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> Increasing Food Production...

# FARMERS' FORUM

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Issues and Ideas for Indian Agriculture



## BUDGETING FOR AGRI GROWTH?

SUBIR ROY | ALOK SINHA | HANNAN MOLLAH | PRABHAKAR KELKAR  
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## Consenting to Agitate?

*Restlessness on the farms is on the rise but not ripe enough to explode just yet*

Nobel laureate Daniel Kahneman has established that the confidence that one has in one's beliefs is no measure of their accuracy; something that is clearly demonstrated by the amendments to the Land Acquisition Bill. Prime Minister Narendra Modi has spoken to farmers through a radio broadcast seeking to dispel many myths being propagated about the amendments. Truth to tell, some amendments are good but other contentious issues from the old bill have not been resolved, even as new issues have arisen. Farmers feel very strongly about the consent clause in the Land Acquisition Bill but these amendments are unlikely to unite them in agitation. Meanwhile, land acquisition is a topic resonating in Lutyens' Delhi and in the media channels though the farmers elsewhere have more immediate and pressing worries.

It has been a tough year; after selling their last crop at depressed commodity prices (major crops paddy and cotton down 25 per cent), farmers were compelled to buy urea at a 40 per cent premium over the printed MRP in the sowing season. Before the new crop has been harvested, it is being hammered by a spate of unseasonal rain and hail damaging the crop. Current worries on the farm will always take precedence over future probabilities like acquisition and environment. Also, 50 per cent of India lives in cities and really does not care about land acquisition. Of the rest who live in villages, most feel that their land is not even remotely under threat of acquisition because of their commercial or locational disadvantages.

It may appear that the government wishes to fund new highways by selling land for industrialization and to colonizers along the new expressways being constructed. Nothing wrong with that except for the clause to acquire land, one kilometre on each side of the highway, for development, which is outright foolish. It makes the government appear more like a property developer or under the influence of property sharks rather than one seeking development or wanting to create jobs. On this one issue, industrialists and fellow farmers are equally flummoxed and farmers propose their own amendment.

Industrialists want to locate close to urban centres and have fast access to development sites. Being on the highway or in the city is not the priority. Had it understood the difference, the government would, contrary to what it did, propose not to acquire land up to five kilometres on either side of the highway

**SPECIAL ECONOMIC ZONES THAT WERE SUPPOSED TO BE THE GAME CHANGER, THAT WOULD SPUR DEVELOPMENT AND CREATE JOBS ARE NO MORE THAN A BAD MEMORY THAT STILL HURTS**





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or within 50 km of municipal limits. It would be easy to add a few kilometres of expressway connectivity from the main highway to these development hubs. Such a development would deliver more inclusive growth in the remoter regions and, indeed, it would be easier to secure the farmers' consent for land further away from the highway and the municipal limits.

Normally the 'circle rate', decided by the revenue department of the state government, is accepted as market rate for acquisitions. In most cases, the circle rate is uniform for an administrative block and there is no difference between locations close to or away from the highway. The circle rate for land within a kilometre of the highway is invariably far less than the actual market potential of the land and farmers are unwilling to part with the same. As one moves away from the highway or municipal limits the cost of land drops drastically. The amendments also stipulate four times the market value to farmers on acquisition. Thus farmers with land five kilometres away from the highway or further from municipal limits may feel adequately compensated to accord consent for acquisition.

The Bharatiya Janata Party (BJP) and the Congress are both enchanted with the wrong set of people. Congress positions continue to be influenced by leaders and intellectuals far removed from the ground reality, while the BJP pays far greater heed to industry than it should. Opportunistic new political entities wanting to reap an electoral harvest have already jumped on to the bullock cart. Politicians, who have never farmed, wanting to exploit the farmer's plight for political dividends are the reason why the country will fail. The trust deficit has increased to such an extent that farmers do not trust the agitating political parties on the issue anymore. The United Progressive Alliance (UPA) made a choice, now it is the BJP's turn to decide between the complicated theories propounded by economists and the farmer's common sense.

Special Economic Zones that were supposed to be the game changer that would spur development and create jobs are no more than a bad memory that still hurts. The biggest beneficiaries of such land acquired from farmers in the past have been the various state governments, like Haryana and Uttar Pradesh, turning into mere colonizers. They were not private enterprises, the commonly perceived culprit. Has India really turned the corner courtesy the Land Acquisition Bill? The din created by the media would suggest so but for most it is politics resuming its natural course. One wishes that it had been different. ●



Ajay Vir Jakhar  
**Editor**

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**HAS INDIA  
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THE CORNER  
COURTESY  
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## To the Editor

## Global apathy

Sir, Apropos of your Editorial 'We are Fed Up' (*Farmers' Forum* February-March 2015) it was interesting to note that the Indian farmer is not alone in his distress. What continues to bewilder one is why farming gets a short shrift everywhere when the growth of so many economies, certainly India's is so critically dependent on the success of the farm sector. Policies must be directed towards this end. Yet, globally, there seems to be this apathy towards farmers that was so perfectly captured by the delegate from Africa at the Berlin 'International Green Week' conference. In response to his own question, about the month in which the farmers were upset for the least number of days, he replied, February, because it has the least number of days. I agree with your conclusion that "if nothing really changes or if policies become more difficult to digest the time is ripe for farmers to be in perpetual dissent".

**Jai Rathore,**  
Kota, Rajasthan

## Organizing ourselves for organics

Your Green Fingers column, 'Making the Organic Mantra Work' (*Farmers' Forum* February-March 2015) was well timed because of India's current preoccupation with things organic. Kudos to *Farmers' Forum* for sharing farming technology from other countries through its columns. The difference between Germany and India is that things get done systematically there and the government's response



## Numbers do not lie

Surinder Sud's article 'Tell-Tale Data and the Poor Indian Farmers' (*Farmers' Forum* February-March 2015) was mind-boggling with all the numbers. The NSSO figures mentioned in the article about the average farm household income were shocking. What kind of a society are we where the farmer who works so hard to feed us does not earn enough to feed his family at the end of the day. How long will the government continue with its somnolence vis-à-vis the farmers of this country?

**Yoginder Dhapa,**  
Shimla, Himachal Pradesh

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earlier numbers.**

is just as organized and sincere. I totally agree with you that there are so many minute details that make organic standards so much more difficult to attain apart from the obviously major ones like chemical pollution of Indian fields. It is important for farmers to share knowledge for the sake of better farming across the world and most certainly, as you say, "We have to act or we will all sink together".

**Jasbir Singh,**  
Chandigarh

## Think small

As Laveesh Bhandari points out in your Cover Story, 'Small Farm, Big Business' (*Farmers' Forum*, February-March 2015), whatever be the strategies to improve the state of Indian agriculture, they must first address the issues of the small farmer, who is a heterogeneous entity. If his lot improves, Indian agriculture will do better.

**Kunal Sengupta,**  
Kolkata, West Bengal

## Volte-face

Apropos of your article under Perspective, 'Omissions, Commissions but Whither Remission of Farm Woes' (*Farmers' Forum*, February-March 2015), is there any government that is not anti-farmer? We shudder to think that the government believes that "India has the potential to become a major producer of transgenic rice and several genetically modified or engineered vegetables". Remember that this is something that the BJP manifesto opposed.

**Nirvan Mehta,**  
Jaipur, Rajasthan

# AGRICULTURE

## The Missing Sector in Budget 2015

As the finance minister read out his budget speech, it seemed excellent. Then, the more carefully one read it, along with all its annexures, the more confusing it got. Flagging off the discussion on 'Rural India in Budget 2015', organized by the Bharat Krishak Samaj (BKS) and *Farmers' Forum* at the India International Centre on March 3, 2015, Ajay Jakhar, chairman BKS and Editor, *Farmers' Forum*, hoped that the erudite panelists would be able to throw light on the critical issues and explain the fine print "because the budget is indeed a confusing one". The BKS chairman clarified that it was "not because there was nothing in it for farmers". On the contrary, a lot of money had been given by the central government to the states because of which the central allocations have dropped. "This means that our job has become more difficult. Earlier, we would meet four people in Delhi with an issue and the problem could be solved. Now there is more of a role for the states", Ajay Jakhar said.

There were many questions that he threw up for the panelists but the main one was: "whether the states would use the money on extension or on salaries, for instance? Many states have not paid

THE MORE CAREFULLY ONE  
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dearness allowance; would they divert the money for making such vital payments? Would they spend it elsewhere?" These are important questions because there is a history of states using central money for purposes they are not meant for.

These and other questions were dealt by an eminent panel, featuring Subir Roy, senior journalist; Alok Sinha, former chairman and managing director, Food Corporation of India; Hannan Mollah, general secretary, All India Kisan Sabha; Prabhakar Kelkar, all India general secretary, Bharatiya Kisan Sangh; Randeep S. Surjewala, spokesperson, Indian National Congress; Surjeet S. Bhalla, chairman, Oxus Investments and Abhijit Sen, member, 14th Finance Commission and former member, Planning Commission. The discussions were moderated by Paranjy Guha Thakurta, senior journalist. ●





# Has the Budget Bypassed the Farm Sector?

Subir Roy

There is little for agriculture in the budget, save for a minor attention to minor irrigation and little by way of a routine recapitalization move, in order to have something in the pipeline for those organizations that distribute farm credits. Had there been nothing in the pipeline, these sources of credit would dry up. Irrigation makes for a great plus because two-thirds of the country is not supported by irrigation, so even minor irrigation allocations are a plus.



**SUBIR ROY**  
Senior journalist

Going beyond, there is some scepticism over the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and its future. Such a programme, the largest of its kind in the world, is bound to have flaws but the big issue is whether it will be phased out or be reformed and made to deliver effectively. The programme has helped by prompting a significant rise in rural wages until a couple of years ago. This rise was partly because of heightened economic activity in the country that led to a migration of unskilled people from rural areas to urban areas to work in the construction space, in particular. What the MGNREGA did was provide a floor to wages. However, the rural wages have been going down for the past two years.

Criticism about the MGNREGA led to the move to replace it by direct transfer of subsidies to the beneficiary's bank account. If and when that works, it would be a good substitute though the latest Economic Survey admits that the one plus point of the MGNREGA was that it was fairly well targeted. The direct transfer of subsidy is mainly driven by the need to target effectively but the MGNREGA was targeting well. It was self-selecting and thus excellently targeted.

Consider some important and emerging facets of the agriculture economy in India:

- About 18 per cent of the Indian gross domestic product (GDP) comes from agriculture whereas the percentage of the work force engaged in agricultural and allied activities is 56 per cent. There was considerable rural to urban migration till the government started putting brakes and the middle class in cities became assertive, building walls around its communities; thus gated communities and gated neighbourhoods have increased, even though they are illegal. Such migration too has seen a decline.



- Simultaneously, there is a global economic downturn in commodity prices amidst growing pressure and tension and things have not gone in the right direction for the Indian farmer. Therefore the need for short-term relief; ensuring that the cotton farmers, for instance, got some kind of a price or support to enable them to keep body and soul together and prevent an escalation in suicides.
- There is also concern around changing cropping patterns in some areas where, traditionally, there was intensive use of inputs to produce cereals and then procured with support prices by the government to build a huge buffer stock of food, which was not needed. This is something that needs to be rectified by the experts.
- If the Food Corporation of India is not required to procure food and, instead, the state governments need to do so, there emerges two separate lines of business/issues, so to speak. One is storage for which necessary warehouse space must be built. The second is to stop sending food from one part of the country to another and, instead, to retain as much of it as possible, wherever it is needed. Also, there is the need to simply manage the supply chain to reach the public, which means computerization and tracking of actual grain movement and bogus ration cards. This works in some states only; in Tamil Nadu, for instance. The expert committee says the solution should be innovative, which is

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## There were areas with intensive use of inputs to produce cereals that were procured with support prices to build buffer stocks of food. Such stocks were not required

an earth shaking recommendation because one hardly expects the Food Corporation of India and its entire team to become innovative.

- India's support price system needs attention from the soil health perspective. Procurement management should ensure that the quality of soil nutrients is not harmed. This calls for a change in the fertilizer pricing policy. The simplest way is to give the subsidy directly to farmers and allow them to spend according to their requirements.
- One is possibly looking at another four to five years for bank accounts to be opened to enable direct subsidy payments into them. One would also expect the dismantling of the way in which the fertilizer industry works. India, historically, has the most efficient fertilizer industry in the world and subsidy is given on the basis of

capacity utilization (120 per cent to 130 per cent). Meanwhile, fertilizer factories using outdated technologies must be closed down or rebuilt.

- The fertilizer policy and the entire orientation of procurement and support price system has to change so as to enthuse farmers to reduce grain production and increase output of vegetable and fruits. This means that farms have to be geared to use the right fertilizer mix so that soil nutrition is restored.
- It is also vital for farmers to become a part of the information age and the Jan Dhan Yojana, Aadhar and mobile phones are all facilitators.
- Finally, the question of where the farmer can sell his produce must be sorted out because the APMC (Agricultural Produce Market Committee) has done considerable damage after its first positive phase. There are two other broader issues: banking

for the masses and the size of the population that has to be fed. Bank nationalization took banking to remote areas and there was a sharp rise in the savings rate of the country. Over the last 10-15 years though, financial inclusion by taking the last step to making banking accessible to every individual by the commercial banks has not proved to be enough, even though microfinance organizations, charging between 25 per cent and 27 per cent rate of interest, are getting 98 per cent recovery. Obviously they know how to do their job.

Over the last two years the Reserve Bank of India has put in place an institutional mechanism to give licences for small banks and other differentiated banks such as payment banks that serve niche interests. These can take banking to individuals.

There is another sword hanging on India's head. A population projection says that by 2050, the country will have the largest population in the world: 1.6 billion. Currently India's population is 1.2 billion while China's is 1.3 billion. Thus 1.6 billion have to be fed with the right kind of food

and the right nutritional balance. With the green revolution a thing of the past, one has to move towards organic farming. There is, however, no organic farming policy in the country; only certain directions issued by the commerce ministry for getting proper certification and on how to export. Organic farming across the board seems to be a difficult proposition.

There is also the situation of the educated members of the farming family wanting to leave the countryside. This is a very real issue. India needs to produce an enormous amount of food and needs competent people to remain in farms. This would also be good from the lifestyle perspective. What needs to be decided is the price one willing to pay to have a model life style. Former Indian President A.P.J. Abdul Kalam had coined an acronym, PURA (Providing Urban Amenities in Rural Areas) that holds the key. My friends in Britain tell me, many of them cannot even dream of living in London. They prefer their farms in Oxfordshire. ●



# IMPACT OF FCI A Reality Check

Alok Sinha

India has a tradition of discussing the budget in five-star hotels with the corporate sector and deciding what to do for India. Today's panel and venue are fortunately different. Farmers, as a category, belong in many classes and should not be clubbed as one. Some 75 per cent of Indian farmers have very little or no land – I am, therefore, very relieved that Hannan Mollah, the leader of the All India Kisan Sabha, is here – and a majority of them is not rich.

