Goal Setting for Indian Agriculture

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Though the 16-point action plan for agriculture laid down in the 2020 Union Budget continues prioritising subsidies and safety nets over agricultural investments, it does not make any fundamental improvements in the allocations towards these heads.

Finance Minister Nirmala Sitharaman, in her second budget speech, mentioned a 16-point action plan for agriculture sector to ensure sustainable agricultural practice and adoption of modern technologies. Some of these action plans intend to encourage the implementation of existing acts by the states, and some of them aim to strengthen the existing schemes and systems. For example, this budget talks about encouraging state governments to implement recent acts like the Model Agricultural Land Leasing Act (2016), the Model Agricultural Produce and Livestock Marketing Act (2017), and the Model Agricultural Produce and Livestock Contract Farming Act (2018); taking up comprehensive measures for water-stressed districts; encouraging the balanced use of fertilisers (chemical as well as organic); extending the Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhiyan (PM-KUSUM) scheme; mapping and geotagging storage facilities; integrating financing on Electronic Negotiable Warehouse Receipts (e-NWR) with the National Agricultural Markets or e-NAM; strengthening the agri-credit space by expanding the National Bank for Agriculture and Rural Development's (NABARD) refinance scheme and bringing all beneficiaries of the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) under the Kisan Credit Card (KCC) scheme, among others.

There are two new action points as well, namely the setting up of Kisan Rail for seamless supply of perishable commodities throughout the country and launching Krishi Udaan along national and international routes. The budget speech further mentioned that the government is committed to its declared goal of doubling farmers' income by 2022.

A preliminary glance through the budget numbers and action points indicate that even if the action points are potentially in the right direction to revive the agricultural sector in the long run, but the question is whether they are sufficient to double farmers' income within the stipulated time period. First, even after realising the importance of the agriculture sector, this year's budget allocation for the Ministry of Agriculture and Farmers' Welfare (MoA&FW) has increased only 3.03% compared to the last year's allocation, while as a percentage of total budgetary expenditure, it actually has gone down from 4.97% to 4.67%.

One interesting observation is that the share of expenditure on MoA&FW increased from 2.32% of total expenditure in 2018–19 to 4.97% of the 2019–20 budget allocations, 4.07% of the 2019–20 revised estimates and 4.69% of the total budget estimates of 2020–21. Prima facie, it appears that the government is assigning increased importance to the agriculture sector. However, the increase is solely due to the introduction of the PM-KISAN. In 2018–19, actual expenditures on PM-KISAN was only ₹1,241 crore as against the budgeted estimate of ₹20,000 crore. As against the budgeted estimates of ₹75,000 crore, the revised estimates for 2019–20 is ₹54,370 crore. There has been no change in the budgeted estimates for the scheme for the current year.

Second, except for Kisan Rail and Krishi Udaan, none of the 16 action points are new additions. These are already existing schemes and the government only intends to strengthen them. Even for Kisan Rail and Krishi Udaan, nothing is said about their timelines of coming into operation. The government is planning to go by the public–private partnership (PPP) model for the Kisan Rail; and the Krishi Udaan would be launched by the Ministry of Aviation. But, nothing is mentioned about the guidelines or allocation of the government for these two initiatives.

Third, the government should understand that with each passing year since 2015–16, doubling farmers' income (in real terms) by 2022–23 is becomimg a distant dream. According to the Dalwai Committee Report (2017), the average

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monthly income of farmers was ₹8,059 in 2015–16[1] (and ₹8,931 per month as per NABARD's all-India rural financial inclusion survey 2016–17). The required percentage of real income growth was 10.4% at the start of the timeline. At present, after an estimated real income growth of around 3% per annum in the past five years, the required rate of real income growth has reached a 15% mark. Obviously, doubling farmers' income by 2022–23 in a business-as-usual scenario is an impossible task.

Lastly, the budget does not necessarily bring any paradigm change in the government's way of supporting the sector. Studies over time (Fan et al 2000; Fan et al 2007; Gulati and Terway 2018 among others) have shown that investment on roads or expenditure on agri-research and extension are essential for agricultural growth and poverty reduction, and they are much more effective in reducing poverty than subsidies on fertiliser, irrigation, etc. Going by that, the government should give more importance to investment expenditures. However, in this budget like the previous ones, the union government has given more importance to the subsidies rather than the investments.

Safety Nets and Subsidies vs Investments

Table 1 shows government expenditure in the agri-food space in four categories. These are:

(i) Safety nets with a total budgeted expenditure (BE) of ₹1,77,070 crore for 2020–21. This consists of the Mahatma Gandhi National Rural Employment Guarantee Act (budgeted at ₹61,500 crore in 2020–21) and food subsidy (at ₹1,15,570 crore in 2020–21 BE).

