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Indian Food Crisis: Worst Is Not over

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Abstract: For the last few years India has been facing food crisis and as result, the prices of food grains have been on the very high side affecting the purchasing power of the rural and urban poor. As a result, Government's policies and programmes in regard to reduction in poverty are being severely affected, leading to addition in the crisis. This year due lesser rain the crisis is becoming more severe. Droughts hit or affect not just only agriculture, but also demand for every thing from fuel to soaps. Acreage of rice had gone down by 25 per cent in 2009 and output may go down by 15 per cent. With low yield feared, wheat export has stopped. Falling exports could bring Indian farmers further, too, under heavy clouds. In the light of these observations, the present paper deals with emerging trends, different issues and consequences of food crisis to Indian economy. The paper also suggests a strategy to over come the crisis.

Key words: Food crisis · Food prices · Rural and urban poor · Fiscal deficit · Gross domestic product

INTRODUCTION

The dark clouds without any sliver lining have created shocks for Indian farmers through out the country. The monsoon winds which send hearts and minds of people soaring throughout the country in general and particularly in the food bowl of North India have been dry, desert-like leaving countless farmers in disarray.

Million of rupees have been spent in sowing the food grains, but due to inadequate rains, these rupees have been lost. Indeed, depression is the prevalent mood everywhere, from Punjab and Haryana to Uttar Pradesh and Bihar. Whereas Punjab's villages are seeing up to 60 per cent rain shortfall, Uttar Pradesh and Bihar are no better. The plight of landless farmers, who can not afford to sow paddy this year is worse. Power crisis has contributed further added 'fuel to fire.' This means that due to non availability of power, the consumption of fuels increases and results into increase of cost of cultivation, affecting the purchasing power and living conditions of the farmers. Hence, these trends have contributed much in cost of dry spell (Table 1).

Data cited in Table 1 indicate the declining trends in different components of cost of dry spell in the economy, resulting into severe pressure on Government finances and making the policies more difficult to implement. Added to these, the exports of food grains are being stopped resulting considerable loss of foreign exchange to the country. The noteworthy trends has been the rise in food prices i.e. just from 1.3 per cent in 2003 to 7.9 per cent in 2008. In 2009, the prices of food grains would go up further. This all has been making the food scenario gloomier (Figure 1).

The Drought Impact: The droughty conditions hit not just agriculture but also demand for food grains along with other things from fuel to soap, resulting into additional pressure on the Government to meet the worsening conditions. Acreage of rice has gone down by a considerable margin of 25 per cent during 2009 leading to fall of 15 per cent in the output of rice [1]. Similarly, with low yield feared; wheat export has been stopped by the Government. Hence, falling of exports could bring considerable loss of foreign exchange, resulting into considerable fall of forex reserves. During this year i.e. 2009 the progressive planting of major kharif season crops showing a gloomier situation (Table II) as a declining trends has been set over the figures of 2008 except pulses and cotton which have upward trend.

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Table 1: The Cost of Dry Spell from 2003 to 2008

Year	% of rainfall	GDP growth in %	Inflation in %	Food Prices Inflation in %
2003	102	8.5	5.5	1.3
2004	87	7.4	6.5	2.6
2005	99	9.3	4.4	4.8
2006	99	9.9	5.4	7.7
2007	105	9.0	4.8	5.6
2008	98	6.7	8.3	7.9

Source: Agricultural Situation in India; Ministry of Agriculture; Government of India; New Delhi; 2009 (Different Monthly Issues)

Table 2: Progressive Planting of Major Kharif Season Crops during 2008 and 2009 (Figures in Million)

Crop	2009	2008	% Change
Rice	3.81	5.18	-26.5
Millet	0.66	7.89	-56.7
Corn	1.42	1.87	-32.9
Pulses	0.66	0.41	+61.1
Peanut	0.85	2.07	-59.1
Cotton	1.88	1.74	+0.80
Sugar	4.22	4.35	-3.10

Source: The Times of India; New Delhi; July 23, 2009.

