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Sustainable Agriculture in Maharashtra: Can the State Budget Offset Climate Vulnerability?

Gurpreet Singh and Poorvi Kulkarni

Abstract:

Introduction

Maharashtra has traditionally been a drought-prone state with 70 per cent of its geographical area vulnerable to water scarcity. The state witnessed its worst drought in 40 years in 2012–13 and in 2016, after back-to-back drought years, water trains had to be dispatched to meet water needs. The acute distress among farmers caused by chronic drought in the past decade has been exacerbated with excess rainfall and floods, thereby compounding crop damage and income losses since 2019. Between 2019 and 2021, over 12 lakh hectares of kharif crops have been damaged due to floods and thousands of livestock have died. Twenty or more of the 36 districts in the state were affected by climatic disasters every year between 2012 and 2021. At a time when the Coronavirus disease 2019 pandemic and consequent lockdowns adversely impacted the entire economy in 2020 and 2021, the agriculture and allied sectors bore an added brunt of climate extremes.

Figure 1: Number of districts in Maharashtra affected by climatic disasters from 2012 to 2021

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Source: Compiled from replies to various Rajya Sabha and Lok Sabha unstarred questions directed to the Department of Agriculture and Farmers Welfare and Department of Drinking Water and Sanitation from 2018 to 2022.

Maharashtra is also among the six states to have witnessed all five climatic disasters—drought, flood, heatwave, cold wave, and cyclone—between 1995 and 2020 (Bindal, et al 2021).

These heightened risks of climate vulnerability distinguish the agriculture and allied sectors from other sectors in the state and demand special budgetary planning. The Maharashtra Budget 2024–25, which will be presented this year, is crucial for 50 per cent of the state's population that is dependent on agriculture and allied activities. Recovery of economic losses suffered by farmers and the path towards increasing their income will be determined by the direction and extent of allocations for these activities in the upcoming budget.

Budgetary Priority to Agriculture and Allied Sectors

Even though agriculture and allied sectors are the main source of livelihood of half of the population and contributed 14 per cent to the state's gross value added in 2022-23, the sectors have not been prioritised much in budgetary allocations. Their share in the total budgetary expenditure has declined from around 12 per cent in 2017–18 to around 6 per cent in 2021–22.

This implicates that although the state's total budget outlay has increased, agriculture and allied sectors have not been given importance proportionately during the last five years.

Figure 2 illustrates how although the total state budget doubled in the past seven years, the share of agriculture and allied activities in the state budget halved in the same period.

Figure 2: Budgetary expenditure for agriculture and allied activities vis-à-vis the total state budget and expenditure

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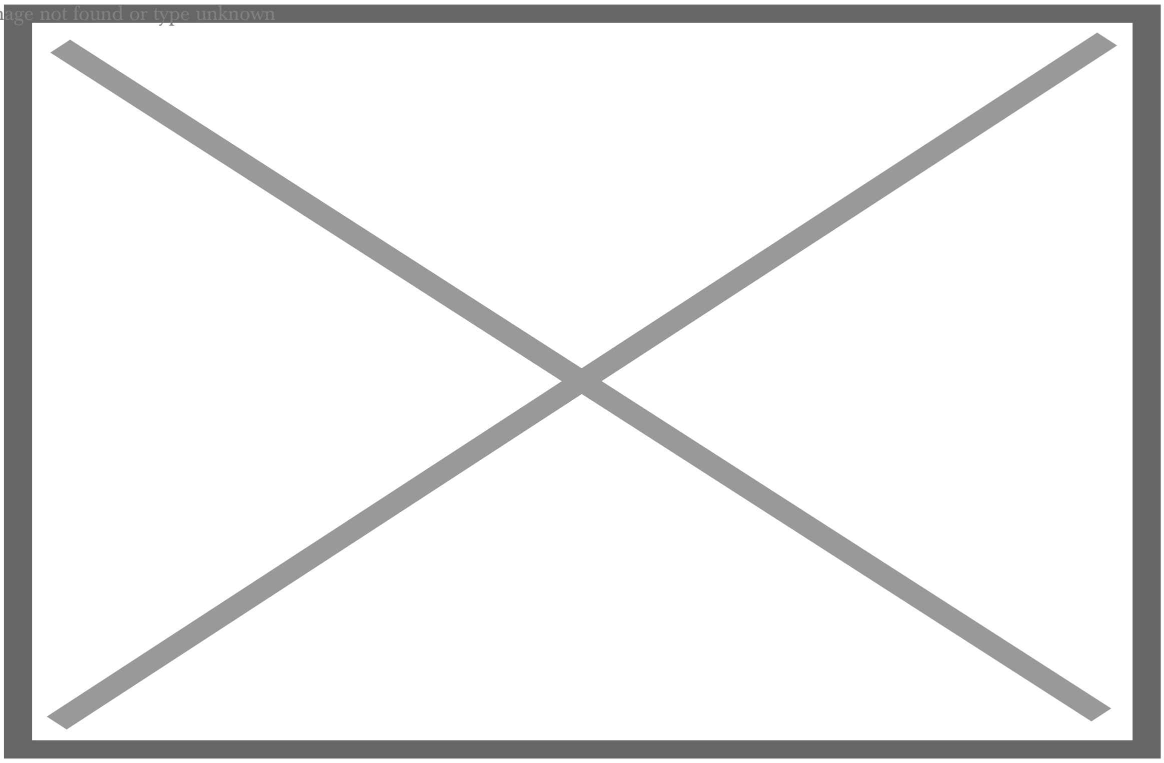