(ii) Input subsidies at a total BE of ₹1,83,179 crore for 2020–21. Input subsidy means fertiliser subsidy (at ₹71,309 crore in 2020–21 BE), interest subsidy for short-term credit to farmers (at ₹21,175 crore), expenditure on crop insurance scheme (₹15,695 crore) and the PM-KISAN, which is essentially direct income transfer (at ₹75,000 crore).

(iii) Public investments at ₹44,689 crore for 2020–21 BE. Government's expenditures on main schemes that could be considered as investment expenditure include the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) (₹11,127 crore), the Pradhan Mantri Gram Sadak Yojana (PMGSY) (₹19,500 crore), the Sub-mission on Agriculture Extension (₹1,200 crore), Agriculture Research and Education (₹8,363 crore) and the Deen Dayal Upadhyaya Gram Jyoti Yojana (₹4,500 crore).

(iv) Other development schemes by MoA&FW, which include the expenditures for smaller schemes under the green revolution, budgeted at ₹12,120 crore. If we look at the change in budget allocations in the last two years, we would observe that the budget allocation in 2020–21 financial year (FY) has declined by 27.5% and 2% for the safety nets and input subsidies respectively, while public investment and other development expenditures increased by 7% and 4.4% respectively. Overall budget allocation for all the categories taken together came down by 13.9% in FY 2021 as compared to FY 2020. This does not indicate that the government is prioritising the agricultural sector.

There is considerable difference in FY 2020's BE and revised estimates (RE) as well. For the four categories taken together, there has been a decline of 19.6% as compared to the budget allocation. RE of expenditures have declined in all four categories. But, five schemes have experienced serious downward revision: namely food subsidy (41% decline in RE as compared to 2019–20 BE),

Table 1: Allocations and Expenditures on Safety Nets, Input Subsidies, Public Investment and Development Missions by the Central Government

Categories	Schemes	Expenditure (₹ crore) 2018–19	2019–20 (BE)	2019–20 (RE)	2020–21 (BE)	Change (2019–20 RE Over 2019–20 BE)	Change (2020–21 BE Over 2019–20 RE)	Change (2020–21 BE Over 2019–20 BE)
1	2	3	4	5	6	7	8	9
Safety net	Mahatma Gandhi National Rural Employment Guarantee Act (₹61,500 crore)	61,815	60,000	71,002	61,500	18.3	-13.4	2.5
	Food subsidy (₹1,15,570 crore)	1,01,327	1,84,220	1,08,688	1,15,570	-41.0	6.3	-37.3
	Sub total—Safety net	1,63,142	2,44,220	1,79,690	1,77,070	-26.4	-1.5	-27.5
Input subsidies	Crop Insurance Scheme (₹15,695 crore)	11,937	14,000	13,641	15,695	-2.6	15.1	12.1
	Interest subsidy for short term credit to farmers (₹21,175 crore)	11,496	18,000	17,863	21,175	-0.8	18.5	17.6
	Fertiliser subsidy (₹71,309 crore)	70,605	79,996	79,998	71,309	0.0	-10.9	-10.9
	PM-KISAN (₹75,000 crore)-direct income transfer	1,241	75,000	54,370	75,000	-27.5	37.9	0.0
	Sub total—Input subsidies	95,279	1,86,996	1,65,872	1,83,179	-11.3	10.4	-2.0
Public investment	Pradhan Mantri Krishi Sinchayee Yojana (₹11,127 crore)	8,143	9,682	7,896	11,127	-18.4	40.9	14.9
	Pradhan Mantri Gram Sadak Yojana (₹19,500 crore)	15,414	19,000	14,070	19,500	-25.9	38.6	2.6
	Sub-mission on Agriculture Extension (₹1,200 crore)	891	950	940	1,200	-1.1	27.7	26.3
	Agriculture Research and Education (₹8,363 crore)	7,544	8,079	7,846	8,363	-2.9	6.6	3.5
	Deen Dayal Upadhyaya Gram Jyoti Yojana (₹4,500 crore)	6,550	4,066	4,066	4,500	0.0	10.7	10.7
	Sub total—Public investments	38,542	41,776	34,818	44,689	-16.7	28.4	7.0
Development missions of MoA	Green revolution (₹12,120 crore)	10,867	11,611	9,025	12,120	-22.3	34.3	4.4

