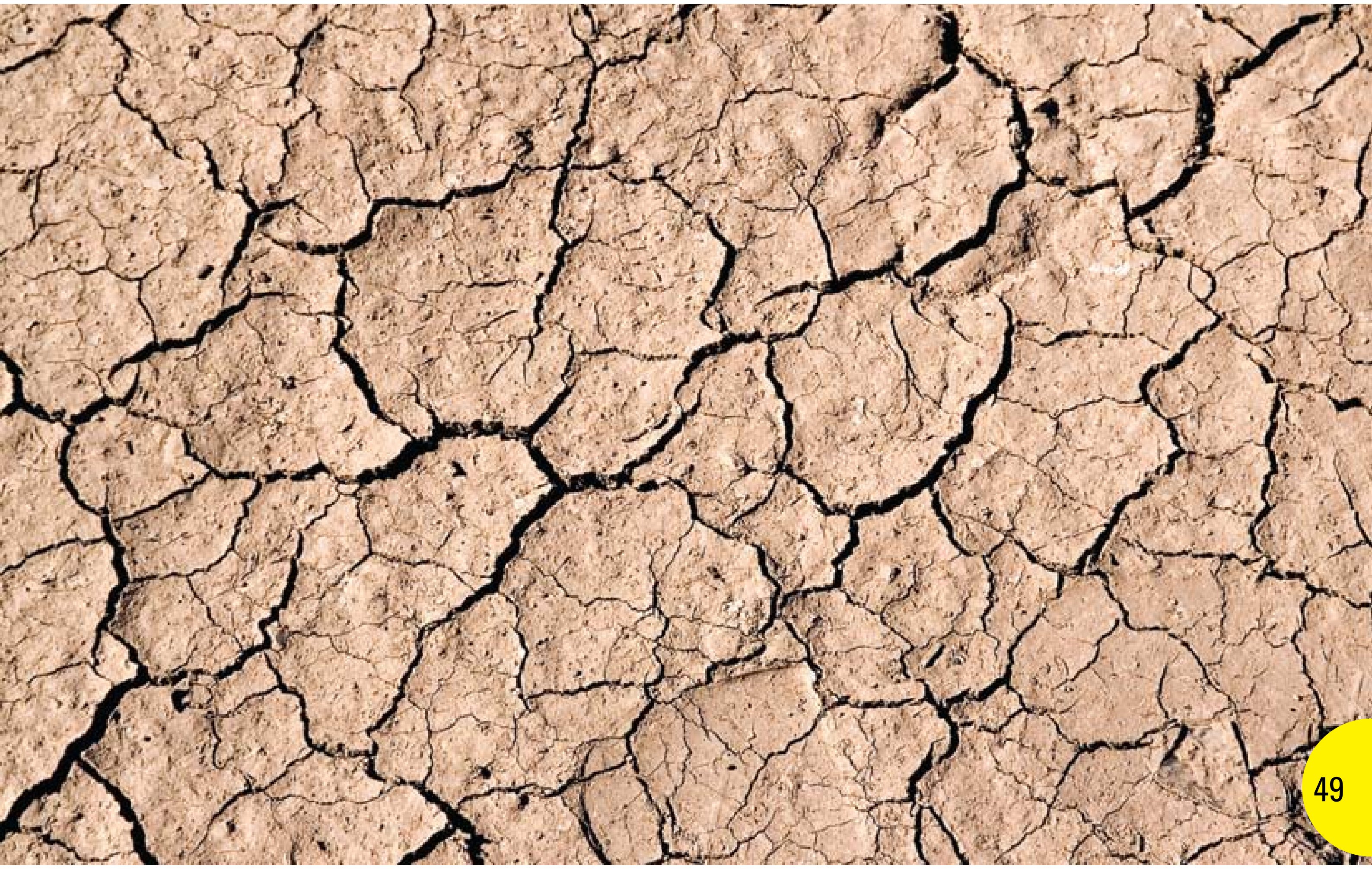
When precipitation returns to normal and meteorological drought conditions have abated, the sequence is repeated for the recovery of surface and subsurface water supplies. Soil water reserves are replenished first, followed by stream flow, reservoirs and lakes and groundwater. The drought impact may diminish rapidly in the agricultural sector because of its reliance on soil water but linger for months or even years in other sectors dependent on stored surface or subsurface supplies. Groundwater users, often the last to be affected by drought during its onset, may be the last to experience a return to normal water levels. The length of the recovery period is a function of the intensity of the drought, its duration and the quantity of precipitation received as the episode terminates.

It is important to understand the location of Osmanabad in the context. It is suggested that it is in the third cycle of the sequence: the hydrological drought. It is found that it has passed the conditions of meteorological and agronomic drought. It is also suggested that the condition of drought is not entirely linked to natural environmental context but predicated on human intervention.

An extremely volatile situation was created in the Osmanabad district wherein one major surface irrigation storage dam, the Koornor, was on the verge of a failure due to massive works undertaken in the catchment area. This resulted in a sharp decline in the storage capacity of the dam and deprived the farmers of their irrigation source, forcing them into the spiral of bore-well construction that resulted in the depletion of the groundwater source as well, leading to a net decline of irrigated land.

The antecedents

Consider the Koornor medium project in



Osmanabad district to illustrate a few points. The salient features of the Koornor medium project were a good catchment with the catchment area pegged at 32,300 ha with the storage estimated at 36,600 thousand cubic metres (TCM). The brief history of the project is as under:

- In 1968, the project was planned at 75 per cent dependability.
- The evaluation of the project carried out in 1985 pegged the dependability of the dam at 74.8 per cent of efficiency.
- In 2003, the dam went dry for the first time.

One needs to understand the concept of effective rainfall in order to understand why the dam went dry by 2003. Here the notion of effective rainfall is useful. Usually, the "effective" rainfall is not taken into account for designing the dam. It is calculated at the rate of 70 to 75 per cent of annual rainfall. Consider the effective rainfall and the runoff in the Tuljapur block to illustrate this argument.

What happened in the dam to result in low storage of water? Details of storage structures created in the catchment area of the dam area from 1970 onwards

The runoff calculation for Tuljapur bloc
(Figures in brackets show effective rainfall…)

			Catchment type	
Dependability Rainfall /	**Good**	**Average**	**Poor**	**(Yield in TCM /ha)**
50%	828 mm (621)	2.482 (1.31)	1.861 (0.98)	1.240 (0.65)
60%	744 mm (568)	2.005 (1.05)	1.503 (0.80)	1.000) (0.54
75%	594 mm (449)	1.1892 (0.58)	0.891 (0.44)	0.595 (0.29)

provide an understanding.