Source: Compiled by CBGA from the state budget documents, various years.

Key Focus of Budgetary Outlay on Agriculture

Apart from inadequate allocations for agriculture and allied sectors, the overall budgetary framework for the sector does not seem to address the primary issues of farmers, impacting the cost of cultivation such as adequacy of good quality inputs and marketing of produce. Unending debt arising from high costs of agricultural inputs has been a longstanding concern among farmers. It can be observed that budgetary support to some of the key inputs such as manures and fertilisers, seeds, extension, etc., has remained insufficient. Pest attacks and disparity in water distribution have also been reported as major issues faced by farmers on a regular basis. Yet, allocations for the budgetary components of seedsand command area development have been on the lower end (see figure 3). In comparison, however, the crop insurance component, which has been widely decried by farmers, has received the highest allocation.

Figure 3: Budgetary Outlay on Major Components of the Crop Sector (Average from 2018–19 to 2023–24; in Rs. crore)

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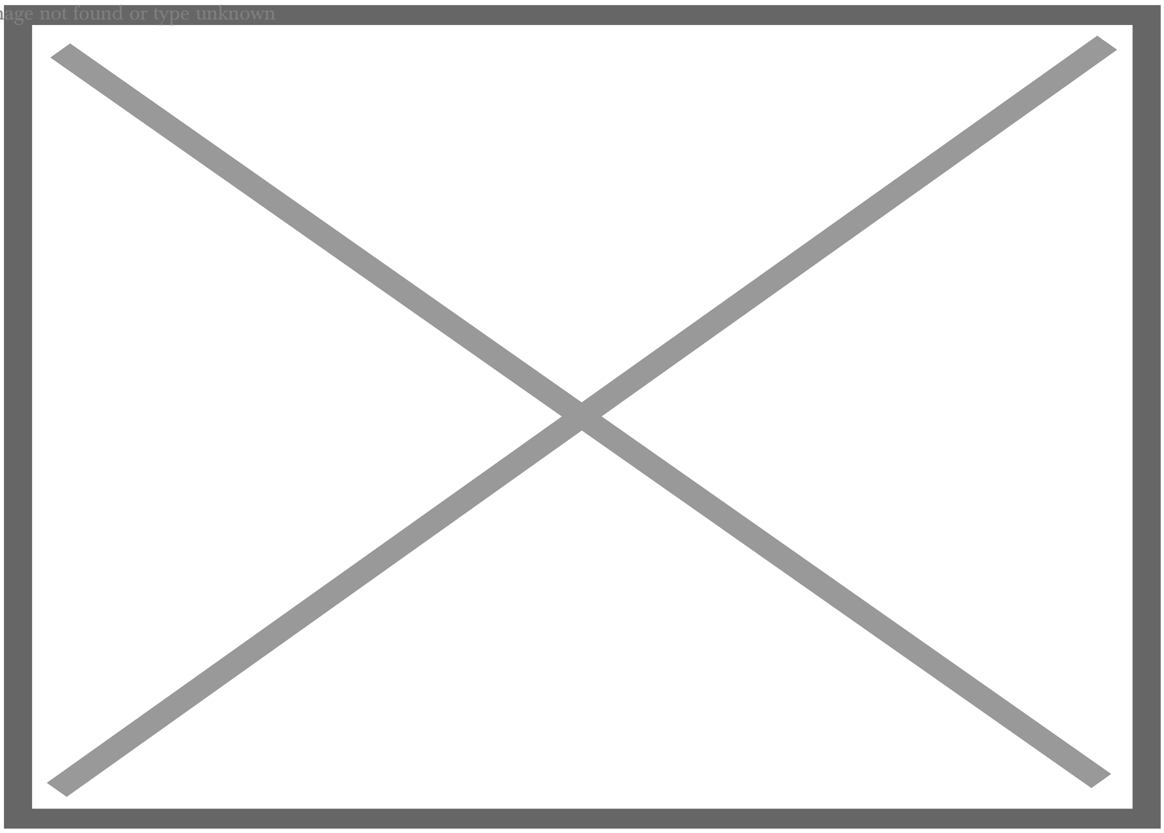