The majority of Indian farmers is poor; without a “marketable surplus”. Yet when one talks of, for instance, the operations of the Food Corporation



**ALOK SINHA**  
Former Chairman &  
Managing Director,  
Food Corporation  
of India

of India (FCI) vis-à-vis farmers, what is lost sight of is that the FCI serves only the top 10 per cent to 15 per cent of farmers. Compared to the urban sector, even these farmers may be at a disadvantage but within the rural sector they have a marketable surplus vis-à-vis farm output and receive the benefits of the minimum support price (MSP) regime and of FCI operations. The talk about farmers is in the context of this limited number.

Some 70 per cent of Indian farmers have little or no land. The farmers of western Uttar Pradesh, Haryana and Punjab would not flourish, nor would their green revolution have

succeeded had it not been for the landless labourers from eastern Uttar Pradesh, Odisha, Bihar and Jharkhand who come and work on these farms.

The real farmers are those who work on their own farms. The others are owners, who give the smaller farmers work on daily wages. There are a lot of disputes, a lot of acrimony over these wages and much criticism of government programmes like the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). The wealthy farmers think that the wage earners have some gumption, asking for higher wages. There is also the rural versus urban income conflict but even within the rural sector there are income disparities.

It is in this backdrop that one could analyse the

budget and try to understand whether the budget has anything for agriculture. It is a very honest budget because it is, admittedly, completely growth-oriented and based on the ideology that the more capital intensive the economy becomes, the greater will be the growth. The more the economy speeds up, the greater the incomes will grow. Be that as it may, agriculture should have found some mention.

The 2015 budget may have been made with a lot of thought. The last budget (speech) had a couple of lines that have disappeared this time. The writers of the budget may have found it difficult to deal with them this time. One was the idea of 'restructuring the FCI' that merited just one line and there was another line on reforming the public





distribution system (PDS). These do not feature in the current budget.

It has been rightly said that the FCI is not innovative. It would be great if FCI became innovative, but it cannot be so, since it does not decide at what price grain will be bought or sold. The FCI does not decide how much grain is to be kept in its godowns and how much will go out. It is basically the custodian buying grain and selling it at government-determined prices. India's political class needs to decide what it wants from the FCI.

No politician wants to take decisions for fear of criticism and the FCI is blamed even without being told what is expected of it. This time round there was a good decision that almost went unnoticed. The FCI has a considerable buffer stock and generally has five to six times more grain than is needed because the government does not instruct how much to sell. This time, to play safe, it has doubled the buffer stock and asked the FCI to "sell the rest". That is why rice and wheat prices have held their own. A lot of stock has been moved out. The point is that either the FCI becomes innovative or the government becomes so. One of the two will have to innovate.

Farmers and the society share a common interest. While the farmers grow grain and earn an income from it, society gets food to eat. In the last 68 years India's population has increased; so has food production. In the 1950s, India grew 50 million tonnes of grain and it currently grows between 275 million tonnes and 300 million tonnes, though the quantity is stagnating around that level. However, though India is growing more grain, the per capita availability, mathematically, has fallen in the last 25 years because the rate of population growth rate has been faster. Foodgrain production has, meanwhile, been nearly constant. Thus though India has become food self-sufficient, it is a fact that it is eating less and one has statistical indicators like the growing incidence of malnourishment; among kids under the age of five it is 48 per cent. That means half of India's children under that age are eating less.

There is a lot of noise about why India does not win medals at the Olympics or at the Asian Games and this is partly on account of child malnutrition leading to underdeveloped bodies. There is need for the average Indian to eat more and, therefore, the need for more food. In 2006, the government created a National Rainfed Area Authority. Two thirds of Indian land has no irrigation and it is at God's mercy. Irrigation is available only in Punjab,



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Haryana, western Uttar Pradesh and some such lucky states. Ordinarily two-thirds of the land is rainfed and, interestingly, if this is charted out on the map of India, it coincides with tribal India. One tends to forget tribal land because it is Naxalite-infested. The last government had said that Naxalism is the greatest threat to India and, therefore, the army, air force and para-military forces were sent there.

The point is, unless this two-thirds area is provided with subsidized inputs and government intervention, the unrest in such areas cannot be handled nor can the second green revolution take place there. The first green revolution started in the sixties and was mostly about chemical fertilizers, improved seeds and assured irrigation. The government gave combined subsidies on these three. This kind of subsidy needs to be given through the National Rainfed Area Authority but this has somehow escaped intellectual debate and media attention. Nobody seems to be concerned about this area that depends on rainfed agriculture and the budget has belied the hope that something would be done on this score.

Worse, the budget did not even mention

## The rural and urban income equation is skewed against rural interests. It can be set right by better marketing, increased output, better and subsidized inputs to improve productivity

agriculture so there was no question of rainfed agriculture. Something may be done in due course because in the April-May election of 2014, the future (now current) Prime Minister Narendra Modi did say at an election rally in the tribal district of Bastar: "I would like to see pens and tools in your hands instead of guns". That is the key to not only ensuring peace in tribal India but in seeing the second green revolution. If that happens India will be very rich; it will export exotic agricultural products that it can grow but which are only exhibited at tribal heritage meets and exhibitions.

It needs to be emphasized that 56 per cent of Indians are involved in generating only 18 per cent of the gross domestic product. Rural income is at a disadvantage, a fact first stated at the political level by Chaudhary Charan Singh in 1977. The equation between rural and urban income is extremely skewed against the rural interest. That can only be changed by better marketing, increased output,

better and subsidized inputs and such others to improve agriculture productivity in those areas. A National Agricultural Marketing Scheme has been mentioned in the budget, which is welcome. Hopefully, it will be taken to fruition in due course.

As mentioned earlier, the 2014 budget talked of the restructuring of the FCI. It led to the appointment of a high-level committee that submitted its report at jet speed, in three to four months, and the report is being considered. The report is, however, a bit flawed because it was prepared in a hurry. The first thing that it says is that procurement should be done in surplus states, which means procurement must be taken from surplus states and given to others. This means that the FCI will procure the marketable surplus from Punjab, Haryana, Andhra Pradesh, Madhya Pradesh at the MSP, and leave some for local people for consumption and take the rest to the other parts of country.

Actually, things should be considered from the opposite perspective. The FCI should go where there is inadequate procurement because the state governments lack the political will to do so. In Bihar, for instance, the Mandi Act was abolished without anything replacing it. This means that no

state government or procurement agency accesses the produce directly because they operate in *mandis* and cannot afford to go from village to village. Thus villagers are left at the mercy of middlemen who, in a state like Bihar, take away between 20 per cent and 50 per cent of the MSP.

The FCI must certainly go to these states but the state governments must also show political will to make the procurement operations successful. The high level committee (HLC) makes one very good point. Given that procurement is unavoidable, some state governments increase state tax, which is reimbursed by the Centre and which they do not have to pay. This is highest in Punjab. The HLC says that the state levies must be uniform all over the country.

The HLC also, correctly, says that the central government must revisit its MSP policy initiated in the sixties and seventies when it was believed that India would not have enough rice and wheat







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and could not afford to depend on international imports. There was a war in Bangladesh and India was in trouble with the United States too and the PL-480 imports were out of the question. While paddy and wheat got efficient MSP help, the fact remained that other crops took a backseat and agricultural diversity got hit by the success of the MSP operations for wheat and paddy.

The FCI by itself is humongous, though its operations are closely interlinked with the ministries of agriculture and food, who, in turn must jointly decide what is to be done about MSP price, about procurement and how to improve the procurement in other areas. This has to be done in a cohesive way and the HLC recommendation that will benefit both PDS and procurement is about end-to-end computerization that will prevent leakage in both the PDS and in procurement. The PDS is doing very well in some states but leakages in others are as high as 50 per cent. Computerization and linkages to Aadhar and the Jan Dhan Yojana can achieve the original PDS objectives.

The other idea mooted is to split the FCI into three wings – storage, procurement and distribution. One wonders if it would mean three managing directors and three chairmen and what that would do to overheads and the need for co-ordination. How would the split cut costs? Cost cutting should be done on a rational basis and not on these lines. The food ministry has taken a surprisingly great decision of doubling the buffer stock and selling everything beyond that. There is no need for them; such stocks entail high overhead costs, high interest charges and even losses on storage and transportation of around one per cent, which is a hell of a lot.

These are matters of detailed consideration – agriculture and procurement issues have not received the merited attention – given the large number of people who are dependent on the farm sector. There was a time when every newspaper had an agriculture correspondent writing cogently on the green revolution, food shortage and others. Agriculture is no longer mainstream in most newspapers. The entire country and the media should realize the importance of agriculture. ●

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Hannan Mollah

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The concept of a farmer has changed since Independence with the focus only on the top 16 per cent of farmers even though 84 per cent of the Indian farmer population is small or marginal. Only the top 16 per cent gets all the attention while the marginal farmer is not on the agenda of policy makers and faces the most difficult conditions. The Indian middle class too has all the comforts; homes to live in, cars to drive around in but it does not think of the farmer who is producing the food that it consumes. People survive because of the toil of the farmers and owe them a responsibility. Sadly, the middle class generally considers the farmer as an illiterate and a fool.

Jawaharlal Nehru who had first talked of land reforms too went back on the idea. P.C. Mahalanobis had talked of the 60 million acres of land held by the rich, *zamindars* (landlords) and *rajās* (kings). If even one or two acres were taken and given to each of the landless, the farmer would get to eat while feeding all of society. The point is, the farmer is a producer as well as consumer, and inflation hits them too. *Bhindi* (ladyfingers) is priced at ₹100 a kilo in Paharganj (Delhi) and I got only 52 pieces



**HANNAN MOLLAH**  
General  
Secretary, All  
India Kisan Sabha

in the country. Last month I visited 18-20 families in Telangana, with incidence of suicides, all because of debts. The average farmer bought/took on lease three or four acres of land and dug three or four borewells. When no water was found in them, he could not repay the loan. The lease cost around ₹10,000 per acre per annum, funded by loans from *sahukars* (money lenders) – not banks – at between 35 per cent and 40 per cent interest.

Of the 18 families hit by suicides that I met, 40 per cent had suffered borewell failure leading to crop failure in the Warangal district. Production was poor or close to zero. Where there was good production, prices were poor despite the minimum support price (MSP) programme. This government had said that it would implement the recommendation of the National Commission on Farmers chaired by M.S. Swaminathan that had said the farmer should get cost plus 50 per cent. Yet the farmer receives a price that is lower than his cost.

*Dhan* (paddy) costs between ₹1,500 and ₹1,600 a quintal to produce. It fetches the farmer ₹1,360. It is the same for wheat; the selling price is less than the

**India focuses on the top 16 per cent of its farming population. The rest 84 per cent, marginalized and facing extremely difficult conditions, is not on the agenda of policy makers**

for a hundred rupees. Time was when *bhindi* was available for a rupee or two a kilo.

The song on television and radio is different though. It talks of falling prices giving rise to the question: whose middlemen are the media? They are middlemen of the corporates; the poodle of the corporates because in the last nine months everything from food to clothes has become more expensive by 25 per cent. Yet the claim is that prices are falling. All this while the farmer gets a rupee per kilo for the tomatoes that he produces but which sell in Delhi for ₹80 a kilo. Does anyone ask where the ₹79 goes? Possibly somebody in between is indulging in loot but why is no question asked? If this loot is not stopped, neither the farmer nor the common consumer can be saved.

Policies are designed to benefit 15 per cent to 20 per cent of the population and ignore 80 per cent, which is the farm population. Today, the farmers are in a state of crisis with 3.5 lakh farmer suicides

cost of production. That is one of the reasons for suicides; the MSP is not enough. The government had also promised loans at four per cent interest but now says that this is not feasible; that it cannot implement the Swaminathan Commission recommendations.

Then current farm crisis is entirely caused by faulty government policy and for no fault of the farmer. Earlier, the thrust was on food production and now it is crop production for sale, not for consumption. The emphasis is on producing to sell. Who is a seller though? He is one with a surplus produce and all the attention is focused on this producer.

Then again, only 30 per cent land in the country is irrigated. In the last budget ₹1,000 crore were allocated for irrigation but not a paisa was spent. This budget also provides for ₹5,300 crore for minor irrigation projects though there are 38 lakh villages in India where the farms need water.





Without irrigation there cannot be production. This meagre amount is like *jeera* (cumin seed) in a camel's mouth.

Policies have been changed over the years with multinationals becoming central to the agenda and dominating policy. They sell everything; indulging in forward trade; sell produce, insecticide and even seeds to us and this is encouraged by government policy. The idea is to become totally dependent on the multinational companies. It has been said here that we had the best fertilizer companies in the world; 11 big companies. Today they want to import fertilizer under the pretext that the prices will go down. Prices may have fallen for a while but are rising again. The real reason for this is the commission in these transactions. The country runs on commissions, which is why the fertilizer factories were shut down.

Even the All India Kisan Sabha says that farming is now a loss-making proposition and farmers around the country (42 per cent) say that they want to quit farming at the earliest opportunity, which is quite a contrast to the days when the slogan



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## Agricultural policies have changed from food to crop production that is now oriented towards export and not consumption. The farmer has to deal with this scenario

was: 'Jai Kisan'. The children of farmers will quit farming and seek other sources of livelihood. An average farmer earns ₹6,500 a month if all goes well. Even a domestic servant earns more than that. Why should the farmer stay in the village?

Policies have changed from food production to crop production and are now further oriented towards 'production not for consumption but for export'. The best produce must go outside (organic crop), while Indians must eat genetically modified food, which is poisoned by chemical fertilizers. Clearly foreigners are humans and Indians are animals. This is the scenario in which the farmer is a helpless victim of government policy run amok.

There was a policy in place at the time of the green revolution that needed the government to spend on agriculture and make available irrigation, subsidies, seeds and such other things. Under the new dispensation, the government has withdrawn from these roles, from such expenditure. In the new policy, it will not spend on irrigation, on research and development because the Americans will provide the R&D and there is a committee

that includes the Americans and representatives of big business like the Tatas and Birlas. Agriculture decisions will be taken by big business and they will plan, without a single farmer in the committee. The farmer is nowhere in sight in these committees.

Earlier the government would take decisions; the officers would announce them and explain them in the villages through the extension services. Government extension services have ended now and possibly Monsanto will provide them. They will teach us how to sow, how much to water the crop and charge a fee for that. In the last five years there has been a 100 per cent to 500 per cent rise in seed prices. The papaya is a giant sized fruit but does not have seeds. Indigenous papaya had seeds and once the fruit is eaten, the seeds would be sown back in the fields. Now every year, we must go back to Monsanto to buy seeds. We have lost our rights on seeds. They got the rights to sell them. This is suicidal.

