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# Patterns, Sources and Determinants of Agricultural Growth in India*

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ABSTRACT

The study using published data on area, production, productivity and value of crop output for 21 crops and standard decomposition methodologies estimates, *inter alia*, sources of growth in Indian agriculture at the all-India level and across seventeen major states during each of the five decades since the beginning of the seventies. The study shows that increase in yield followed by an increase in the real price and crop diversification account for more than ninety per cent of the addition to the value of crop output. The evidence on crop diversification and change in income from cultivation across most of the states suggests that farmers tend to adopt a combination of fewer but high income yielding crops to maximize their income. The results of the study unequivocally show that technology in terms of availability of high yielding disease resistant and climate change resilient short duration varieties of different crops including fruits and vegetables which manifests in high yields holds the key for fostering, accelerating and sustaining crop diversification and agricultural growth. The policy implication is to considerably enhance R & D expenditure on agriculture which continues to stagnate at around 0.60-0.70 per cent of the gross domestic product and around 0.40-0.50 per cent of the gross domestic product originating in agriculture for the last more than two decades.

**Key words**: **Agriculture, area, production, yield, technology, value of crop output and diversification**

**JEL: O13, O15, Q01,**

## I

## INTRODUCTION

The Indian economy has undergone significant structural transformation during the last fifty years in terms of contribution of different sectors towards gross domestic product. The share of agriculture in the gross value added decreased from around 40 per cent in 1980 to around 18 per cent in 2012-13 and has remained nearly the same since then except in 2020-21 when it increased to 20.2 per cent. The contribution of crop sector has decreased from 12.1 per cent in 2011-12 to 10.7 per cent in 2019-20 while that of livestock sector has increased from 4.0 per cent to 5.2 per cent (Government of India, 2021-22, pp. 236-237). However, notwithstanding a significant decrease in the contribution of agricultural sector towards gross domestic product, it continues to be the main source of employment employing around 45 per cent of the total workforce, and is the key to the reduction of poverty and ensuring food security (Ahluwalia, 1978; Ravallion and Dutt, 1996; World Bank, 2008; Christiaensen and Martin, 2016). The role of agriculture in fostering overall economic development of an

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economy has long been recognised and discussed in the theoretical literature (Lewis, 1954; Johnston and Mellor, 1961; Mellor, 1976; Kaldor, 1967; Kuznets, 1968; Kalecki, 1960; Ranis and Stewart, 1993). Indian agriculture over the years has made rapid strides and has been transformed from a food deficit one to food surplus one owing to rapid technological, institutional and policy changes. The production and productivity of different crops have increased by varying amounts; the food grain production has increased from 74 million tonnes in 1966-67 to 316 million tonnes in 2021-22. It has also witnessed horticultural revolution with production of 319.57 million tonnes in 2019-20 including production of fruits and vegetables at 100.44 million tonnes and 189.46 million tonnes, respectively.

The growth story of Indian agriculture began in the mid-sixties with the adoption of new agricultural technology, popularly known as 'Green Revolution' which was initially confined to wheat and rice and more favourably resource endowed regions like Punjab, Haryana and Western Uttar Pradesh. The ushering in of new agricultural technology was accompanied by increased public investment on augmenting irrigation facilities and market infrastructure and implementation of minimum support price policy. The decades of the seventies and the eighties were marked by the rapid spread of new agricultural technology encompassing more crops and regions across the country. The process of diversification of cropping pattern started in the eighties with the introduction of measures by the government like launching of technology mission on oilseeds in the mid-eighties. It further gathered pace with the increase in per capita income, urbanisation and impact of globalisation which, among others; have led to diversification of dietary habits and consequent increase in demand for high value nutritive products like milk, meat, fruits and vegetables (Joshi and Kumar, 2011; Kumar and Joshi, 2016; Chatterjee and Kumar, 2017). The growth of agriculture started decelerating from 1995-96 due to decrease in public investment and capital formation, particularly after the initiation of economic reforms. The neglect of agricultural sector led to agrarian crisis manifested in rising input cost, falling profitability, falling farmers' income, mounting indebtedness and increase in the farmers' suicides in the beginning of 2000s. The scholars debated on the role of policy fatigue vs. technology fatigue in triggering the agrarian crisis (Reddy and Galab, 2006; Narayanamoorthy, 2007, 2021; Dehera and Mishra, 2007). The growth in the agricultural sector, however, revived subsequently thanks to a number of steps initiated by the government like the launching of National Food Security Mission and Rashtriya Krishi Vikas Yojana (RKVY) and increase in gross capital formation from 16.1 per cent of GDP in 2007-08 to 19.8 per cent in 2011-12 at constant prices and witnessed a record growth rate of 3.72 per cent per annum from 2004-05 to 2014-15 (Dev, 2018).

A number of measures have been taken in the recent past including increase in the minimum support prices of different crops like pulses and oilseeds to promote crop diversification which is being used as a strategy to promote sustainable and profitable agriculture, reduce dependence on imports like that of oilseeds and pulses and raising farmers' income. As is well known, agricultural production can be increased by

bringing more area under cultivation, raising agricultural productivity through the introduction of improved technology in terms of high yielding varieties and chemical fertilizers, diversifying cropping pattern to high-value crops and increase in the real prices of agricultural produce. However, among different sources of growth, while the possibility of raising agricultural production by bringing more area under cultivation is limited, the technology is also showing a sign of fatigue as is evident from stagnating and plateauing of yields of some important crops.

The contribution of different sources towards agricultural growth has been estimated by different scholars using decomposition method given in Minot *et al.*, 2006, p.25. The notable studies are Joshi *et al.*, 2006 and Birthal *et al.*, 2014. These studies have concluded that at the all-India level while technology, manifested in higher crop yields, and crop diversification are the main sources of agricultural growth, the contribution of area and prices is small and erratic. The present paper, among other things, estimates the contribution of different sources towards agricultural growth for each of the five decades since seventies to 2018-19 using decomposition method given by Minot *et al.*, 2006. It also estimates the contribution of changes in area, cropping pattern, yield and the interaction between cropping pattern and yield using decomposition method given by Minhas and Vaidyanathan (1965). In brief, the paper deals with four important aspects of Indian agriculture. First, it examines changing contribution of agriculture including fisheries and forestry towards gross domestic product and its annual compound growth rates at the all-India level and across seventeen major states for each of the five decades beginning with the seventies. Second, it quantifies the contribution of different sources towards growth in the value of output of major crops for each of the five decades since the seventies at the all-India level and also across major states. Third, quantifies and discusses the extent of crop diversification, income from cultivation and the variability in per hectare income from cultivation among agricultural households in different major states of India. Four, examines the changes in the use of inputs and the availability of infrastructural facilities like irrigation, rural road density, credit, annual compound growth rates in their use/availability and quantifies their contribution towards value of output of major crops. The study is organised in six sections. Section I discusses the analytical framework in terms of data and methods used to accomplish the objectives of the study. Section II discusses the changing contribution and growth trajectory of Indian agriculture across major states since 1970s. Section III presents the share of different crops in gross cropped area, value of crop output, their annual compound growth rates and the contribution of each crop towards overall growth both at the all-India level and across major states. This section also discusses the contribution of different sources of growth towards increase in the value of crop output of the selected crops during different periods. Section IV discusses the extent of crop diversification, income from cultivation and the extent of variability in per hectare income from cultivation among agricultural households in different states. Section V discusses the changes in the use

of inputs and quantifies their effect on the value of crop output. The main findings and important policy implications emerging from the study have been given Section VI.

## II

## DATA AND METHODS

### *(i) Sources of Data*

The present study has drawn on multiple sources of data and has used different methods. First, the contribution of agriculture including fisheries and forestry across states since 1970-71 has been estimated using data released by Central Statistical Organisation for different years and National Statistical office since 2011-12 to 2019-20. Three year averages have been computed and the whole period has been subdivided into five sub-periods viz., between triennium ending 1972-23 and 1982-83, between triennium ending 1982-83 and 1992-93, between triennium ending 1992-93 and 2002-03, between triennium ending 2002-03 and 2012-13 and finally between triennium ending 2012-13 and 2018-19. The annual compound growth rates have been computed for different sub periods.

Second, for computing sources of growth in the value of crop output, the data on area, production and productivity of different crops for 17 major states, namely, Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal has been compiled from various sources like Directorate of Economics and Statistics, Department of Agriculture and Farmers Welfare, Government of India and **www.indiastat.com**. The value of output of different crops, both at current and constant prices, has been compiled from different reports published by the Central Statistical Organisation, National Statistical Office Ministry of Statistics and Programme Implementation, Government of India. The study has covered 21 major crops like cereals which include rice, wheat, maize, jowar, bajra, barley and ragi; Pulses: gram, tur, and other pulses; Oilseeds: linseed, groundnut, sesamum, rapeseed & mustard, castor, other oilseeds; fibers: cotton and other fibers; fruits, vegetables; and sugarcane. These crops account for around 94 per cent of the total gross cropped area and around 77 per cent of the total value of crop output at 2011-12 prices in the year 2015-16. The data series on the nominal value of output of different crops has been converted at constant prices with 2011-12 as a base year. The real farm harvest prices of different crops for different years have been computed by dividing their real value of output with their respective amounts of production.

Third, the extent of crop diversification and farm income has been estimated using unit level data available in the 70$^{th}$ NSS round situation assessment survey of agricultural households and report on household ownership and operational holdings for the agricultural year 2012-13 and more recently concluded 77$^{th}$ NSS round on

situation assessment of agricultural households and land and holdings of households in rural India for the agricultural year 2018-19. A comparison of the definitions and concepts used in two situation assessment surveys reveals that data from these two rounds is broadly comparable. In the 70th round an agricultural household is defined as 'agricultural production unit' which produced field crops, horticultural crops, livestock and the products of any of the other specified agricultural activities with or without possessing and operating any land receiving value of produce more than Rs.3000/- from agricultural activities and having at least one member self-employed in agriculture either in the principal status or in the subsidiary status during last 365 days. There is no change in the definition of an agricultural household in the 77th round survey except that the value of the produce received from agricultural activities by an agricultural household has been increased to Rs. 4000 to account for inflation during the period. The data available in two rounds is broadly comparable as Rs. 4000 which has been used as cut off to select agricultural households in 2018-19 amounts to Rs. 3120 at 2012-13 prices.

Four, the data on inputs including other important variables affecting the value of crop output has been collected from RBI Handbook of Statistics on Indian States 2020-21. Time series data from 2006-07 to 2016-17 on inputs like fertilizer use, certified seeds, gross cropped area irrigated, availability of credit, road density and cropping intensity for twenty major states has been compiled from this source.

*(ii) Methods for Decomposition of Contribution of Different Sources of Growth*

The impact of different components on the changes in the crop output at the all India level and across seventeen major states has been examined by estimating contribution of four components, namely, area, yield, cropping-pattern and the interaction between cropping pattern and yield by following standard decomposition methodology given by Minhas and Vaidyanathan (1965). Constrained by the availability of data, we have confined our analysis to 21 major crops/crop groups for all India while the number of crops considered for analysis across major states varies from 8 to 20. Assuming that every new gross crop acre is as good as average acre already under cultivation, we can split increases in crop output over the time period of our study into above mentioned four components in the following manner:

$$P_t - P_{0} = (A_t - A_{0})\sum i W_i C_{io} Y_{io} + A_t \sum i W_i C_{io} (Y_{it}-Y_{io}) + A_t \sum i W_i Y_{io} (C_{it}-C_{io}) + A_t \sum i W_i (Y_{it}-Y_{io}) (C_{it}-C_{io}) \quad \ldots.(1)$$

Where, $P_0$ =Crop output in year 0

$P_t$=Crop output in year t

$A_0$ =Gross crop area in year 0

$A_t$ =Gross crop area in year t

$W_i$= Constant price weights assigned to different crops which consist of three-year average of value of crop output per quintal

$C_{io}$ and $C_{it}$ = are proportion of area occupied by different crops in years 0 and t, i.e. the cropping pattern which is a three-year average on either end

$Y_{io}$ and $Y_{it}$ = are base and final year yields- again these are three-year averages on each end

In this additive scheme of decomposition, the first element of right-hand side of the equation is the area effect. That is an increase in output of this magnitude could have taken place in the absence of any changes in per acre yield and the cropping pattern. The second term in the equation is the effect of yield changes for a constant cropping pattern. The third term portrays the effect of changes in the cropping pattern in the absence of any change in yield per acre. The last element measures the effect on output which could be attributed to interaction between changes in per acre yield and those in the cropping pattern.

The method given by Minhas and Vaidyanathan (1965) does not give the effect of increase in the real value of crop output because of change in real prices. Therefore, we have also used a decomposition method given by Minot *et al.* 2006, p. 25 wherein the growth in the value of crop output has been decomposed into area effect, technology (yield) effect, price effect and diversification effect. According to this method, the contribution of different sources can be measured by decomposing growth in the value of crop output into four different components like change in total sown area, change in crop yield, change in real prices, and change in crop diversification. The expression for total value of output is written as R:

$$R = \Sigma_i A_i Y_i P_i \quad \ldots. (2)$$

$$= (\Sigma_i a_i Y_i P_i)\Sigma_i A_i \quad \ldots. (3)$$

Where R = value of output expressed in INR,
$A_i$ = sown area of crop *i* expressed in hectares,
$Y_i$ = yield of crop *i* expressed in kilograms per hectare,
$P_i$ = real prices per quintal of output,
$a_i$ = share of crop area allocated to crop *i*

By taking the total derivative of both sides of equation (3), we get

$$dR \cong (\sum_i aiYiPi)d(\sum_i Ai) + (\sum_i Ai)d(\sum_i aiYiPi) \quad \ldots. (4)$$

The second term on the right-hand side of equation (4) can be changed from the change in a sum to the sum of changes:

$$dR \cong (\sum_i aiYiPi)d(\sum_i Ai) + \sum_i Ai \sum_i aiYidPi + \sum_i Ai \sum_i aiPidYi + \sum_i Ai \sum_i YiPidai \quad \ldots.(5)$$

In equation (5), the first term on the right hand-side represents the change in the value of crop output due to change in total area allocated to crops. The second term on the right hand side represents the change in value of crop output due to change in the real prices of the crops. The third term of the equation is the change in value of output which can be attributed to change in yield while the fourth term on the right hand side represents the change in the value of output due to change in crop diversification.

*(iii) Method for Measuring Crop Diversification*

The crop diversification has been measured by computing modified Herfindhal Index and the proportion of gross cropped area under non-foodgrains and fruits and vegetables.

Herfindahl-Index (HI) is defined as sum of square of the proportion of area under each individual crop to the total gross cropped area. With an increase in diversification, a sum of the square of the proportion of crop groups (HI) decreases. Therefore, for increasing diversification, the value of HI decreases and vice-versa. The HI is bound by zero (Complete diversification) to one (complete Specialization).