Source: Compiled by CBGA from state budget documents, various years.

With increasing premium rates, the Pradhan Mantri Fasal Bima Yojana (PMFBY) has demanded higher government allocations every year (Nirmal 2019). However, the claims ratio under the scheme has remained low, which is a marker of continued high profits for insurance companies and low compensation for farmers. Several other reports have also brought to light how, in many cases, claims have been miscalculated or denied and claim payouts have been inordinately delayed.

Although the PMFBY covers losses from all climatic disasters throughout the cultivation season, claims for components of prevented sowing, failed germination, mid-season adversity, and post-harvest losses are rarely processed. These are to be partly paid during the season to extend immediate relief to farmers, but insurance companies have often not followed government orders to implement these scheme components (Kulkarni 2019). The only component of crop cutting experiment-based loss estimation based on end-of-season yield is followed by insurance companies and even these claim payouts flout the stipulated timelines. In 2021, in spite of widespread, flood-induced losses encountered by Maharashtra's farmers, the delays in claim payouts were not ironed out by insurance companies (Jain 2021).

Owing to these lapses in PMFBY implementation, Maharashtra government has, from time to time, provided separate drought and flood assistance packages to farmers even when these disasters are already covered under the PMFBY.

In the wake of these issues and the budgetary burden borne by state governments of contributing towards premium share, the scheme has been discontinued or modified in a number of states. Government of Maharashtra has also considered opting out of the scheme and launching a separate insurance policy (Kasabe 2022). But in the 2023–24 budget, allocation to the PMFBY is retained at the highest among all schemes at Rs. 2,020 crore.

Moreover, another direct monetary support scheme, that is, the Namo Shetkari Mahasanman Nidhi Yojana was announced in the state budget in 2023 with an outlay of Rs. 6,900 crore, which is an extension of the Pradhan Mantri Kisan Samman Nidhi. Providing immediate relief through such schemes is a welcome step, but it must be aligned with some outcome framework that ensures infrastructure development (Singh and Kundu 2022).

Sustainable Agriculture Disregarded

A further analysis of allocations towards 19 key agriculture schemes implemented in Maharashtra re-emphasise that budgetary attention has been skewed towards short-term monetary relief schemes such as PMFBY. Allocation towards community-based infrastructure development schemes, on the contrary, which form the core of public provisioning for agriculture, have fallen short.

Figure 4: Budgetary priorities for different kinds of support for agricultural operations, average 2018–19 to 2023–24 (in per cent)