This is a novel way of looting countries like ours and our farmers with our own officers bringing in these multinational companies. Most of our officers are agents of America, killing poor Indians

as the country sells out on its policies one by one. The patent policy was surrendered to the foreign companies and we buy from them and create a market for them. This policy direction is wrong and unless it changes one will keep lamenting here while farmers die in the villages.

We are not against the top rich 15 per cent but do not welcome the attention paid to them at the cost of 80 per cent of the farmers. Budget 2015 shows a ₹1,00,000 crore reduction in planned expenditure and has nothing for agriculture. To what levels will the planned budget shrink? It will certainly shrink in irrigation and in village/rural development.

Governments will not save us as is evident from the changing laws. One can replace any asset but not land. Once it goes, the farmer never gets it back. Land is life for the farmer. The previous government took away 10 lakh acres for Special Economic Zones. Only 17 per cent of this has been utilized, for so-called development of the country. The rest has gone to builders for big building projects. This government says it is promoting affordable housing. Affordable, yes, for the middle class, not for the poor. All new terminology, affordable for instance, is all for the upper classes, not the poor. Affordable is meant for someone who has something and not for the farmer who has nothing in the first place.

We will fight this new Land Acquisition Bill too. The old one was a legacy from 1894, from the British era, that disempowered the farmer from acting if his land was taken away. The farmers fought this law for 120 years. That was how the Right to Fair Compensation and Transparency in Land Acquisition (Rehabilitation and Resettlement) Act, 2013 was modified. Some compensation, at least higher than in the past, was assured. The consent clause was built in. A social impact assessment was to be done as to who would benefit and who would lose. It also took care of others who would be displaced, apart from the farmers tilling the land. These have been removed in this bill, brought in through the Ordinance. It is totally anti-farmer with all those measures to protect the farmer removed. It is a bill meant to murder the farmer. Government policy favours foreign and multinational companies and capitalists. The banks also give loans only to agro business and not to the farmer.

This is the background to the farm crisis. If the farmer does not survive, the country cannot, for it is the farmer who feeds the country. The government says we have a national policy but can a national policy exclude 70 per cent of the people? This is why we will oppose this policy on the streets. We have appealed to farmers not to commit suicide. We shall fight and not give in. ●



# A Crisis for Every Farmer; Rich or Poor

**Prabhakar Kelkar**

The Bharatiya Kisan Sangh has opposed the new Land Acquisition Bill so vociferously that its TRPs have gone up. The Bharatiya Kisan Sangh has been working since 1979 when Dattopant Thengadi started it. We work in 400 districts and 2,500 blocks of the country. Our objective is to raise issues of concern to farmers. I have been introduced here as an activist from the RSS (Rashtriya Swayamsevak Sangh) fold, which is true, but I am not speaking for the government. We say clearly that the country does not have a government that takes into account the interests of the farmers.



**PRABHAKAR KELKAR**  
All India General Secretary,  
Bharatiya Kisan Sangh

What is the government's policy on farmers? At some wider level we are with the government but when it comes to farmers' issues we will raise our voice. I set out with farmers and am accountable to them. Before I started for this event, a journalist from Zee News came to meet me and asked me to comment on the recent (unseasonal) rains. I thanked him because it felt good to have someone from the media bothering to ask how farmers were affected by the rains.

The sad news is that one farmer in Jhansi has committed suicide because his crop was damaged due to the rains. He had borrowed to raise this crop and had no way to repay. We had expected this budget to give farmers a security net and had demanded so in writing. Farming is now totally at God's mercy; some day there is a hailstorm, on another there is rain and on yet another there is a storm. There should be some government agency or trust that a farmer can call up and say that there is nothing left for his/her family to eat and get immediate help, just like the medical vans with the number 108. Can there be such a system?

I belong to Madhya Pradesh where crops were damaged by hailstorms, thrice in a row. What is the solution to this crisis that has befallen all farmers; 83 per cent poor farmers and 17 per cent rich farmers? There is no aid or security mechanism for farming. Some time back, we had passed a resolution, following a scandal around all instruments used for weather forecasts being Chinese that gave highly inaccurate forecasts. We objected to these imports from China and the scientists of the meteorology department agreed with us. I can say with some



pride that the decision was changed. So I agree with Hannan Mollah when he says that the policy direction is wrong.

As far as the budget is concerned, we had recommended some measures that do not seem to have reached the decision makers before the budget. The size of the budget is around ₹17,56,000 crore and ₹11,000 crore have been given to agriculture and another ₹5,500 crore to micro irrigation. This is not even one per cent, close to 0.7 per cent, and in a predominantly farming country. I am happy that agriculture contributes 18 per cent to the gross domestic product (GDP). Of the ₹10,669.9 crore that has been allocated for development of agriculture, the Rashtriya Krishi Unnati Yojana gets ₹3,257 crore, the Fasal Bima Yojana (crop insurance scheme) gets ₹2,588 crore, the Indian Council of Agricultural Research (ICAR) gets ₹3,295 crore, fisheries gets ₹410 crore, dairy development gets ₹481 crore for the first time. However, given the needs these allocations are too meagre.

What were our expectations? The idea of a national market for agriculture has been mooted and may perhaps lead to the end of the agricultural produce marketing committees (APMCs). Yet the APMC machinery was a safety net because an exploited farmer could take up a grievance with the APMC. The APMCs have been severely criticised but they did provide a forum for farmers' complaints. Meanwhile, the details of the newly mooted National Kisan Bazar is not clear. There is, as of now, only one bazar (marketplace) of this kind in place in Delhi. If a farmer from Bhopal, Vidisha in Madhya Pradesh were to come to Delhi, he would first have to spend ₹3,000 to ₹4,000 in toll tax itself and incur expenses the period of stay in Delhi, at least a day or two. Has anyone thought of this? It would only work if the farmer comes with his own sacks of produce to a bazar in a town close by.

We expected this budget to create more opportunities for farmers to sell their produce but things do not seem to be headed that way. To take a controversial instance, in Madhya Pradesh, we worked for 2,300 sale centres to be opened and the maximum sale has taken place in the state. We also gave a ₹150 bonus on that. The increased buying power of the farmers was reflected in the economic health of the villages in Madhya Pradesh over the years. The budget should have reflected this concept because the purchasing capacity of the villagers must be strengthened. We said it and the National Commission on Farmers chaired by M.S.



Swaminathan also said that farmers' investments must get a profitable price. The Swaminathan Commission had recommended a 50 per cent profit over and above the input cost to farmers (cost plus) while we said 20 per cent. The Prime Minister had said that farmers would be given profitable price when he was contesting elections but we do not know if that too was an idiom of electoral rhetoric.

As far as land is concerned, it is getting fragmented in all villages and is going into decimals along with falling average yield. This does not happen in foreign countries where such fragmentation is not allowed and if a farmer has two sons, one goes into farming, and the other goes into another line of work. He gets an income from the farm as long as he is unemployed, not otherwise. This does not apply to the Indian social set up and it is perhaps very difficult to change mindsets on this score. This is a problem and farms are being pushed into the hands of corporates. Thus, corporates are buying fragmented pieces of land and building big industry on them. Farmers need to give this issue of fragmented holdings a serious thought.

In some families, one son stays back and the other becomes an IAS officer or an engineer in the city but does not give up his claim on the land. There is great disparity in the lives of those who have jobs plus agricultural land and those who have only land. Again, 83 per cent of farmers have

## Land is getting divided in decimals along with falling average yields. This is not permitted in western countries where one son farms while others pursue other professions

only three acres each on an average, making him poor but with all socio-economic responsibilities. He has to live in the village, farm, marry off his children, repair his house and he cannot manage all this with his own funds. He then borrows from the *sahukar*. This vicious cycle has to end.

Social organizations can possibly work with farmers to initiate this change of not laying claim on land if one has another source of livelihood in the towns, cities. There is need for a policy to look into the misery of the small farmer that can only be done by decentralizing the economic systems and promoting small businesses, instead of centralized economic policies.

Meanwhile, facilities in villages are disappearing. There are no barbers in villages these days and the youth have to go 10 km away to have haircuts or have their hair styled. Villages also need small rice mills where paddy is grown and small oil mills where oil seeds are grown. Madhya Pradesh has so much soyabean cultivation that need specialized processing, but seeds like mustard can be processed in small units costing between ₹5 lakh and ₹10 lakh. Wheat flour mills too have disappeared. It is not only

in metro cities that people eat packaged wheat flour, it is now a phenomenon in the districts as well.

This means that avenues of job creation are closing down and there are a handful of people making everything, from shoes to needles and thread. There must be a plan to bring back these activities to the villages. Policies must take care of this. The budget must show this. Some ₹20,000 crore are being given for village development but one does not know how it is being spent.

A procurement scheme was recommended about 10 years ago with a farmers' co-operative committee suggested for every panchayat. The committee could be given loans or subsidies to construct storage facilities or godowns to store at least 5,000 sacks and the farmer was to get 80 per cent subsidy. A farmer could get a loan on 70 sacks if he kept 100 sacks and, after he sold them, the proceeds would be credited into his bank account (and squared up against the loan). There is an announcement for ₹8.5 lakh crore of loans from banks in this budget but these loan schemes remain only on paper. The money hardly ever comes to the farmer who has to do a huge lot of paperwork. Meanwhile, it is





the small scheme that can empower villages and increase purchasing capacity that is being given a short shrift. We are going towards capitalism, towards centralization instead of decentralization.

Consider fertilizers that received a ₹72,000 crore subsidy in the last budget that mentioned where it would go, who would get it and such other details that are missing in Budget 2015. One learns, however, that urea imports have been lower by 40 lakh tons this year though one does not know if this was a part of any scheme. Farmers have been told to turn to other crops and it could be that lower fertilizer imports would force the farmer to sow less of the traditional crops. The point is that people could be persuaded to do something but playing tricks, wielding the stick or conspiracy to make people change, cannot happen in a democracy.

India is also a large milk-producing country and people in Amul and others say that there is ample milk stock. Madhya Pradesh, for instance, is surplus in milk but one does not know how to increase milk consumption. That is not to say it is contaminated or synthetic milk. Yet some 60,000 tonnes of milk

industrial projects in several districts in the country. Two thirds of that land is still unused. Businesses went bankrupt or were shut down. Nagpur's Empress Mills has today got huge malls on it. We want to know how the land use has changed. It is important to use that land first.

The farmer should be allowed to lease out his land and it should not be snatched away? It could be taken on bond that if the business survives 25 years, the lease would be renewed. Today 2,50,000 sq km of land is barren and it should be used for that is 20 per cent of the entire land of the country. Build cities and industries as you want; they only need to be given water, power and roads and railways. If Narmada water can be taken 2,500 km into a state though pipelines and canals and sweet water reached to 76 SEZs in Gujarat, why can it not be done for the others? Why does farmers' land have to be taken?

There are also issues of how to feed a country of two billion people and how much grain will be needed for that. Agriculture should be given allocations according to its contribution to the GDP. In the last few years, at least five per cent of

## India is a large milk-producing country with ample milk stock. Madhya Pradesh, for instance, is surplus in milk but no one knows how to increase milk consumption

powder stocks are lying in Madhya Pradesh. A policy for export of this surplus milk has to be thought of; one that will help farmers. When cotton mill owners want it, the government stops imports or does the opposite, all at the bidding of the mill owners.

There is also the seeds issue. If seeds are lost India's sovereignty is lost. We have opposed the GM (genetically modified) seeds policy and have been mocked for that. The media said that "those who do not understand technology are opposing GM seeds". We only know this: if we cannot grow seeds in our farm and keep them in our houses, we do not want this seed (distribution) policy. For how long will you keep the farmer dependent, for how long will farmers buy everything from the bazaars? Every technical innovation does not need to be implemented by the public. This needs a lot of thought and examination.

It is the same with land acquisition. We had made four separate suggestions. One, make a land bank. Some 10 lakh acres were taken away for special economic zones (SEZs). Two, about 15-20 years ago, 77,000 acres of land were acquired for

budget allocation was for agriculture. Today it is 0.7 per cent. How will farmers survive?

Secondly, use of fertilizers has led to soil contamination. India has 11 agriculture zones and we have proposed that 11 universities be started for *jaivik* (organic) farming. When farmers produce organic, the certification that it is organic produce is a headache. If we have organic farming universities, they could do the certification.

In Asnavar Manpura village, Jhalawar district, Rajasthan, 200 villagers grow organic produce – wheat, *chana* (gram), oranges, *haldi* (turmeric) – and market their goods online. These instances should multiply. Produce in one place, package it there, value add there with the government providing marketing guarantees.

There is another looming threat. On the one hand there is pressure from the WTO and, on the other, there are direct cash transfer schemes in place. Does this mean procurement for the public distribution system (PDS) should be stopped? If there is no buying for PDS, will the safety cover of MSP be gone too? This is what should engage our attention. ●

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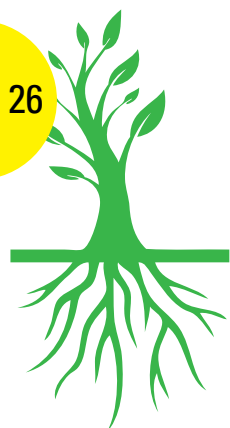
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FARMER WOES:

# 'First Crop Eaten by Government; the Next One by God'

**Randeep S. Surjewala**

About 60 per cent of India's population (including 49 per cent of its workforce) is engaged in farming. Agriculture also constitutes about 17 per cent of country's gross domestic product. These figures suggest a direct link between agriculture and the development process in India. Some of the challenges facing agriculture are clear from the latest data.

The Economic Survey says that rate of agricultural growth, which was 4.7 per cent for 2013-2014, has come down to 1.1 per cent during 2014-2015, the period in which current government at the Centre began its term in office. This is worrisome.

- In 2013-14, foodgrain production was 2,650 lakh tonnes; enough for India's needs and even exports. This has come down to 2,570 lakh tonnes in 2014-15.
- In 2014-15, the area under agriculture got curtailed by 33,22,000 hectares and for the first time in the last nine years foodgrain production has come down.
- In 2013-14, the quantum jump in agricultural

**Basmati has been a profitable crop for farmers in north India but its prices have plunged. It easily fetched ₹6,000 per quintal last year. It has now fallen more than 100 per cent**

exports had ensured that the country earned \$42.6 billion but in 2014-15, taking only three crops – wheat, rice and maize – there has been a shortfall of 29 per cent in production. In absolute terms that means a decline of 135 lakh tonnes.

- The last challenge is related to investment in agriculture. In 2014-15, India witnessed a decline of 18.5 per cent in capital formation in the agricultural sector.