(1) The figures in the parentheses attached with the legends denote the 2020–21 budgeted figures.
(2) Green revolution consists of development schemes: Rashtriya Krishi Vikas Yojana (₹3700 crore), National Food Security Mission (₹2,100 crore), National Project on Organic Farming (₹12.50 crore), Organic Value Chain Development for North East Region (₹175 crore), National Project on Soil Health and Fertility (₹315 crore), Rainfed Area Development and Climate Change (₹202.50 crore), Paramparagat Krishi Vikas Yojana (₹500 crore), National Project on Agro-Forestry (₹36 crore), National Mission on Horticulture (₹2,300 crore), Sub-mission on Seed and Planting Material (₹378.77 crore), Sub-mission on Plant Protection and Plant Quarantine (₹40 crore), Information Technology (₹40 crore), Sub-mission on Agriculture Mechanisation (₹1,000 crore), Integrated Scheme on Agriculture Census and Statistics (₹320 crore), Integrated Scheme on Agricultural Cooperation (₹400 crore), Agricultural Marketing (₹490 crore) and National Bamboo Mission (₹110 crore).
Source: Union Budget 2020–21, Government of India, https://www.indiabudget.gov.in/.

PM-KISAN (27.5% decline), PMKSY (18.4% decline), PMGSY (25.9% decline) and the green revolution (22.3% decline). However, the cut in the food subsidy part is the deepest, and it happened mainly because the estimate for food subsidy to the Food Corporation of India (FCI) under the National Food Security Act (NFSA) has been revised downwards from ₹1,51,000 crore to ₹75,000 crore.

An interesting observation is, even after the drastic cut-down in the budget allocations for the two major heads—food and fertiliser subsidy—safety nets (at 42.5%) and input subsidies (at 43.9%) constitute almost 86.4% of the budgetary allocation for these four categories. That is, whatever are the announced objectives, the government prefers to put more emphasis on subsidy and safety nets while allocating resources.

The drastic decline in the allocation of food subsidy and fertiliser subsidy raises questions. In both cases, the government has allocated lower money without mentioning any reform. For example, due to the low issue price of grains (rice, wheat, coarse cereals) owing to the NFSA of 2013 and high economic costs (for acquisition and distribution) of foodgrains, the government bears subsidy of ₹34 per kilogram (kg) for rice and ₹25 a kg for wheat in 2019–20. Also, in recent times, the FCI holds much more stocks as compared to the buffer norms.[2] On 1 July 2019, the actual stock of rice and wheat was 74.3 million metric tonnes (MMT) in the central pool, as against the buffer stock norm of 41.1 MMT.

All these contribute towards the increase in food subsidy. However, no measures have been stated, which indicate any change in policy direction. So, the question of how the government is planning to achieve the target of declined food subsidies, remains unsolved from the budget allocations. The fertiliser sector, similarly, has seen no concrete policy change, but the budget estimates are considerably lower. We try to point out the actual situation of these two sectors as well as the progress of the 99 priority projects announced under the PMKSY below.

Food subsidy: Estimates of food subsidy, the largest expenditure by the central government in the agri-food space, have been revised downwards in 2019–20 to ₹1.09 lakh crore from its budget allocation of ₹1.84 lakh crore. The estimate has been increased marginally for 2020–21 to ₹1.15 lakh crore. On the superficial level, it means that the government is taking steps towards rationalising food subsidy. But, if we dig deeper in the receipt budget data, we shall see that the estimated borrowing for the FCI from the National Small Savings Fund (NSSF) for 2020–21 is at ₹1.36 lakh crore. For FY21, the FCI's cumulative loans from all sources are huge—around ₹3.33 lakh crore (of which ₹2.54 lakh crore from NSSF, bonds of worth ₹28,000 crore, short term loan of ₹35,000 crore and cash credit limit of ₹9,000 crore sanctioned by the banks).[3] That is, the government is planning to cover the subsidy expenses by borrowing, which will only add to the fiscal responsibility of the government at a later date.

Fertiliser subsidy: It is true that the government is emphasising on the balanced application of fertiliser nutrients. But, there is no new road map to guide the nation towards that goal. The government has reduced fertiliser subsidy in the budget estimates almost by ₹9,000 crore in 2020–21 as compared to the 2019–20 BE and RE. However, without any change in the prevailing system, it is difficult to understand how the government is planning on achieving lower subsidy, that too at a time when unpaid subsidy amounts are estimated to be at around ₹60,000 crore by the end of 2019–20 as per the Fertiliser Association of India. Given the existing subsidy system to the fertiliser sector where urea is being subsidised more heavily as compared to other fertilisers, it will take time to correct the farmers' behaviour pattern for the application of fertilisers through proper awareness creation. This is something that India cannot achieve overnight.

From the last budget, the union government is emphasising on the Zero Budget Natural Farming (ZBNF) to reduce the use of chemical fertilisers. But, as found by a forthcoming study of Indian Council for Research on International Economic Relations (ICRIER), experiments done by Indian Council of Agricultural Research–All India Coordinated Research Project (ICAR–AICRP) have almost always indicated a decline in productivity while using the ZBNF method[4] and no considerable change in cost of production (Das and Gulati forthcoming). So, it would not be advisable to present the ZBNF as an alternative to chemical fertiliser use without preparing proper protocols or having more scientific validation, since the needs of the growing population in the country would be at stake. The balanced application of fertilisers is the key to sustainability in production, and policy should be directed to create more awareness in that respect.