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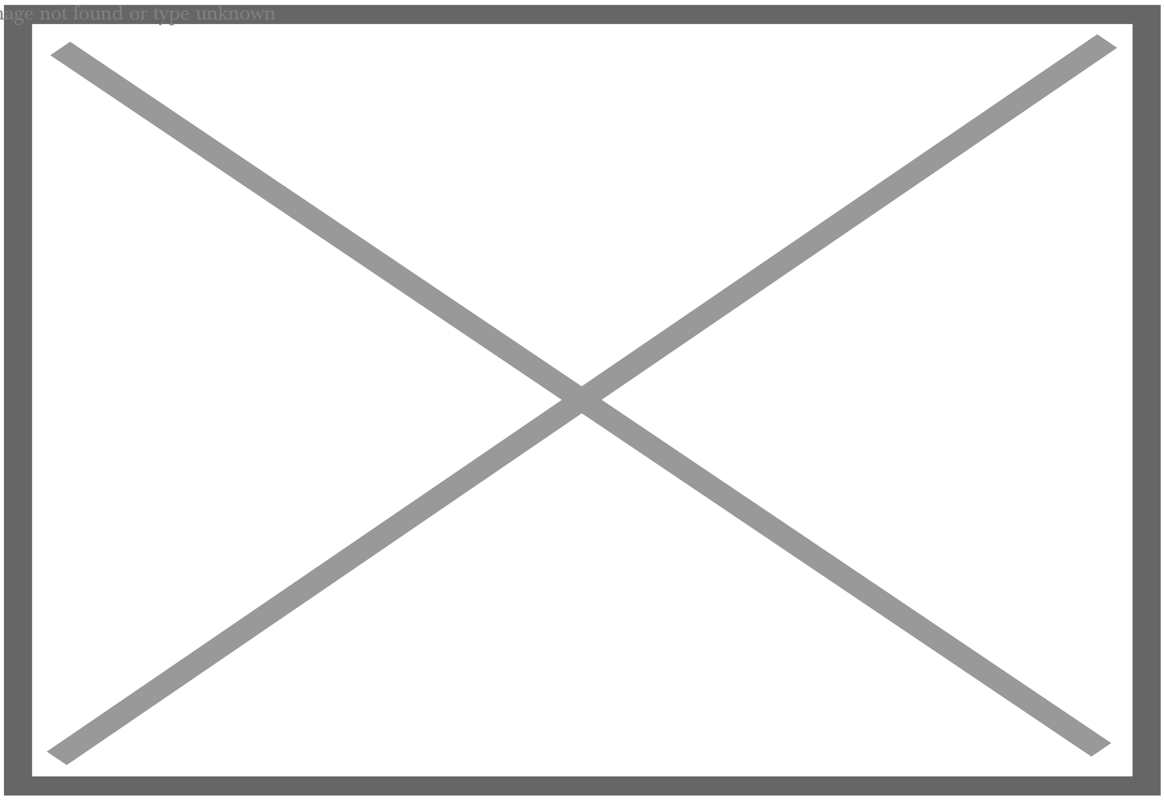

Source: Compiled by CBGA from state budget documents, various years.

Note: This categorisation of various kinds of support for agricultural operations is based on the categorisation of all schemes presented in Government of India (2018) and relevant literature on the sector.

Sixteen vital input-based, post-harvest, and sustainable agriculture schemes that provide for building irrigation infrastructure, mechanisation, extension services, and marketing infrastructure comprise only 41 per cent average (2018–19 to 2023–24) share in schematic allocations of the Department of Agriculture in the state. On the contrary, three direct monetary support schemes, all of which provide insurance, amount to 59 per cent average share in the total schematic allocations and expenditure, as shown in figure 4. This indicates a clear shift in the approach of state provisioning for agriculture from sustainable agricultural development to risk mitigation.

Post-harvest schemes have the least share, 2.4 per cent, in the total schematic allocations. These schemes, Chief Minister's Agriculture and Food Processing Scheme and Pradhan Mantri Formalisation of Micro Food Processing Enterprises Scheme, support small- and medium-scale processing units and value addition as well as the export of agricultural produce.

A commendable step though is taken through raising budgetary provision for the state scheme, Balasaheb Thackeray Agribusiness and Rural Transformation project, which supports value chain development and facilitates agribusiness investments. Allocation to this project has doubled in 2023–24 compared to 2022-23.

Similarly, sustainable agriculture schemes have the second lowest share, that is, 15.6 per cent in the total schematic allocations. Most of these schemes are centrally sponsored and require state governments to contribute an equal share and plan implementation. The foremost of these schemes—Rashtriya Krishi Vikas Yojana (RKVY)—takes diverse agroclimatic conditions into account and calls for state governments to formulate district action plans by prioritising local needs. Another such scheme—Paramparagat Krishi Vikas Yojana (PKVY), which aims to minimise farmers' dependence on external inputs—provides for the formation of organic farming clusters and extends end-to-end support to farmers in production, certification and marketing.

In the 2023-24 budget, allocations to four critical sustainable agriculture schemes dropped by 25 to 50 per cent compared to 2022-23. These schemes are RKVY, National Mission on Sustainable Agriculture, National Food Security Mission (NFSM), and the Nanaji Deshmukh Krishi Sanjivani Prakalp or the Project on Climate Resilient Agriculture (PoCRA) —.