Thus, 2015 is a watershed year for Indian agriculture as it faces these multiple challenges. For the farmers though, the most important and immediate concern is the price that he will get for his crops. That is another grave challenge. After a long period, the prices of agricultural output have dipped. A farmer from my region has just sent me a message that: first crop was eaten up by government, the next one by God. It is the same story again; the poor, helpless farmer.

Yet few agricultural scientists, economists or policy makers can match the intelligence of the farmer, who tills the land.



**RANDEEP S. SURJEWALA**  
Spokesperson,  
Indian National  
Congress

Basmati rice, which was always a profitable crop for farmers in north India, is one example of how agricultural prices have plunged. Basmati rice easily fetched ₹6,000 per quintal last year and I was reprimanded by my mother for selling it at ₹5,800 per quintal. This year the fall has been more than 100 per cent; as low as ₹2,200 per quintal. Similarly, the cotton crop, which fetched ₹5,300 per quintal last year now

has a minimum support price of ₹4,000 a quintal, which only a few fortunate farmers have got. Most farmers sold it between ₹3,500 and ₹3,800 a quintal.

Consider how Budget 2015 has sought to address these challenges and begin with what the farmer needs for cultivation: diesel, for starters. When the new government assumed office the price of diesel was \$114 per barrel. In the first week of March 2015, it was \$60 per barrel. In recent months it has been around \$44 to \$54 per barrel. Since the days of the Vajpayee government, there has been a policy, irrespective of the political

dispensation in power at the Centre, to link the price of domestic petroleum products with international markets. The farmer may rightfully ask: when the international market had petroleum products prices as low as \$44 per barrel, should he not have benefited? The government in its wisdom has raised the excise duty four times and levied customs duty as high as 7.5 per cent to give its coffers ₹89,000 crore.

However, when petroleum product prices jumped from \$54 per barrel to \$60 per barrel, the government raised the price of petrol by ₹4 per litre and that of diesel by ₹3.70 per litre on February 16 and 28, resulting in a peculiar situation where the farmer did not benefit from the fall in prices but felt the pinch of the rise. Even state governments, like Haryana, followed with their own hikes and charged a cess of ₹2.50 on petroleum products. The state governments also saw it as an opportunity to make a killing and accumulated between ₹5,000 crore and ₹7,000 crore by charging farmers this cess. Worse, on the







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eve of the budget, the finance minister increased the road cess from ₹3 per litre to ₹8 per litre. This was an additional burden on farmers.

The second input vital for farmers is fertilizers. There has been a marginal reduction in subsidy from last year's fertilizer subsidy of ₹72,000 crore. This year it is lower by ₹2 crore, at ₹71,998 crore. What is significant is that ₹49,000 crore of this is payable by the government to the Fertilizer Corporation of India for past dues, making the real subsidy only ₹32,000 crore.

It should also be remembered that in 2013-14, when the United Progressive Alliance (UPA) government was in power, 43.82 lakh tonnes urea were imported mostly from June to October, when its demand is the highest. In 2014-15, the import of urea fell to 17 lakh tonnes resulting in long queues in north Indian states. One also witnessed unprecedented scenes of urea being distributed in police stations and farmers being lathi-charged.

The other big issue is around the greater

Agriculture has not found a significant place in the budget and India is headed for a year of negative agricultural growth. Clearly the government is pessimistic about this sector

resources and responsibilities with the state governments in the context of agriculture. The Rashtriya Krishi Vikas Yojana (RKVY) run with central assistance but under state plans has been an umbrella scheme that has revolutionized agricultural productivity (registering an increase of as high as 900 per cent) in states like Chhattisgarh, Odisha and Madhya Pradesh. This scheme gave states the independence to choose their priority areas while framing their agriculture expenditure policies. Flush with central assistance of thousands of crore, the states could choose whether they needed to pump money in micro-irrigation, soil nutrient improvement or something else. This budget has curtailed the allocation for RKVY by ₹5,454 crore; from ₹9,954 crore to ₹4,500 crore, which is a matter of serious concern.

It has been argued for some time now that funds needs to be infused in agricultural research and education. However, there is a marginal curtailment even in such allocation. Last year, ₹3,715 crore was allocated for agricultural research and education. This year's budget has provided ₹3,600 crore on this account. The government should explain why.

Only one scheme in the entire budget is specifically targeted at the agricultural sector, namely Pradhan Mantri Sishu Yojana (PMSY). The government has allocated ₹5,300 crore for this scheme. The fine print, however, says that ₹1,800 crore out of this has been earmarked for micro-irrigation. One wonders what sort of long-gestation projects, dams and inter-linking of rivers can be accomplished with the remaining ₹3,500 crore.

Clearly, agriculture has not found any significant place in this year's budget and India is headed for a year of negative agricultural growth. The farmer is by nature optimistic and has the courage to fight against nature and God. Sadly, the government has been pessimistic about agriculture. ●



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# Throw Agriculture Open to the Winds of Competition

**Surjit S. Bhalla**

It is time to change the dialogue on agriculture from what has taken place for the last 67 years because the philosophy, language and ideologies related to 'agriculture' are untouched by reforms. In agriculture, the state determines what one will produce, at what price, how much and where one will sell it or not do so. The year 2009-10, when the Congress, leading the United Progressive Alliance (UPA) came back to power with a resounding majority, was a drought year. Therefore, the agricultural growth rate, after having been 4.5 per cent, collapsed to one per cent or even less. There is a rural and urban distinction in the



**SURJIT S. BHALLA**  
Chairman, Oxus  
Investments

country and when there are problems at the farm level, the workers released from agriculture move into urban and industrial areas, into non-agricultural occupation.

Agriculture currently accounts for 15 per cent of the gross domestic product (GDP) from being between 65 per cent and 67 per cent at the time of Independence. It is very hard to go below 15 per cent and perhaps, over the next 30 years, it may drop to 10 per

cent, which will be a success story; not something that we will lament saying how low agriculture has dropped. The other contributor to the political dialogue is farm poverty and suicides caused by distress. Leading politicians, academics, everybody,





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## Most agricultural workers do not earn much and do not come under the tax net. The rich farmers, like any of us, earn a living but why is their livelihood so special? Why are they not taxed?

even leading farmers talk about it though suicides are not caused by economic distress. Regrettably we are thinking in the same way as we were in 1947, when between 80 per cent and 90 per cent of the population was poor. Lot of them were farmers.

It is time to change that perspective and see agriculture as a part of 'modern India' and not a part of ancient India. Horticulture is a fantastic growth industry and such industries need to be encouraged. Maharashtra has now banned the production and export of beef. This is again the long arm of the government coming in and saying you cannot do, you cannot do that. Why not ban pork instead? Why not ban both of them? Making both Hindus and Muslims happy at the same time. Beef is part of the livelihood of many people. It is a major export. It is a part of agriculture.

Why do we accept this ban on beef? It is exactly the same as ban on sugar or rice exports. How many of you will come out and shout against this ban? People will, however, shout on fluctuating prices on various food commodities. It is time to

start thinking in modern terms, of an equal India for all communities, for all religions.

There are various ways to deal with reforms related to agriculture. One of them is taxation. What will the farmer get out of the subsidy on account of water, fertilizer or electricity? Is there any aspect of farming that does not come under a subsidy and you do not pay any tax whatsoever. Is that fair? This is not to say that the poor farmer should be taxed; the deduction that is available to everybody is two and a half lakh. Most agricultural workers do not earn that much. They do not come under the tax net. The rich farmers, like any of us, earn a living but why is their living so special? Why are they not taxed? This is the 21st century. When are we going to move on?

The tax administration reform commission (TARC) set up by the government and headed by Parthasarathi Shome has recommended that we should tax farmers earning more than ₹50 lakh a year. This is because of the fear of God that these farmers' associations have put in the mind

of all the academics: "you cannot tax agriculture" that involves between 80 million and 82 million farmers. One per cent of them is 8,00,000, 10 per cent of them is 80,000 and taxing even those who earn around ₹50 lakh per year would give the government ₹10,000 crore.

The logic usually is that farmers work on farms and produce food that is necessary for survival and, therefore, they should not pay taxes. Every water producer is in the same category and, since we cannot survive without computers, the same subsidy should be given to the IT sector as well.

Consider some other bare facts. Between 1950 and 1980, the first 30 years, post Independence, the agriculture sector grew at an average of three per cent per annum. Between 1980-2013 agriculture grew at 3.9 per cent per annum. In the early stages it grew through extension as more land was bought in to cultivation. The first area of reform in most countries has been agriculture. In India, it is last one to be taken up for reforms. How should the country go about this?

First, allow agriculture to be subject to the forces of competition, make all agricultural goods exportable so that they are subjected to what all other human beings on this planet are subjected to. They must compete in order to survive. Second, there must be no water subsidy, no fertilizer subsidy, no power subsidy; no subsidies at all. Third, resort to direct transfers to those who do not earn the bare minimum as determined.

Every government in the world collects taxes

**Agriculture must compete in order to survive. Make all agri goods exportable. Remove subsidies on water, fertilizer power. Resort to direct transfers for those who do not earn the bare minimum**

from times immemorial and the major purpose of taxation is to provide public goods and to redistribute incomes to the bottom half of the population. Public goods refer to health, education, roads, infrastructure and even after these are provided there will be, by definition, people in the lower one third of the income distribution hierarchy, who will need income support. There is technology and facility to transfer cash that can be done once society/parliament determines the bare minimum that an individual should have. This is absolutely reasonable.

The Tendulkar poverty line is ₹1,000 per month. It should be increased to between ₹2,000 to ₹2,500. The poverty line should be increased according to the economic growth. We live in a very integrated world today. To survive, we need to compete; to compete we need to be competitive. That is what the government should be doing; that is what the policy should be all about. ●

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# The Art of Keeping Agriculture Funded

Abhijit Sen

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I will not debate the points made by Surjit Bhalla and not say whether I agree with him or not. I will briefly comment on some of the arguments that he made towards the end of his talk. Surjit wanted the markets to function on their own without barriers on their performance. Amongst other things, he did not want any subsidies and asked that agriculture be treated like any other sector and be taxed similarly; without any extra benefits or extra tax.

These arguments have to be considered in the context of what was said in the beginning – that the Indian government determines, on the behalf of the farmer, what he will produce, where he will produce and at what price he will sell his crops. This is not exactly true. The government merely says that if farmers are unable to sell their crops, it will buy it at a pre-determined price. This does not imply that farmers are not free to sell their produce if the market is offering a higher price. Also, the government does not decide



**ABHIJIT SEN**  
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Commission

It is true though that with the numerous challenges that India faces because of its land resources (the change in nature of soil and use), water availability (scarcity and irrigation) and population, it becomes too different to be compared with other countries except for a few like China. India is not a naturally competitive agricultural country; its natural endowments do not make it an obvious country to grow agricultural goods in competition. Nonetheless, 50 per cent of its population is in agriculture. There is a basic problem

in being competitive with the livelihood of half the population because one is uncertain whether Indian farmers can compete and prosper or lose and face dire consequences.

There are optimists and pessimists with regard to the outcome and I agree with Surjit that on such matters, pessimism rules the roost among the Indian political parties. They somehow fear a battle where there is a chance that many people would lose. We must also agree with Surjit that India

## Compared with subsidies for farmers in Europe, USA or even Japan, Indian subsidies are not high and do not even constitute 10 per cent of the gross domestic product

where the farmers should farm and what crops they have to grow. Such regulatory days have been left far behind. If someone is stuck in the 1960s, nothing can be done about it. Between the 1960s and now, the restrictions on what farmers can do have disappeared. However, is there any country that does not protect its farmers against price fluctuations?

There is hardly any country in the world, save for a few small ones, that does not try to give some form of price stabilization to farmers. As far as subsidies are concerned, I agree with Surjit that Indian agriculture subsidies are high, that they should be reduced, and I will tell you why. First, however, if compared with subsidies provided to farmers in Europe, USA or even Japan, Indian subsidies are not high and do not even constitute 10 per cent of the gross domestic product (GDP). So, neither is India in the 1960s nor do other major countries give less subsidies to farmers. Yet Indian farmers are expected to compete in the world market. It is almost a cliché from 1950 onwards to say that India is primarily an agricultural country.

has to gradually or quickly pull out people from agriculture and the number of people dependent on agriculture should decline significantly. They have to find jobs and sources of income other than agriculture. This is the normal course of the development process. Resources have to move from agriculture to non-agriculture. The most important resource that has to move is people who should get jobs in non-agriculture activities. That can happen only when other resources also move with that: land, water and such others. All production needs land; manufacturing may need less land per rupee and less water but it is not as if zero land or zero water are required.

Having some consensus about how this is going to be done is the most important question. I agree with Surjit that India has not discussed this question as seriously as it should have. Only now is one asking a number of things including questions around the Land Acquisition Bill. These debates are good. One must ask how resources can be moved out from agriculture though such debates often become vitriolic with accusations and





counter-charges though, eventually, some positive things emerge as well.

However, India should be careful about a few things. There is a perception that Indian agriculture was in a bad shape during the 10 years of the United Progressive Alliance (UPA) government. The truth is that there is no 10-year period that witnessed such agricultural growth or rise in agricultural exports and, most importantly, when agricultural prices increased proportionately with prices of other goods. Income from agriculture improved much more in this period than that from other activities. In these 10 years, the GDP growth was very high but share of agriculture hardly declined. Will this continue? If yes, how and why? If not, why not? These questions need to be examined in the context of the larger point that the country must aim to gradually move resources from agriculture to other sectors of the economy.

What was different in those 10 years (2004-2014), not in the sense of the UPA or National Democratic Alliance (NDA) but in the pre-2004 and post-2014 periods? Between 1995 and 2004, Indian agriculture was perhaps in its worst condition as growth slowed down to about two per cent per annum, the terms of trade had moved against agriculture and resources were leaving agriculture (more land left agriculture in this period than now). Then there was a revival. What happened from mid 1990s to 2005 that was so different from what happened in subsequent 10 years; what is India looking forward to in the next 10 years; and which of these two does it intend to replicate?

Two or three big things happened in the 1995-2004 period. One was that international prices moved against agriculture the world over. Conversely, from 2005 to 2014, international prices moved in favour of agriculture. In both these periods, Indian prices were, to an extent, a reflection of what was happening in the rest of the world. Will it continue? In the next 10 years, will world agriculture prices keep increasing? It does not seem so. The decline has begun. In fact, the decline in world prices is steeper than the fall in India. With the fall in oil prices, all commodity prices are expected to dip. So any talk of not giving subsidy has to be seen in the context of the overwhelming belief shared by world analysts that commodity prices are going to fall substantially.