Herfindahl Index (HI) = $\sum_{i=1}^{N} Pi^2$ …. (6)

where $P_i$ is the proportion of the area of *i*th crop in total cropped area; N is the total number of crops cultivated.

As the index measures concentration, it can be modified by subtracting from one, i.e., 1 – HI to measure diversification.

Modified Herfindahl Index (MHI) = 1 – $\sum_{i=1}^{N} Pi^2$ …. (7)

The '0' value of the Modified Herfindahl Index indicates complete specialization while '1' means complete diversification.

*(iv) Panel Data Regression*

We have used panel data regression to quantify the effect of different inputs and other variables on the value of crop output. As mentioned above, our sample consists of annual data on the use of different inputs and other variables for twenty major states, namely, Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, Uttarakhand and West Bengal covering the period from 2006-07 to 2016-17. The dependent variable is the log of value of crop output at 2011-12 prices. The explanatory variables are

fertiliser consumption; certified seeds, per cent gross cropped irrigated area, cropping intensity, rural road density per hectare of net sown area and bank credit per hectare of gross sown area extended by commercial banks to agriculture at 2011-12 prices. All these variables have been taken in the logs.

We have estimated equation (8) over the period 2006-07 to 2016-17 to empirically test the null hypothesis of no impact of fertilizer consumption, per cent gross cropped irrigated area, certified seed, cropping intensity, rural road density per hectare of net sown area and bank credit per hectare on the value of crop output.

$$y_{it} = \alpha_0 + \gamma' X_{i,t} + \alpha_1 \eta_i + \varepsilon_{i,t} \quad \ldots. (8)$$

$y_{it}$ , the dependent variable is the value of crop output at constant prices in logs. The subscripts i and t refer to the states and the years of observations respectively where t = 2006-07 to 2016-17. $X_{i,t}$ is the matrix containing variables which control for different levels of long run value of crop output across major states of India and include above mentioned independent variables in logs. We expect that all the above mentioned control variables will have positive effect on the value of crop output.

In the panel data set, given that the condition,$E\ (\varepsilon_{it}\ |x_{i1}, \ldots\ldots, x_{iT}, \alpha_i\ ) = 0$ $, where\ t = 1, \ldots\ldots, T$ holds (assumption of strong exogeniety), either fixed effect (FE) model or the random effect (RE) model can be used to estimate the panel data model consistently. Chow test specified in equation (9) has been used to test the joint significance of individual effects (Hsiao, 2003; Baltagi, 2001). The rejection of null hypothesis implies that the state dummies are jointly significant.

$$F_0 = \frac{(RRSS - URSS)/(N-1)}{URSS/(NT-N-K)} \sim F_{N-1,N(T-1)-K} \quad \ldots. (9)$$

The choice between the FE and RE models depends on whether the omitted individual specific effect, $\eta_i$ is correlated with the observed explanatory variables, $x_{it}$ or not (Wooldrige, 2002). We conducted Hausman (1978) test to choose between FE and RE models. The test compares $\hat{\beta}_{RE}$ and $\hat{\beta}_{FE}$, and the test statistic is based on $\hat{q}_1 = \hat{\beta}_{RE} - \hat{\beta}_{FE} = 0$.

The Hausman test statistic is given by

$$m_1 = \widehat{q'}_1\ (Var\ \hat{q}_1)^{-1} \hat{q}_1 \quad \ldots. (10)$$

We select the FE model over OLS and RE models, as indicated from the p-values of the Chow test and Hausman test for estimation of our results presented in Table 11. The consistency of the RE and FE estimators depends on whether idiosyncratic errors have a constant variance and are serially uncorrelated or not (Woolridge, 2002). After testing for cross-sectional correlation using Breush-Pagan LM test, group-wise heteroscedasticity and serial correlation using the Wald test, we also estimated a robust error variance estimator using the method given by Newey and West (1987) for Model 2.

*Robust Error Variance Matrix*

The second model we estimate is the robust variance matrix estimator proposed by White (1984) and Arellano (1987) and is given as under

$$\hat{V}\left(\hat{\theta}_{OLS}\right) = \left(\sum_{i=1}^{N}\sum_{t=1}^{T}\tilde{w}'_i\,\tilde{w}_i\right)^{-1}\sum_{i=1}^{N}\sum_{t=1}^{T}\sum_{s=1}^{T}\tilde{w}_{it}\,\tilde{w}'_{is}\,\hat{\varepsilon}_{it}\,\hat{\varepsilon}_{is}\left(\sum_{i=1}^{N}\sum_{t=1}^{T}\tilde{w}'_i\,\tilde{w}_i\right)^{-1} \quad \ldots. (11)$$

Where $\hat{\varepsilon}_{it} = \tilde{y}_{it} - \tilde{w}'_{it}\,\hat{\theta}$

The robust variance matrix estimator is valid in the presence of any heteroskedasticity or serial correlation.

## III

## CHANGING CONTRIBUTION AND GROWTH TRAJECTORY OF INDIAN AGRICULTURE

The changes in the contribution of agricultural sector including fishing and forestry towards gross state domestic product across states since 1970-71 and its annual compound growth rates during different decades have been given in Table 1. The table shows that the per cent contribution of agricultural sector including fishing and forestry has consistently decreased over the years, though, as expected, the percentage point decrease in its contribution has decelerated over the decades. For example, at the all-

TABLE 1 SHARE OF AGRICULTURE INCLUDING FISHING AND FORESTRY IN NET STATE VALUE ADDED (2011-12 PRICES), 1970-71 TO 2019-20: MAJOR STATES

*(per cent)*

| States /Period | 1970-73 | 1980-83 | 1990-93 | 2000-03 | 2010-13 | 2017-20 |
|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Andhra Pradesh | 63.66 | 55.47 | 39.70 | 31.11 | 21.78 | 20.92 |
| Assam | 42.06 | 37.26 | 33.29 | 28.83 | 21.44 | 16.03 |
| Bihar | 63.97 | 50.10 | 41.92 | 34.79 | 21.23 | 16.12 |
| Gujarat | 57.12 | 48.95 | 32.26 | 18.96 | 18.16 | 12.93 |
| Haryana | 71.25 | 57.99 | 50.21 | 36.00 | 21.60 | 15.93 |
| Himachal Pradesh | 56.80 | 51.99 | 40.95 | 25.75 | 16.85 | 11.66 |
| Jammu & Kashmir | 29.75 | 27.31 | 21.92 | 20.95 | 16.60 | 13.93 |
| Karnataka | 52.37 | 45.19 | 35.58 | 26.41 | 12.62 | 8.70 |
| Kerala | 71.07 | 55.45 | 51.23 | 28.00 | 12.58 | 6.74 |
| Madhya Pradesh | 51.01 | 44.10 | 37.18 | 26.52 | 26.22 | 24.90 |
| Maharashtra | 30.19 | 31.18 | 23.57 | 18.77 | 12.56 | 9.34 |
| Odisha | 58.80 | 57.41 | 42.02 | 31.25 | 19.07 | 13.00 |
| Punjab | 61.22 | 53.23 | 51.66 | 43.47 | 31.58 | 24.44 |
| Rajasthan | 89.96 | 79.81 | 71.15 | 45.33 | 28.57 | 25.37 |
| Tamil Nadu | 41.54 | 29.73 | 27.36 | 18.57 | 11.70 | 10.49 |
| Uttar Pradesh | 46.55 | 42.68 | 35.69 | 32.85 | 24.67 | 18.96 |
| West Bengal | 75.61 | 73.50 | 78.34 | 62.81 | 40.25 | 21.41 |
| All India (Major states) | 53.95 | 46.73 | 39.11 | 29.49 | 19.80 | 15.33 |

*Source*: Computed from the statistics released by Central Statistical Organization (various years), National Statistical Office (2011-12 to 2019-20) [Also available at https://mospi.gov.in/; https://www.rbi.org.in/scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy

*Note*: (i) The data prior to base year (2011-12) relate to Net State Domestic Product at factor cost.
(ii) Telangana is added in Andhra Pradesh from 2011-12.
(iii) From 2009-10, Jharkhand is added in Bihar, Chhattisgarh is added in MP and Uttarakhand is added in UP.

India level it has decreased from around 54 per cent during 1970-73 to around 15 per cent during 2017-20. Across states, its contribution during 2017-20 varies from a low of around 7 per cent in Kerala to around 25 per cent in Madhya Pradesh and Rajasthan. The annual compound growth rates of gross state domestic product originating in agriculture including fishing and forestry during different decades across major states have been presented in Table 2. The table shows that annual compound growth rates during the last five decades have fluctuated widely not only from one period to another and but also across states and at the all-India level. However, taking a broad view and notwithstanding some exceptions, the growth rates in most of the states are higher during the nineties and 2000s as compared to the seventies and the eighties. At the all India level, the annual average compound growth rates are more than 4 per cent per annum during the eighties and 2000s. Further, there is a significant decrease in the growth rates in the most recent period i.e. during 2010s as compared to 2000s in most of the states except Andhra and Tamil Nadu.

TABLE 2 COMPOUND ANNUAL GROWTH RATES IN NET STATE VALUE ADDED (2011-12 PRICES) ORIGINATING IN AGRICULTURE INCLUDING FISHING AND FORESTRY, 1970-71 TO 2019-20: MAJOR STATES

*(per cent)*

| States /Period | 1970s | 1980s | 1990s | 2000s | 2010s |
|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) |
| Andhra Pradesh | 2.89 | 2.92 | 4.51 | 5.92 | 7.18 |
| Assam | 2.55 | 3.35 | 1.62 | 2.82 | 2.42 |
| Bihar | 0.48 | 2.95 | 2.46 | 2.83 | 2.13 |
| Gujarat | 2.87 | 1.01 | 0.84 | 12.68 | 4.48 |
| Haryana | 2.68 | 6.77 | 2.42 | 5.18 | 3.74 |
| Himachal Pradesh | 1.34 | 3.13 | 1.62 | 3.27 | 1.83 |
| Jammu & Kashmir | 3.43 | 0.61 | 5.60 | 2.69 | 2.50 |
| Karnataka | 2.24 | 4.20 | 5.43 | 0.05 | 2.95 |
| Kerala | -0.33 | 4.04 | -0.87 | -0.44 | -2.74 |
| Madhya Pradesh | 1.22 | 3.37 | 0.88 | 6.94 | 6.43 |
| Maharashtra | 5.11 | 4.74 | 4.75 | 5.21 | 2.71 |
| Odisha | 2.75 | 0.25 | 0.83 | 5.10 | 1.96 |
| Punjab | 3.70 | 6.66 | 3.69 | 3.88 | 2.10 |
| Rajasthan | 1.42 | 7.98 | 0.29 | 4.40 | 4.23 |
| Tamil Nadu | -1.22 | 6.53 | 2.44 | 3.34 | 5.56 |
| Uttar Pradesh | 2.69 | 3.96 | 3.57 | 3.54 | 2.15 |
| West Bengal | 2.08 | 8.02 | 6.56 | 2.48 | 1.48 |
| All India (Major states) | 2.02 | 4.49 | 3.00 | 4.33 | 3.62 |

*Sources:* Computed from the statistics released by Central Statistical Organization (various years), National Statistical Office (2011-12 to 2019-20) [Also available at https://mospi.gov.in/;https://www.rbi.org.in/scriptsAnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy]

*Notes*: (i) The data prior to base year (2011-12) relate to Net State Domestic Product at factor cost.

(ii) Telangana is added in Andhra Pradesh from 2011-12.

(iii) From 2009-10, Jharkhand is added in Bihar, Chhattisgarh is added in MP and Uttarakhand is added in UP.

## IV

## SOURCES OF GROWTH

Table 3 presents the share of different crops in the gross cropped area, total value of crop output, annual compound growth rates of the value of output of different

TABLE 3. SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH ACROSS STATES AND ALL-INDIA LEVEL