Thus, a run-off of 1.29 TCM/ha was harvested from the Koornor catchment area. Essentially, even at 50 per cent dependability (considering the notion of effective rainfall; 75 per cent of 844 mm) only 1.31 – 1.29 = 0.02 TCM/ha of water would have been available for Koornor project (See following Graph 1)

The following conclusions about the Koornor project may be drawn:

- The project was designed at 75 per cent dependability in 1968.
- The dependability came down to almost 26 per

Storage structures created in the catchment area from 1970	
1970 to 1990 – 7 M. I. projects, storage capacity	7880 TCM
Soil conservation treatments i.e. contour bunding during 1970-80	8721 TCM
Post 1996 – Krishna valley work + local sector – storage tank (T)	9545 TCM
Percolation tanks constructed under EGS – Total 38 PT, storage	5567 TCM
Proposed Krishna valley projects (five)	6728 TCM
K.T. weirs; 46 storage	4120 TCM
Total	41831 TCM

cent by 2004.

- This decrease was due to the work done in the catchment area.
- The construction of the structures in the catchment area effectively converted the dam and its water from a provider of water to agriculture to the supplier of water to the nearby town.

Groundwater

A review of related developments in last 40 years in Tuljapur block was done to assess the groundwater crises. The following Table A demonstrates the growing exploitation of groundwater in the Tuljapur bloc over the last four decades.

Table A shows the state of groundwater exploitation in Tuljapur. The sharp increase in the number of well and bore-wells (since the 1990s) tells a story of a possible depletion of groundwater sources in the area. The use of this groundwater has not resulted in any significant rise in area brought under irrigation since 1990s.

Tentative conclusions from the field research:

1. The irrigation works to store surface water have not yielded desirable results in the last two decades.
2. This can be attributed to the nature of political economy of the region.
3. The story about the groundwater is not different either. In the last one and half decades, there has been a quantum jump in the exploitation of the groundwater sources.

Consider the groundwater context in greater detail in Osmanabad district. In order to understand the issues in groundwater exploitation in a timeline as well as the factors that were instrumental in the process the following methodology was adopted. A sample of 5 per cent of the villages from the district on random sample basis distributed over all the eight blocs was selected for the study. A detailed qualitative and quantitative research tool was prepared and the survey was carried out in 40 sample villages spread over all the 8 blocks in the district. The results from the survey are presented below.

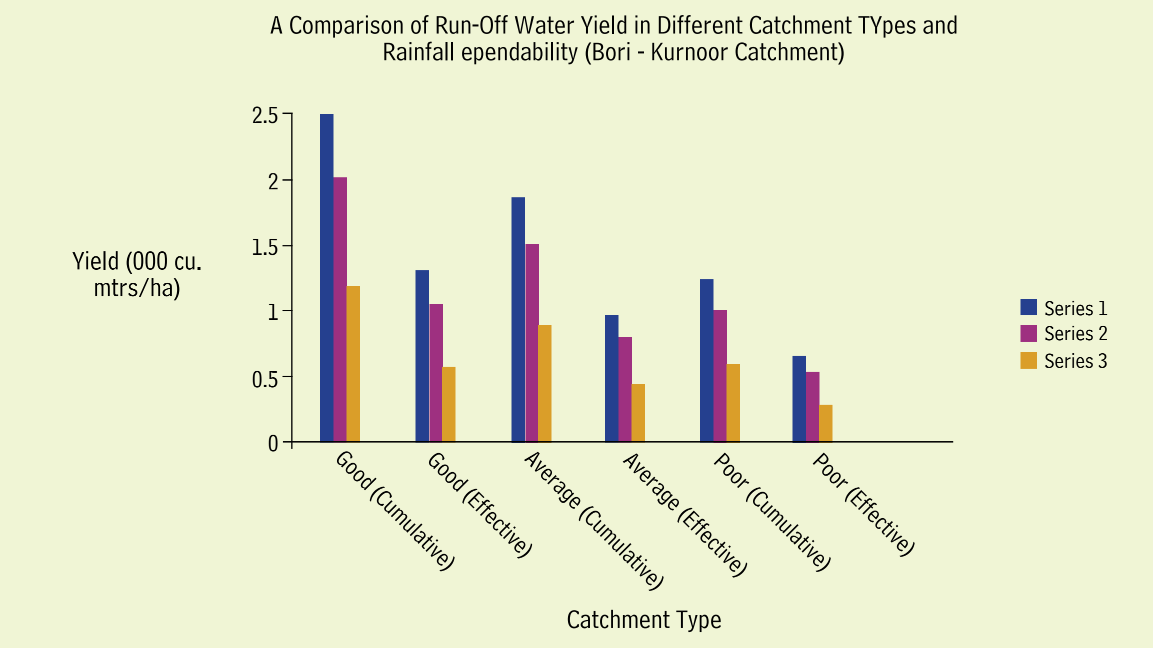
There has been a rise of 29 per cent in the last two decades in the population.

There was a clear increase in the drylands from 1995 onwards and a corresponding decrease in the irrigated lands in the district. Table 3 graphically illustrates the increase in the number of bores, wells and pumps over the last two and half decades.

Graph 3 illustrates the expenditure incurred on the bores, wells and pipes from 1980 to 2004.

Based on the data given here the following

Graph 1 :
Series 1: 50 per cent rainfall dependability (Cumulative 828 mm/ Effective 621 mm)
Series 2: 60 per cent rainfall dependability (Cumulative 744 mm/Effective 568 mm)
Series 3: 75 per cent rainfall dependability (Cumulative 594 mm/ Effective 449 mm)