Another development during the 1995-2005 period was that public expenditure in agriculture had decreased quite sharply. Agriculture is a state

subject and not under the union government. In that period, state governments spent very little on agriculture. Agriculture investment suffered and that had a knock-on effect on agricultural investment. In the next 10 years, the centre increased its agricultural spending to some extent but, more importantly, for the first time, the centre made an attempt to ensure that states spent more on agriculture.

One important programme that encouraged it was the Rashtriya Kisan Vikas Yojana (RKVY). More than the modest amount that was invested in it (which, at its highest, was about ₹11,000 crore before tapering off), the Centre gave money to states in proportion to the increase in funds spent on agriculture over the previous year and did not give any money to states that spent

less on agriculture than in the previous year. This ensured that for every one rupee spent on agriculture by the centre, two rupees of public expenditure was incurred on agriculture because the states increased their spending in agriculture to claim more funds.

Thus there was more money flowing into agriculture. The RKVY had a greater impact on the livestock sector. States spent a lot more on animal husbandry. Some incentives and discipline is crucial for such spending in agriculture and the RKVY ensured that. This scheme under RKVY has been scrapped in this budget and I am very worried. States have got a lot more money because of the Finance Commission recommendations. The reduction of four or five thousand crore is nothing compared to the funds that states have got

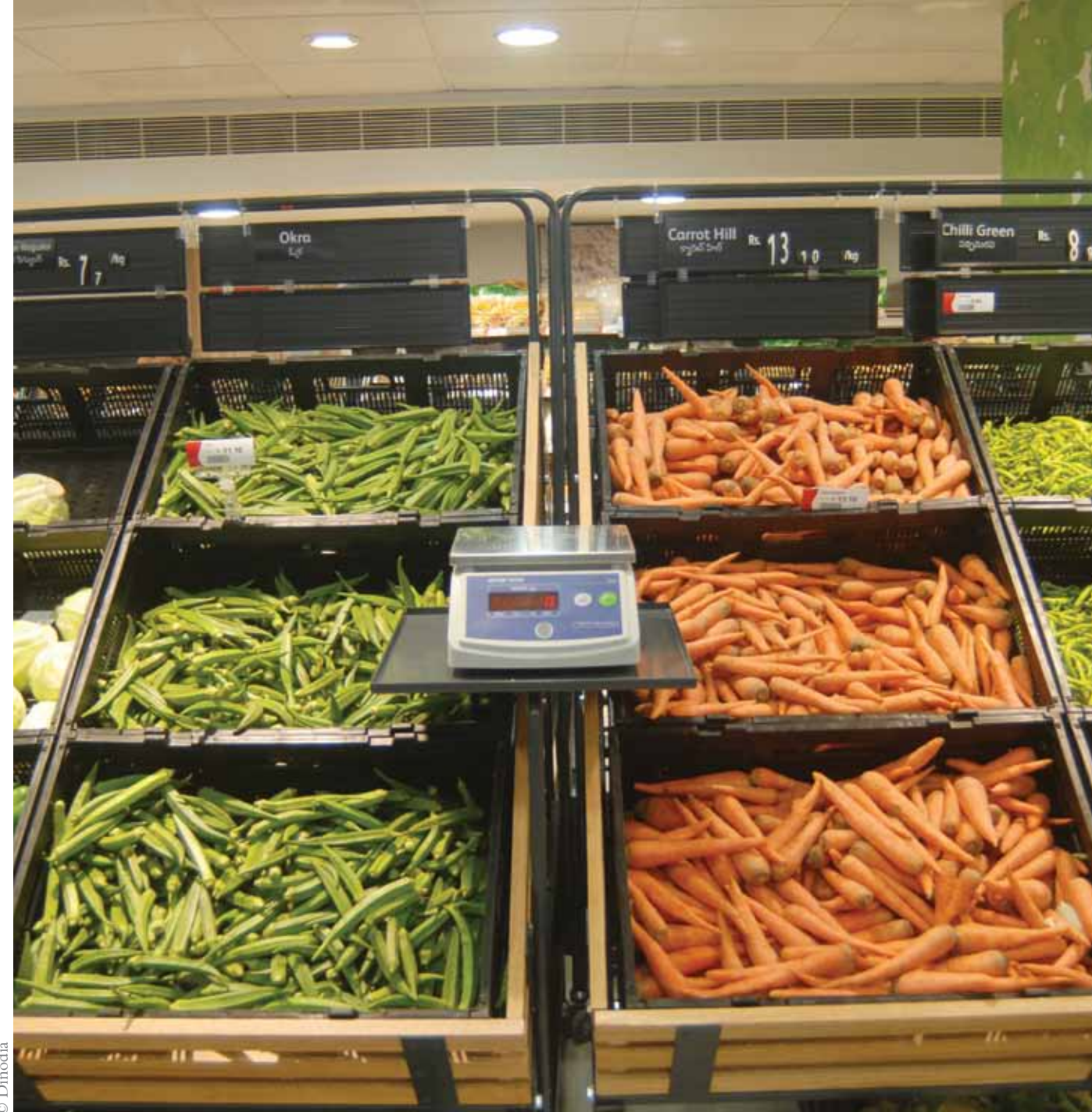
## The RKVY impacted the livestock sector with states spending a lot more on animal husbandry. This RKVY scheme has been scrapped in Budget 2015

in the Finance Commission's devolution formula that runs into about ₹1,50,000 crore. However, the states do not have the incentives to spend on agriculture and that is worrisome. Will states spend substantially on agriculture now?

What also remains to be seen are basic elements of agriculture in terms of whether or not India will arrange for the proper utilization of its natural resources. Will it develop technology and empower its farmers with the skills to use such technology? From point of view of agriculture, the most important thing about this year's budget is that the Centre has given back to the states one-third of the financial resources that it was distributing among states thus far. This is a correct step because agriculture is a state subject and, ultimately, state governments are responsible for agriculture. The question is what the Centre, the scientific community and civil society must do to ensure that the states fulfil their responsibilities towards agriculture. The debate today is more about how to withdraw resources from agriculture but also how to get responsibilities of state governments properly reflected in the way they deal with agriculture sector.

When the government scrapped the Planning Commission, some people (particularly, the body's critics like Surjit) were delighted. The question is not about the Planning Commission, it is about ensuring that states act responsibly around agriculture. It is to be seen whether the NITI Aayog or Prime Minister's Office performs this function. Earlier, the Planning Commission played this role. Agriculture being a state subject, the central government has to speak through the agriculture departments of the states and not through the union agriculture ministry.

Finally, just as it is very important to withdraw resources from agriculture and to use them for development of other sectors of economy, the government must fulfil its responsibilities towards resources that remain in agriculture. ●



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# Changing Farming Perspectives

## Changing Agriculture

**K.L. CHADHA**

*President, Horticulture Society of India*

I wish to make a few points. First, More than 50 per cent of soil-testing laboratories do not function. Soil cards are a very good idea because the cultivation must be tied up with the kind and quality of soil but the laboratories must first become functional.

Second, organic farming needs research that should get separate emphasis and more funds. Indian organic farming is not technology-based and one is unsure of the results. India does not have the inputs for bio-fertilizer and bio-pesticide. These are recommended in a large measure but where are the inputs to make them? Organic

farming needs clusters because if one farmer is producing organic and his immediate neighbour is not, the organic soil gets contaminated with the fertilizer/pesticide from the farm next door. So clusters are needed.

Third, over the last three decades, horticulture crops have overtaken food crops in India. Last year food crop production was around 254 million tonnes, horticulture crops were around 260 million tonnes. This year, the early estimate is 280 million tonnes. There are no surpluses. That means people are buying them though they are expensive. People have the capacity to buy them. India's export has also grown significantly and a variety of new and exotic fruit is being produced.

## Gaping Holes in the Agri Scene

**CHHAVI RAJAWAT**

*Sarpanch, Vill: Soda, Rajasthan*

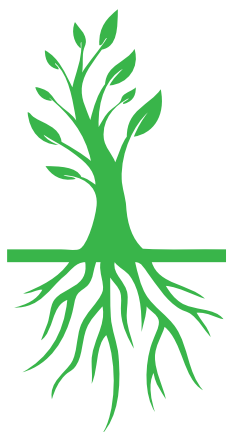
Budget 2015 should have focused more on agriculture and the dairy business and reconsidered the need for the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). The programme suffers from huge gaps between its objectives and the implementation on the ground and it has not shown asset creation. Besides, where farming is done comfortably and water is available, MGNREGA becomes superfluous. So why spend more and more on it?

Marginal farmers are, in fact, making losses and their basic rights need to be talked about. This

includes education. Government schools in and around my village teach only Hindi and Sanskrit literature and geography to class XII students. How does this help the children with their future vocation? Leaders, political and in the bureaucracy, when asked about this sad state of affairs, say: "If we empower them with knowledge, who will kowtow to us?"

Basic farming, animal husbandry, horticulture could be part of formal education to equip the students better for life. They could be taught agriculture with technical know how and basic issues such as pricing. This education will not only train them but will also inculcate in them a sense of respect and pride in taking up agriculture as a vocation.





## Some farmers, especially in Punjab, want to switch to organic cultivation but are troubled by the high pesticide and fertilizer content in water

As far as organic farming is concerned, many friends of mine, especially in Punjab, are engaged in farming and want to switch to organic but are troubled by the high pesticide/fertilizer content in water. Water is a problem too and even if they want to, they cannot go organic as their produce cannot be considered 'pure organic' because of the water quality. Besides, the process for securing certification for organics is difficult, expensive and needs restructuring.

Finally, co-operative farming can be a solution to fragmentation of land that has been discussed here earlier but I do not see much being done on that score. Also, pastures, crucial to dairy development, are being encroached upon and something needs to be done urgently on this account.

### Who will grow food if the farmer is neglected?

**PRAVEEN VERMA**

*Delhi University*

When floods ravaged Jammu and Kashmir, relatives of my friends were stranded there and all the calls for help were only for food and water; not cell phones, nor computers. That is how important agriculture is. I disagree with Surjit Bhalla's position that farming is like any other profession. As an IIT student pointed out, there is no other profession in which your salary comes to you only once in six months and even that is uncertain. Besides, when a poor farmer commits suicide and he is the only bread earner in the family, the entire family is left stranded. This does not happen in the case of IT professionals. Also, if we shift everyone in the farm workforce to other sectors, who will grow the food we need to eat?

### Revolutionary reform

**UTTAM GUPTA**

*Former Executive Director, Crop Life India; former Additional Director, Fertilizer Association of India*

The budget may not have said anything about fertilizers but both the chief economic advisor and Jayant Sinha (Minister of State, Finance) have categorically said that we are moving towards direct transfer system using the JAM platform (Jan



CLOCKWISE:

1. Abhijit Sen, Member, 14th Finance Commission

2. Subir Roy, Senior Journalist

3. With more funds, will states spend more on agriculture?

4. Randeep S. Surjewala, Spokesperson, Indian National Congress

5. Alok Sinha, former Chairman & Managing Director, Food Corporation of India

6. Ursula Holzhauser, Counselor, Food and Agriculture Section, Embassy of the Federal Republic of Germany, New Delhi







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#### CLOCKWISE:

1. Hannan Mollah, General Secretary, All India Kisan Sabha
2. The farming caucus contemplates: Where will Budget 2015 take Indian agriculture?
3. An attendee with the flagship publication of Bharat Krishak Samaj
4. An engrossed and diverse audience
5. Chhavi Rajawat, Sarpanch, Vill: Soda, Rajasthan
6. Prabhakar Kelkar, All India General Secretary, Bharatiya Kisan Sangh



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## Will the states spend on critical farming issues? Many exemptions given to the rich could have gone to the farmers

Dhan account-Aadhar-mobile number). This is a revolutionary reform that will be highly beneficial towards empowerment of the farmers, apart from preventing the 25-30 per cent leakages.

### Wrong priorities

**BHARAT DOGRA**

*Senior journalist*

There are many reductions in the budget that affect village life and there is the big question of whether the state governments will spend on critical farming issues. A lot of exemptions given to the rich and privileged could have been cut and the farmer could have been given those. The exemption in customs duty given to the gold and gems and jewellery business alone is ₹75,000 crore.

Some recent state budgets presented this year show little inclination to make any major effort for making up the cuts made in the social sector by the union budget. Less than adequate allocations have been made for priority areas in the budget of the Rajasthan government. Compare the budget estimates for 2014-15 and 2015-16 and there is only a very modest increase in health and family welfare, education, social welfare and nutrition. The increase is meagre after factoring in inflation. Also some allocations for the social sector have even been cut in the state budget along with the central budget. For example, the Rajasthan budget has reduced the estimate for welfare of SC/ST/OBC from ₹1,542 crore to ₹1,471 crore. For agriculture and allied services there is a reduction from ₹5,469 crore to ₹5,232 crore. Rural development has seen a cut from ₹13,904 crore to ₹12,968 crore.

### Cheated farmers

**DALVEER ARYA**

*Farmer from Sonapat*

We know how hard the farmer works to preserve and sell his crop. There is large scale cheating in weighing produce when the farmer goes to the *mandi*. The bags weigh 700 gm, not 1,000 gm as in the past but the farmer's crop, when weighed, is discounted by a 1,000 gm (a kilo) and he is shortchanged for the 300 gm (extra) that he is giving. If he protests, he is driven out of the *mandi*. •





SAYING IT WITH NUMBERS

# State of the Indian Farmer

Kavitha Kuruganti

The 70th Round of NSSO sought to capture the picture of agricultural

households, an exercise being undertaken only for the second time in independent India. Compared to the first such survey (59th Round in 2003) the exercise has been tricky, given that the definition of a “farm household”, has changed over the decade. Some have interpreted the findings as suggestive of India being on the right development track, with agriculture playing a diminishing role in the economy.

The position being taken is that ‘rural is not equal to agriculture’, with only 57.8 per cent of rural households defined as agricultural households by the latest NSSO survey; only 63.5 per cent of these agri-households reported cultivation as their principal source of income and only 59 per cent of their income amount came from cultivation and livestock.

This might not be the case though. In 2003, incidentally, 60 per cent of rural households were engaged in ‘farming activity’ and classified as farmer households by the definition then deployed by the NSSO – not vastly different from the 58 per cent figure in this round, with a definitional change at that. Also, the 70th Round findings have come around the time when the Intelligence Bureau has reportedly filed a report to the Prime Minister on farmer suicides being on the rise and the need for a comprehensive solution to the agrarian distress and not just short-term measures.

Two other data sets point to why more attention needs to be paid to agriculture, irrespective of how irrelevant it has become in terms of its contribution to the national GDP: the 68th Round of NSSO data on employment (July 2011–June 2012) and Census 2011. The 68th Round says that 64.1 per cent of rural workers (59 per cent of the ‘usual status’ male workers and 75 per cent of female workers) were engaged in agriculture, in terms of distribution by industry of work.