| Crops/ period | Share in the gross cropped area | | | | | Share in Real Value of Output | | | | | Annual compound growth Rate in the real value of output | | | | | Share in Overall Growth | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1980s | 1990s | 2000s | 2010s |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
| Rice | 25.77 | 25.10 | 24.68 | 25.49 | 23.72 | 32.01 | 25.94 | 23.54 | 22.21 | 19.19 | 6.85 | 8.38 | 13.45 | 5.75 | 2.07 | 22.47 | 22.79 | 20.48 | 12.29 |
| Wheat | 13.41 | 14.39 | 14.59 | 15.78 | 16.32 | 13.81 | 14.91 | 13.86 | 13.79 | 13.12 | 9.86 | 9.65 | 3.29 | 7.88 | 2.01 | 15.54 | 13.53 | 13.71 | 11.58 |
| Maize | 3.90 | 3.61 | 3.49 | 4.38 | 4.88 | 2.44 | 2.44 | 1.95 | 2.61 | 2.91 | 2.61 | 11.96 | 2.23 | 9.28 | 2.48 | 2.44 | 1.80 | 3.47 | 3.59 |
| Bajra | 7.81 | 6.82 | 5.63 | 5.47 | 4.21 | 2.00 | 1.66 | 2.76 | 1.30 | 0.99 | -3.37 | 10.66 | -1.78 | 4.87 | -2.23 | 1.47 | 3.11 | -0.61 | 0.29 |
| Jowar | 10.91 | 8.81 | 6.72 | 4.26 | 3.13 | 5.54 | 5.22 | 2.42 | 1.76 | 0.93 | 10.68 | 10.90 | -2.72 | 6.20 | -7.51 | 5.04 | 1.55 | 0.91 | -0.98 |
| Barley | 1.58 | 0.83 | 0.48 | 0.39 | 0.35 | 0.84 | 0.57 | 0.34 | 0.26 | 0.22 | -0.70 | -4.25 | 10.72 | 3.92 | -0.37 | 0.42 | 0.26 | 0.16 | 0.13 |
| Ragi | 1.67 | 1.50 | 1.05 | 0.87 | 0.62 | 1.10 | 0.91 | 0.41 | 0.31 | 0.21 | 7.21 | 1.21 | 7.57 | 1.66 | -5.16 | 0.81 | 0.26 | 0.18 | -0.03 |
| All cereals | 65.05 | 61.04 | 56.64 | 56.65 | 53.23 | 57.72 | 51.65 | 45.28 | 42.24 | 37.57 | 7.05 | 2.87 | 12.78 | 6.58 | 1.69 | 48.18 | 43.29 | 38.30 | 26.87 |
| Gram | 5.10 | 4.29 | 3.97 | 4.07 | 4.96 | 2.43 | 3.37 | 2.95 | 2.55 | 2.74 | 3.29 | 14.81 | 12.26 | 10.60 | 2.63 | 3.90 | 2.82 | 2.04 | 3.15 |
| Tur | 1.72 | 1.97 | 1.99 | 2.06 | 2.31 | 1.21 | 1.80 | 1.37 | 1.27 | 1.23 | 10.10 | 15.29 | 13.61 | 4.44 | 1.60 | 2.13 | 1.24 | 1.15 | 1.12 |
| Other Pulses | 8.37 | 10.92 | 10.97 | 7.00 | 3.07 | 0.97 | 0.81 | 0.70 | 0.50 | 0.14 | 4.31 | 0.45 | 15.89 | -7.84 | -2.36 | 0.72 | 0.67 | 0.23 | -0.67 |
| All pulses | 15.20 | 17.19 | 16.93 | 13.12 | 14.22 | 4.61 | 5.97 | 5.02 | 4.32 | 4.11 | 5.31 | 1.71 | -0.46 | 7.90 | 2.95 | 6.75 | 4.73 | 3.42 | 3.61 |
| Linseed | 1.30 | 0.85 | 0.49 | 0.27 | 0.16 | 0.42 | 0.32 | 0.14 | 0.08 | 0.05 | 2.44 | 8.01 | -3.16 | 4.96 | -5.62 | 0.27 | 0.08 | -0.01 | -0.01 |
| Groundnut | 4.79 | 4.59 | 4.44 | 3.62 | 2.75 | 5.95 | 5.81 | 4.98 | 3.51 | 2.92 | 6.96 | 14.70 | -3.72 | 3.93 | -2.82 | 5.73 | 4.72 | 1.60 | 1.57 |
| Sesamum | 1.56 | 1.42 | 1.15 | 1.02 | 0.95 | 0.57 | 0.59 | 0.40 | 0.38 | 0.37 | 2.09 | 14.62 | 4.75 | 10.30 | -4.10 | 0.61 | 0.34 | 0.34 | 0.35 |
| Rapeseed& Mustard | 2.30 | 2.61 | 3.63 | 3.44 | 3.34 | 1.97 | 3.43 | 3.33 | 2.93 | 2.76 | 5.76 | 5.22 | 1.10 | 10.09 | 1.52 | 4.27 | 3.30 | 2.41 | 2.37 |
| Castor | 0.31 | 0.37 | 0.42 | 0.45 | 0.55 | 0.31 | 0.40 | 0.71 | 0.66 | 0.92 | 5.28 | 7.89 | 0.69 | 6.47 | -1.55 | 0.45 | 0.81 | 0.60 | 1.49 |
| Other Oilseeds | 0.93 | 2.16 | 4.51 | 6.03 | 6.41 | 0.73 | 0.23 | 0.17 | 0.10 | 0.13 | 2.73 | 5.99 | 9.06 | -2.98 | 7.89 | -0.06 | 0.15 | 0.02 | 0.21 |
| All Oilseeds | 11.18 | 12.00 | 14.64 | 14.83 | 14.16 | 9.96 | 10.79 | 9.73 | 7.66 | 7.15 | 6.30 | 11.92 | 4.66 | 6.08 | -0.46 | 11.26 | 9.40 | 4.96 | 5.98 |
| Cotton | 5.11 | 4.62 | 4.74 | 5.19 | 6.53 | 7.29 | 5.84 | 6.59 | 6.78 | 7.89 | 15.21 | 11.42 | 1.78 | 11.73 | -1.41 | 5.01 | 6.83 | 7.03 | 10.42 |
| Other fibers | 0.79 | 0.68 | 0.58 | 0.56 | 0.44 | 1.46 | 1.06 | 0.73 | 0.67 | 0.47 | 1.74 | -12.27 | 1.65 | 6.24 | -0.93 | 0.83 | 0.62 | 0.60 | 0.01 |
| All fibers | 5.90 | 5.30 | 5.31 | 5.76 | 6.97 | 8.75 | 6.90 | 7.32 | 7.46 | 8.36 | 11.52 | 4.68 | 1.77 | 11.16 | -1.38 | 5.84 | 7.45 | 7.64 | 10.43 |
| Fruits & vegetables | 0.84 | 2.55 | 4.25 | 7.08 | 8.76 | 11.14 | 13.35 | 22.99 | 30.55 | 36.26 | 1.98 | 2.28 | 4.72 | 9.57 | 3.84 | 14.61 | 26.00 | 40.37 | 49.31 |
| Sugarcane | 1.84 | 1.93 | 2.22 | 2.57 | 2.66 | 7.81 | 11.34 | 9.66 | 7.77 | 6.56 | 7.61 | 15.85 | 12.21 | 1.67 | 2.07 | 13.36 | 9.13 | 5.32 | 3.79 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 6.48 | 5.12 | 7.09 | 7.35 | 2.04 | 100 | 100 | 100 | 100 |

*Source*: Estimated by the author.

crops and their shares in the overall growth of value of crop output at the all-India level during different decades since 1970s. The table shows that over the period the share of area under cereals has decreased despite a marginal increase in the share of area accounted for by wheat and maize. The per cent share of area under oilseeds and pulses has increased marginally. Similarly, the share of area under fibers has also increased because of increase in the area under cotton. More importantly, however, there has been a significant increase in the gross cropped area accounted for by fruits and vegetables from less than one per cent in the 1970s to around 9 per cent during 2010s. The contribution of different crops towards total value of crop output further shows that the share of cereals has declined significantly from about 58 per cent during 1970s to 38 per cent during 2010s. The share of pulses has also declined, *albeit* marginally. The contribution of fruits and vegetable during the period has increased hugely from around 11 per cent to around 36 per cent. The annual compound growth rates of the value of output of different crops and crop groups during different decades show that growth rates of cereals are high during the eighties while that of pulses like gram and tur are high during the nineties. The real value of fruits and vegetables has recorded a very high growth rate of around 10 per cent per annum during 2000s as compared to around 2 per cent per annum during the seventies. In broad terms, the table shows that the annual compound growth rates of the value of output of different crops have decelerated over the period and are significantly lower during 2010-11 and 2018-19. Finally, the share of different crops towards the growth of total value of crop output shows significant decrease in case of cereals, pulses, oilseeds and sugarcane. However, the share of fruits and vegetables in the overall growth of value of crop output has increased more than three times from around 15 per cent during the eighties to around 49 per cent during 2010-11 and 2018-19. The data on the share of different crops in the gross cropped area, total value of crop output, annual compound growth rates of the value of output of different crops and their share in the overall growth of value of crop output across seventy major states during different decades since 1970s has been presented in Appendix Table 1 to Appendix Table 17.

The contribution of different components, viz., area, yield, cropping pattern and the interaction between cropping pattern and yield towards total crop output at the all India level during different periods, computed using decomposition method given by Minhas and Vaidyanathan (1965), has been presented in Table 4 and Figure 1. As may be seen from the table and the figure, the contribution of yield is higher as compared to that of area and cropping pattern during the seventies, 2000s and 2010s while the contribution of cropping pattern is higher during the eighties and the nineties. The effect of area is negative during the nineties and during the most recent period i.e. TE 2012-13 and TE 2018-19 while its contribution in other periods varies from around 19 per cent to 28 per cent. The contribution of interaction effect is small except during the nineties when it is around 19 per cent. Further, considering the whole period from TE 1972-73 and TE 2018-19, the yield followed by the cropping pattern account for around

TABLE 4. CONTRIBUTION OF DIFFERENT SOURCES OF GROWTH IN CROP SECTOR-ALL-INDIA

(*per cent*)

| Period (s) | Area effect | Yield effect | Cropping-Pattern effect | Interaction effect |
|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) |
| TE 1972-73 to TE 1982-83 | 18.64 | 54.33 | 24.71 | 2.32 |
| TE 1982-83 to TE 1992-93 | 24.01 | 38.86 | 55.17 | -18.04 |
| TE 1992-93 to TE 2002—03 | -44.35 | 48.33 | 77.51 | 18.51 |
| TE 2002-03 to TE 2012-13 | 28.17 | 47.77 | 21.41 | 2.65 |
| TE 2012-13 to TE 2018-19 | -19.22 | 78.39 | 36.56 | 4.28 |
| TE 1972-73 to TE 2018-19 | 6.97 | 43.63 | 37.98 | 11.42 |

Source: Estimated by the author.

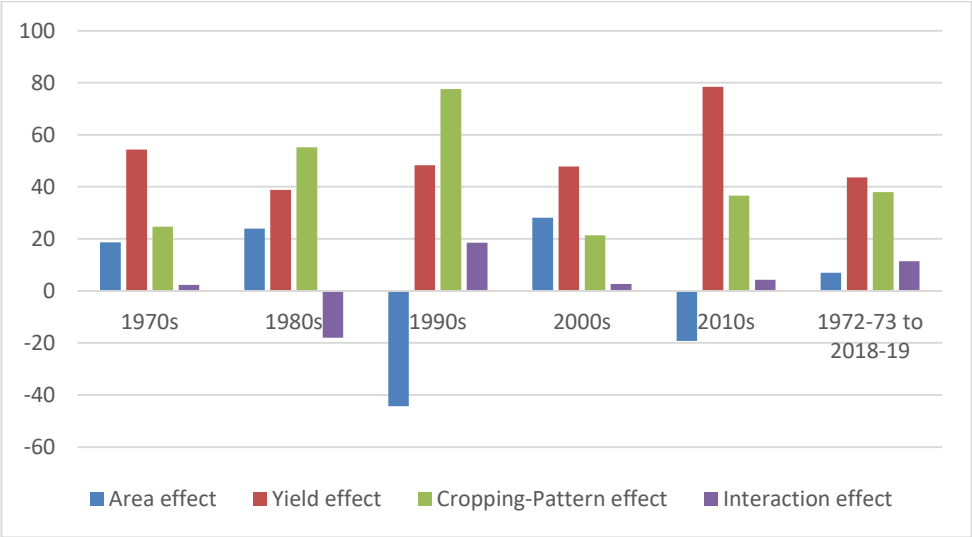


Fig. 1 Contribution of different sources of growth in crop sector-All-India (Per Cent)

four-fifths of the total increase in the output of the selected crops. The interaction and area effects contribute around 11 per cent and 7 per cent, respectively. However, while information on the contribution of different sources of growth at all-India level is useful, it is more realistic to estimate the relative importance of different components of growth across states. As is well known, agriculture is a state subject and not only the agro-climatic conditions but the levels of infrastructural development in terms of irrigation, road density, availability of credit, etc. also vary from one state to other because of different policy priorities of the state governments. Keeping this in mind, we have estimated the relative importance of different components of growth in crop output for seventeen major states of the country. The relevant information has been presented in Table 5. The perusal of the table shows mixed patterns about the contribution of these four components towards crop output both across states and different periods. However, taking a broad view, the table shows that in a majority of the states the contribution of area and yield towards crop output is higher as compared

TABLE 5 CONTRIBUTION OF DIFFERENT SOURCES OF GROWTH IN CROP SECTOR, 1970-71 TO 2018-19: MAJOR STATES

*(per cent)*

| Period/ Sources/states (1) | Crops/Crop Groups Considered (No.) (2) | Period I (TE 1972-73 to TE 1982-83) | | | | Period II (TE 1982-83 to TE 1992-93) | | | | Period III (TE 1992-93 to TE 2002-03) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A (3) | Y (4) | CI (5) | I (6) | A (7) | Y (8) | CI (9) | I (10) | A (11) | Y (12) | CI (13) | I (14) |
| Andhra Pradesh | 17 | 2.33 | 54.68 | 36.59 | 6.40 | 31.75 | 16.41 | 95.47 | -43.63 | -68.31 | 79.27 | 52.45 | 36.58 |
| Assam | 13 | 47.89 | 17.14 | 33.36 | 1.62 | 27.18 | 18.19 | 55.57 | -0.94 | 3.95 | 53.78 | 21.03 | 21.24 |
| Bihar | 19 | 7.38 | -91.73 | 225.67 | -41.32 | 4.07 | 57.03 | 10.76 | 28.15 | -61.64 | -20.57 | 359.03 | -176.81 |
| Gujarat | 16 | 6.31 | 26.34 | 62.87 | 4.47 | 2.44 | 6.96 | 85.54 | 5.06 | -35.80 | 49.54 | 95.60 | -9.33 |
| Haryana | 15 | 22.48 | 16.82 | 38.85 | 21.84 | 12.13 | 50.31 | 36.07 | 1.49 | 21.45 | 31.87 | 46.42 | 0.26 |
| Himachal Pradesh | 12 | 0.98 | 106.90 | -11.59 | 3.71 | 4.22 | 24.42 | 28.67 | 42.69 | 28.66 | -50.57 | 236.80 | -114.89 |
| Jammu & Kashmir | 9 | 30.51 | 56.08 | 5.47 | 7.94 | 2.68 | 15.79 | 28.49 | 53.04 | 45.24 | -149.97 | 384.10 | -179.37 |
| Karnataka | 19 | 46.49 | 33.50 | 29.62 | -9.60 | 15.31 | 30.21 | 15.53 | 38.95 | -45.46 | -8.53 | 177.72 | -23.73 |
| Kerala | 8 | 71.85 | 20.19 | 10.94 | -2.98 | -35.61 | 454.46 | -774.25 | 455.40 | -639.54 | 703.44 | 9.08 | 27.02 |
| Madhya Pradesh | 20 | 36.99 | 46.74 | 15.69 | 0.58 | 40.88 | 76.13 | -13.93 | -3.08 | -1185.53 | -204.35 | 1301.55 | 188.32 |
| Maharashtra | 20 | 16.32 | 64.96 | 22.28 | -3.57 | 23.35 | 10.91 | 93.39 | -27.65 | -45.82 | 16.55 | 109.16 | 20.11 |
| Odisha | 18 | 60.97 | -12.81 | 74.25 | -22.42 | 28.47 | 1.53 | 70.89 | -0.89 | 403.21 | -69.57 | -178.59 | -55.05 |
| Punjab | 13 | 35.19 | 43.91 | 7.39 | 13.50 | 22.64 | 49.05 | 27.72 | 0.59 | 25.72 | 42.87 | 30.09 | 1.32 |
| Rajasthan | 17 | 92.62 | -9.07 | 16.97 | -0.52 | 61.93 | 35.05 | 6.20 | -3.18 | 119.32 | -7.20 | 9.66 | -21.78 |
| Tamil Nadu | 14 | -105.97 | 62.77 | 84.83 | 58.37 | 43.11 | 20.51 | 97.50 | -61.12 | -44.19 | 64.48 | 71.18 | 8.53 |
| Uttar Pradesh | 16 | 13.59 | 57.36 | 18.31 | 10.74 | 3.16 | 87.36 | 12.26 | -2.79 | -5.32 | 53.69 | 43.56 | 8.07 |
| West Bengal | 14 | -3.10 | 18.93 | 63.88 | 20.29 | 24.60 | 21.13 | 180.92 | -126.65 | 5.67 | 68.49 | 9.82 | 16.01 |

(TABLE 5 CONTD.).