Graph 2: Works accomplished in the catchment area of the Koornor project

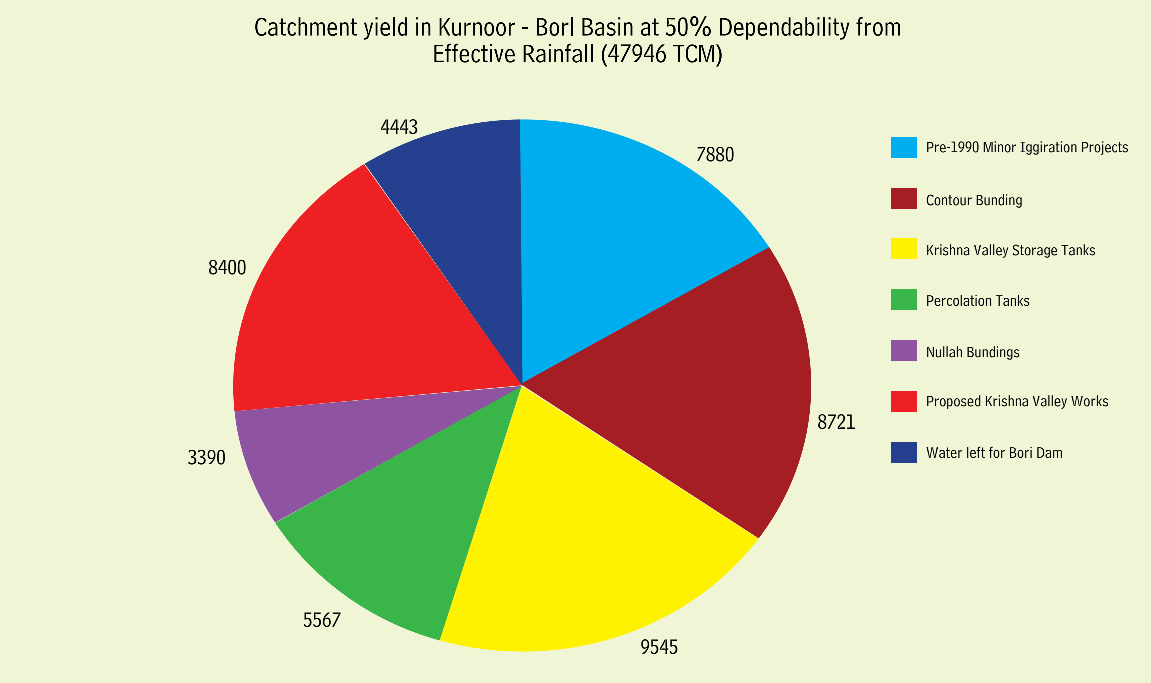


Table A: Status of groundwater sources in the Tuljapur block

Year	No. of functional wells	Borewells	Bullock power	Oil engine	Electric pumps	Irrigation in ha. Rabi	Irrigation in ha. H.W.
1960	647	-	613	34	-	1200	300
1970	820	-	603	164	53	1400	350
1980	2780	-	165	740	1680	3300	1260
1990	8200	2500	-	245	7900	5000	6800
2000	12500	4500	-	700	10500	6000	4500

tentative remarks on the nature of groundwater and its corresponding relationship with irrigation may be made:

1. There was a consistent increase in the number of bore-wells and electric pumps. This increase is compressed from 1995 to 2004.
2. The numbers of bore-wells showed a reduction in the percentage of growth rate from year 2000.
3. Similarly, the number of wells also showed a decline in their growth rate from 1995.
4. However, a constant increase was maintained with the infusion of electric pumps in the district.
5. The investment pattern indicated a decrease in the investments in wells.
6. There was an increase in the investment in bore-wells. However, the investment remained more or less constant in the last four years.
7. The pattern of investment in the laying down of the pipelines suggests an increase from 1980 to 1990. There was, however, a marked decline in this feature in the year 2004.

Table 4 and Graph 4 show that the nullah bunding works were highest in the district followed by the area treatment of the wasteland. It also appears that the creation of M. I. tanks and storage tanks and canals were not the preferred means to conserve water. Consider the groundwater table levels as obtained from the government's observation wells as well as from the field data.

The status of the Groundwater Surveys and Development Agency (GSDA) observation wells in the Osmanabad district suggests that the groundwater table was getting depleted over the last 12 years. The field data as cited also confirmed the trend.

The data on the water table is interesting. The groundwater level was consistently declining since 1980. The decline in the water table was more pronounced from 1995 to 2000. There was no change in the pace of decline in the years from 2000 to 2004. It can be easily surmised that if a similar trend continued, the groundwater table would decline further. Consider the correlation of the irrigation with the groundwater sources (Table 7).

Table 1: Population and area profile (district) in the last 20 years

Total Population	1981	53959
	1991	64484
	2001	76721
Total area	37400	
Cultivated Area	31489	
Wasteland	6557	

Table 2: Change in cropped area (district)

Year	Dryland	Irrigated	Cultivable Waste
1980	25601	3643	2056
1985	24998	4224	1861
1990	24057	5089	1798
1995	23931	5438	1668
2000	26392	3280	1329
2004	28919	891	1309

Graph No. 1 Change in Cropped Area (District)

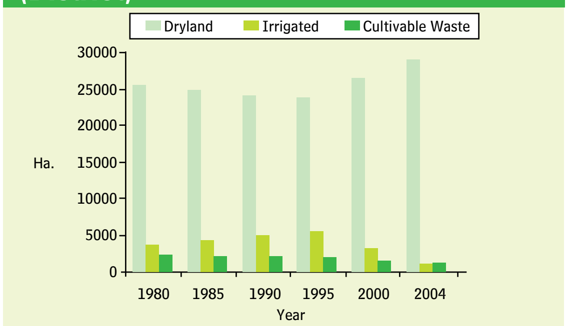
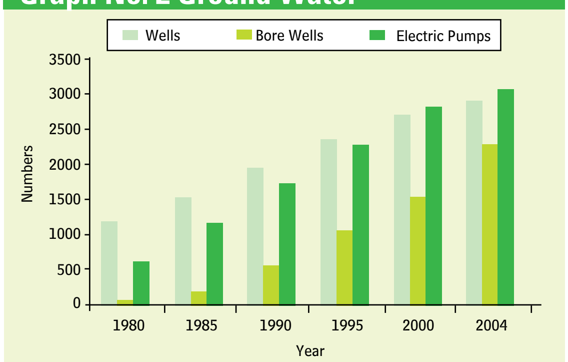


Table 3: Status of groundwater sources

Year	Wells	Bore Wells	Electric Pumps	Investment in Wells (Rs Lakhs)	Investment in Bores (Rs Lakhs)	Investment in Pipes (Rs Lakhs)
2004	2905	2271	3081	134.4	177.3	19.3
2000	2694	1515	2819	174.1	171.3	73.9
1995	2355	1042	2272	198.7	133.2	67
1990	1957	539	1719	204.3	111	60.3
1985	1533	176	1154	128.6	50	31.8
1980	1181	58	593	309.2	16.9	7.3
			TOTAL	**1149.3**	**659.7**	**259.6**