Census 2011 said that while there were nine million less cultivators in 2011, compared to 2001 (in percentage terms, it is a decline of 7.1 percentage points in the total workforce, to 24.6 per cent in 2011), 36.8 million agricultural labourers



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Gol Committee on  
Fixing of Minimum  
Support Prices



were added in 2011, compared to 2001 (an increase of 3.3 per cent in terms of distribution of total workforce into agricultural labourer status, arriving at a figure of 30 per cent of India's workforce being categorized as agricultural labourers).

In rural India, 33 per cent was classified as cultivators in the total workers and 39.3 per cent as agricultural labourers by Census 2011. That adds up to 72.3 per cent engaged in agriculture. It is important to note that the NSSO 70th Round tried to de-link the definition of agricultural household that possessed land and has expressly kept out those households that are completely dependent on agricultural labour out of the scope of the survey. Given all of this, it may not be completely appropriate to see positive signs from the latest findings.

What is worrisome is the trend discernible between 2003 and 2013 (59th and 70th Rounds). Only 29 per cent was aware of the minimum support price (MSP) in 2003; in 2013, it ranged between 2.5 per cent to 39.8 per cent across crops.

**In 2003, of 89.35 million farm households, 48.6 per cent were reported indebted. Average unpaid loan per household was ₹12,585. In 2013, it was ₹47,000, with 52 per cent indebted**

Only four per cent had ever insured crops and 57 per cent was unaware of crop insurance in 2003. In 2013, across crops, more than 90 per cent of agricultural households had no crop insurance. Groundnut, soyabean, cotton and green gram were small exceptions with between 86 per cent and 90 per cent not having crop insurance.

In 2003, of the 89.35 million farmer households, 48.6 per cent was reported to be indebted, with the average amount of outstanding loan per farmer household being ₹12,585 at the all-India level. At that time, 57.7 per cent households had loans outstanding from institutional sources. In 2013, indebtedness in terms of average amount of outstanding loan per agricultural household was around ₹47,000, with 52 per cent of agri-households estimated to be indebted. Of this, 60 per cent was from institutional sources, a minuscule improvement in terms of institutional coverage. In the lowest size class of land possessed, only 15 per cent of outstanding loans was from institutional sources indicating the seriousness of the debt burden.

In 2003, cultivators comprised 57 per cent of

farmer households, going by the principal source of income. A decade later, 63.5 per cent reported cultivation as the main source of income with states like Telangana (86.8 per cent), Chhattisgarh (80.5 per cent), Assam (76.7 per cent), Madhya Pradesh (75.3 per cent), Jharkhand (72.5 per cent), Maharashtra (71.7 per cent), Bihar (69.7 per cent), Karnataka (69.4 per cent), and Uttar Pradesh (65.2 per cent) reporting figures above national average.

The most worrisome aspect is around receipts and expenditure of agricultural households. The national average monthly income of an agricultural household is estimated at ₹6,426 or about ₹107 daily earnings per adult, taking two adults per household. In most places, this would be below minimum wages prescribed for unskilled workers. The average monthly income from cultivation is reported to be: 47.9 per cent; from livestock: 11.9 per cent; from wage/salary: 32.2 per cent and from non-farm business: eight per cent of this income estimated at ₹6,426 per month per household

While some might attribute this to a corrupt public

distribution system (PDS) programme in India, the figures of income are actually corroborated by the fact that 4.9 per cent of agricultural households have Antyodaya ration cards and 36.4 per cent BPL cards while 12.3 per cent has no ration cards. This then could be the impoverishment that India's 'Anna Daatas' have been subjected to.

At the all-India level, across land size-classes, the average monthly income was ₹2,115, whereas the monthly expenditure of farm households was ₹2,770 in 2003. While it can be claimed that there is a marginal improvement in this situation in 2013 (the average monthly income being slightly higher than average monthly expenditure at all-India level and cultivation and livestock farming contributing a higher share in monthly incomes compared to 2003), it is seen that things have worsened for the households in the lowest land size-classes when it comes to institutional coverage for credit needs.

A closer look at the income and expenditure findings across different landholding categories shows that around 62.6 million agricultural households are running on a debt economy, so to speak. On an average, there is a deficit of ₹856 per

**Table: Income and Expenditure Across Different Landholding Categories**

Size class of land possessed (hectares)	%age of agri households, totalling ₹9.02 crore	Total monthly income (₹) (with 2003 figures given in parenthesis from NSSO report 497)	Income from cultivation and farming of animals and %age of total income; (2003 figures in parenthesis, from NSSO Report 497)	Total consumption expenditure (₹); (2003 figure in parenthesis from NSSO Report 497)	Average outstanding loan amount (₹); (2003 amounts, NSSO Report 498)	%age of outstanding loan from institutional sources (2003 coverage in parenthesis, NSSO Report 498)
<0.01	2.64% or 23.9 lakh HHs	4,561 (1,380)	1,211: 26.55% (75: 5.4%)	5,108 (2,297)	31,100 (6,121)	14.90% (22.6%)
0.01 to 0.40	31.86% or 2.87 crore HHs	4,152 (1,633)	1,308: 31.50% (390: 23.8%)	5,401 (2,390)	23,900 (6,545)	19.00% (43.3%)
0.41 to 1.00	34.92% or 3.15 crore HHs	5,247 (1,809)	2,774: 52.87% (896: 49.5%)	6,020 (2,672)	35,400 (8,623)	53.20% (52.8%)
1.01 to 2.00	17.16% or 1.55 crore HHs	7,348 (2,493)	5,027: 68.41% (1,680: 67.4%)	6,457 (3,148)	54,800 (13,762)	64.80% (57.6%)
2.01 to 4.00	9.31% or 83.9 lakh HHs	10,730 (3,589)	8,520: 79.40% (2,742: 76.4%)	7,786 (3,685)	94,900 (23,456)	67.50% (65.1%)
4.01 to 10.00	3.72% or 33.5 lakh HHs	19,637 (5,681)	16,744: 85.27% (4,688: 82.5%)	10,104 (4,642)	1,82,700 (42,532)	71.50% (68.8%)
10.00+	0.39% (3.5 lakh HHs)	41,388 (9,667)	38,307: 92.56% (8,434: 87.5%)	14,447 (6,418)	2,90,300 (76,232)	78.90% (67.6%)

month per household in terms of their expenses exceeding receipts, for these households. This is the situation of nearly 70 per cent of agricultural households in India, as the table above reveals.

This is where there is an urgent need to focus on agricultural incomes in India. Governments have to make themselves accountable in all their interventions to deliver minimum living incomes for all agricultural households. The need to focus on the economic well-being of farmers was something that the National Commission on Farmers had emphasized on; moving away from the excessive yield-centric interventions of the agriculture ministry.

It is not all that difficult to take up regular income assessment surveys for more focused interventions for different sizes of landholders, different regions and crops, using the findings. The proposed income insurance scheme by the National Democratic Alliance (NDA) government is a good way forward, as long as the insurance is against minimum living incomes that have to accrue to each agri-household (not rolling averages of past three years of yield and price, as is being proposed). Arriving at such minimum living incomes need

not pose a huge challenge either. Past experience at fixing minimum wages, as well as pay commission scales in other sectors shows that coming up with a workable formula is indeed possible.

Meanwhile, supporting agri-households through appropriate price interventions continues to be a major measure for improving their situation. If the government takes proposals like price deficiency payments (where the difference between MSP and the actual price realized by the farmers is made good by direct payments, without this resulting in higher prices for consumers) seriously, in addition to more expanded procurement including improving efficiency of such procurement and distribution, there is some hope for the millions who continue to toil to feed the nation.

There is also no getting away from the fact that crop insurance has to improve drastically in its design and implementation in the country, especially in this age of climate change. If we do not address these issues as a nation, the inter-sectoral disparity will be too stark, leaving behind too many people in the short and medium run, without any dignified alternatives being provided elsewhere for them. ●



# Food Security, Water and Energy Nexus

A.K. Ghosh

A 2015 International Energy Agency (IRENA) report, 'Renewable Energy in the Water, Energy and Food Nexus', provides clear evidence of linkages between energy produced for the water sector (for irrigation and food production) and for other areas and the ever-increasing demand of water by the former. India with 1.2 billion people – 17 per cent of global population in 2.4 per cent of global space – is facing increasing shortage of energy, access to water and problems with feeding the ever-growing population. Climate change has taken its toll during the last two decades through coastal inundation, salinization of farmland, loss of livelihood and loss of human lives and livestock even as the government of India struggles to achieve a higher gross domestic product (GDP) following the path of sustainable development.

India has announced its National Action Plan on Climate Change (NAPCC) in 2006, published a Report on Integrated Energy Policy in 2006,



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consumer of water resources, accounting for around 70 per cent of all freshwater use. According to an OECD-FAO study in 2012, energy demand will rise by 80 per cent, water demand by 55 per cent and food demand by 60 per cent in 2050.

Conventional thermal energy production technologies demand the use of freshwater from cradle to grave; from coal mining to coal washing. Cooling and fuel processing water are essential components for energy production. This is why renewable energy options become important.

- They offer water saving solutions and also reduce the carbon footprint of the country.
- A study on wind energy from USA states that during the year 2013, wind energy production saved 130 billion litres of water, equivalent to annual water consumption of 3,20,000 USA households.
- According to the European Wind Energy Association, the use of wind energy in E.U.

**Renewable energy reduces the carbon footprint. In 2012, it contributed 16 per cent of total energy in India. By 2030 its share may reach 39 per cent under outgoing programmes**

announced its National Water Policy in 2012 and passed the Right to Food Act in 2013. While the NAPCC has emphasized on energy efficiency (as did the National Solar Mission to promote renewable energy, and the National Mission for Sustainable Agriculture and National Water Mission), it did not clearly focus on the nexus of energy, water and food.

The path to sustainable development demands assured water-energy-food supply systems. It is projected that by 2050, the energy demand will be double globally and the water and food demand is estimated to increase by more than 50 per cent. The obvious question cropping up in the developing countries is around meeting such a demand, especially when the uncertainties of climate change related events such as temperature, precipitation, rainfall, resulting in storm surges, cyclones and coastal inundation are looming large.

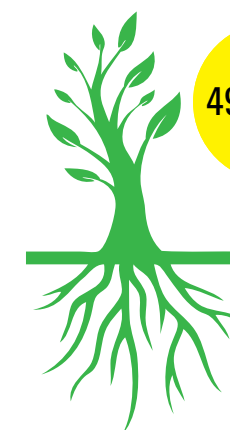
Around 15 per cent of the freshwater withdrawal at the global level is based on energy use while the agro-food supply chain accounts for 30 per cent of world's energy consumption and is the largest

countries saved 387 billion litres of water in 2012, equivalent to average annual water use of three million households in European countries.

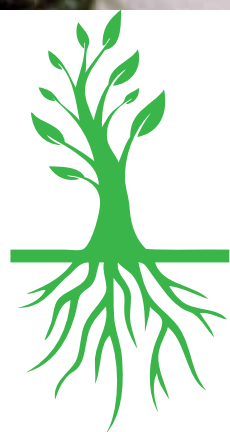
- Renewable energy contributed to 16 per cent of total energy in 2012 in India and, under ongoing programmes, may reach 39 per cent by 2030.

In India, water shortage water is impacting on energy production, especially thermal power. According to the Central Electricity Authority (CEA, 2011), thermal power generation declined by nearly 4.4 TWh. This electricity could have made power available to 1.3 million households in the country. One must remember that nearly 20 per cent of the electricity generated in India is used for water pumping for agriculture (CEA, 2013). Indian agriculture is dependent on the South-west monsoon and if the monsoon fails, the farmers are apt to depend on grid power electricity for pumping irrigation water. Such an event was witnessed in 2012, when the Indian grid failed, affecting 670 million citizens.

Indian agriculture has witnessed untimely downpour in late February-early March in 2015 in







## Extreme events, untimely downpour or a weak monsoon, possibly indicate the future vagaries due to climate change. This calls for a relook at the food-water-energy nexus scenario

large parts of the country, flattening standing crops at many places. There are reports of crop damage from Punjab, Haryana, Rajasthan, Chhattisgarh, Madhya Pradesh, Maharashtra, Uttar Pradesh and Uttarakhand, indicating serious damage to wheat crops, sugarcane and vegetables. Mango orchards in Uttar Pradesh suffered between 10 per cent and 15 per cent crop damage. In Maharashtra alone, 448.5 mm rainfall in one day affected more than 4,200 hectares of farmland and nearly 5,000 farmers.

The matter was raised in Lok Sabha on March 2, 2015, seeking special packages for farmers to compensate the crop damage (*Times of India*, March 3, 2015). Such developments along with early indications of 50/50 chances of El-Nino in the Pacific Ocean, makes the South-west monsoon more uncertain for the current year (*Times of India*, March 10, 2015). Extreme events of untimely

downpour or weak monsoon possibly indicate the future vagaries due to climate change. This calls for a relook at the food-water-energy nexus scenario.

In India, future energy production projections indicate that 79 per cent of the new energy capacity is expected to be used in water stressed areas as in Vidarbha, where farmers' suicide due to crop failure attracted international attention. Clearly only higher agriculture production can assure food for nine billion people by 2050. Since, irrigated agriculture is more productive than rain-fed farming (rain is limited to around 100 days in India), the demand of water and consequently energy increase constantly to meet the challenge of Right to Food in the country.

It is heartening to see that India has increased its target of production of solar power from 20,000 MW to 1,00,000 MW by 20 . India has

also announced (Tweed, 2014), that it will replace much of its 26 million pump sets used to withdraw groundwater by using electricity from the grid (or illegally hooking to main transmission line) with solar pumps. Similarly, India intends to use solar energy based pumps in the tribal belts to make piped water available to villages (MNERI, 2014). Obviously, such use of solar power will not only

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save diesel or grid power but curb carbon emission to a significant extent. It has been calculated calculation shows that five million pumps of total 10 million diesel pumps if replaced by solar pumps, will lead to CO<sub>2</sub> emission reduction by 26 million tons of CO<sub>2</sub>. (CEEW, 2013)

A recent media report based on study of farm mechanization by C.R. Mehta and his colleagues at the Central Institute of Agricultural Engineering, Bhopal, showed that machines require 90 per cent of power in the farming sector in India today. Of these tractors, power tillers contribute 47 per cent, diesel engines for pumping 16 per cent and electric motor for 27 per cent. A 2005 World Bank report revealed that while 30 per cent of sale/supply of the electricity boards goes to the agricultural sector, it accounts for only three per cent of revenue!

In seven states, electricity subsidy to the agricultural sector accounts for 40 per cent of the fiscal deficit (2000-2001). In such a scenario, the irrigation-power nexus has also led to a large amount of water wastage because subsidized power and fixed annual tariff based on horsepower of pumping motors make farmers unconcerned about water wastage (Oza, 2007). Add to this the carbon emission from hydrocarbon based fuel used in tractors, tillers and diesel generation sets.