TABLE 5 (CONCLD.).

| Period Sources/states (1) | Crops/Crop Groups Considered (No.) (2) | Period IV (TE 2002-03 to TE 2012-13) | | | | Period V (TE 2012-13 to TE 2018-19) | | | | Overall Period (TE 1972-73 to TE 2018-19) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A (15) | Y (16) | CI (17) | I (18) | A (19) | Y (20) | CI (21) | I (22) | A (23) | Y (24) | CI (25) | I (26) |
| Andhra Pradesh | 17 | -2.53 | 40.70 | 42.98 | 18.86 | 125.96 | -33.14 | 16.32 | -9.15 | -22.01 | 36.67 | 35.14 | 50.20 |
| Assam | 13 | -4.54 | 43.25 | 58.83 | 2.46 | -21.13 | 43.63 | 79.85 | -2.34 | 10.45 | 36.20 | 34.82 | 18.53 |
| Bihar | 19 | 19.88 | 47.95 | 27.11 | 5.06 | 61.22 | 45.64 | -5.39 | -1.47 | 2.69 | 57.33 | 22.91 | 17.07 |
| Gujarat | 16 | 32.07 | 47.33 | 9.89 | 10.71 | -670.68 | 256.90 | 487.29 | 26.49 | 3.31 | 39.69 | 55.85 | 1.15 |
| Haryana | 15 | 29.65 | 56.64 | 16.77 | -3.06 | 25.15 | 40.15 | 30.14 | 4.56 | 12.99 | 52.43 | 28.98 | 5.60 |
| Himachal Pradesh | 12 | 5.14 | 69.20 | 15.29 | 10.37 | -47.15 | 52.77 | 96.96 | -2.58 | 7.10 | 22.96 | 43.64 | 26.29 |
| Jammu & Kashmir | 9 | 30.33 | 12.74 | 66.76 | -9.84 | -341.15 | 593.86 | -117.80 | -34.91 | 15.55 | 16.50 | 49.31 | 18.65 |
| Karnataka | 19 | 14.68 | 48.76 | 29.71 | 6.85 | 172.15 | 51.66 | -117.37 | -6.44 | 6.44 | 23.69 | 37.71 | 32.16 |
| Kerala | 8 | 328.50 | 3775.90 | -1785.11 | -2219.28 | 44.28 | 57.64 | -2.46 | 0.54 | 168.57 | 6.24 | -141.66 | 66.84 |
| Madhya Pradesh | 20 | 18.23 | 43.03 | 40.22 | -1.48 | 7.32 | 36.95 | 48.92 | 6.80 | 10.80 | 50.39 | 20.33 | 18.48 |
| Maharashtra | 20 | 40.22 | -22.55 | 126.92 | -44.59 | -30.93 | 335.33 | -111.85 | -92.56 | 6.86 | 31.21 | 84.08 | -22.16 |
| Odisha | 18 | -5.82 | 85.12 | 18.88 | 1.81 | -240.89 | 202.19 | 135.03 | 3.66 | -4.22 | 39.21 | 41.37 | 23.63 |
| Punjab | 13 | 25.08 | 59.97 | 11.84 | 3.12 | 1.34 | 47.52 | 48.72 | 2.42 | 17.00 | 52.72 | 15.24 | 15.04 |
| Rajasthan | 17 | 19.47 | 59.34 | 14.25 | 6.94 | -10.26 | 103.49 | 4.30 | 2.47 | 38.66 | 57.60 | 5.05 | -1.31 |
| Tamil Nadu | 14 | -55.73 | 57.34 | 75.56 | 22.83 | 64.90 | 44.09 | -10.26 | 1.27 | -25.56 | 33.36 | 50.28 | 41.93 |
| Uttar Pradesh | 16 | 47.40 | 51.89 | 5.19 | -4.48 | -65.66 | 85.36 | 77.21 | 3.09 | 1.01 | 56.61 | 17.46 | 24.92 |
| West Bengal | 14 | -12.02 | 59.06 | 43.57 | 9.39 | 43.85 | 28.16 | 26.23 | 1.76 | 6.49 | 29.85 | 50.54 | 13.12 |

*Source:* Computed by the Author

*Note*: A= area effect, Y=yield effect, CI= cropping-pattern effect, I=Interaction effect

to the cropping pattern and interaction between yield and cropping pattern during the seventies and the eighties, while in the later decades the contribution of yield and cropping pattern is more pronounced. Again, taking a long period view and considering whole period from 1970-71 to 2018-19, the yield and cropping pattern account for most of the contribution towards crop output in most of the states with the notable exception of Kerala where the effect of area is more pronounced.

The contribution of different sources towards growth of value of crop output since 1970-71, computed using decomposition methodology given by Minot, *et al* 2006 has been presented in Table 6 and Figure 2 and Figure 3. Table 6 and Figure 2 show that the technology manifested in yield has consistently remained the most important source of growth accounting for more than half of the increase in the value of crop output since 1970s with the exception of the most recent period between TE 2012-13 and TE 2018-19 when the contribution of prices is much higher and accounts for around 57 per cent of total increase in the value of crop output. The second most important source of contribution varies from decade to decade; for example, while increase in the real price is the next important source of growth during the seventies and the 2000s, it is the crop diversification in other periods. However, during the period i.e., TE 1972-73 and TE 2018-19, yield is the most important source of growth followed by price, diversification and area.

TABLE 6. CONTRIBUTION OF DIFFERENT SOURCES OF GROWTH IN CROP SECTOR, 1972-73 TO 2018-19:ALL-INDIA (per cent)

| Period<br>(1) | Area<br>(2) | Yield<br>(3) | Price<br>(4) | Diversification<br>(5) |
|---|---|---|---|---|
| TE 1972-73 to TE 1982-83 | 7.29 | 66.45 | 17.78 | 8.49 |
| TE 182-83 to TE 1992-93 | 13.11 | 64.51 | 8.04 | 14.34 |
| TE 1992-93 to TE 2002-03 | 2.01 | 68.46 | 6.19 | 23.35 |
| TE 2002-03 to TE 2012-13 | 14.27 | 51.90 | 21.83 | 12.01 |
| TE 2012-13 to TE 2018-19 | 2.70 | 15.16 | 56.76 | 25.38 |
| TE 1972-73 to TE 2018-19 | 9.70 | 47.43 | 22.60 | 20.28 |

*Source*: Estimated by the Author .

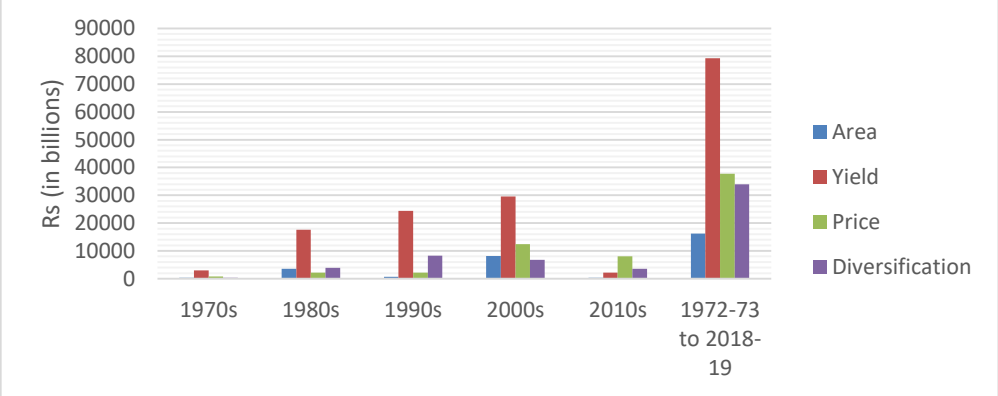


Figure 2. Contribution of Different Sources of Growth in Crop Sector-All-India (Rs. billion)

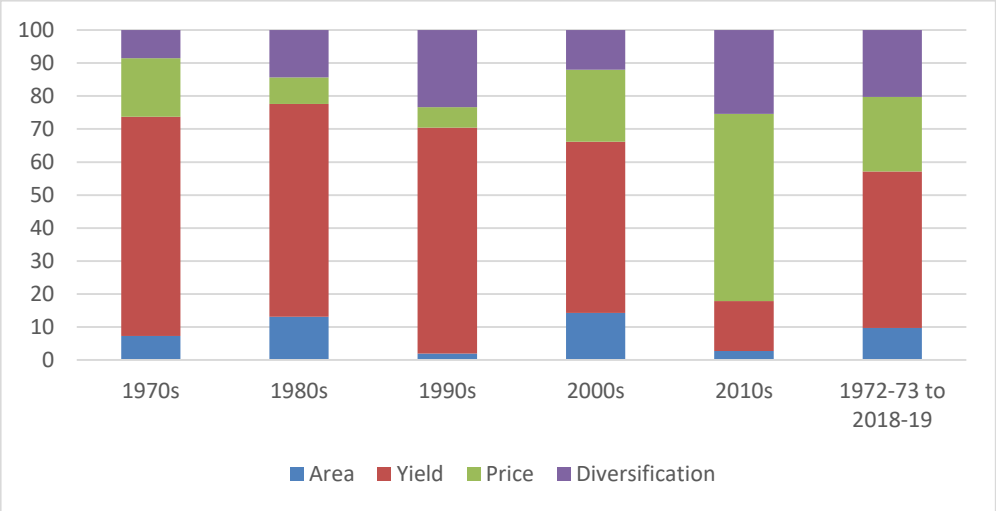


Figure 3. Per Cent Contribution of Different Sources of Growth in Crop Sector-All-India

The state level data on the contribution of different sources of growth towards increase in the value of crop output has been provided in Table 7. The perusal of the table throws up mixed patterns regarding contribution of different sources of growth both over the periods and across states. First, in the initial two decades i.e. the seventies and the eighties, yield is the most important source of increase in the value of crop output practically across all major states with the notable exception of Bihar where during the eighties price is the most important source of growth. Second, during the decade of the nineties while yield continues to be the most important source of growth in nine major states, namely, Andhra Pradesh, Assam, Himachal Pradesh, Jammu & Kashmir, Karnataka, Odisha, Rajasthan, Tamil Nadu and Uttar Pradesh, increase in real price is the most important source in Bihar, Gujarat, Punjab and West Bengal. In Haryana and Maharashtra, diversification is the most important source of growth. Further, among all major states, Kerala is the only state where the contribution of area is the maximum. Third, during 2000s, yield once again emerges as the most important source of growth in most of the major states with the notable exceptions of Bihar, Gujarat and Rajasthan where price is the most important source. Fourth, during the most recent period viz. TE 2012-13 to TE 2018-19, price is the most important source of growth in seven states (Gujarat, Haryana, Jammu & Kashmir, Kerala, Rajasthan, Tamil Nadu and Uttar Pradesh). In four states (Assam, Madhya Pradesh, Maharashtra and Punjab) the contribution of diversification is higher as compared to other sources. Similarly, in four other states (Andhra Pradesh, Bihar, Odisha and West Bengal) area is the most important source of growth. The yield is the most important source of growth in two states, namely, Himachal Pradesh and Karnataka. However, if we consider the whole period, i.e., between TE 1972-73 and TE 2018-19, technology

TABLE 7. CONTRIBUTION OF DIFFERENT SOURCES OF TOWARDS TOTAL VALUE OF CROP OUTPUT; 1970-71 TO 2019-20: MAJOR STATES

| Sources/states | 1970s | | | | 1980s | | | | 1990s | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Area | Yield | Prices | Diversification | Area | Yield | Prices | Diversification | Area | Yield | Prices | Diversification |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| AP | 1.24 | 56.59 | 24.72 | 17.45 | 21.71 | 73.60 | -20.72 | 25.40 | 2.65 | 57.50 | 21.29 | 18.56 |
| Assam | 20.44 | 59.94 | 6.83 | 12.79 | 12.34 | 62.94 | 5.92 | 18.80 | -16.12 | 75.50 | 11.20 | 29.42 |
| Bihar | -8.33 | 103.31 | -13.01 | 18.02 | 4.50 | 35.79 | 40.99 | 18.72 | 86.50 | -2.42 | 207.10 | -191.18 |
| Gujarat | 3.95 | 57.78 | 12.08 | 26.19 | 1.06 | 65.24 | 4.09 | 29.60 | 23.01 | 13.65 | 48.09 | 15.26 |
| Haryana | 7.50 | 64.74 | 10.77 | 16.99 | 8.50 | 56.38 | 20.78 | 14.33 | 16.83 | 24.50 | 23.22 | 35.45 |
| Himachal Pradesh | 9.75 | 111.78 | -22.59 | 1.06 | 5.34 | 33.02 | 29.83 | 31.80 | -13.34 | 97.22 | 61.41 | -45.30 |
| Jammu & Kashmir | 10.08 | 65.38 | 19.50 | 5.05 | 6.18 | 39.22 | 24.96 | 29.64 | -0.72 | 98.84 | 5.04 | -3.16 |
| Karnataka | 13.00 | 75.27 | 6.21 | 5.52 | 12.08 | 41.61 | 25.90 | 20.41 | 39.67 | 132.99 | 19.26 | -91.92 |
| Kerala | -23.05 | 130.73 | -5.58 | -2.11 | 6.07 | 196.50 | -157.70 | 55.13 | 277.05 | -2.24 | -165.60 | -9.21 |
| Madhya Pradesh | 9.19 | 76.50 | 10.65 | 3.66 | 17.86 | 62.61 | 25.46 | -5.93 | -5.99 | 50.23 | -0.61 | 56.37 |
| Maharashtra | 13.73 | 48.04 | 29.30 | 8.93 | 11.80 | 70.25 | -6.13 | 24.08 | -7.62 | -72.54 | 39.80 | 140.36 |
| Odisha | 24.44 | 70.80 | -12.31 | 17.07 | 24.19 | 38.68 | 0.34 | 36.80 | 49.57 | 81.92 | -10.94 | -20.54 |
| Punjab | 0.93 | 58.61 | 29.51 | 10.95 | 11.49 | 64.58 | 16.22 | 7.72 | 15.74 | 18.80 | 34.00 | 31.45 |
| Rajasthan | 3.26 | 89.12 | 7.75 | -0.14 | 23.21 | 48.54 | 27.53 | 0.72 | -10.37 | 66.88 | 10.16 | 33.33 |
| Tamil Nadu | -41.57 | 62.65 | 36.96 | 41.98 | 15.80 | 85.37 | -12.49 | 11.32 | 92.93 | 119.21 | -51.17 | -60.97 |
| Uttar Pradesh | 5.46 | 67.51 | 19.37 | 7.67 | 0.75 | 69.66 | 26.16 | 3.42 | -0.56 | 37.52 | 34.18 | 28.86 |
| West Bengal | 1.39 | 68.00 | 10.33 | 20.28 | 35.01 | 108.86 | -94.53 | 50.66 | -24.36 | -399.62 | 358.85 | 165.13 |