Graph No. 2 Ground Water



Graph No. 3 Investments

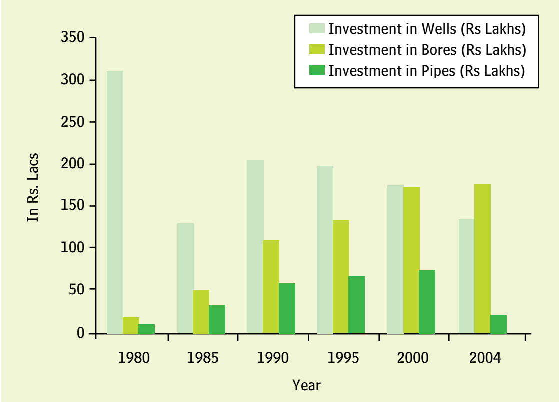


Table 4: Water conservation works completed since 1980

Nullah Bunding	1193
Cement NB	119
Percolation Tanks	98
K T Weir	70
M I Tanks / Storage Tanks	19
Canals	12
Area Treatment (arable)	325
Area Treatment (waste)	529

Graph No. 4: Water Conservation Works completed since 1980

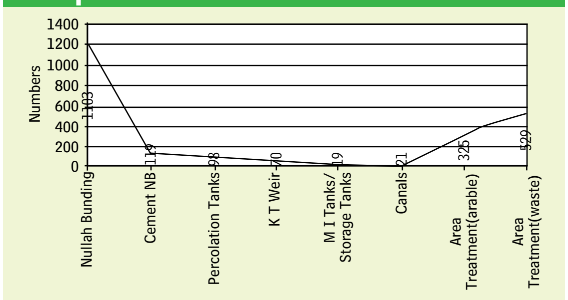


Table 5: Depth of water availability in the tube wells

1980	1985	1990	1995	2000	2004
106	153	197	238	310	409

Graph No. 5: Depth of Borewell

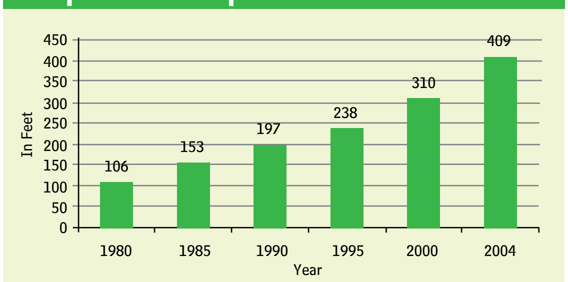


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Table 6: Status of GSDA's observation wells in Osmanabad district

Sr. no.	Bloc	No. of O.w	1989 B.m.	1989 A.m	1993 B.m.	1993 A.m.	1997 B.m.	1997 A.m.	1998 B.m.	1998 A.m.	2002 B.m.	2002 A.m.	2003 B.m.	2003 A.m.
1	Bhum	8	1	0	1	0	0	2	3	0	3	2	6	3
2	Kalam	14	0	0	5	2	0	0	7	0	10	3	8	3
3	Paranda	16	0	0	12	2	2	4	6	0	8	8	15	10
4	Washi	5	0	0	3	0	0	0	1	0	3	1	3	2
5	Tuljapur	27	1	0	12	2	1	2	8	1	8	2	8	6
6	Lohara	4	0	0	3	0	0	0	2	0	3	0	4	0
7	Omerga	16	1	2	14	1	0	2	12	0	6	3	14	7
8	Osman.	24	5	3	17	2	1	4	21	1	19	5	11	6
Total		114	8	5	67	9	4	14	60	2	60	24	69	37

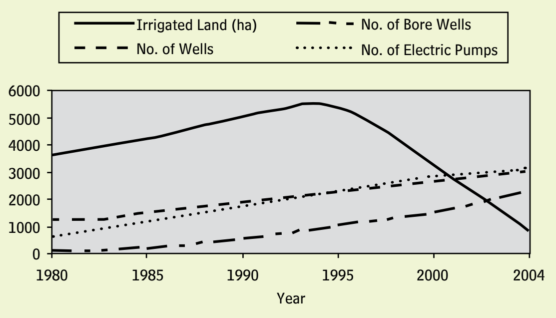
Abbreviations: O.W. Observation Well Total no. of wells, B.M. Before Monsoon Number of dry wells, A.M. After Monsoon Number of dry wells

Note: Figures indicate number of dry wells.

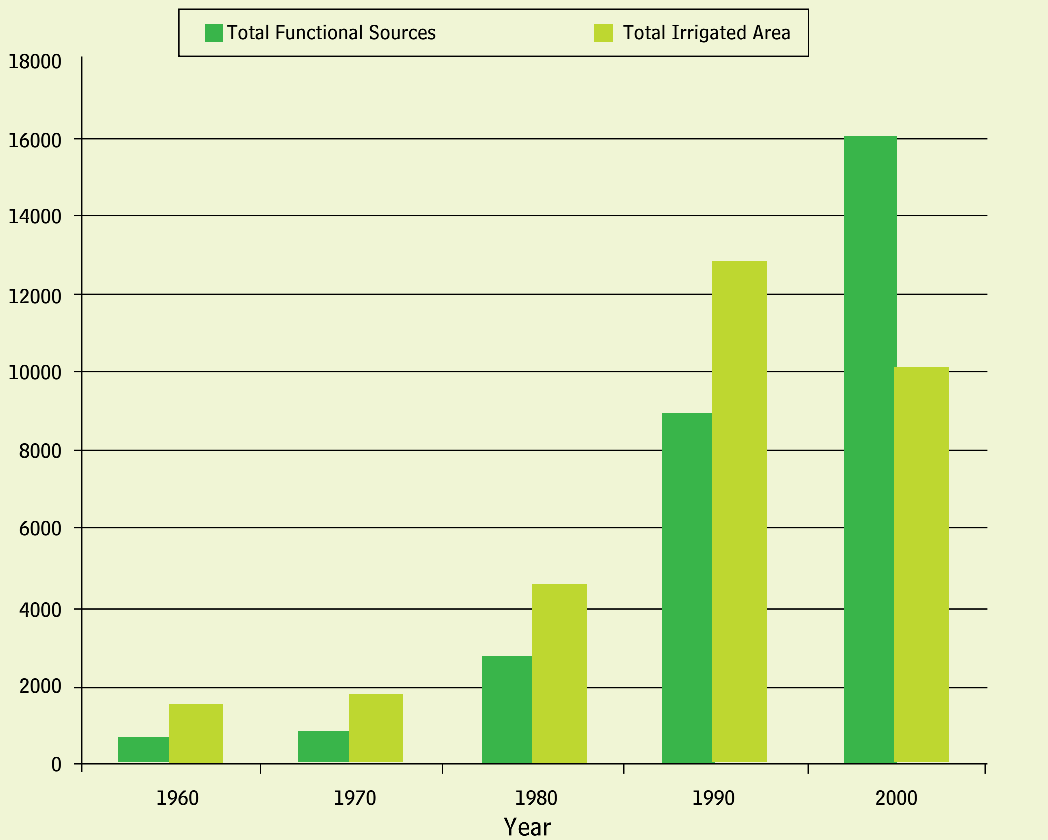
Table 7: Correlation of irrigated land to groundwater sources