PMKSY and 99 priority projects: India adopted the Accelerated Irrigation Benefit Programme (AIBP) in 1996–97 to finish irrigation projects on time. But, even after prioritising projects under the AIBP, the projects were not being completed at the desired pace. Hence, a need was felt to have a second prioritisation and select 99 (or 106, including sub-projects) projects that can possibly be completed within the 2016–20 time period.

In the 2016–17 Budget, the central government had announced to create a Long-term Irrigation Fund (LTIF) with an initial corpus of ₹20,000 crore, which has been increased thereafter, to bridge the resource gap and enable completion of these priority projects. Up to June 2019, NABARD has sanctioned ₹77,081.42 crore, out of which ₹42,142.36 crore have been released towards the central share and ₹34,939.06 crore towards the state share, respectively. Up to June 2019, NABARD had released ₹34,248.73 crore.[5]

According to the AIBP dashboard,[6] 31 projects have been completed by June 2018, 32 were to be completed by June 2019 and the rest 43 by December 2019. However, if we check the progress of the distributary canals, only 41 have made more than 90% progress. That means there is a less chance of using created potential.

Updates from the Command Area Development and Water Management (CADWM) Programme Dashboard[7] also support this. It is a fact that even if the main structure and major and distributary canals are completed, the water cannot reach the farmers until field channels are in place. According to the CADWM dashboard, 56 of the priority projects have only 0%–10% progress in field channel creation. Also, 65 projects have created less than half of the targeted field channels. More than 90% progress is made in the case of four projects only.

Which Way Forward?

Careful study of the budget indicates that this budget does not really add anything new for the agriculture sector, except for mentioning the Kishan Rail and Krishi Udaan—that too without any proper allocation or road map. There has been significant decline in the two largest subsidies without any policy change. Moreover, since it has taken the old path of either borrowing or letting the heap of unpaid subsidy grow even higher, this budget is still actually the game of postponing an impending fiscal crisis.

Like all the previous years, this budget also has put more importance on creating safety nets and providing subsidies rather than emphasising on investment, which has the capacity of benefiting the sector in the long run. At a time when poverty is declining in India,[8] the government should focus more on investment. As is mentioned in the latest *Economic Survey* (2019–20),

> growth in public investments in agriculture is negatively correlated to increases in food subsidy outlay. As investments are the crucial input to increase in productivity, the increasing focus on subsidies is harming the growth of agricultural sector in the long-run.

This in turn is adversely affecting the possibility of substantial increase in farmers' income.

Consequently, it is also necessary to rationalise food and fertiliser subsidies. In 2015, the Shanta Kumar Committee on reorienting the role and restructuring of the FCI suggested revisiting the decision of providing 67% of the population with subsidised foodgrain and downsizing that to 40%, which the committee held that is enough to cover below poverty line families and some above poverty line families, too. In the latest *Economic Survey*, it has been suggested that the NFSA should cover only bottom 20% of the populace, and for others, the issue price could be linked to the procurement prices. For food and fertiliser subsidies, it would be better to set the markets right to move towards less distortionary direct income transfer over time. For food subsidies, it would be better than the physical handling of grains. For fertiliser, it would send the correct price signals for the balanced use of nutrients and give the farmers a choice between chemical or organic fertilisers.

With all of these, proper agri-extension services are also needed for farmers to receive proper information and act accordingly for a sustainable agricultural practice.

NOTES

1 According to the Dalwai Committee Report (Volume II), yearly income at an all-India level is estimated at ₹96,703.
2 http://fci.gov.in/.
3 https://indianexpress.com/article/opinion/columns/union-budget-2020-21-food-subsidy-budget-estimate-national-food-security-act-food-corporation-of-india-national-small-savings-fund-6271391/.
4 The ICAR preliminary findings indicate a 32% decline in productivity of basmati rice and 59% decline in the productivity of wheat.
5 https://www.nabard.org/content1.aspx?id=655&catid=8&mid=488, viewed on 10 February 2020.
6 http://pmksy-mowr.nic.in/aibp/.
7 http://cadwm.gov.in/cadwm-dashboard/CADDashBoard.aspx.
8 According to World Bank report, people under poverty line declined from 21.9% in 2011 (the latest national poverty line estimate as available in public domain) to 13.4% in 2015 (international poverty line of $1.90 (2011 PPP) per day per capita), viewed on 13 February 2020, https://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global_POVEQ_IND.pdf.

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