*(Contd.)*

TABLE 7 (CONCLD.)

| Sources/states | 2000s | | | | 2010-13 to 2018-19 | | | | 1972-73 to 2018-19 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Area | Yield | Prices | Diversification | Area | Yield | Prices | Diversification | Area | Yield | Prices | Diversification |
| (1) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) | (23) | (24) | (25) |
| AP | -1.31 | 58.37 | 21.06 | 21.88 | 325.61 | -148.55 | -92.24 | 15.18 | -68.43 | 98.80 | 21.87 | 47.76 |
| Assam | -1.64 | 70.62 | 17.54 | 13.47 | -18.35 | 26.70 | 31.70 | 59.95 | 13.36 | 43.50 | 21.87 | 21.27 |
| Bihar | 19.11 | 19.40 | 38.27 | 23.22 | 62.18 | 2.01 | 42.39 | -6.58 | 3.39 | 49.64 | 30.55 | 16.42 |
| Gujarat | 28.21 | 29.31 | 31.22 | 11.25 | -463.47 | 110.78 | 118.92 | 333.76 | 7.84 | 47.71 | 18.75 | 25.71 |
| Haryana | 14.41 | 59.45 | 20.91 | 5.23 | 35.62 | -42.31 | 59.72 | 46.98 | 16.10 | 45.10 | 24.32 | 14.47 |
| Himachal Pradesh | 3.64 | 48.30 | 36.30 | 11.76 | 140.79 | 344.29 | -133.07 | -252.01 | 10.63 | 43.03 | 19.18 | 27.16 |
| Jammu & Kashmir | 25.28 | 42.45 | 1.60 | 30.66 | -98.59 | 91.56 | 135.58 | -28.55 | 18.65 | 41.20 | 13.57 | 26.59 |
| Karnataka | 8.21 | 52.67 | 23.60 | 15.52 | -133.66 | 174.90 | -33.89 | 92.65 | 7.31 | 44.49 | 21.41 | 26.79 |
| Kerala | -5.91 | 73.06 | -19.96 | 52.81 | 252.51 | -541.88 | 397.55 | -8.18 | 587.19 | -478.90 | 169.87 | -178.16 |
| Madhya Pradesh | 18.11 | 38.41 | 22.50 | 20.98 | 9.37 | 4.90 | 37.71 | 48.02 | 17.04 | 40.12 | 27.40 | 15.44 |
| Maharashtra | 3.86 | 85.92 | -45.19 | 55.42 | 29.47 | 8.62 | -477.69 | 539.60 | 13.74 | 51.67 | 4.41 | 30.18 |
| Odisha | -2.79 | 68.36 | 27.54 | 6.89 | 146.55 | 32.85 | -29.06 | -50.33 | -7.48 | 41.20 | 32.61 | 33.67 |
| Punjab | 0.30 | 77.12 | 17.55 | 5.03 | -0.44 | 11.14 | 43.36 | 45.94 | 17.23 | 44.81 | 25.91 | 12.05 |
| Rajasthan | 30.70 | 28.56 | 29.88 | 10.85 | -133.66 | 28.18 | 143.69 | 61.79 | 8.58 | 46.67 | 27.83 | 16.92 |
| Tamil Nadu | -15.15 | 46.49 | 32.79 | 35.87 | 226.80 | -464.27 | 313.57 | 23.90 | -52.00 | 69.80 | 36.97 | 45.23 |
| Uttar Pradesh | 2.48 | 82.83 | 14.48 | 0.21 | -113.91 | -8.42 | 116.45 | 105.88 | 1.14 | 51.21 | 31.32 | 16.33 |
| West Bengal | -3.81 | 69.21 | 19.96 | 14.63 | 31.71 | 22.41 | 26.88 | 19.01 | 12.80 | 41.68 | 18.53 | 26.99 |

*Source*: Computed by the authors.

manifested in terms of yield is the most important source of growth in the value of crop output in as many sixteen out of seventeen major states. It is also important to mention that diversification is the second most important source of growth in about half of the major states while in the remaining half of the states it is the price which is the second most important source of growth.

## V

## CROP DIVERSIFICATION AND FARM INCOME

As discussed above, crop diversification towards high value crops like fruits and vegetables accounts for around one-fifth of the total increase in the value of crop output. Promoting crop diversification is there suggested as an important strategy to enhance income of agricultural households, reduce poverty and promote profitable and sustainable agriculture. The effect of crop diversification on income and employment levels of agricultural households in general and smallholders in particular has been brought out by different studies (Benziger, 1996; Joshi, *et al.,* 2003; Barghouti, *et al* 2004; Birthal, *et al.,* 2005, 2007; Weinberger and Lumpkin, 2007; Sharma, 2005, 2011). The present section discusses changes in crop diversification, income from cultivation and the extent of variation in income from cultivation among agricultural households in different states during 2012-13 and 2018-19. The data presented in Table 8 bring out three broad patterns. First, the extent of crop diversification measured by modified Herfindhal index has decreased in sixteen major states (Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh and West Bengal). Thus the cropping pattern has become more diversified only in four states, namely, Jammu & Kashmir, Jharkhand, Odisha and Uttarakhand while in Kerala it remains unchanged. Similarly, crop diversification in terms of proportion of gross cropped area under non foodgrain crops including fruits and vegetables has also decreased by varying degree in most of the states except Andhra Pradesh, Gujarat and Maharashtra where it has increased significantly. Second, income from cultivation at current prices has increased by varying amount across all major states except Assam, Himachal Pradesh and Jharkhand. However, at constant prices, it increased in only nine states (Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Jammu & Kashmir, Karnataka, Tamil Nadu, Uttarakhand and West Bengal). Third, variability/dispersion of income from cultivation among agricultural households in different states, measured by the coefficient of variation, has decreased practically in all the major states except Madhya Pradesh and Tamil Nadu. In brief, evidence on changes in crop diversification captured through modified Herfindhal Index and area under non-food grain crops and increase in income from cultivation at current prices across most of the major states suggests that farmers resort to crop substitution and tend to adopt a combination of fewer but high income yielding crops including foodgrains to maximise their income.

TABLE 8 CROP DIVERSIFICATION AND INCOME FROM CULTIVATION OF AGRICULTURAL HOUSEHOLDS, MAJOR STATES: 2012-13 TO 2018-19

| State | 2012-13 | | | | | 2018-19 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Modified H.I. | Proportion of area under non-food crops including fruits and vegetables | Income from cultivation at current prices (Rs./pa) | Income from cultivation at constant prices (Rs./pa) | Coefficient of variation (per cent) | Modified H.I. | Proportion of area under non-food crops including fruits and vegetables | Income from cultivation at current prices (Rs./pa) | Income from cultivation at constant prices (Rs./pa) | Coefficient of Variation (per cent) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| Andhra Pradesh | 0.50 | 0.22 | 24164 | 3265 | 6.16 | 0.30 | 0.36 | 32859 | 3459 | 3.87 |
| Assam | 0.58 | 0.40 | 50455 | 6818 | 4.92 | 0.49 | 0.16 | 38906 | 4095 | 1.42 |
| Bihar | 0.35 | 0.14 | 20634 | 2788 | 2.72 | 0.16 | 0.05 | 32782 | 3451 | 2.09 |
| Chhattisgarh | 0.31 | 0.07 | 40356 | 5454 | 1.77 | 0.20 | 0.02 | 52059 | 5480 | 1.48 |
| Gujarat | 0.61 | 0.59 | 35139 | 4749 | 2.76 | 0.52 | 0.65 | 51756 | 5448 | 2.00 |
| Haryana | 0.62 | 0.46 | 94181 | 12727 | 2.28 | 0.54 | 0.34 | 109229 | 11498 | 1.62 |
| Himachal Pradesh | 0.73 | 0.52 | 35017 | 4732 | 9.07 | 0.67 | 0.46 | 34389 | 3620 | 3.31 |
| Jammu & Kashmir | 0.69 | 0.35 | 36671 | 4956 | 3.65 | 0.70 | 0.26 | 61944 | 6520 | 2.01 |
| Jharkhand | 0.54 | 0.13 | 17421 | 2354 | 2.02 | 0.60 | 0.05 | 13059 | 1375 | 1.50 |
| Karnataka | 0.64 | 0.40 | 58958 | 7967 | 3.37 | 0.51 | 0.37 | 81725 | 8603 | 2.51 |
| Kerala | 0.80 | 0.95 | 42503 | 5744 | 3.89 | 0.80 | 0.87 | 43782 | 4609 | 2.07 |
| Madhya Pradesh | 0.57 | 0.55 | 48056 | 6494 | 1.91 | 0.43 | 0.38 | 51734 | 5446 | 1.93 |
| Maharashtra | 0.63 | 0.49 | 46502 | 6284 | 3.82 | 0.54 | 0.63 | 56846 | 5984 | 2.08 |
| Odisha | 0.30 | 0.10 | 16898 | 2284 | 3.68 | 0.32 | 0.06 | 18739 | 1973 | 1.90 |
| Punjab | 0.66 | 0.52 | 130364 | 17617 | 1.77 | 0.51 | 0.10 | 151972 | 15997 | 1.56 |
| Rajasthan | 0.62 | 0.48 | 37654 | 5088 | 2.54 | 0.53 | 0.27 | 47387 | 4988 | 2.40 |
| Tamil Nadu | 0.51 | 0.57 | 22975 | 3105 | 2.88 | 0.31 | 0.49 | 31703 | 3337 | 8.20 |
| Telangana | 0.58 | 0.45 | 50736 | 6856 | 2.05 | 0.42 | 0.41 | 59316 | 6244 | 1.58 |
| Uttarakhand | 0.75 | 0.51 | 30367 | 4104 | 3.40 | 0.82 | 0.30 | 62202 | 6548 | 2.78 |
| Uttar Pradesh | 0.54 | 0.31 | 34179 | 4619 | 2.54 | 0.40 | 0.20 | 39582 | 4167 | 2.03 |
| West Bengal | 0.38 | 0.23 | 11755 | 1589 | 2.12 | 0.34 | 0.12 | 18733 | 1972 | 1.90 |
| All India | 0.58 | 0.44 | 36840 | 4978 | 3.60 | 0.49 | 0.31 | 45950 | 4837 | 5.44 |

*Sources*: Computed by the Author using data from Situation Assessment Surveys 2012-13 and 2018-19;

*Notes*: (ii) The CPI-AL (1986-87=100) at the all-India level has been used to calculate changes in income at constant prices. The value of CPI-AL at the all-India level for July 2013 and July 2019 were 740 and 950, respectively.

## VI

## DETERMINANTS OF THE VALUE OF CROP OUTPUT

The use of inputs like fertiliser and certified seeds and availability of infrastructural facilities like irrigation, rural roads and bank credit are some of the important factors which affect agricultural growth. The changes in the use of these inputs and availability of the above mentioned infrastructural facilities between TE 2008-09 and TE 2016-17 across twenty major states have been given in Table 9. A glance at the table shows that per hectare use of fertilizers during the period has increased by varying amounts in fifteen out of twenty major states. The states in which consumption of fertilizers has decreased are Gujarat, Jammu & Kashmir, Jharkhand, Kerala and Tamil Nadu. The use of certified seeds has increased hugely across all the states. The proportion of gross cropped irrigated area has also increased by varying degree in most of the states with the notable exceptions of Odisha where it has declined significantly and Maharashtra and Tamil Nadu where it has remained nearly constant. Insofar as changes in the cropping intensity are concerned, it has increased by varying proportions in twelve states (Assam, Bihar, Haryana, Jammu & Kashmir, Jharkhand, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal) while in the remaining eight states it has either decreased or remained nearly unchanged. There has also been a significant increase of gross sown area advanced by the commercial banks in most of the states except Gujarat and Rajasthan where amount of credit advanced has decreased. The average annual compound growth rates in the use of different inputs and the availability of infrastructural facilities like irrigation and road density during 2006-07 and 2016-17 have been presented in Table 10. The table shows that the average annual compound growth rates of fertilizer consumption are positive in as many as sixteen major states which vary from a low of 0.02 per cent in Andhra Pradesh to 4.12 per cent in Uttarakhand. In four states (Jammu & Kashmir, Jharkhand, Kerala and Tamil Nadu), the annual average growth rates are negative. The use of certified seeds has recorded positive average annual compound growth rates practically in all the states with the notable exceptions of Andhra Pradesh and Uttar Pradesh. The annual compound growth rates of the proportion of gross cropped irrigated area are low but positive in most of the states except Odisha and Tamil Nadu. The growth rates in the cropping intensity across most of the states are low and less than one per cent except in Gujarat and Kerala where these are negative. The rural road density per hectare of net sown area and the credit advanced by the commercial banks have also recorded significant positive growth rates in all the states during the period with the sole exception of Gujarat where the availability of credit has decreased at a rate 3.03 per cent per annum.