Year	Irrigated Land (ha)	No. of Bore-Wells	No. of Wells	No. of Electric Pumps
2004	891	2271	2905	3081
2000	3280	1515	2694	2819
1995	5438	1042	2355	2272
1990	5089	539	1957	1719
1985	4224	176	1533	1154
1980	3643	58	1181	593

Graph No. 6: Correlation between Irrigation Land and Groundwater Sources



Total Groundwater Sources and Area Irrigated in Tuljapur Block



There is a human intervention element in the hydel projects as is evident from the Koornor dam experience, where water harvesting in the catchment area resulted in the irrigation storage structure operating below the stated capacities. Over time, this forced the cultivators to tap the groundwater by any means, including bore-wells. This in turn depleted the groundwater and over a period of time led to a decrease in cultivated land.

1. There was a sharp decline in the irrigated land from 1995 with a corresponding increase in the number of borewells from 1985.
2. There was a steady rise in the number of wells dug as well but the borewells outpaced the well digging in a significant manner from 1995.
3. There was a steady rise in the number of pumps with electric motors throughout the last 25 years.

The greater exploitation of the groundwater possibly did not result in the corresponding rise in the irrigated area. On the contrary, the area under irrigation declined sharply. The increase in the use of groundwater does not necessarily result in the increase of irrigated area.

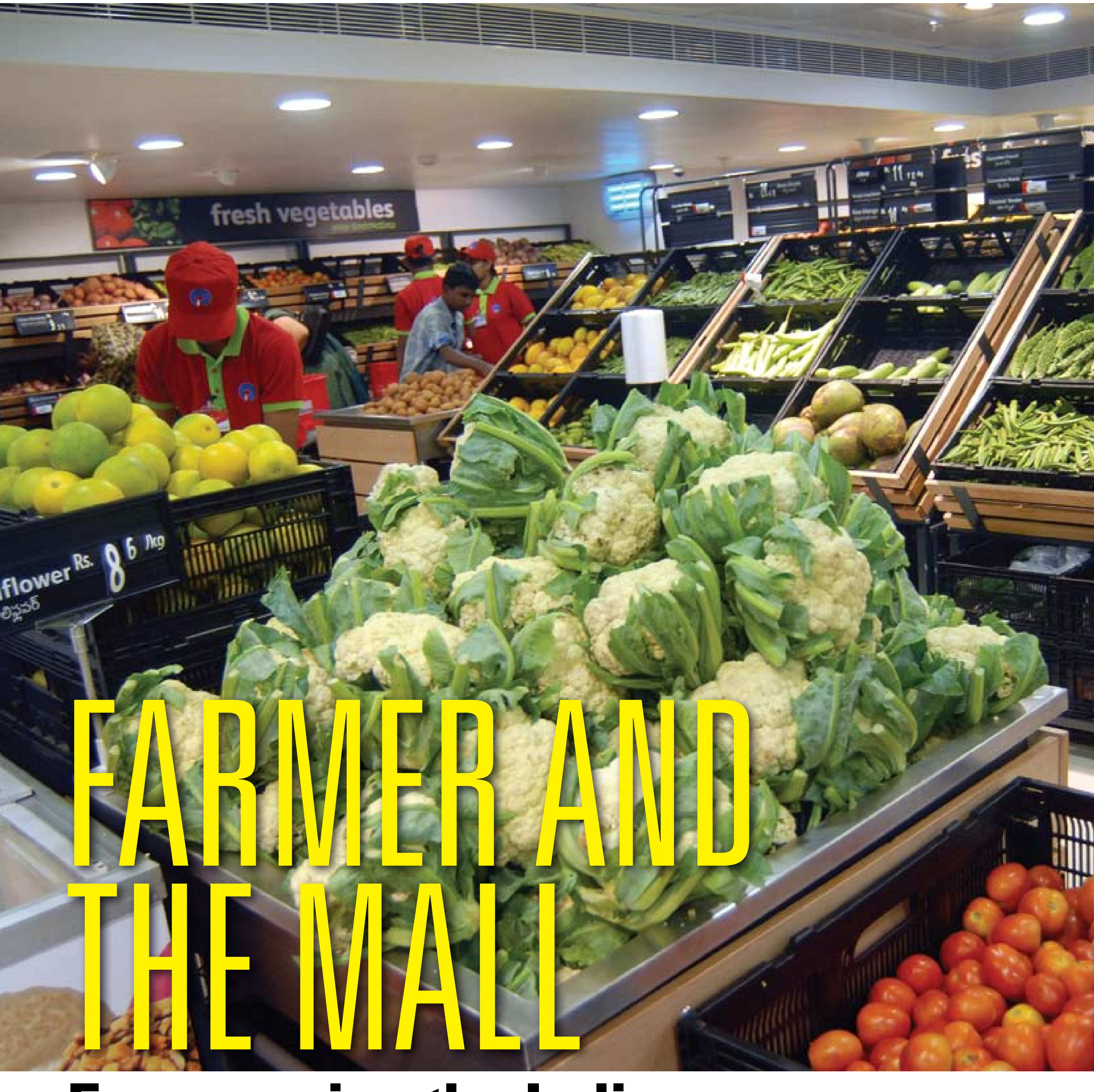
Thus an extremely volatile situation was obtained in Osmanabad district wherein one major surface irrigation storage dam, the Koornor, was on the verge of a failure due to massive works undertaken in the catchment area. This resulted in a sharp decline in the storage capacity of the dam and deprived the farmers of their irrigation source, forcing them on to the spiral of borewell construction, which further led to the depletion of the groundwater source as well as a net decline in the irrigated land.

Lessons from Koornor

Is there a lesson to be learnt somewhere? Clearly there is a human intervention element in the hydel projects as evident from the case study of the Koornor dam where water harvesting in the catchment area resulted in the irrigation storage structure operating below the stated capacities. Over time, this forced the cultivators to tap the groundwater by any means, including borewells. This, in turn, depleted the groundwater and in fact led to a decrease in cultivated land over time. Surely, the issue of drought appears much more complex and nuanced than is actually perceived.

