How did Agricultural output Change under the Modi Government?

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The recently released report from the Ministry of Statistics and Programme Evaluation, the 'Statistical report on value of output from agriculture and allied sectors (2011-12 to 2022-23)' provides some estimates of how the value of agricultural output has changed since 2011-12. This is important information (even though the methodology involves several assumptions that could be called into question) since the 11-year period that is covered includes 9 years in which the country has been ruled by the Modi government, and therefore is a useful indicator of how agriculture has fared under that regime.

This is especially relevant in the context of widespread farmers' protests over the past few years. The outcome of the recent general elections has also been analyzed by some observers to suggest that agrarian discontent may have been one of the factors behind the relatively poor performance of the ruling BJP, especially in some states.

Figure 1 provides evidence on the overall trajectory of output in agriculture and allied sectors. While there was some growth in all the sectors within this, it is striking that the total of agriculture and allied sectors' output grew at a compound annual rate of only 3.7 per cent over this period, when the national accounts data suggest that GDP over this period increased at a compound annual rate (CAGR) of 5.7 per cent—in other words, these activities continued to lag behind aggregate GDP.

Within this, crop output was the slowest to expand, at a CAGR of only 2.4 per cent, providing an obvious reason for dissatisfaction among cultivators. Its share of the total output of this sector fell accordingly, from 62.4 per cent in 2011-12 to only 54.3 per cent in 2022-23. The fastest growing sub-sector was fishing and aquaculture, which grew at 8. 7 per cent CAGR, but is already experiencing ecological constraints and problems of sustainability. Livestock production expanded at a CAGR of 5.5 per cent, still below the increase in GDP over this period.

Figure 1.

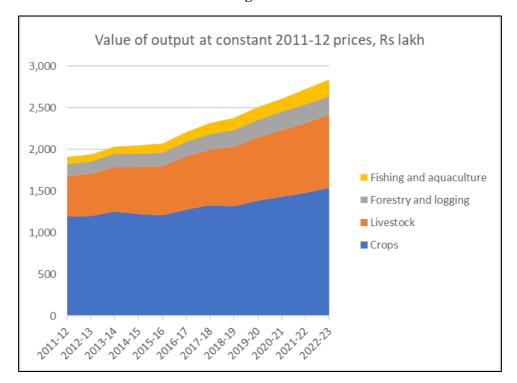
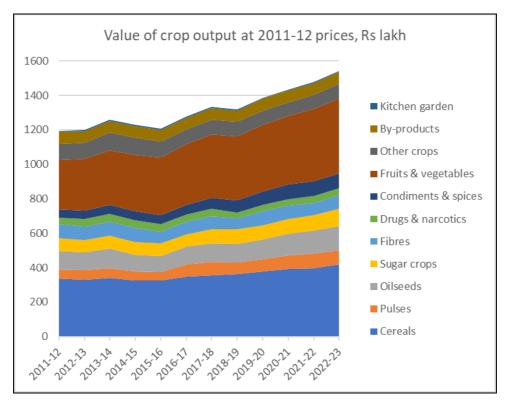


Figure 2.



Within crop output, the pattern is more mixed, as indicated by Figure 2 and Table 1. The most important food crops—cereals and pulses—have experienced relatively slow expansion of output, with CAGR of 2.0 per cent and 3.9 per cent respectively. Cash crops like condiment and spices experienced the most rapid growth, with CAGR of 5.4 per cent, while horticulture (fruits and vegetables) increased at CAGR of 3.8

per cent. But there has been absolute decline in the value of output of fibres (cotton, jute, silk) as well as other crops, which together still account for more than ten per cent of total value of crop output. (The information on output of kitchen gardens mentioned in Table 1 should not be taken too seriously, as there has been no survey of this since 1991-92, and it is simply assumed that it has been increasing at the same rate as the total).

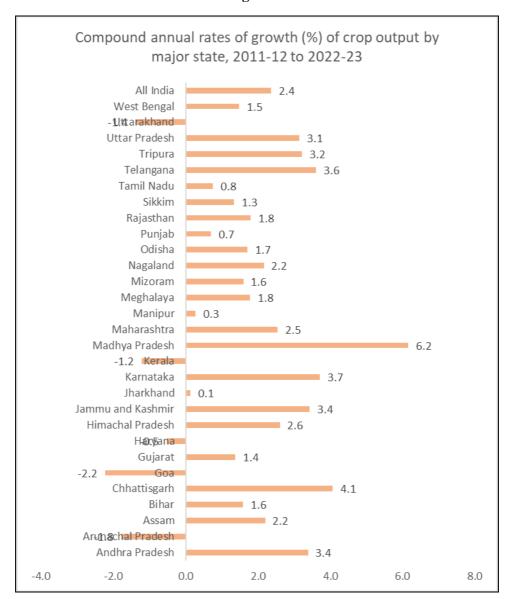
Table 1: Compound annual rates of growth (%) of crop output by category, 2011-12 to 2022-23

31	Share of total crop output in 2011-12	CAGR	Share of total crop output in 2022-23
Cereals	28.2	2.0	27.2
Pulses	4.4	3.9	5.2
Oilseeds	9	2.6	9.2
Sugar crops	6.4	2.8	6.6
Fibres	6.9	-0.7	4.9
Drugs & narcotics	3.2	0.8	2.7
Condiments & spices	3.9	5.4	5.4
Fruits & vegetables	24.1	3.8	28.2
Other crops	7.7	-0.7	5.6
By-products	5.8	0.2	4.6
Kitchen garden	0.4	1.8	0.4

However, there are also significant differences across states, in part also reflecting the crop specializations that are determined by climatic and ecological conditions. Figure 3 provides data on the CAGR of crop output by major states. Some states (Arunachal Pradesh, Goa, Haryana, Kerala and Uttarakhand) have experienced absolute declines in the value of crop output over this entire period, which is surely a striking fact. But in several other states, growth rates of crop output have been positive but still shockingly low, including Jharkhand, Punjab, Tamil Nadu, Bihar and Gujarat. However, this does not seem to be necessarily reflected in electoral responses, other than in Haryana, Punjab and to a more limited extent in Bihar.

The aggregate performance reflects the changing pattern of output of particular crops. Uttar Pradesh, Haryana, Punjab, West Bengal, Madhya Pradesh and Telangana together produce more than half of the cereal output in the country. Within that, the shares of Madhya Pradesh and Telangana have increased significantly, while those of Haryana and Punjab have fallen, as well as Uttar Pradesh to a lesser extent. West Bengal remains the largest producer of fruits and vegetables, but its share has declined slightly, along with Maharashtra, while the horticulture output shares of Madhya Pradesh and Andhra Pradesh have increased. Four states (Gujarat, Rajasthan, Madhya Pradesh and Maharashtra) account for two-thirds of total oilseeds production, but the share of Maharashtra fell as groundnut production reduced there. Gujarat used to account for 40 per cent of fibre (mainly cotton) production, but its production has fallen in absolute terms and production shares of Maharashtra and Telangana have increased. Sugarcane production continues to be dominated by Uttar Pradesh, and its share of output of that crop increased from 41 per cent to 54 per cent over this period.

Figure 3.



Despite the regional variations, the broad national picture of both agricultural output and specifically crop output should be worrying for anyone concerned with the Indian economy and the fate of its people. Overall, this is a relatively dismal performance of crop output within a mediocre trajectory of agriculture and allied sectors is of a piece with the wider public perception that agrarian issues have not been adequately dealt with by the Modi government, and urgent course correction is required.

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