TABLE 9. CHANGES IN THE USE OF INPUTS, CROPPING INTENSITY AND THE AVAILABILITY OF IRRIGATION, BANK CREDIT AND RURAL ROADS, 2006-07 TO 2016-17: MAJOR STATES

| States/Period | Fertilisers (kg/ha) | | Certified seed (lakh quintal) | | Gross cropped irrigated area (%) | | Cropping Intensity (%) | | Road length per ha of net sown area (km) | | Credit per ha of gross sown area at 2004-05 prices | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) | TE 2008-09 (2) | TE 2016-17 (3) | TE 2008-09 (4) | TE 2016-17 (5) | TE 2008-09 (6) | TE 2016-17 (7) | TE 2008-09 (8) | TE 2016-17 (9) | TE 2008-09 (10) | TE 2016-17 (11) | TE 2008-09 (12) | TE 2016-17 (13) |
| Andhra Pradesh | 202.93 | 216.40 | 42.24 | 73.42 | 47.49 | 48.65 | 126.57 | 122.23 | 0.03 | 0.31 | 16.84 | 99.00 |
| Assam | 55.93 | 69.87 | 2.44 | 17.09 | 4.96 | 10.03 | 139.47 | 145.57 | 0.08 | 1.22 | 6.35 | 15.61 |
| Bihar | 156.23 | 198.60 | 6.12 | 40.87 | 60.73 | 69.24 | 137.17 | 145.17 | 0.02 | 0.45 | 8.62 | 29.32 |
| Chhattisgarh | 77.80 | 98.27 | 1.40 | 29.28 | 26.48 | 31.61 | 121.23 | 121.77 | 0.02 | 0.21 | 10.34 | 14.78 |
| Gujarat | 132.63 | 128.43 | 7.07 | 41.34 | 45.42 | 49.51 | 118.70 | 117.40 | 0.01 | 0.18 | 14.88 | 7.21 |
| Haryana | 187.20 | 216.17 | 13.78 | 55.41 | 85.55 | 90.28 | 180.27 | 184.93 | 0.01 | 0.17 | 19.32 | 45.83 |
| Himachal | 54.23 | 57.50 | 0.82 | 4.22 | 20.11 | 22.14 | 175.30 | 170.60 | 0.07 | 1.10 | 15.48 | 42.76 |
| Jammu & Kashmir | 80.20 | 62.50 | 0.98 | 8.24 | 41.01 | 43.54 | 153.43 | 155.63 | 0.03 | 0.98 | 9.22 | 34.49 |
| Jharkhand | 62.57 | 45.50 | 0.66 | 10.64 | 9.28 | 14.16 | 110.33 | 127.93 | 0.01 | 0.50 | 13.73 | 27.63 |
| Karnataka | 124.37 | 172.63 | 9.20 | 54.59 | 30.06 | 31.85 | 122.80 | 120.47 | 0.03 | 0.36 | 32.14 | 52.08 |
| Kerala | 79.97 | 39.83 | 0.69 | 2.78 | 16.75 | 18.51 | 133.33 | 128.87 | 0.10 | 1.15 | 26.51 | 150.61 |
| Madhya Pradesh | 65.00 | 80.47 | 13.39 | 109.99 | 32.40 | 43.21 | 137.93 | 156.87 | 0.01 | 0.22 | 9.43 | 14.73 |
| Maharashtra | 105.37 | 120.97 | 18.70 | 54.42 | 19.10 | 19.70 | 129.27 | 137.80 | 0.02 | 0.37 | 11.28 | 27.61 |
| Odisha | 51.87 | 60.90 | 4.01 | 33.92 | 35.83 | 28.45 | 160.23 | 116.40 | 0.04 | 0.74 | 11.66 | 28.84 |
| Punjab | 216.50 | 236.23 | 8.19 | 51.74 | 97.61 | 98.74 | 188.57 | 190.03 | 0.01 | 0.32 | 16.15 | 60.82 |
| Rajasthan | 44.97 | 56.00 | 14.44 | 72.52 | 36.02 | 41.78 | 129.37 | 140.13 | 0.01 | 0.15 | 24.24 | 18.63 |
| Tamil Nadu | 196.37 | 166.63 | 11.34 | 31.17 | 56.94 | 57.06 | 114.80 | 122.70 | 0.04 | 0.57 | 37.56 | 161.48 |
| Uttarakhand | 117.87 | 166.17 | 3.58 | 156.90 | 46.74 | 49.82 | 157.90 | 156.13 | 0.06 | 0.89 | 12.01 | 28.57 |
| Uttar Pradesh | 151.50 | 153.43 | 25.63 | 15.10 | 76.07 | 80.05 | 153.77 | 159.77 | 0.02 | 0.26 | 7.14 | 20.77 |
| West Bengal | 146.67 | 161.00 | 11.29 | 125.58 | 57.90 | 63.39 | 183.70 | 185.63 | 0.04 | 0.62 | 16.84 | 99.00 |
| All-India | 118.27 | 127.53 | 197.61 | 1060.46 | 45.24 | 48.97 | 137.90 | 142.17 | 0.02 | 0.36 | 6.35 | 15.61 |

*Source*: RBI Handbook of Statistics on Indian States 2020-21.

TABLE 10: ANNUAL COMPOUND GROWTH RATES OF INPUTS USE, CROPPING INTENSITY, IRRIGATION, BANK CREDIT AND RURAL ROADS, 2006-07 TO 2016-17; MAJOR STATES

*(per cent per annum)*

| States/Inputs | Fertilisers (kg/ha) | Certified seed (lakh quintal) | Gross cropped irrigated area (per cent) | Cropping Intensity (per cent) | Road length per ha of net sown area (km) | Credit per ha of gross sown area at 2011-12 prices |
|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Andhra Pradesh | 0.02 | -3.01 | 0.19 | -0.34 | 0.77 | 14.87 |
| Assam | 3.17 | 8.46 | 11.67 | 0.76 | 4.51 | 17.97 |
| Bihar | 3.13 | 11.25 | 1.49 | 0.59 | 10.09 | 13.96 |
| Chhattisgarh | 3.05 | 30.01 | 2.30 | 0.02 | 3.51 | 15.03 |
| Gujarat | 0.27 | 8.83 | 0.99 | -0.35 | 2.80 | -3.03 |
| Haryana | 1.80 | 5.28 | 0.57 | 0.25 | 5.58 | 11.17 |
| Himachal | 1.66 | 6.38 | 1.75 | 0.04 | 5.84 | 12.57 |
| Jammu & Kashmir | -2.51 | 14.82 | 0.35 | 0.23 | 17.13 | 21.24 |
| Jharkhand | -3.99 | 14.82 | 5.67 | 2.54 | 16.38 | 13.31 |
| Karnataka | 3.86 | 7.93 | 0.39 | -0.30 | 3.61 | 12.13 |
| Kerala | -6.67 | 2.79 | 1.37 | -0.79 | 2.98 | 18.31 |
| Madhya Pradesh | 2.61 | 14.50 | 3.08 | 1.54 | 7.88 | 8.55 |
| Maharashtra | 1.38 | 3.85 | 0.37 | 0.92 | 11.22 | 8.79 |
| Odisha | 3.08 | 16.18 | -2.85 | -2.81 | 7.67 | 19.76 |
| Punjab | 1.07 | 12.81 | 0.14 | 0.06 | 12.36 | 14.78 |
| Rajasthan | 1.88 | 9.70 | 1.09 | 1.10 | 6.26 | 10.66 |
| Tamil Nadu | -1.46 | 14.95 | -0.21 | 0.35 | 5.14 | 15.81 |
| Uttarakhand | 4.12 | 37.10 | 0.90 | -0.09 | 4.37 | 14.29 |
| Uttar Pradesh | 0.83 | -11.07 | 0.60 | 0.60 | 4.85 | 11.47 |
| West Bengal | 1.01 | 14.28 | 1.26 | 0.08 | 4.77 | 9.12 |
| All-India | 1.14 | 9.35 | -0.06 | 0.21 | 6.45 | 14.05 |

Source: Computed by the Author.

As mentioned above, the effect of different inputs, on value of crop output has been quantified by estimating equation (8) using panel data regression. The results are presented in Table 11. The results for Model 1 (Fixed Effect Model) are presented in Column 2 while the results of Model 2 (Fixed Effect Model with robust standard errors) are given in Column 3. The lower panel of the table reports the results for the F-test which shows that all individual effects are jointly equal to 0; the rejection of the null hypothesis implies that fixed effects are important. The Hausman test for fixed effects implies the rejection of the null hypothesis meaning that fixed effect model is consistent while random effect model is not. We have used the Breush-Pagan LM test of independence to test for contemporaneous correlation; the modified Wald statistic test to test group-wise heteroskedasticity and the LM test to test serial correlation. The results show that in the fixed effect model, the coefficients of rural road density and bank credit are significant at one per cent level, the coefficients of fertilizer and irrigated area are significant at five per cent level and the coefficient of cropping intensity is significant at ten per cent level. The coefficient of certified seed is not statistically significant though its effect on value of crop output is positive. As

expected, the coefficient estimates of all the control variables are positive. The results imply that a 1 one per cent increase in fertilizer consumption will increase the level of value of crop output by 0.11 per cent while a one per cent increase in irrigated area and cropping intensity will increase value of crop output by 0.22 per cent and 0.40 per cent, respectively. Similarly, a one per cent increase in road density and bank credit availability, the two variables surrogating availability of basic infrastructural facilities, increases the value of crop output by 0.31 per cent and 0.08 per cent, respectively.

TABLE11. DETERMINANTS OF VALUE OF CROP OUTPUT: THE RESULTS OF REGRESSION ANALYSIS

| Variables | Model 1 (FE) | Model 2 (FE with Robust Standard Errors) |
|---|---|---|
| (1) | (2) | (3) |
| Fertiliser Consumption | 0.1140** | 0.1140*** |
| | (0.0553) | (0.0559) |
| Per cent Irrigated Area | 0.2228** | 0.2228 |
| | (0.0982) | (0.1470) |
| Certified Seed | 0.0103 | 0.0103 |
| | (0.0141) | (0.0177) |
| Cropping Intensity | 0.4056*** | 0.4056 |
| | 0.2440 | (0.4324) |
| Rural Road Density per Hectare of | 0.3167* | 0.3167* |
| Gross Sown Area | (0.0525) | (0.0835) |
| Bank Credit | 0.0833* | 0.0833 |
| | (0.0298) | (0.0522) |
| Constant | 12.3158* | 12.3158* |
| | (1.2699) | (2.2883) |
| F-test that all uis = 0 | 149.55 *, p-value: 0.000 | |
| Hausman test for FE | 49.03*, p-value: 0.000 | |
| BP LM Correlation | 469.635*, p-value: 0.000 | |
| Wald test | 219.73*, p-value: 0.000 | |
| LM for serial correlation | 17.179*, p-value: 0.000 | |

*Notes*: (1) Table reports b-coefficients and the standard error. *, **, *** indicate significance at 1, 5 and 10 per cent level, respectively. (2) The standard errors are in parentheses

As mentioned above, column 3 of Table 1 reports the results of the FE model with robust standard errors for all twenty states after controlling for contemporaneous correlation group-wise heteroskedasticity and serial correlation. Compared to the results presented in column 2, the coefficient estimates of fertilizer, per cent gross cropped irrigated area and road length remain unchanged both in magnitude and sign. The effect of certified seed on value productivity as seen above is also insignificant. However, in the FE model with robust errors, three variables, namely, per cent irrigated area; cropping intensity and bank credit have turned insignificant. This suggests that contemporaneous correlation, group-wise heteroskedasticity and serial correlation may have caused the standard error of the cropping intensity coefficient to be smaller than these actually are. If we compare these results with the annual compound growth rates presented in Table 10, we find that annual growth rates of irrigated area and cropping intensity are low and less than one per cent even negative for some states. This explains the insignificant effect of irrigated and cropping intensity (Table 11, Model 2).

However, annual growth rates of bank credit are high for most of the states. The insignificant Effect of bank credit on value of crop output requires further investigation. The rural road density is the main determinant of value of crop output which is also confirmed by very high annual compound growth rate in during ten years practically all states. The lower left panel of Table 11 presents the results for various specification tests for the FE model with benchmark regressors. The F-test shows that all individual effects are 0 with a p-value of 0.00. Rejection of the null hypothesis at one per cent significance level implies that the fixed effects are important and OLS estimator which omits these state specific effects will yield biased results. The Hausman test with a p-value of 0.00 leads to rejection of the null hypothesis that the individual specific effects are uncorrelated with regressors and leads to the conclusion that the fixed effects are present. Therefore, we choose a FE model over RE model and OLS model. The BP LM test statistic with a p–value of 0.00 means the rejection of the null hypothesis of no contemporaneous correlation. The modified wald-statistic with a p-value of 0.00 means the rejection of the null hypothesis of group-wise homoskedasticity. The LM test statistic with a p-value of 0.00 implies that the error process is serially correlated. Hence, we test for the FE effects with robust standard errors in Column 3 of Table 11.

## VII

## SUMMARY AND CONCLUSIONS

India continues to be an agrarian economy. Despite significant decrease in the contribution of agriculture including fishing and forestry towards gross state domestic product over the years it remains an important source of employment employing around 45 per cent of total workforce. The performance of agricultural sector remains a key determinant of the incidence of poverty in general and rural poverty in particular. The annual compound growth rates of agriculture since the seventies though have varied both over different decades and across states are comparatively higher during the nineties and 2000s. A huge increase in the per cent share of area and value of output of fruits and vegetable and their contributions towards overall growth of value of output of different crops has been one of most important features of the recent changes in Indian agriculture. The contribution of different sources towards agricultural growth, measured by changes in the output of twenty-one major crops accounting for around 94 per cent of the gross cropped area, estimated using decomposition method given by Minhas and Vaidyanathan (1965) show that the contribution of changes in the yield is higher during the seventies, 2000s and 2010s while that of changes in cropping pattern is higher during the eighties and the nineties. Considering whole period from TE 1970-73 to TE 2018-19, changes in the yield followed by cropping pattern account for more than four-fifths of the total increase in crop output while changes in area and interaction between cropping pattern and yield respectively account for 7 per cent 11 per cent. The contribution of different sources estimated using Minot *et al.* (2006) method further show that technology manifested in changes in yield levels has consistently remained

the most important source of growth in the value of crop output since the seventies with the exception of the most recent period when contribution of increase in the real value of the output is significantly higher. Further, considering a long period from TE 1972-73 to TE 1918-19, yield followed by increase in the real price and crop diversification account for more than ninety per cent of the increase in the value of crop output. The evidence on crop diversification and increase in income from cultivation across most of the major states at current and decrease in its variability among agricultural households in different states suggests that farmers tend to adopt a combination of fewer but high income yielding crops including foodgrains to maximise their income. The results of panel regression analysis show that fertilisers, proportion of gross cropped area irrigated, rural road density, bank credit and cropping intensity are significant factors affecting the value of crop output.

The results of the study unambiguously show that it is the technology which holds the key for fostering and sustaining agricultural growth. The process of crop diversification which is the second most important source of agricultural growth also depends on technological changes in terms of the availability of high yielding, disease resistant and climate change resilient short duration varieties of high value crops including fruits and vegetables. Among the remaining two sources of growth, while there is a possibility of increase in the real value of crop output contributing towards agricultural growth, the possibility of fostering agricultural growth by increasing area under crops is extremely limited. In brief, policy implication which follows from the study is to considerably enhance R & D expenditure on agriculture which continues to stagnate at around 0.6-0.7 per cent of the gross domestic product and around 0.40-0.5 per cent of the gross domestic product originating in agriculture for the last more than two decades. This proportion of R & D expenditure is extremely low as compared to some countries like China (2.1 per cent) and South Korea (4.3 per cent) and needs to be enhanced at least to 3 per cent of gross domestic product.