The authors, who conducted the study on Osmanabad's surface and groundwater positions, are associated with the Institute of Rural Management, Ahmedabad

PERSPECTIVE



FARMER AND THE MALL

Empowering the Indian Cultivator

S. Dave

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> Traceability from farm to fork, environment standards and even 'fair trade' certificates are insisted upon these days. Is the Indian farmer aware of all this? Does he understand its implications or does he know how to incorporate these transformations and remain in the market?
>
> When tariff and subsidies were facing stiff opposition from the developing countries, quality needs and safety became the buzzwords. They continue to become louder with the growing competition and, often, in direct proportion to technological advancement. The farmers and manufacturers in the developing world remain in a state of 'constant chasing of goal posts'.

As India looks at the retail question with international companies entering even the vegetable space, it needs to be asked where the country stands in terms of food standards and, more importantly, their implementation. Has the PFA been effective in guaranteeing food safety? What are the expectations from the new integrated food law? Is India in a position to ensure that food standards under one roof will provide safe food to all? Has any assessment been made on the technical and upgraded manpower required to meet and monitor the intended objectives? More importantly, who will buy from Indian farmers unless they are empowered to meet the standards required by the imported super-markets, now that foodstuff has been allowed to be imported and there is a growing number of consumers ready to pay that extra buck for food that they consider to be safer?

Look here; see there

The fierce competition among supermarkets in the global food arena reveals a growing urge for one-up-man-ship for an extra share of consumer attention. They indulge in the same 'look-here-see-there' approach adopted by the developed world when the Strategic Procurement Services (SPS) Agreement was agreed upon. When tariff and subsidies were facing stiff opposition from the developing countries, quality needs and safety became the buzzwords and continued to become louder with the growing competition and, on many occasions, in direct proportion to technological advancement. The farmers and manufacturers in the developing world continue to remain in a state of 'constant chasing of goal posts'.

Now that countries have started meeting the desired SPS standards, private standards have come into being. Importantly, these efforts are supported by the governments of such countries. This helps to circumvent embarrassment at the bilateral or multilateral levels. These standards introduced mainly by the supermarkets are taking different shapes starting from implementation of varied forms of food safety systems to 'good practices' at different stages of the value chain. Lately, traceability from farm to fork, environment standards and even 'fair trade' certificates are insisted upon. Is the Indian farmer aware of all this? Does he understand its implications or does he know how to incorporate these transformations and remain in the market?

Capacity building at all levels assumes great importance and needs the government's attention to allocate appropriate resources

The X factor

One may argue that a farmer may wish not to engage in export production or continue to feed the domestic market with 'value-added' agricultural produce. The question is what he should do if the lady of the house decides to buy from a shop that guarantees safe food, whatever its source may be. The answer is the same; either the farmers and manufacturers meet the standards of the retailer or close down their business. While the new integrated food law intends to promise availability of safe food to us, the appropriateness of its implementation will remain the 'X' factor for making a difference. The earlier India acts at different levels, the better. Failing this, the supermarkets in India will introduce their own private standards to remain in business.

Some of the leading business houses planning to go in to the retail business have already started tying up their supply sources both within and outside India, though they still need to know what their product standards should be. Imported supermarkets may find it easier to sell because of their existing standards. As a matter of their policy and for the sake of their image built up over decades, one does not expect them to compromise on the standards of quality and safety of the food they sell, even if it means importing food products allowed under the Exim policy. How can even the smallest farmer be empowered to stand up and say, "Yes, I can do it". He is only too eager to sell to the emerging supermarket culture and he should not be caught unaware.

Value chain safety

Have we done our homework well? No amount of cribbing against various forms of non-tariff barriers at different fora will, in due course, help us increase our exports or help our farmers on the home ground. Exporting countries, developed or less developed, are fastadapting themselves to the changing import scenario. Safety of food starts at the farm and has to be continued along the value chain. The average Indian consumer is now fairly aware of the need for safe food. Quality consciousness has grown tremendously among the upper and upper-middle class and others are not far behind. Consumption of processed food is also fastincreasing with changing lifestyles and needs. With the growing population, it will be important to vigorously promote the much needed food quality and safety systems as well as 'good practices' among the domestic producers, manufacturers and those engaged in the supply chain. The maximum permissible levels of residues of various contaminants will need to be reviewed regularly, based on risk assessment carried out on scientific lines. The Indian Council of Agriculture Research institutions, the Indian Council of Medical Research, Indian Institute of Toxicology Research, National Institute of Nutrition and such others will need to be energised, if India's farm production has to be safe and farmers have to remain in business. In short, the Food Safety Objectives will need to be clearly defined.

Capacity building

Can things be changed for the sake of the farmer? Some introspection will be necessary and the country must look beyond. The farmer needs to be motivated and provided with training on varietal improvement, productivity enhancement, integrated farm management, adverse effects of inappropriate use of pesticides, quality and 'good practices' by experts who themselves need to understand what training to give and how. Capacity building at all levels thus assumes great importance and needs the government's attention to allocate appropriate resources – financial and human – to ensure that the demand is met. The farm holdings being small and the supermarket needs being in cost-effective marketable volumes, consolidation through farmer groups will be an efficient way of farm management. It will, however, need to be borne in mind that this would call for a very effective internal quality control system in order to maintain uniformity in the production practices within the group and managed by the group itself.

Contractual farm management can also be an useful tool to look at and Indian corporates would need to take up the entire activity in a manner that they are able to provide food to the consumer in a certifiable form. This will add value to their products and increase their competitiveness. India will then be seen as a credible producer of farm products. It would also build up a culture for safety in food business.

Standards and procedures

A useful help to the consumers will be to introduce standardisation in the farm products marketed within the country. Agmark could be the right agency to frame standards and certify conformity. It has already notified standards for a number of fresh produces. While these standards and procedures may be voluntary in nature, awareness among farmers and consumers will need to be enhanced to build up the desired quality and safety culture. These apart:

- Implementation of food safety systems in the manufacturing facilities in the country will need to be aggressively promoted
- Certifiable forms of 'good practices' in transportation and retail of food products will have to be introduced
- Effectively monitoring of production and marketing of pest and disease control products is vital so that indiscriminate use on crops is prevented.