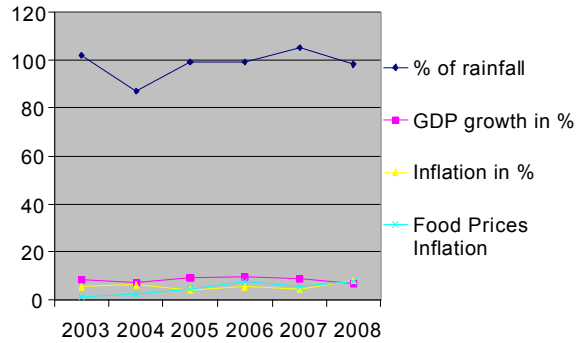

Fig. 1: The Cost of Dry Spell

Source: Prepared by the Authors based on data cited in Table 1

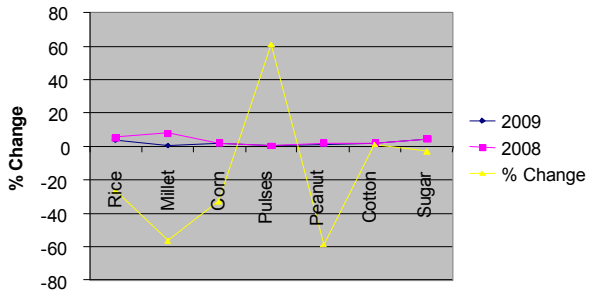

Fig. 2: Progressive Planting of Major Kharif Crops in 2008 and 2009

Source:Prepared by the authors from data cited in table 2.

Data given in Table 2 reveal that major kharif season crops have recorded substantial decline in planting during 2009 as compared to the figures of planting in 2008. The largest decrease has been recorded in case of peanut followed by millet, corn and rice. The lowest possible decline has been registered in regard to sugar. On the other side the largest increase has been witnessed in case of pulses and lowest possible rise has been recorded in case of sugar (Figure 2).

There are so many cases, when the farmers have returned the leased land to the panchayats or local body of farmers in a village due to water and power crisis as they cannot afford the rising cost of dry spell to sow paddy. The resultant power crisis has been unprecedented. Punjab alone has asked the Government to provide additional 100 MW from the Center's un-allotted power pool to over come the crisis.

States that promised power on trading basis are unable to meet the promise as the domestic requirements of these states have also been increased sharply due to droughty conditions that are prevailing in their respective states. While India's power bill on paddy which was amounted to Rs. 2,200 crore in 2008 has gone up substantially during 2009.

Situation in Uttar Pradesh: In Uttar Pradesh, there are droughty conditions in 40 districts out of total 71 districts. These 40 districts so far have nearly 57 per cent sub-normal rains. Average shower per districts has been only 96 mm as compared to 225.6mm normal. The chances of monsoon revival are bleak as the period of normal monsoon has passed away. Due to lack of normal monsoon the acreage of land under sown declined as the land remain ideal. Nearly 60 lakh hectare lands have been earmarked f or paddy in Uttar Pradesh alone. But just 52 lakh hectares have been sown so far. If rains elude

the rest of August 2009, the paddy yield may go down further between ranges of 30 per cent to 40 per cent and would make situation further gloomier [2].

According to agriculture Department (Government of UP), about 70 per cent farmland in the state is being irrigated through tube-wells and canals. But the agriculture scientists believe that artificial irrigation can not compensate for the natural conditions. The farmers have been asked by the State Government to sow coarse grains namely-pulses, jwaar, makka and mustard which need less water. Free seeds are being distributed. But despite these steps, output of coarse grain is being estimated at 240 lakh tone as against the need of 254 lakh tone. This means there could be short fall of 14 lakh tone putting additional pressure on the supply side [3].

In Uttar Pradesh, more than 90 per cent farmers are marginal and small. They are worst hit by low degree of rain fall. Added to this, the villages are just getting 6 to 8 hours power supply which is inadequate for irrigation. Hence, farmers are more depending on generators to run tube-wells. But the recent increase in the price of diesel has resulted into higher cost of operation and hit them where it hurts i.e. their pockets.

For instance, sugar cane is major cash crop. Scant rainfall has resulted into a rise of input cost by Rs. 12-18 per quintal. A day's rent on generator is Rs. 800 and nearly Rs. 2,800 is being spent on diesel to irrigate one hectare of land which produces about 600 quintal of sugar cane. This indicates that Rs. 6 per quintal on irrigation and a farmer has to irrigate land three-times in June.