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TABLE A.1 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: ANDHRA PRADESH

| Crops/ Period | Share in the gross cropped area (per cent) | | | | | Share in real value of output (per cent) | | | | | Annual Compound Growth rate in the real value output (per cent/pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1980s | 1990s | 2000s | 2010s |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
| Rice | 31.69 | 31.85 | 30.57 | 30.85 | 32.71 | 43.18 | 43.48 | 40.70 | 36.00 | 26.30 | 9.00 | 9.96 | 12.47 | 3.50 | -0.43 | 43.66 | 39.68 | 31.06 | 9.42 |
| Wheat | 0.20 | 0.12 | 0.09 | 0.10 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.27 | 12.69 | 0.02 | 6.76 | 73.59 | 0.00 | 0.00 | 0.00 | 0.00 |
| Maize | 2.63 | 2.68 | 2.80 | 5.68 | 4.86 | 1.22 | 1.38 | 1.92 | 4.43 | 4.21 | 2.82 | 7.83 | 8.52 | 12.90 | -2.19 | 1.47 | 2.12 | 7.06 | 3.84 |
| Bajra | 5.02 | 3.40 | 1.18 | 0.73 | 0.51 | 1.78 | 1.09 | 0.40 | 0.24 | 0.15 | 4.02 | 0.42 | -5.12 | -3.24 | -14.28 | 0.65 | 0.14 | 0.07 | -0.01 |
| Jowar | 22.39 | 15.40 | 7.42 | 4.59 | 2.32 | 7.74 | 4.65 | 1.94 | 1.52 | 0.76 | 13.71 | 4.19 | -4.37 | 4.70 | 0.58 | 2.72 | 0.94 | 1.08 | -0.57 |
| Barley | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Ragi | 2.61 | 1.83 | 1.01 | 0.57 | 0.44 | 2.00 | 1.24 | 0.47 | 0.23 | 0.09 | 6.12 | -1.65 | 2.70 | -0.62 | -0.91 | 0.76 | 0.18 | -0.01 | -0.15 |
| All cereals | 64.54 | 55.29 | 43.07 | 42.51 | 40.88 | 55.94 | 51.82 | 45.42 | 42.42 | 31.51 | 9.15 | 2.75 | 12.29 | 4.25 | -0.69 | 49.25 | 43.06 | 39.26 | 12.53 |
| Gram | 0.61 | 0.46 | 0.91 | 3.80 | 5.87 | 0.20 | 0.28 | 0.83 | 4.56 | 2.85 | 2.18 | 26.78 | 17.89 | 18.99 | -9.88 | 0.33 | 1.03 | 8.48 | -0.13 |
| Tur | 1.78 | 2.38 | 2.73 | 3.89 | 3.68 | 0.19 | 0.34 | 0.51 | 0.84 | 0.63 | 6.68 | 18.00 | 21.30 | 4.84 | -8.45 | 0.43 | 0.58 | 1.17 | 0.27 |
| Other pulses | 10.12 | 13.26 | 14.65 | 8.69 | 3.08 | 0.75 | 0.07 | 0.09 | 0.10 | 0.03 | 4.62 | 3.33 | 15.44 | 2.63 | -9.16 | -0.35 | 0.10 | 0.11 | -0.10 |
| All pulses | 12.51 | 16.10 | 18.29 | 16.37 | 17.54 | 1.13 | 0.69 | 1.43 | 5.49 | 3.50 | 4.60 | 5.13 | 1.44 | 8.66 | -4.30 | 0.41 | 1.70 | 9.76 | 0.04 |
| Linseed | 0.14 | 0.09 | 0.07 | 0.03 | 0.00 | 0.06 | 0.03 | 0.02 | 0.01 | 0.00 | 4.85 | 2.74 | -14.19 | -17.44 | -2.96 | 0.01 | 0.02 | -0.01 | -0.01 |
| Groundnut | 12.12 | 14.82 | 17.37 | 13.81 | 12.55 | 16.86 | 21.26 | 20.56 | 10.28 | 5.96 | 8.04 | 19.09 | -7.21 | -1.57 | -8.28 | 24.01 | 20.30 | -0.51 | -1.56 |
| Sesamum | 1.78 | 1.41 | 1.38 | 1.10 | 0.77 | 0.52 | 0.33 | 0.36 | 0.21 | 0.14 | -1.13 | 0.51 | 12.38 | 0.44 | -3.26 | 0.20 | 0.37 | 0.05 | 0.02 |
| Rapeseed & mustard | 0.01 | 0.01 | 0.03 | 0.04 | 0.06 | 0.00 | 0.01 | 0.01 | 0.02 | 0.03 | - | 24.29 | -1.84 | 18.69 | -23.96 | 0.01 | 0.01 | 0.03 | 0.06 |
| Castor | 2.67 | 2.56 | 2.07 | 2.12 | 1.10 | 0.34 | 0.27 | 0.27 | 0.30 | 0.18 | -4.14 | 12.46 | -3.85 | -1.73 | -9.86 | 0.23 | 0.28 | 0.33 | -0.03 |
| Other Oilseeds | 0.50 | 0.90 | 2.96 | 4.24 | 1.41 | 0.14 | 0.00 | 0.02 | 0.04 | 1.69 | -4.67 | -6.00 | 29.96 | 10.95 | 64.40 | -0.08 | 0.03 | 0.06 | 4.55 |
| All oilseeds | 17.22 | 19.79 | 23.87 | 21.35 | 15.89 | 17.92 | 21.90 | 21.24 | 10.85 | 7.99 | 7.23 | 16.03 | -1.22 | -1.61 | -1.08 | 24.38 | 21.00 | -0.05 | 3.02 |
| Cotton | 3.18 | 4.49 | 7.20 | 9.20 | 11.00 | 1.33 | 3.04 | 4.54 | 4.05 | 6.50 | 33.86 | 15.20 | 3.76 | 8.55 | 3.58 | 4.12 | 5.10 | 3.53 | 10.75 |
| Other Fibers | 0.96 | 0.71 | 0.64 | 0.49 | 0.14 | 0.46 | 0.48 | 0.27 | 0.53 | 0.09 | 1.50 | -12.63 | 1.89 | 7.13 | -17.98 | 0.50 | 0.19 | 0.81 | -0.69 |
| All Fibers | 4.14 | 5.20 | 7.84 | 9.69 | 11.14 | 1.79 | 3.53 | 4.81 | 4.58 | 6.58 | 16.48 | 5.86 | 3.65 | 8.47 | 3.08 | 4.61 | 5.29 | 4.34 | 10.07 |
| Fruits & vegetables | 0.29 | 2.35 | 5.34 | 8.25 | 12.86 | 10.92 | 10.57 | 16.17 | 29.43 | 47.35 | 0.83 | 1.75 | 5.44 | 15.83 | 9.78 | 10.35 | 18.24 | 43.34 | 78.54 |
| Sugarcane | 1.29 | 1.27 | 1.58 | 1.83 | 1.69 | 12.30 | 11.49 | 10.92 | 7.23 | 3.06 | 8.70 | 10.92 | 13.46 | -6.14 | -3.79 | 10.99 | 10.71 | 3.35 | -4.20 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 7.51 | 6.61 | 6.21 | 6.04 | 3.75 | 100 | 100 | 100 | 100 |

*Source*: Computed by the author from the data collected from Sources mentioned in the section on data and method

TABLE A.2 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: ASSAM

| Crops/ Period | Share in the Gross Cropped Area (per cent) | | | | | Share in real value of output (per cent) | | | | | Annual Compound Growth rate in the real value output (per cent/pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) | 1970s (2) | 1980s (3) | 1990s (4) | 2000s (5) | 2010s (6) | 1970s (7) | 1980s (8) | 1990s (9) | 2000s (10) | 2010s (11) | 1970s (12) | 1980s (13) | 1990s (14) | 2000s (15) | 2010s (16) | 1980s (17) | 1990s (18) | 2000s (19) | 2010s (20) |
| Rice | 78.12 | 72.44 | 71.95 | 72.75 | 72.01 | 54.13 | 38.95 | 41.11 | 39.87 | 41.34 | 6.70 | 4.29 | 13.53 | 6.39 | 1.12 | 28.36 | 41.94 | 38.00 | 45.40 |
| Wheat | 2.28 | 3.32 | 2.35 | 1.84 | 0.84 | 1.21 | 1.48 | 0.93 | 0.70 | 0.28 | 31.26 | 3.01 | -0.66 | 4.54 | -9.16 | 1.67 | 0.71 | 0.36 | -0.89 |
| Maize | 0.64 | 0.60 | 0.55 | 0.57 | 0.77 | 0.08 | 0.10 | 0.10 | 0.10 | 0.38 | 12.85 | 9.16 | 0.76 | 6.87 | 24.98 | 0.11 | 0.10 | 0.11 | 1.12 |
| Bajra | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Jowar | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Barley | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Ragi | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| All Cereals | 81.04 | 76.36 | 74.85 | 75.15 | 73.62 | 55.42 | 40.53 | 42.13 | 40.67 | 41.99 | 7.01 | 0.42 | 13.41 | 6.35 | 1.19 | 30.14 | 42.75 | 38.47 | 45.64 |
| Gram | 0.11 | 0.12 | 0.08 | 0.06 | 0.06 | 0.06 | 0.09 | 0.06 | 0.04 | 0.04 | 14.28 | 13.51 | 7.55 | -0.75 | 1.58 | 0.11 | 0.04 | 0.01 | 0.03 |
| Tur | 0.19 | 0.27 | 0.19 | 0.20 | 0.17 | 0.22 | 0.42 | 0.27 | 0.21 | 0.20 | 16.39 | 11.66 | 12.16 | 2.94 | -1.09 | 0.56 | 0.21 | 0.12 | 0.16 |
| Other Pulses | 3.20 | 3.58 | 4.30 | 3.04 | 1.77 | 0.22 | 0.85 | 0.72 | 0.97 | 0.28 | 28.99 | 38.14 | 18.24 | -8.55 | 5.23 | 1.29 | 0.67 | 1.34 | -1.62 |
| All Pulses | 3.50 | 3.97 | 4.58 | 3.29 | 2.00 | 0.50 | 1.36 | 1.05 | 1.22 | 0.51 | 21.25 | 2.92 | 2.40 | 5.27 | 5.14 | 1.96 | 0.93 | 1.47 | -1.43 |
| Linseed | 0.11 | 0.24 | 0.27 | 0.26 | 0.17 | 0.03 | 0.14 | 0.10 | 0.10 | 0.05 | 20.40 | 18.94 | 4.05 | 1.56 | -3.03 | 0.22 | 0.08 | 0.10 | -0.07 |
| Groundnut | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Sesamum | 0.39 | 0.44 | 0.44 | 0.40 | 0.34 | 0.31 | 0.45 | 0.32 | 0.32 | 0.31 | 4.39 | 13.38 | 9.76 | 6.09 | 2.38 | 0.55 | 0.27 | 0.32 | 0.27 |
| Rapeseed & Mustard | 6.18 | 8.94 | 8.20 | 7.33 | 7.97 | 1.99 | 4.52 | 2.55 | 2.14 | 2.71 | 14.36 | 2.82 | -2.08 | 7.65 | 2.85 | 6.28 | 1.79 | 1.52 | 4.27 |
| Castor | 0.07 | 0.07 | 0.05 | 0.04 | 0.02 | 0.04 | 0.05 | 0.02 | 0.03 | 0.02 | -0.95 | -2.74 | 2.21 | 13.55 | -2.57 | 0.05 | 0.01 | 0.06 | -0.02 |
| Other Oilseeds | 0.00 | 0.00 | 0.10 | 0.27 | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| All Oilseeds | 6.76 | 9.69 | 9.07 | 8.30 | 8.71 | 2.37 | 5.16 | 3.00 | 2.60 | 3.09 | 12.64 | 7.95 | 5.52 | 0.90 | 1.46 | 7.11 | 2.15 | 1.99 | 4.44 |
| Cotton | 0.15 | 0.11 | 0.05 | 0.04 | 0.00 | 0.02 | 0.02 | 0.01 | 0.01 | 0.00 | 1.06 | 5.76 | -1.50 | -11.71 | -6.47 | 0.02 | 0.00 | 0.01 | -0.01 |
| Other Fibers | 4.81 | 3.65 | 2.72 | 2.01 | 2.11 | 4.75 | 2.61 | 1.95 | 1.36 | 1.23 | -0.16 | -1.62 | -2.16 | 6.12 | 2.07 | 1.11 | 1.69 | 0.48 | 0.86 |
| All Fibers | 4.95 | 3.75 | 2.77 | 2.05 | 2.11 | 4.77 | 2.62 | 1.95 | 1.37 | 1.23 | -0.16 | -1.59 | -2.16 | 5.94 | 2.04 | 1.13 | 1.69 | 0.49 | 0.85 |
| Fruits & Vegetables | 2.25 | 4.78 | 7.74 | 10.42 | 12.70 | 22.52 | 23.23 | 40.09 | 49.73 | 52.41 | 3.89 | 5.96 | 3.85 | 11.10 | 0.43 | 23.72 | 46.65 | 64.24 | 59.78 |
| Sugarcane | 1.50 | 1.45 | 1.00 | 0.77 | 0.86 | 14.42 | 27.10 | 11.78 | 4.42 | 0.77 | 9.69 | 11.99 | 6.17 | -14.58 | 0.29 | 35.94 | 5.83 | -6.66 | -9.28 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 6.39 | 4.00 | 6.96 | 7.57 | 0.90 | 100 | 100 | 100 | 100 |

*Source*: Computed by the author from the data collected from Sources mentioned in the section on data and methods.