The other important issue is around developing a system to recognise manufacturers and sellers who follow ethical practices. A simple way to start is to ask all of them to agree to a code of conduct. Here again, considerable synergy between the central and state governments will be essential. Proper and complete labeling and pre-harvest diffusion period of the pesticide in a legible form should essentially be followed by all engaged in the pesticide business. One should not allow the repeat of the situation that India faced with grapes in 2002-03 when pesticides, banned for use in France, were dumped in India simply because there was ineffective information or monitoring. •

The author is the Director of APEDA and the views expressed here are personal

IT IS THE FARMER'S TURN TO REDUCE POLLUTION

Dr Dhrubajyoti Ghosh

Daniel D. Chiras, in his outstanding book *Environmental Science*, the Indian edition of which has been released in 2010, narrated an interesting story about the farmers in a village in the Appalachian Mountains in North Carolina. In 1992, they suspected that the local water supply was receiving appreciable amount of chemical residues that were being used to control pests and weeds. Concurrently, they also suspected that the same cause was also responsible for the higher rate of childhood leukemia in the region. Health officials could not ascertain the linkage between higher rate of childhood leukemia and pesticide application. Entirely on their own accord, hundreds of farmers in Watauga County decided to take positive action. They reduced the amount of pesticide application in a big way and introduced natural biological pest control methods. The result of such an action gave them back their flourishing wildlife and better groundwater. In five years they got back what they had lost in the past 30 years.

In 2005, in India one learnt about the 'Cancer Train' in the Bhatinda district of Punjab, where people had not known about the disease even at the beginning of this century. Cancer Train, in a recent story broadcast by National Public Radio, routinely carries many cancer patients and their families to the Acharya Tulsi Regional Cancer Treatment Research Centre in Bikaner, where remarkable care and treatment is routinely provided at a very reasonable cost with least hassles to the patient and the family members escorting them. A study by Punjab's School of Public Health titled 'Epidemiological Study of High Cancer and Rural Agricultural Community of Punjab in Northern India' found a statistically significant increase in cancer rates in high-pesticide areas.

The situation may be alarming in Punjab but in most places where Green Revolution was successful, the disease burden showed concomitant rise. While amount of crops grown was measured, the resultant sufferings were not. Development writer Praful Bidwai, in his seminal paper titled 'From what now to what next: Reflections on three decades of international politics and development' published in June 2006 (*Development Dialogue* Volume 1) stated that the use of chemical fertilisers and pesticides may have helped raise crop yields through the Green Revolution since the mid-1970s but "the use of chemicals has had harmful effects, including a fall in the average sperm count among males and spread of new diseases".

To probe a little deeper; the sperm count study was carried out on the basis of 14,947 samples spread over 16 countries (India included) between 1938 and 1991. The study was carried out by a team of scientists comprising Elizabeth Carisen, Alexander Giwerzman, Niles Keiding and Niels E. Skakkebaek and published in the *British Medical Journal* (Volume 305; September 12, 1992). The results showed a genuine decline in semen quality over the last 50 years and the authors have pointed to the "environmental rather than genetic factors" for such a decline within a relatively short period.

Unfortunately, for many scientists, it is much more rewarding to prove that a glacier is melting at a very fast rate (even if it is not the case) than it is to provide that the use of agrochemicals by the Indian farmers, under the constant tutoring of very highly paid marketers, does lead to serious health hazard. Consider the lesson provided by the Inter-Academy Report on GM crops, which 'casts shadow on the integrity and competence of Indian Science' (*Down To Earth*, October 16–31, 2010).

The situation may be alarming in Punjab but in most places where Green Revolution was successful, the disease burden showed concomitant rise

In such a scenario, the policy writers on the possible health hazards from the uncontrolled use of agrochemicals will have three options. It is well to remember that agrochemicals are emphatically promoted by a highly efficient market mechanism put in place by a powerful industry of agrochemicals.

Option One: There being no credible scientific report linking agrochemical use and the rise in disease burden of the farmers or the users of the food grown in such chemical dominated agriculture. Neither is there any rider from the World Bank, IMF, Asian Development Bank and such other respected donors regarding this matter. Therefore, trust the resilience of our farmers and consumers

(read insensitivity) and allow 'business as usual' approach to continue.

Option Two: There is a chance of certain NGOs (both national and international) and unattached intellectuals who may blow up this issue causing discomfiture in and outside the Parliament. It may be wiser to initiate a long-term programme appreciating the problem.

Option Three: There is a chance of the matter reaching disturbing proportions. This may then allow an additional handle at the disposal of the extremists. It would be better to engage dedicated individuals or NGOs to begin ground work for initiating balanced agriculture in some sensitive parts of the country.

The point is that farmers anywhere and in any village in India, like those in North Carolina, regardless of ecological conditions, can sit in a group and decide for themselves their future course of action. Few years ago, the farmer was spending Rs 10 and earning Rs 2 to grow an amount of food grain that now takes Rs 20 to grow and a generates profit of no more than a rupee. Farm animals, which were living for 20 years earlier, are now dying at 10. The hay used for roofing now wears out in two years. Earlier they could easily sustain for six years. There is no record of how many unknown diseases have crept into the life of villagers. While the loss of sperm count may not be a tangible problem for them at present but any rural doctor will be able to identify clear links between the rise in Metrogyl consumption and agrochemical sales.

Farmers may equally think for themselves about whether they will continue to dump their traditional wisdom or, for once, look at the things that have started happening around them, their future and the future of their children. Are they ready to learn from the farmers of a village in North Carolina and give their own beautiful minds a chance? There is sufficient scientific knowledge and assistance available to begin a balanced and holistic agriculture that preserves the future of the farmers and also the future of the country.

Will our farmers rise from slumber? •

The author is a U.N. Global 500 laureate and Regional Vice Chairman, South Asia Commission of Ecosystem Management, IUCN

Fragmented Farms, Victimised Farmer

Ajay Vir Jakhar

Just 22 kilometres from the IT-driven city of Hyderabad, in village Ghamigoda, mandal Shamshabad, district Ranga Reddy, in Andhra Pradesh, lives Satyanarayan Goud. I was visiting Hyderabad to speak at a national congress of the seed industry but took the opportunity to meet fellow farmers in and around the region. The Satyanarayan Goud encounter was as interesting as it was educative. The meagre farm was colourful for there were chrysanthemums in full bloom in a chilly February morning; a striking yellow against the bright morning sun.