Efficacy of these schemes though is dependent on the budgetary and implementation commitments of both union and state governments (Singh and Kundu 2022). One of the possible reasons behind the fall in budgetary allocations for such schemes can be under-utilisation of funds. Data on release of central government funds for some of these schemes, as detailed in table 1, point to possible under-utilisation across core schemes. In 2020–21, only 31 per cent of the central funds for RKVY were utilised against the amount of funds released to the Government of Maharashtra and only 21 per cent was utilised against the amount of funds allocated . The slow-paced release of funds for utilisation indicates delays on the part of the state government in the formulation of district and state action plans and contributing its share of funds (Bhatt, et al 2017). This implementation gap needs to be addressed by examining and fulfilling the budgetary requirement for sufficient human resource and staff strength at the village, block and district levels. Adequate Department of Agriculture staff at the grassroots level is essential for timely preparation of action plans and outreach of these schemes.

Table 1: Union Government Funds Released to Government of Maharashtra under RKVY

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Source: Schemes Dashboard, Open Budgets India platform. Link: https://schemes.openbudgetsindia.org/scheme/rkvy?indicator=extent-of-funds-utilised-against-total-funds-allocated

Apart from centrally sponsored schemes on sustainable agriculture, the Government of Maharashtra also implemented a project on climate-resilient agriculture called Nanaji Deshmukh Krishi Sanjivani Prakalp. The scheme is critical as it provides localised solutions to improve soil quality and adopt cropping patterns based on water availability, among others, which helps farmers to cope effectively with climatic adversities. Even though the Revised Estimates in 2022–23 for this project stood at Rs. 1,387 crore, the Budget Estimates for 2023–24 were reduced to Rs. 441 crore.

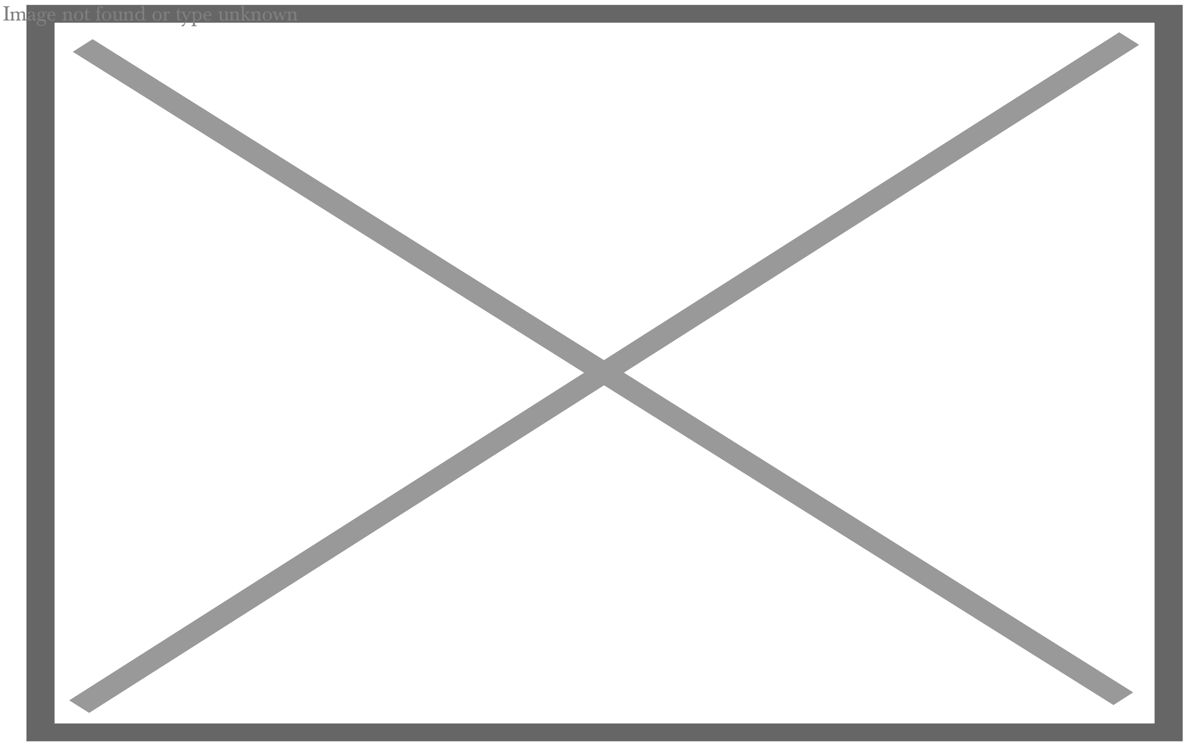
Budgetary Response to Allied Sectors

Livestock and fisheries sectors collectively contributed 24 per cent to gross state value added of agriculture and allied activities in the state in 2021–22 (Government of Maharashtra 2023). The growth of allied sectors is as essential as the crop sector from the point of view of increasing farmers' income. Eighty per cent of the farmers in Maharashtra are small and marginal farmers.