The role of water and energy are thus central to any programme to ensure food security; their combined impact on climate change must be taken on board while also seeking to understand the future of water and energy security in the farming context. The intricate relationship between energy demand, water for irrigation, agro processing and ultimately ensuring food security, can perhaps be best ensured by using renewables like solar and micro hydel power in a country like India. ●



# Budgeting for Farmers and Rural Development

**Bharat Dogra**

Any comprehensive understanding of the implications of the union budget for the people and programmes of rural India, demands not just a consideration of the allocations for agriculture and rural development but also of its broader aspects that impact nearly two-thirds of the people of India, living in villages. For starters, there are the implications of the recommendations of the 14th Finance Commission, whereby the share of the state governments in the divisible pool of central taxes has been raised by 10 per cent.

One of the fallouts is that the Centre has, therefore, felt less constrained while reducing several important allocations, hoping that these will be made up by the state governments on the basis of their higher allocations. There is no guarantee though that the state governments will make up for all the cutbacks in some critical allocations. Some may say that the increased allocation is not adequate for them while others may simply lack the commitment to ensure that the additional resources are made available to the sectors in greatest need.

In order to understand the net impact of budgetary provisions, one must also consider the state budgets and see how the cutbacks in the central budget get reflected in them. First, however, the cuts in the budgetary provisions for the Department of Agriculture and Cooperation compared to the previous two years (*Table 1*).

The co-operative sector has been peeved because its claims were ignored despite the sector's obvious potential. Major cuts in three schemes have caused widespread concern (*Table 2*).

Other disappointing cuts include:

- The Rashtriya Krishi Vikas Yojana's allocation has been cut from ₹8,444 crore to ₹4,500 crore. This is particularly unfortunate as this scheme served as an incentive for states to increase their allocation for agriculture, impacting more deeply than indicated by the reduced allocation. Also, when the importance of sustainable agriculture is being emphasized, it is sad that the main scheme for promoting sustainable agriculture is being cut.
- Despite talk of the importance to dryland/rainfed agriculture for which the Department of Land Resources is largely responsible, its allocation has been reduced from ₹3,759 crore (Revised Estimate) in 2014-15 to ₹1,637 crore.



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- There is also a significant reduction in the allocation for the Department of Animal Husbandry, Dairying and Fisheries (*Table 3*).

- Another concern is the exclusion of the Backward Region Grant Fund in the budget 2015-16 that will adversely impact some of the most needy and backward districts in the country, particularly in and

around the Kalahandi-Bolangir region of Odisha and in the vast Bundelkhand region spread over parts of Uttar Pradesh and Madhya Pradesh.

- The National Rural Livelihood Mission has been critical for rural development with its emphasis on self-help groups and small initiatives of villagers, particularly women. Its allocation (Budget Estimate) too has been reduced from ₹4,000 crore in 2014-15 to ₹2,382 crore in 2015-16.
- The Indira Awas Yojana, an important housing programme for weaker sections in rural areas, has had its allocation reduced from ₹16,000 crore in 2014-15 to ₹10,025 crore in 2015-16.
- Apart from these cuts relating more directly to the Department of Agriculture and Rural Development, there have been reductions in other important areas that will seriously impact the weaker sections, women and children in rural areas.
- The ICDS (Integrated Child Development Services) budget has been cut from ₹16,000 crore to ₹8,000 crore.
- The mid-day meal budget from ₹13,000 crore to ₹9,000 crore.
- The Sarva Shiksha Abhiyan budget has been reduced from ₹28,000 crore to ₹22,000 crore.
- There are reductions in drinking water, health and family welfare too.
- The outlay for Women and Child Development Ministry has been reduced from ₹21,193 crore in the previous year to ₹10,351 crore. The overall allocation under gender budgeting has also gone down significantly.
- The budget for the scheduled caste sub-plan was

**Table 1: Allocation for the Department of Agriculture and Cooperation**

Year	Allocation
2013-14	₹18,923 crore
2014-15 Revised Estimate	₹19,852 crore
2015-16	₹17,004 crore





Budget Work: For Farmers and the Marginalized

"Budget analysis can be defined as the process through which budgets are scrutinized from the perspective of the poor and marginalized. Its focus is on critically evaluating budgetary allocations made by governments at the beginning of the fiscal year and tracking expenditure undertaken on the basis of these allocations to determine the extent to which policy translates into outcomes".

– 'Budget Work in India', Yamini Aiyar and Amitabh Behar.

The hectic lobbying prior to the finalization of both the central and state government budgets reflects business interests presenting their case to the governments concerned, sometimes with remarkable and often unwarranted success. Regrettably, no such advocacy is in evidence on behalf of the farmers and the marginalized that need them the most from the perspective of socio-economic justice. Advocacy apart, they need agencies to follow-up on the allocations to ensure that they reach the targeted beneficiaries and not get diverted.

Such agencies must be able to access to government documents (or other relevant records and studies) and have the expertise to analyze the budget and other financial papers, besides having the ability to use the media to disseminate the information. Successful efforts on these lines will ensure benefits worth

hundreds of crore for the dispossessed.

There is an equal need for wider analysis of expenditure and revenue patterns from the perspective of farmers and weaker sections. The grassroots levels have to be empowered with such skills that will assist local self-governments, particularly the panchayats to make their budgets and other non-government bodies in the countryside to understand what is going on.

The growing realization of the importance of these skills has led to the emergence of budget related civil society organizations in various states and, at the national level, for 'budget analysis' or, more simply, for 'budget work'. In their paper, 'Budget Work in India', Yamini Aiyar and Amitabh

Grassroots skill development will enable panchayats and NGOs to better analyse expenditure and revenue from farmers' perspectives

Behar write: "The relevance of budget analysis lies in the fact that it has provided civil society with a tool through which it can effectively bring the perspectives and concerns of the poor and marginalized in to the process of policy formulation... Budget analysis has thus emerged as an important tool through which civil society organizations can directly engage with the state to promote accountable, responsive and people centric governance. More importantly, through budget analysis civil society organizations have successfully demonstrated the importance of strategic engagement with the state for promoting a people centric democratic discourse".

According to the International Budget Project (IBP) of the Centre on Budget and Policy Priorities (CBPP), Washington, 'the objective of budget work is to access, through analysis, how priorities for public spending as expressed in the budget can affect the lives of the poor and vulnerable'.



Table 2: Cutbacks in Specific Schemes of Agriculture and Food

Name of scheme	2013-14	2014-15	2015-16
	Revised Estimate (₹crore)		
Rashtriya Krishi Vikas Yojana	7,053	8,444	4,500
National Mission for Sustainable Agriculture	0	1,330	835
National Food Security Mission	2,027	1,830	1,300

reduced from ₹50,548 crore (Budget Estimate 2014-15) to ₹33,638 (Revised Estimate 2014-15) to ₹30,850 crore (Budget Estimate for 2015-16).

- The budget for tribal sub-plan has been reduced from ₹32,386 crore (BE 2014-15) to ₹20,535 crore (Revised Estimate) to ₹19,979 crore (Budget Estimate 2015-16).

On the plus side, a new Paramparagat Krishi Vikas (traditional agriculture) Yojana (traditional agriculture) has been introduced to support organic agriculture though with a very meagre allocation of ₹300 crore. This is smaller than the reduction in the allocation for National Mission for Sustainable Agriculture.

The budget has provided for a small increase in the Mahatma Gandhi National Rural Employment Guarantee Act programme but whether this actually means more money in the hands of workers depends on whether the wages for the previous year had been fully paid by the end of the financial year. In the previous financial year, there

Table 3: Allocation for the Department of Animal Husbandry, Dairying and Fisheries

Year	Allocation
2013-14	₹1,826 crore
2014-15 Revised Estimate	₹1,887 crore
2015-16	₹1,585 crore

were several reports of unpaid wages and arbitrary cuts in last months.

There are two important takeouts from this scrutiny of the budget and its impact on the rural economy/people. First, the budget cuts must be read with other state budgets to see to what extent the reductions in the union budget have been made up in budgets of state governments. Second, at a policy level, almost all the budgetary cuts could have been avoided if exemptions, worth thousands of crore, given to gold and diamond traders, mining companies, film distributors and others. While the finance minister has accepted the need for cutting these exemptions, he has postponed this task. ●





# SKILLING THE FARM WORKER

## An Ignored Opportunity

Shikha Mukerjee

India, poised at a “historical juncture”, is anticipated to turn itself into a global economic super power within the next two decades, courtesy a boom in manufacturing, services, infrastructure development, transport and logistics sectors. A mesmerized policy establishment, decision makers, implementing agencies and the world at large correctly assume that the country, therefore, needs trained or skilled people. India must cash in on the demographic bonus of an increasing working age population, expected to grow from around 761 million to 869 million during 2011–2020 – where the growth rate of the working age population would exceed that of



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the total population – to fulfil its potential and confirm that the faithful were correct.

In order to get to the winning line, the government of India has set a target of skilling 500 million people by 2022, though the Institute of Applied Manpower Research, a New Delhi-based think tank has downscaled the target to between 249 million and 290 million across differing skill requirement scenarios by 2022.

Though infructuous now, the 12th Five Year Plan had set a relatively modest target of skilling 80 million people until 2017, which would leave around 400 million people to be trained in the 13th Plan period by 2022.

The skill development challenge is incredible, though not for the reasons that soothsayers and forecasters, planners and policy makers, think tanks and consultants, politicians and investors feverishly debate. The challenge is incredible because it chooses to ignore a sector where growth is assured, investment is low and the youth is familiar with the job, though the level of skill is low, having absorbed the learning by living it. The sector that can lift the jobless out of the very deep pit, in which pundits currently place them, is agriculture.

Essentially, India is neglecting agriculture, a sector that has proved itself to be equipped with an infinite appetite for making changes, taking risks and inspiring enterprise and with the capability of

increasing and decreasing production in response to the market with pain but, nevertheless, with speed.

- The country is thus losing focus of the realities on the ground that matter.
- It is losing time on thinking of job creation in the farm sector, which remains India's largest source of employment.
- It is losing significant opportunity for gender equity, as more and more women, with low education and absence of training step into doing agricultural jobs, given the growing scarcity of workers in the sector.

As a labour intensive sector that has transformed itself into the farm industry in many parts of the world, agriculture should be top priority for





investment in skills, training and recognition of a vocation, instead of traditional practice for people who have nowhere else to go.

As India and the rest of the world await the moment of its arrival as an economic superpower, the people missing out as the frontline from this action-packed drama are the invisible majority; men, women and the youth who live and work in the agricultural sector. The numbers are known: 263 million people work in agriculture that has seen an increase in the numbers it employs since 2001. Of this, cultivators remain the second-largest group at 119 million. Statistics indicate that the share of agricultural products/agriculture and allied sectors in the gross domestic product (GDP) of the country, which was 51.9 per cent in 1950-51, has now come down to 13.7 per cent in 2012-13 at 2004-05 prices. India's economy has, therefore, diversified and grown and it is not any more overwhelmingly agriculture based. Agriculture, despite the changes, continues to be the provider of more work than any other sector in India, despite a 3.6 per cent decline in the proportion of people working in the sector.

## Around 93 per cent of India's workforce is employed in the informal sector. Barely 2.5 per cent of this unorganized workforce undergoes any formal skill development

The mindlessness of the policy establishment and industry advocates is also creating millions of pressure points that have begun to affect the social and cultural fabric, as frustration builds, aspirations rise and then fall, pushing youth into self-destructive, unproductive engagement as part of the illegal and corrupt, violent and criminal market for hired labour. Pundits have calculated that around 12 million people are expected to join the workforce every year over the next decade. How will they be skilled?

- India has a total training capacity of around 4.3 million.
- This means it will deprive around 64 per cent of the entrants of the opportunity of formal skill development every year.
- Net enrolment in vocational courses in India is estimated at around only 5.5 million per year.
- There are no guarantees that the investment made in acquiring training will yield the outcomes promised by around 17 ministries, two national level agencies – NSDC and NSDA – 35 skill development missions and

sector skill development organizations as well as trade and industry bodies that are putting their best foot forward to push the national skill development agenda.

The truth, as everyone, the youth included, know through experience, is that around 93 per cent of the Indian workforce is employed in the unorganized or informal sector, which lacks any kind of formal skill development system and barely 2.5 per cent of the unorganized workforce reportedly undergoes formal skill development. Another section of youth, that has paid through its nose and constitutes the 0.4 million engineering students graduating every year in India, also knows that only 20 per cent is readily employable. The estimate is that by 2020, the country is expected to face a shortage of 13 million medium-skilled workers, posing a big impediment to labour-intensive sectors. Thus youth and their families strive to become engineers or trained workers because they hope to be the lucky 20 per cent that makes it to a job, either in the organized sector or as contractual employees.

The narrative, like all such constructions, is about one part of the growth story and demographic dividend. In the order of things, there is a hierarchy and the farm sector is perceived as the way of the past, in contrast to industrialization and urbanization as the way of the future. By setting up the rural and the urban as a binary and that too within a rigid hierarchy, where the first is associated with traditions, static, stagnant and the past and the second as modern, dynamic and the future, the discourse has been deliberately manipulated to turn the discussion on livelihood and skills into a mission for modernization via acquisition of skills and a choice as vocation of everything that feeds into the urbanization-modernization-industrialization story.

In the shadow of this dominant narrative is another story about India's farm sector and its need for people with education and skills to meet the challenges of the present and the future, where climate change will demand strategies of adaptation that in turn will require both knowledge and technological literacy of an order

that is not limited to using a mobile phone to call up the Kisan Vikas Kendra, as advertised by the Ministry of Agriculture.

The paradox is that while agriculture's share in GDP has substantially gone down, it is still the sector that provides work to the most number of people. What is, therefore, crucial to the stability of the polity is absorbing the impact of millions of youth who do not find regular, that is 180 days of work, in manufacturing, construction or the services sectors. The work force in agriculture has increased to 30 per cent of the total worker population according to Census 2011 from 26.5 per cent in 2001, even though there has been a drop of 2.6 per cent of people regularly employed in the sector and an increase in those who work for less than six months.

The incontrovertible fact is that the stability and resilience of the Indian economy lies in the farm sector. In the worst days after the global economic meltdown of 2008, it was the farm sector that made it possible for workers to return to their villages and survive the shock. The farm sector also kept

The National Policy for Farmers, 2007 is a classic case of the 'band aid' strategy that reduces the opportunity to a series of quick fix steps that does nothing to change the economic status or competence of India's farmers. The aim of the policy is "improving economic viability of farming and increasing net income of farmers". In other words, the farm sector continues to be perceived as the producer of millions of tonnes of staples and other crops, including cash crops. Instead policy should push changes in the sector that raises the net income of farm families and those employed by them. The farmer remains in the perception of policy makers a subsidized charity case, whose principal work is to produce enough to feed the expanding population. For the farmer to survive and that too barely make a viable living, the policy strategy includes "rural non-farm employment initiative for farm households".





the economy buoyant by growing and consuming through that period. Within the India growth story, the missing element is the singular lack of attention to the one sector, which is critical to raise and sustain the momentum of growth, the farm sector.