Satyanarayan Goud is, of course, a small farmer. What else could he be with just three-fourths of an acre of land? What else could he be – the child of India's accursed fragmented holdings? Satyanarayan was one of the four brothers whose father owned three acres of land in Ghamigoda. As was customary, the land passed on to the four sons and all that Satyanarayan's inheritance came up to was three-fourths of an acre. That he farms on; happily raising his family of wife and three sons: Parsad, Praveen and Prakash. They go to school, in class 11, 9 and 6 respectively. Circumstances are difficult and inflation is killing, but he must educate his sons for they have no future in agriculture.

Farms sans a future

That is not the story though. The story is that within a span of two generations one family would have divided into 11 families and so would its land. One recalls the late Sanjay Gandhi making abortive attempts to change this hapless state of affairs. He failed because – as is typical with such transformative ideas – the people for whom they are meant are never consulted nor even taken into confidence. Typically again, such ideas are rejected outright without any meaningful dialogue around the merits or demerits. Never mind that the issue of fragmentation has been addressed globally by legislation in many countries that agriculture land may only be inherited by one child.

In India, where there is no such provision, obtain situations like Satyanarayan's. He realises that the inheritance is more of a bane than a boon and wants his children to be educated and employed in sectors as far removed from agriculture as possible. His children take a bus to school some six or seven kilometres away. Satyanarayan is very particular: it is not to a government school where teachers are conspicuous by their absence that his sons go to. Even though he can ill-afford it, he pinches every penny to provide private schooling for his boys: at an exorbitant Rs 400 per child per month.

Parsad studies commerce, civics and economics. In the evening and on holidays he works on the farm along with his younger brother Praveen. The youngest, Prakash, is allowed to play with his friends and is not asked to work on the field.

There is absolutely no extension service available to a small producer. So, the benefits of any proposed second Green Revolution will not trickle down to the bottom of the pyramid

In February, his tomato crop had long been harvested and Satyanarayan was growing chamanti, (chrysanthemum). This is a seasonal flower and cannot brave the Indian summer but makes a fascinating winter picture. I ask what seed he uses and Satyanaryan stares at me in askance. He had never bothered to check the brand of the seed. He was told that it is a hybrid variety and that was good enough for him.

Satyanarayan can grow flowers for half of the year. During weddings or in the festival season the demand for flowers picks up and he gets up to Rs 80 per kg. In the off-season the rate comes down to Rs 25 a kg and he is happy with an average collection of Rs 40 a kg. Flower-bearing plants produce for up to 90 days and are then uprooted and planted in the adjoining plot. His land gives up to 100 kg of flowers per week for three months.

His other crop is *palak* (spinach) the seeds for which he buys from a nearby shop without ever caring about the brand name or the seed variety or the company making it. The seeds come in sealed packets and he pays Rs100 for a 500 gram packet. Possibly, the retailer sells him the seed packets from a company that offers the maximum commission on sales.

The first pick of palak comes after 25 days and subsequent harvests every 15 to 18 days for up to 10 times. Around 50 grams of harvested palak are tied with a rubber band to make a bundle (*kata*) and every five bundles sell for Re 1. Once the palak season is over, Satyanarayan grows tomatoes.

Satyanarayan has a 200-feet, two-inch bore-well for which he gets subsidised electricity supply for seven hours a day at Rs 20 a month. The supply alternates weekly between 10 am and 5 pm and 3 pm and 10 pm. The cost of a borewell is Rs 50,000.

Hyderabad is showcased as the seed valley of India. Yet no agriculture officer has ever visited the farmer; never mind that Satyanarayan's field is a mere 22 km from Hyderabad. There is absolutely no extension service available to a small holder/ producer. Therefore, the benefits of any proposed second Green Revolution will not trickle down to the bottom of the pyramid. He has a water storage tank for which he did not take a loan or get a subsidy; nor does he know if any subsidy is available to make a tank. For fertiliser, he uses Godawari DAP and Nagarjun urea along with cow dung as manure. Thrice every year he buys cow dung for Rs 1,000 per trolley. He uses "Nagali", a wooden plough, because he cannot afford to buy metal implements. Only the *patwari* comes once a year to take a report of what is growing in the field.

One gets a fair idea of the plight of the farmer in the hinterland.

On the day of my visit there were university students trying to force their way into the Vidhan Sabha (Legislative Assembly) in Hyderabad agitating for a separate Telangana state. I asked Prasad if he had considered joining the students in the storming of the Assembly. He said "no", there is work to be done in the field. That, to my mind, reflected the difference between a small holder/producer and a large one. The small holder/farmer is barely keeping his head above water.

Not for him the freedom to agitate; nor for him

Many mandarins in the agriculture ministry and some even at the Planning Commission are no better at deriving the cost of cultivating a crop

the freedom to take a loan. Indeed, Satyanarayan has never taken a crop loan because he strongly feels that once a farmer takes a crop loan, there is no way he will be able to come out of the cycle of indebtedness. To survive thereafter he must take loans for his entire life. Instead, Satyanarayan focuses on savings. He manages to earn some Rs 30,000 a year from his meagre plot, which he believes to be his saving. How does he define 'savings'? "Total sales minus total value of purchased inputs." There is no concept of net savings in his calculation. Nor with the calculations of the Commission of Cost and Price on Agriculture perhaps!

The Commission of Cost and Price on Agriculture (CACP) has the onerous mandate of recommending a minimum support price to the government, after due consideration of the interests of both the farmer and the consumer. It must base its recommendation on data collected. Sometimes the collectors do not even get the value of agriculture inputs right, let alone calculate the cost of other factors correctly. Many mandarins in the agriculture ministry and some even at the Planning Commission are no better at deriving the cost of cultivating a crop than the poorly-informed Satyanarayan. The CACP has let the farmers down at every step, but that is another horror story waiting to be told.

The family has a ration card and gets 20 kg of rice every month at Rs 2 per kg. It also gets two litres of kerosene for cooking and a litre of *meetha tel* (cooking oil) at Rs 38 a litre. Besides, it gets half a kilogramme of dal (lentils) for Rs 30 and half a kilogramme of sugar for Rs 13. The rest of his requirements are sourced from the market unlike the more fortunate farmer from the north. Satyanarayan thanks the late N. T. Rama Rao for having started this subsidised food, but he buys milk from the market at Rs 20 per litre. His family does only commercial agriculture and he sells whatever he produces. He cannot afford to grow any crop for self-consumption and would rather consume the food sold at subsidised rates by the government to below poverty line families. To him, that makes economic sense. Therefore, everything to be consumed at home has to be purchased.

One is left aghast: who and what is the government subsidising? Is the government subsidising the farmer or is the farmer subsidising the nation?