The North-East region which boasts of being among the wettest places on earth, has witnessed the highest rainfall deficiency in last 30 years. Nagaland is deficient by 67 per cent. Assam has recorded an inadequacy of 34 per cent. Arunachal Pradesh is facing a shortfall of 29 per cent. Meghalaya, which is famous for Cherapunji that gets the second heaviest rainfall in the world, has registered a reduction in monsoon by 55 per cent.

Not surprisingly, the summer temperature in the North-East region has risen by 5 degree on an average over the last decade. Meteorologists believe that this tendency is because of global warming. This is because there is no other reason why a region surrounded by hills and rivers should not get due rainfall.

Situation in Bihar: Another state namely-Bihar has been just one-third of normal rainfall. As compared of 399.2 mm normal rainfall, the state has registered just 142.1 mm rainfall that comes 64 per cent below normal. What is most astonishing and alarming is that none of the 38 districts have recorded normal rainfall with deficiency varying between 21 per cent in Purnia and 89 per cent in Jamui.

Normatively, paddy is cultivated in about 35 lakh hectare in Bihar state. Although official records are not ready yet, field reports pointed out that paddy sowing has been done on less than 25 per cent of the area earmarked for paddy cultivation as there is no water available in fields. Bihar farmers, unlike their counterparts in Punjab, can not afford generators to run tube-wells which cost Rs. 70 an hour. The state Government is initiating special measures to minimize the impact of monsoon shortfall. At the moment these are as elusive as the rains.

A Case of Paddy: Ditched by the monsoon, India's total area under paddy-the principal kharif or summer crop has shrunk 26 per cent. In 2009, patchy monsoon has shaved off 66 lakh hectares from the total area under paddy of nearly 257 lakh till July 31, 2008, when the monsoon was normal. The crucial South-West monsoon was 18 per cent below normal. Sowing in many states slowed down significantly (Table 3). With the "sowing window" namely June-July, finally drawn, kharif crop acreage is now unlikely to go up significantly (Figure 3). This would in turn trim India's farm output for the first time after a three year surge. In 2008, kharif rice production stood at 83 million tones [4].

We expect the gap in net sown area to be bridged further as farmers are still sowing. Steps have been taken to ensure no shortage of food grains stocks. Economists are already alarmed over soaring food prices. Having had the fore-warning of low output, the Government now should make plans to manage inflationary expectations by ensuring enough food grains supply [5]. The consumer price index is already around 9 per cent [6].

Prime Minister Mr. Manmohan Singh has recently reviewed the crop situation and has asked the States to opt for flexibility to utilize funds under Crop Development Programmes to cushion the impact [7]. As a whole, India has enough reserves to meet the likely dip in agricultural output. The total demand of food grains for 2008-09 has been estimated at 219 million tones against 234 million tones of food grains during the year 2007-08.

So far Assam, Manipur, Jharkhand and two-thirds of Uttar Pradesh have declared drought hit and therefore, the Central Government has provided Rs. 270 crore to these states from the Calamity Relief Funds. Farmers in many states have opted for cotton. coarse and pulses and hence, sowing of these crops has recorded an increase in

Table 3: Slowed Down the pace of sowing of many important crops in 2009

Crop	As on July 31, 2008	As on July 31, 2009
Paddy	256.76	191.30
Oilseeds	144.66	141.79
Sugarcane	43.79	42.50
Jute	7.06	6.89

Source: The Hindustan Times; New Delhi; August 4, 2009

Table 4: Trends in Areas Diverted to Alternate Crops 2008-2009

Crop	As on July 31, 2008	As on July 31, 2009
Coarse Cereals	153.25	159.56
Pulses	67.12	73.58
Cotton	78.22	89.90

Source: Same as table 3

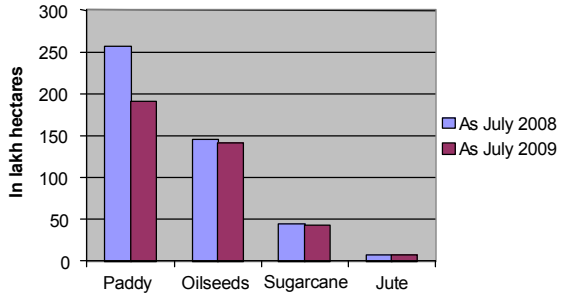

Fig. 3: Pattern of Sowing of Important Crops in 2009
Source: Prepared by the authors from data given in table 3.