Allied activities, thus, have a major role in complementing and diversifying farmers' incomes at a time when crop cultivation solely is unviable and increasingly prone to effects of climate change.

A steady increase has been noted in the budgetary allocations for the allied components in the past six years. Allocation on animal husbandry rose by 120 per cent and that on fisheries by 335 per cent in the period between 2018–19 and 2023–24. The launch of Pradhan Mantri Matsya Sampada Yojana (PMMSY) in 2020–21 has, particularly, brought in considerable public investment into the fisheries sector. However, this has also caused concerns as the scheme is seen to benefit capital-intensive businesses more than traditional, marine fisherfolk. This nature and magnitude of budgeting for PMMSY disables communities that have been historically associated with fish, while enabling fish entrepreneurs and large-scale private enterprises (Vijayakumar 2022).

Figure 5: Budgetary allocation for allied components from 2018–19 to 2023–24 (in Rs. crore)



Source: Compiled by CBGA from state budget documents, various years.

Similarly, though allocation to animal husbandry has seen a sizable increase (see figure 5), a more integrated approach between livestock and crop sectors is necessary for sustainable agriculture. In 2017, Government of Maharashtra launched an important livestock sector scheme –the Chief Minister Healthcare scheme–under which mobile veterinary health clinics have been set up to provide doorstep veterinary services to livestock farmers. Other animal husbandry schemes include providing financial assistance for purchasing livestock and poultry. However, a more integrated approach between livestock and crop sectors is necessary for sustainable agriculture. Chhattisgarh government's Narva Garva Ghurva Bari scheme that enhances the entire ecosystem of farming by conserving water sources, establishing cattle sheds, producing manure, and encouraging natural backyard farming of vegetables and fruits is a model to be considered.

Livestock farming contributes 6 per cent to the total monthly income of agricultural households in Maharashtra, and more concerted budgetary planning and action will help in paving sustainable income growth of farmers.

Budgeting for Vulnerable in Agriculture

Women farmers constitute 15 per cent of the landholders in Maharashtra and integration of their needs and knowledge into planning for agriculture and allied sectors would go a long way in making the sectors viable. But there are no data on the number of women who own land with legal titles even though in most rural households, women do most of the physical work on farms. Women constitute 47 per cent of the agricultural labourers in Maharashtra (Government of India 2011). Moreover, 88 per cent of the total women workforce in Maharashtra work in agriculture and allied sectors (National Statistical Office 2021 a).

Policies that support women-friendly agricultural equipment and stipulate lower interest rates on crop loans for women loanees are needed. As most women do not own land and other assets, their access to institutional credit and agriculture schemes is severely hampered. An overhaul of the budgetary and policy framework that recognise these gendered realities of agriculture and allied sectors is also needed. Additionally, budget and policies designed for agriculture and allied sectors need to cater to agricultural labourers who form a significant portion of the population engaged in agriculture and allied sectors. The percentage of agricultural labourers in the total state workforce stands at 25 per cent, which is at par with the percentage of cultivators–26 per cent (Government of India 2011).

Registration of women farmers and agricultural labourers and access of agriculture schemes to them need to become serious budgetary considerations. Integrating the traditional knowledge of women and small and marginal farmers into agriculture budgets and policies would inevitably lead to the adoption of sustainable agriculture practices.

Conclusions

Given the limited resource envelop, the forthcoming budgets for agriculture should be guided by the following principles: renewed focus on the core schematic interventions and agricultural institutions is integral to improving agricultural infrastructure and productivity at the farm level through extending support for timely availability of extension services and inputs to deal with any unforeseen situation. There is a need to lay equal focus on community-based infrastructure development along with individual-centric monetary transfers in the annual budgets that can balance the approach of short-term relief with long-term sustainability of the sector. Hence, the need of the hour is to address core issues and revive allocation for core schemes like the RKVY, NFSM, PKVY and other state-specific schemes that enhances community-based infrastructure. Concerted efforts also need to be made to improve the extent and quality of utilisation of funds allocated for such core schemes in the agriculture sector.

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