Changes are taking place and not enough attention has been directed at understanding the consequences of the change in the rural areas of India. S. Ayyappan, director general, Indian Council of Agricultural Research (ICAR) summarized it in his 2014 presidential address – 'Farm, Feed & Flourish'. He noted: "The only way to cope with this change in labour composition is to retain the required workforce with family farms in farming. It is interesting to point out that a shift of workers from households self-employed in agriculture is much slower than shift of workers from rural labour household to non-agriculture." Obviously, family farms are less inclined than labour households to leave farming activities.

Dr Ayyappan concluded: "Family farming

A prospering farm sector would reduce distress migration, of mainly unskilled labour to existing or emerging urban areas, where they are reduced to living on pavements, in shanty communities without dignity and security like 'fourth class citizens' whose existence is based on illegalities – of terms of employment and living conditions. Migration is generally perceived as problematic, instead of evidence of aspirations as it seems to be perceived in India.

provides for, besides economics, inheritance of traditional knowledge, conservation and benefits to environment. Presently, there is an opportunity to make agriculture more attractive, exciting and rewarding for family farms so that self-employed workers in agriculture do not move out to non-agriculture under distress. The approach hence for 'Family Farms' is to 'Farm, Feed & Flourish'.

For farms to flourish the need is for people –

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people who have the education to acquire the skills that will drive the transformation. Family farms constitute 80 per cent of Indian agriculture and this is not going to change in a hurry. The skills that are needed are being taught but there is a need to make it “more attractive, exciting and rewarding”.

The reason is the ridiculous dichotomy of thought, that separates labour from agriculture and converts the national skill development mission into an essentially migration story from the rural to the urban. Therefore, the National Rural Livelihoods Mission (NRLM), launched by the Ministry of Rural Development in June 2011, is a strategy for training rural youth and enabling them to find work outside agriculture. Skill development in farming is not part of Aajeevika, the name given to the NRLM. Failing to comprehend the demand within agriculture for skilled people is undermining India's growth and transformation story. The farm sector as Dr Ayyappan noted needs to retain capable people to change the ways in which India develops. There has to be a paradigm shift in perception and management of agriculture's

The dream that is being sold to the youth and their guardians is that this aspiring segment of the population is entering industry as a professionally qualified person with an urban lifestyle. The beaten track that youth must travel leads upward and forward from the rural to the urban, mimicking the journey of earlier generations of successful Indians who came from the vast nowhere, that is the rural hinterland, working their way up to becoming industry leaders, public figures and the role models of successor generations.

paradigmatic. If people on farms earn more and the sector reaches viability, there will be less need for support mechanisms including free power, rural employment guarantee for when there is no work on farms for farm workers, especially women, better credit off take and higher consumption as demand rises with larger incomes. The rural population would eat better if it earned more. Large numbers of the 42 per cent Indian children

## Agriculture policies of the Centre and states are top down prescriptions to raise yields in the short term. A paradigm shift in perception and management of the sector is needed

growth and development if India wants to move beyond subsistence existence for its people.

Ignoring this and leaving the development of the farm sector to the Ministry of Agriculture and the state governments that talk about new technologies of farming, as a magic bullet that will remove all constraints and convert agriculture into a flourishing business, makes poor sense. The ministry and its programmes, the state governments and their programmes are all designed as top down prescriptions to raise yields in the short term. That the farm sector has the capability to do so and rapidly change for the survival of farmer households is proof of the incredible dynamism and enterprise of the people within it. The strategy imposes a limitation on how development and wealth creation can be imagined within the farm sector though.

The National Policy for Farmers, 2007 is unimaginative to say the least. The fact is that if the farm sector through skills that increase income can be made more attractive, exciting and profitable, the long-term effects on the way in which the Indian economy is managed will be

who suffer from malnutrition, much of it severe, would benefit from higher earnings in the farm sector, which would be human asset creation of a massive scale. Families would have more to spend on education, including girls' education, health care, housing that would effectively improve the quality of life in India as a whole.

The immiserization of the rural poor who have migrated to urban areas ought to prompt a reality check on the skill development programme. Merely chanting skill development as a mindless mantra, as though it were a device of magical transformation will not bring those entrepreneurs and enterprises into existence that the policy establishment imagines will somehow happen. What needs to be recognized and recognized for action now is that the farm sector is India's best opportunity for building a new culture of enterprise, for the farmers have always been entrepreneurs.

It is a shame that India wastes the flexibility its farms offer in terms of production. If information was better collected, shared to make a strategy for production, the potential is immense. ●

## GLOBAL POLLINATOR PROJECT

# Increasing Food Production the Natural Way

Ashim Choudhury



Far Left: Dr P.P. Dhyani, Director, GBPIHED  
Left: Dr R.S. Rawal, Scientist-F, GBPIHED  
Right: Dr Kevin D. Gallagher, Acting FAO Representative in India

*“If bees disappear from the surface of the earth, man would have no more than four years to live.”*

— ALBERT EINSTEIN

A major change in the fields has escaped the notice of most farmers: the decline in the bee, butterfly and other insect population on farms. On a trip across Haryana and the Punjab, I see very little butterfly or insect activity despite vast swathes of green and yellow wheat and mustard crops. I prod an old farmer for the reason and he admits: “Yes, you are right! There used to be lots of bees and butterflies on our fields earlier”. The ignorance among farmers on the role played by these tiny insects in providing them with free pollination services is quite strange and alarming. The declining insect population is taking a toll on India's farm produce. If one does not act now, the effects could be devastating.

Globally, food production is linked to pollination and the declining pollinator population is “one of the greatest threats to the global economy”,



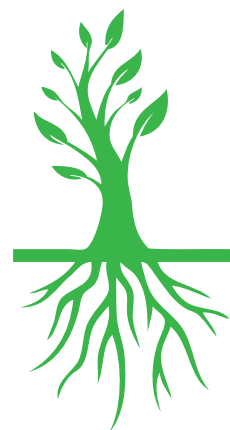
ASHIM CHOUDHURY  
Journalist, Author,  
*The Sergeant's Son*

says Dr Kevin D. Gallagher, acting FAO Representative in India. This decline is not unique to India and has experts worried enough for the Food and Agriculture Organization (FAO), the Global Environment Fund (GEF) and the U.N. Environment Programme (UNEP) to have jointly launched the Global Pollinator Project (GPP).

The project, involving seven countries – Brazil, Ghana, India, Kenya, Nepal,

Pakistan and South Africa – sought to “conserve and manage pollinators through an ecosystem approach”. Simply put, it attempts to improve the bee, butterfly and other insect (pollinator) population by reviving their habitat – essentially forests, weeds and untended fields that have tiny wild flowers on which pollinators feed and thrive.

Ironically, farming activity itself degrades biodiversity and small ecosystems on which these





pollinators survive and, in turn, help to pollinate crops. They play a key role in horticultural production like fruits and vegetables. Unlike wheat or rice, horticultural crops are more dependent on nature's pollination services. Besides wind, pollinators like bees, butterflies, birds and bats affect 35 per cent of the world's crop production and are responsible for increasing outputs of 87 leading food crops, including many medicinal plants.

With horticulture's increasing importance in the food trade and nutrition, the role of pollinators has become even more important. "Pollinators, and I do not mean just bees, are closely linked to food security", says the FAO's Gallagher. "With food production fast declining the role of pollinators assumes immediate attention for India's food security goals... There is an urgent need to raise awareness on this issue", he says.

The main reason for a steep decline in pollinator population is the rampant use of chemicals and pesticides that threatens the sustainability of agriculture. An apple or a strawberry that is well pollinated, for instance, grows much larger and,

the higher yield apart, also fetches higher prices. This is why 'domestic' bee colonies are being hired to provide pollination services. However, domestic bees alone are not sufficiently effective. Good pollination depends on a wide range of bee, butterfly and other insect and bird activity.

Engineering pollinator "services" for farming through bees alone is proving insufficient, which is why experts are turning to nature to fill the gap. The bumble bee, now rarely seen, is supposed to be one of the best pollinators. There are some 18,000 wild bee species, besides drones, hornets and flies, birds and bats whose free services are being increasingly missed. The plan is to restore their natural habitats and population particularly around farms. Gallagher says: "The GPP's interventions have clearly demonstrated that pollinators can help in improving agricultural yields".

Dr P.P. Dhyani, director, G.B. Pant Institute of Himalayan Environment & Development (GBPIHED), who co-ordinated the GPP in India, seconds that view. "The project clearly illustrates – through apple, mustard and large cardamom – the

## An important reason for the steep decline in pollinator population is the rampant use of chemicals and pesticides that threatens the sustainability of agriculture

importance of pollination services for improving agronomic yield", he says. "This calls for aggressive efforts towards pro pollinator policies and programmes both at the national and state level", he adds.

According to Dr R.S. Rawal of the GBPIHED, the principal investigator of the GPP in India, "besides the increasing use of chemicals and pesticides that have led to natural pollinator declines there are bad farming practices like burning of post-harvest fields and forests". Burning not only kills pollinators and wipes out their population but also destroys their homes and breeding grounds. Vast swathes of black burnt landscapes in the Konkan, where burning farms after harvest is, like in many other places, a common practice bear testimony to this. In summers, raging forest fires are a common sight in the hills of Uttarakhand or Himachal Pradesh and are often lit by locals.

Urbanization is another factor that has led to a steep decline in pollinator habitat and population. Most wild bees and drones are avid pollinators and make their home on the ground or on branches of



### Increasing pollinator population

It was the G.B. Pant Institute of Himalayan Environment & Development (GBPIHED), located in the sylvan hills of Kosi-Katarmal near Almora in Uttarakhand, which co-ordinated the Global Pollinator Project (GPP) in India. The five-year pollinator project was spread over three sites and covered three pollinator dependent crops: apple in the Beas Watershed of Himachal Pradesh; mustard in the Upper Kosi Watershed of Uttarakhand; and large cardamom in the Mamlay Watershed of Sikkim. Covering upwards of 21,000 hectares for direct impact, it also had an indirect impact in over 70,000 hectares.

Pollination Deficit Protocols (PDP) followed for three consecutive years (mustard for two years) found that the bumble-bee (*Bombus* sp.) and the honey-bee (*Apis cerana*) were most frequent visitors during the flowering of large cardamom. Increasing density of bumble-bee resulted in significantly ( $p < 0.03$ ) higher yield of the crop (on an average 21-41 gm/plant). In case of apples, orchards near their natural habitat had higher population of *Apis cerana*, *Bombus* sp. and wild bees. Higher fruit set and yield was observed in orchards supplemented with domestic bee colonies.

For mustard, however, a decline in pollinator density observed in the second year appeared to have had no significant impact on yield. Sites with higher forest cover, had higher insect density though, supporting the established hypothesis that insect populations are generally greater in number around natural habitats. A baseline study threw up some interesting findings. It found that:

- Over 95 per cent farmers in apple areas were aware of the importance of pollination for crop yield.
- Among mustard and cardamom farmers that awareness was much lower, less than 37 per cent and 23 per cent respectively.
- An inventory of 36 insect visitors of mustard, 17 of cucurbits and 27 of apple was prepared.
- Among others, 12 new pollinators of apple were listed.
- Factsheets, photo guides and profiles of pollinators in natural conditions were also prepared. Biological notes, role in pollination, crops visited and threats have been developed for important pollinators.

This database can come in handy for future eco-farming practitioners. The challenge is how to disseminate this information among farmers and other land users for increasing pollinator populations.







### Mainstreaming GPP findings in India

It is the responsibility of the GBPIHED that is in talks with the Ministry of Agriculture and Indian Council of Agricultural Research (ICAR) to mainstream its findings into the Indian agricultural system. "Once we are through with the entire report of project (including the global outcomes) by March end we will present the recommendations to the ICAR and other relevant organizations for making pollinator friendly policies", says Dr P. P. Dhyani, Director, GBPIHED.

For immediate follow-up, the GBPIHED has included wild pollination as an important activity under the Task Force on Forest Resources and Plant Biodiversity under the National Mission on Sustaining Himalayan Ecosystem (NMSHE). Pollinators and pollination services

have also been included as a special module for environmental education programmes that includes the activities of National Nature Camping Programme. The Integrated Eco-development Research Programme (IERP) in the GBPIHED also plans to support location specific projects on management of pollinators in the Indian Himalayan region. Meanwhile, according to the acting FAO Representative in India, Dr Kevin D. Gallagher, the Global Environmental Fund will be funding a project on sustainable agriculture.

For now, farmers can increase pollinator population around crops by maintaining natural habitats around their fields, providing round-the-year forage to pollinators as well as nesting sites. They should also practice and promote organic agriculture and adopt rotational multi/mixed-cropping systems. Promoting bee-keeping as an activity linked to farming can do wonders in improving agricultural productivity. In the Himalayan hills, bee-keeping was already a part of traditional agriculture. That tradition needs to be revived.

A major contribution would be tweaking architecture to make new homes that are bee-friendly, offering niches for the bee-hives. The picture is clear: we have to bring back the natural eco-system into agriculture, a system that has bats, birds, bees, butterflies as important actors in farming. It may be apt to recall what Albert Einstein has said several decades ago: "If bees disappear from the surface of the earth, man would have no more than four years to live". He was, in all probability, referring to their important role in food production. Without pollinators, farming and food security will collapse. The sooner we understand this, the better.

shrubs and trees that dot the land. These untended spaces are fast shrinking and so is the pollinator population. Rawal says: "We need to harness the free services provided by wild pollinators not just bees...The eco-system has to be rejuvenated".

The GPP aims to take an 'ecosystem approach' to make agriculture sustainable. The aim is to restore natural surroundings, where wild weeds and shrubs can grow that can be a home for the insect population particularly in times when there are no 'flowering' crops like mustard, pulses and other such crops. In the absence of flowers (food), pollinator populations dwindle rapidly. This is particularly true during extreme

summers or extreme winters when little or no flowers/crops grow.

The five-year GPP that started in January 2010 and ended in December 2014 had four main objectives or STEPs – study, training, evaluation and promotion. In Dhyani's words it was to, "Increase knowledge of pollinators among farmers and create an enabling ecosystem around farms for wild pollination and finally, mainstreaming wild pollination services into best farming practices". Currently, though diminishing returns from use of fertilizers is a concern, there seems to be no holistic policy on increasing yields through sustainable practices that the GPP espouses. ●

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