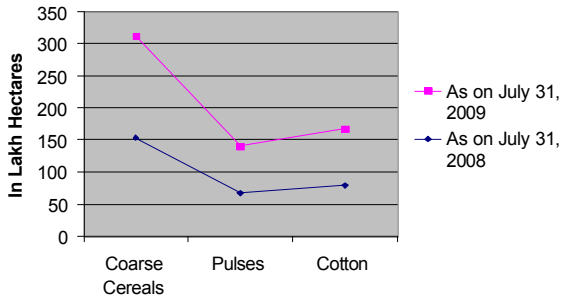

Fig. 4: Trends in Areas Diverted to Alternate Crops 2008-2009
Source: Prepared by the authors from data cited in Table4.

terms of area during 2009 over 2008 (Table 4). The coarse includes bajra, jowar and corn. But the switch over to alternate crops, as recommended by expert, has been very limited.

Areas diverted to alternate crops stand at 20 lakh hectares (Figure 4). This is less than a third of the land lost under paddy. Therefore, about 45 lakh hectares of farmland are without any crop. However, small and marginal farmers in Maharashtra are still hedging on the rains; unwilling to switch to easy crops because rice fetches them good price and hence will be the worst affected [8].

Consequences and Implications: Global warming would have an adverse consequences and implications on India's output of food grains particularly 'wheat bowl'. Accordingly, Punjab, Haryana, Western Uttar Pradesh and parts of Bihar which are India's 'wheat bowl' would be adversely affected.

On the long term consequences and implications of climate change on Indian agriculture, the Government of India has constituted a Group of agriculture experts that are directly overseeing the work of addressing the issues. Scientists at the Indian Council of Agricultural Research (apex body) are developing new, better weather resistant varieties of wheat to be able to meet the consequences and implications of such situations. Indian agricultural scientists have already developed 8 to 9 new varieties of wheat which can be grown during higher temperature [9].

On the other side of the food crisis i.e. production of food grains (except paddy) front the situation is not much concerned as the figures for rest of the major crops matched the output in the corresponding period of 2008. Wheat production of 252 lakh tones during 2009 is all-time record [10]. For the first time after independence; there has been such cultivation of wheat. There are some other consequential issues namely plight of farmers and drinking water shortages in rural India.

The Central Government has to consider a fresh plan for loan waiving as farmers have had to abandon sowing or loss seeds after the rains failed. Similarly, there are problems which the farmers also facing are the provision of food to cattle who are also suffering

badly. The distress caused to farm animals is also another critical issue.

Likewise, due to insufficient rains, ground water level has also declined considerably.

Monsoon Threat and India's Growth: Though measures taken by the Central and State Governments, investors sentiments are liquidity positions have kept the bull on the move in Indian markets. Investors and experts feel that "negative growth" surprises from the West and inadequate monsoon could pose a serious threat to Indian agriculture growth in particular and economy as a whole in general [11].

Although negative surprises from the Western world are yet to come, India may not have seen the worse in the US and Europe yet. Everybody seems to have forgotten about the deficient monsoon and steps that need to be taken. Present monsoon scenario is more of a concern that other factors for Indian agriculture growth [12].

With supportive Government at the Centre, it is unlikely that 2009-10 growth rates would fall below the psychologically important 6 per cent, but in a fully and fairly valued market, moderate corporate earnings could dampen sentiments. When coupled with weaker global economic and financial growth and not so good monsoon, it could play havoc on investors' sentiments. 26, 2009.

India is not de-linked from global market, but at the same time India did not face the magnitude of crisis faced by Western markets. Slowdown witnessed in India was the result of global slowdown and that goes to show that India is connected to the global economy [13]. Indian market has been sensitive to volatility and growth rate dropping below 6 per cent due to insufficient monsoon and global economy. In case that happens further, the entire 'India's growth' would come under heavy clouds [14].

Grain Exports Stopped: India has called off exports of food grains under Government-to-Government agreements to shore up its food security, expecting farm output to dip due to low monsoon during present year i.e. 2009. India has massive food grains stocks because of an existing ban on overseas sales of wheat and non-basmati rice exports. However, the ban so far exempted export of limited quantities committed as part of diplomatic deals [15].

For example, India contributed 1, 53,200 tones of food grains for the SAARC Food Bank during 2008-09. India exports nearly 2 million tones of wheat through diplomatic channels. Now India has to stop even it. The situation may improve, but India does not want to take any risk when the question of food security of the country is involved [16].

Strategy Needed: As the food crisis has not been over and Indian agriculture has been adversely affected due to delayed and deficient monsoon, there is an urgent need on the part of the Central Government and State Governments to formulate a strategy or contingency plan to meet the food crisis with out any further delay.

The contingency plan or strategy should be based on strong and sound measures and must intervene in the market if the need arises. There should be a perfect matching between the paper work and its proper and effective implementation so that the farmers particularly small and marginal may over comes from the difficult situation and must come down heavily against hoarders. In no case "should we allow citizens to go hungry" [17]. There is an utmost need to act promptly, collectively and effectively.

The contingency plan or strategy must include plan for crops, drinking water, human and animal health and fodder and then these should be brought into operation without delay and a close watch be kept on availability of food grains and the process of essential commodity [18].

To deal with the linked issue of rise in food prices, there is an urgent need to contain rise in prices of essential commodities and in this regard the Central Government and the State Governments must have to work together and must activate the public distribution system, which is an important safety net, especially for the poor and helps cushion them against price rise of food grains. The strategy should also include steps to ensure effective enforcement of stock holding limits and strong action against hoarders and black marketers. The time has come when some serious structural changes are required to resolve the food crisis [19].

CONCLUSION

There is no doubt that Indian has been facing food crisis and the worst is not over. This year's deficient monsoon has added fuel to fire. As a result, the prices of food gains and other essential commodities have gone up considerably and common men have been finding it difficult to meet this rise. The situation demands a strong, sound, effective, collective efforts or strategy or contingency plan relating to crops, drinking water, human and animal health and fodder. The Central and State Governments must work together so that the existing

challenge must be met forcibly and crisis must be met on war footings so that on one could go hungry. The challenge is formidable and tough. The efforts of the Central Government and State Governments would tell the degree of success and effectiveness of the strategy or contingency plan. This would depend how sincere attitude and approach are taken by those who are directly and indirectly related with crisis.

REFERENCES

1. Agriculture Situation in India, 2009. Ministry of Agriculture; Government of India, Jan, pp: 12-20.
2. The Times Nation, 2009. The Times of India; New Delhi; New Delhi; March, pp:14.
3. Agriculture Department Document (Government of Uttar Pradesh), 2009. Lucknow; July 12, 2009, pp: 19.
4. Singh, N.B., 2009. Agricultural Economists talked to the Hindustan Times; August 3, 2009 pp: 15.
5. Rajiv Kumar, 2009. CEO, the Indian Council for Research on International Economic Relations; New Delhi.
6. Bhushan Kumar of Barnala Village, 2009. Punjab.
7. Planning Commission Document, 2009. Government of India, New Delhi, pp: 20-24.
9. Sharad Pawar, 2009. India's Agriculture Minister gave a statement in Lokh Sabha, on July 29, 2009.
10. The Times Nation, 2009. The Times of India, New Delhi; July 30, 2009, pp: 16.
11. Monsoon, 2009. Threat for India's Growth Story; the Hindustan Times, New Delhi; July 27, 2009. pp: 17.
12. Arun Kejriwal, 2009. Kejriwal Research and Investment Ltd; Mumbai; July 26, 2009.
13. Rajnikant Patel, 2009. President, Reliance Money; Mumbai; July 26, 2009.
14. Monsoon, 2009. Threat India's Growth; the Hindustan Times, New Delhi; August 13, 2009, pp: 15.
15. Good Will grain export stopped, 2009. The Hindustan Times; New Delhi; July 26 2009, pp: 17.
16. Sharad Pawar, 2009. Union Agriculture Minister; Government of India; told in Rajya Sabha; July 25, 2009.
17. Prime Minister Manmohan singh's address to States Chief Secretaries in New Delhi; on August 8, 2009.
18. Drought Looms, 2009. The Hindustan Times; New Delhi; August 9, 2009. pp: 11.
19. Ray, M., 2008. Indian Food Crisis; Counter Currents Organization; Mumbai; April 28, 2008, pp: 1-3.