TABLE A.3 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: BIHAR

| Crops/ Period | Share in the Gross Cropped Area (per cent) | | | | | Share in real value of output (per cent) | | | | | Annual Compound Growth rate in the real value output (per cent/pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1980s | 1990s | 2000s | 2010s |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
| Rice | 49.95 | 49.34 | 48.91 | 39.90 | 42.12 | 49.57 | 30.94 | 28.37 | 24.57 | 27.77 | 6.45 | 3.68 | 13.74 | -0.47 | 8.72 | 17.53 | 27.51 | 18.46 | 36.36 |
| Wheat | 16.27 | 17.86 | 20.22 | 23.01 | 21.54 | 16.99 | 16.81 | 16.88 | 14.51 | 13.94 | 11.47 | 9.45 | 2.80 | 5.12 | 5.37 | 16.68 | 16.90 | 10.72 | 12.41 |
| Maize | 8.51 | 7.00 | 5.86 | 8.50 | 8.95 | 4.60 | 4.41 | 4.41 | 5.02 | 5.27 | 4.64 | 10.77 | 4.14 | 5.15 | 6.29 | 4.28 | 4.41 | 6.00 | 5.94 |
| Bajra | 0.14 | 0.11 | 0.07 | 0.04 | 0.04 | 0.08 | 0.07 | 0.02 | 0.02 | 0.01 | 1.46 | 5.49 | -1.86 | 1.95 | -4.76 | 0.07 | 0.00 | 0.01 | 0.01 |
| Jowar | 0.10 | 0.06 | 0.04 | 0.04 | 0.03 | 0.06 | 0.05 | 0.01 | 0.01 | 0.01 | -2.41 | -0.23 | 4.27 | -2.71 | -5.90 | 0.05 | 0.00 | 0.02 | -0.01 |
| Barley | 1.72 | 0.82 | 0.44 | 0.30 | 0.12 | 0.43 | 0.27 | 0.13 | 0.07 | 0.05 | -2.53 | -6.13 | 11.46 | -2.00 | 6.54 | 0.15 | 0.08 | -0.02 | -0.02 |
| Ragi | 1.59 | 1.26 | 0.82 | 0.38 | 0.19 | 0.76 | 0.61 | 0.38 | 0.11 | 0.05 | 5.75 | -3.47 | 9.68 | -10.82 | -2.34 | 0.50 | 0.31 | -0.34 | -0.12 |
| All Cereals | 78.28 | 76.46 | 76.36 | 72.17 | 72.99 | 72.47 | 53.16 | 50.20 | 44.31 | 47.10 | 7.18 | 1.89 | 13.64 | 2.01 | 7.26 | 39.26 | 49.22 | 34.85 | 54.57 |
| Gram | 2.23 | 1.71 | 1.29 | 0.71 | 0.55 | 0.92 | 1.45 | 1.09 | 0.85 | 1.62 | 3.60 | 13.47 | 7.90 | 8.79 | 9.53 | 1.83 | 0.97 | 0.47 | 3.67 |
| Tur | 1.02 | 0.77 | 0.67 | 1.13 | 1.94 | 0.57 | 0.94 | 0.60 | 0.88 | 1.59 | 5.12 | 12.67 | 11.57 | 7.92 | 10.70 | 1.22 | 0.49 | 1.32 | 3.48 |
| Other pulses | 10.85 | 12.69 | 12.09 | 7.41 | 2.86 | 2.19 | 2.65 | 1.39 | 0.65 | 0.15 | 0.34 | -2.98 | 11.26 | -11.14 | 6.21 | 2.98 | 0.98 | -0.56 | -1.17 |
| All pulses | 14.11 | 15.17 | 14.06 | 9.25 | 5.35 | 3.68 | 5.04 | 3.09 | 2.38 | 3.36 | 5.96 | 0.10 | 1.89 | 6.48 | 5.29 | 6.03 | 2.44 | 1.23 | 5.98 |
| Linseed | 0.86 | 0.81 | 0.61 | 0.52 | 0.45 | 0.45 | 0.47 | 0.28 | 0.25 | 0.19 | 12.40 | 6.55 | -3.16 | 4.13 | -0.86 | 0.49 | 0.21 | 0.20 | 0.02 |
| Groundnut | 0.05 | 0.05 | 0.05 | 0.01 | 0.01 | 0.05 | 0.06 | 0.05 | 0.10 | 0.14 | 12.79 | 17.73 | 2.76 | 56.77 | 3.38 | 0.07 | 0.04 | 0.19 | 0.23 |
| Sesamum | 0.23 | 0.17 | 0.18 | 0.13 | 0.10 | 0.23 | 0.21 | 0.19 | 0.12 | 0.07 | 1.15 | 6.27 | 21.67 | -9.92 | 6.02 | 0.20 | 0.19 | 0.00 | -0.07 |
| Rapeseed & Mustard | 0.85 | 0.82 | 1.03 | 1.24 | 2.79 | 0.66 | 0.96 | 0.80 | 0.89 | 1.66 | 5.18 | 7.66 | -0.92 | 11.59 | 5.65 | 1.17 | 0.74 | 1.03 | 3.75 |
| Castor | 0.05 | 0.01 | 0.01 | 0.00 | 0.01 | 0.06 | 0.01 | 0.01 | 0.00 | 0.00 | 2.59 | -8.49 | 0.00 | 9.28 | -19.56 | -0.02 | 0.00 | 0.00 | 0.00 |
| Other Oilseeds | 0.53 | 0.37 | 0.27 | 0.36 | 0.46 | 0.33 | 0.02 | 0.02 | 0.04 | 0.03 | -6.11 | -3.00 | 9.28 | 13.35 | -34.46 | -0.21 | 0.03 | 0.07 | 0.01 |
| All Oilseeds | 2.56 | 2.23 | 2.14 | 2.25 | 3.80 | 1.78 | 1.74 | 1.34 | 1.39 | 2.09 | 2.77 | 8.52 | 5.13 | 5.18 | 3.85 | 1.71 | 1.21 | 1.47 | 3.95 |
| Cotton | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Fibers | 1.63 | 1.62 | 1.56 | 1.64 | 1.12 | 1.64 | 0.92 | 0.61 | 0.44 | 0.39 | 1.62 | 2.07 | 0.57 | 2.14 | 5.37 | 0.40 | 0.51 | 0.16 | 0.27 |
| All Fibers | 1.64 | 1.63 | 1.56 | 1.65 | 1.12 | 1.98 | 1.16 | 1.48 | 0.59 | 0.95 | 1.59 | 2.02 | 0.51 | 2.14 | -2.42 | 0.57 | 1.59 | -0.86 | 1.91 |
| Fruits & vegetables | 2.12 | 3.37 | 4.67 | 13.48 | 14.40 | 16.00 | 33.86 | 39.67 | 48.51 | 43.20 | -2.44 | -3.22 | 7.93 | 1.15 | 0.93 | 46.72 | 41.61 | 62.71 | 28.97 |
| Sugarcane | 1.30 | 1.15 | 1.21 | 1.20 | 2.33 | 4.09 | 5.04 | 4.21 | 2.82 | 3.31 | 29.17 | 18.59 | 3.46 | 4.10 | 5.73 | 5.72 | 3.93 | 0.59 | 4.62 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 4.79 | 1.21 | 9.26 | 1.89 | 3.91 | 100 | 100 | 100 | 100 |

*Source*: Computed by the author from the data collected from Sources mentioned in the section on data and methods.

TABLE A.4 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: GUJARAT

| Crops/ Period | Share in the Gross Cropped Area (per cent) | | | | | Share in real value of output (per cent) | | | | | | Annual Compound Growth rate in the real value output (per cent /pa) | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1980s | 1990s | 2000s | 2010s |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
| Rice | 6.65 | 6.97 | 7.94 | 28.55 | 13.46 | 8.77 | 5.32 | 4.66 | 4.63 | 4.57 | 5.04 | 5.62 | 13.46 | 15.76 | 2.76 | 3.66 | 4.46 | 4.60 | 4.46 |
| Wheat | 8.62 | 7.72 | 7.71 | 8.29 | 13.91 | 9.14 | 8.18 | 6.69 | 7.26 | 7.10 | 6.13 | 6.82 | -3.41 | 18.16 | -5.55 | 7.72 | 6.25 | 7.87 | 6.81 |
| Maize | 4.05 | 4.31 | 4.96 | 4.82 | 5.57 | 2.19 | 1.94 | 1.55 | 1.39 | 1.30 | -4.84 | 9.87 | -0.56 | 10.25 | -0.24 | 1.82 | 1.43 | 1.23 | 1.13 |
| Bajra | 24.00 | 18.24 | 14.63 | 9.30 | 7.17 | 10.77 | 7.78 | 4.90 | 3.12 | 1.95 | -0.10 | 9.95 | -1.73 | 4.52 | -2.21 | 6.35 | 4.06 | 1.19 | -0.11 |
| Jowar | 15.61 | 11.88 | 5.15 | 1.61 | 1.41 | 5.20 | 3.04 | 0.95 | 0.52 | 0.32 | 5.72 | 2.85 | -3.53 | 13.69 | -3.98 | 2.00 | 0.34 | 0.06 | -0.05 |
| Barley | 0.11 | 0.07 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Ragi | 0.76 | 0.58 | 0.30 | 0.21 | 0.21 | 0.35 | 0.20 | 0.05 | 0.05 | 0.03 | 4.88 | -2.79 | 5.48 | 5.66 | -3.98 | 0.13 | 0.01 | 0.04 | -0.01 |
| All Cereals | 59.79 | 49.77 | 40.68 | 52.79 | 41.76 | 36.42 | 26.45 | 18.79 | 16.97 | 15.26 | 3.27 | -0.04 | 9.28 | 13.78 | -2.18 | 21.68 | 16.56 | 15.00 | 12.23 |
| Gram | 0.88 | 1.25 | 1.54 | 1.37 | 2.44 | 0.62 | 1.39 | 1.09 | 1.04 | 1.34 | 0.95 | 18.48 | 1.02 | 33.75 | 1.81 | 1.76 | 1.00 | 0.99 | 1.88 |
| Tur | 1.55 | 4.10 | 5.09 | 2.95 | 3.19 | 0.95 | 3.26 | 3.41 | 2.03 | 1.52 | 21.30 | 14.96 | 10.75 | 13.15 | 1.34 | 4.36 | 3.46 | 0.54 | 0.62 |
| Other Pulses | 4.01 | 5.91 | 7.52 | 3.53 | 1.64 | 0.56 | 0.56 | 0.24 | 0.27 | 0.11 | 11.67 | -10.15 | 18.24 | 0.69 | -6.19 | 0.57 | 0.15 | 0.30 | -0.16 |
| All Pulses | 6.44 | 11.27 | 14.15 | 7.85 | 7.28 | 2.13 | 5.21 | 4.74 | 3.34 | 2.98 | 13.17 | 1.50 | -4.41 | 15.55 | -0.43 | 6.69 | 4.60 | 1.83 | 2.34 |
| Linseed | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Groundnut | 26.45 | 26.46 | 24.80 | 19.58 | 20.32 | 31.98 | 23.80 | 21.48 | 22.57 | 18.06 | 7.94 | 9.37 | -3.91 | 14.69 | -5.24 | 19.88 | 20.80 | 23.75 | 10.05 |
| Sesamum | 1.57 | 1.76 | 3.55 | 3.44 | 2.27 | 0.82 | 0.79 | 1.22 | 1.29 | 0.78 | 4.17 | 16.55 | 18.32 | 8.66 | -10.08 | 0.77 | 1.35 | 1.38 | -0.14 |
| Rapeseed & Mustard | 1.03 | 2.68 | 4.83 | 2.79 | 2.69 | 2.04 | 6.65 | 5.60 | 3.11 | 1.95 | 31.12 | 6.85 | -3.35 | 7.43 | -0.02 | 8.86 | 5.30 | 0.42 | -0.12 |
| Castor | 1.11 | 2.63 | 4.47 | 3.57 | 8.18 | 3.82 | 5.74 | 11.96 | 8.79 | 11.90 | 12.79 | 7.46 | 1.14 | 7.13 | -0.48 | 6.66 | 13.77 | 5.38 | 17.42 |
| Other oilseeds | 0.00 | 0.18 | 0.17 | 0.46 | 1.31 | 0.17 | 0.12 | 0.31 | 0.24 | 0.38 | 8.13 | 2.20 | 18.17 | 8.79 | -19.40 | 0.09 | 0.37 | 0.17 | 0.63 |
| All oilseeds | 30.15 | 33.71 | 37.83 | 29.84 | 34.78 | 38.84 | 37.10 | 40.57 | 36.02 | 33.07 | 7.54 | 9.43 | 3.57 | 8.14 | -4.53 | 36.27 | 41.58 | 31.10 | 27.83 |
| Cotton | 25.78 | 18.15 | 17.16 | 20.72 | 33.38 | 8.86 | 8.77 | 9.90 | 8.90 | 7.56 | 11.23 | 6.12 | 4.70 | 21.54 | -4.85 | 8.73 | 10.23 | 7.82 | 5.17 |
| Other Fibers | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 1.53 | 0.12 | 0.06 | 0.01 | -1.80 | -45.53 | 25.39 | -16.78 | 2.21 | 2.24 | -0.29 | -0.01 | -0.08 |
| All Fibers | 2.55 | 2.36 | 2.08 | 1.61 | 1.51 | 8.89 | 10.30 | 10.02 | 8.95 | 7.56 | 11.21 | 0.10 | 4.77 | 21.37 | -4.85 | 10.97 | 9.94 | 7.81 | 5.09 |
| Fruits & Vegetables | 0.39 | 1.64 | 3.26 | 5.92 | 12.41 | 10.46 | 13.48 | 17.41 | 27.70 | 36.66 | 4.31 | 1.27 | 5.70 | 13.80 | 5.17 | 14.92 | 18.55 | 38.80 | 52.54 |
| Sugarcane | 0.68 | 1.24 | 2.01 | 1.99 | 2.26 | 3.25 | 7.46 | 8.47 | 7.02 | 4.47 | 19.32 | 12.58 | 16.10 | 4.94 | -1.89 | 9.48 | 8.76 | 5.46 | -0.04 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 7.54 | 4.54 | 5.01 | 13.28 | -1.58 | 100 | 100 | 100 | 100 |

*Source*: Computed by the author from the data collected from sources mentioned in the section on data and methods.

TABLE A.5 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: HARYANA

| Crops/ Period | Share in the gross cropped area (per cent) | | | | | Share in real value of output (per cent) | | | | | Annual Compound Growth rate in the real value output (per cent/pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) | 1970s (2) | 1980s (3) | 1990s (4) | 2000s (5) | 2010s (6) | 1970s (7) | 1980s (8) | 1990s (9) | 2000s (10) | 2010s (11) | 1970s (12) | 1980s (13) | 1990s (14) | 2000s (15) | 2010s (16) | 1980s (17) | 1990s (18) | 2000s (19) | 2010s (20) |
| Rice | 7.40 | 11.27 | 15.25 | 18.33 | 21.23 | 11.76 | 15.41 | 18.78 | 21.09 | 21.16 | 14.24 | 11.48 | 17.02 | 10.18 | 0.41 | 17.04 | 19.78 | 23.50 | 21.38 |
| Wheat | 27.84 | 35.46 | 37.06 | 40.84 | 40.89 | 36.87 | 37.41 | 34.74 | 38.04 | 37.14 | 10.82 | 11.36 | 31.04 | 7.11 | 1.29 | 37.65 | 33.95 | 41.48 | 34.46 |
| Maize | 2.41 | 1.14 | 0.49 | 0.26 | 0.12 | 1.17 | 0.45 | 0.22 | 0.12 | 0.06 | -5.11 | 4.77 | -0.27 | 2.33 | -2.17 | 0.13 | 0.15 | 0.02 | -0.14 |
| Bajra | 19.83 | 15.31 | 10.71 | 10.26 | 7.47 | 5.08 | 3.31 | 2.20 | 2.90 | 2.13 | -6.64 | 7.38 | 1.13 | 9.80 | -3.24 | 2.52 | 1.87 | 3.63 | -0.14 |
| Jowar | 3.79 | 2.77 | 2.18 | 0.49 | 0.81 | 0.37 | 0.22 | 0.17 | 0.12 | 0.10 | -3.09 | 3.49 | -10.12 | 12.55 | -6.24 | 0.15 | 0.16 | 0.07 | 0.05 |
| Barley | 2.77 | 1.69 | 0.82 | 0.61 | 0.51 | 1.64 | 1.13 | 0.65 | 0.44 | 0.34 | 2.31 | -5.85 | 11.08 | 5.07 | -8.65 | 0.90 | 0.51 | 0.22 | 0.03 |
| Ragi | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| All Cereals | 64.05 | 67.66 | 66.51 | 70.79 | 71.03 | 56.90 | 57.93 | 56.77 | 62.72 | 60.93 | 8.95 | 4.07 | 15.25 | 8.22 | 0.75 | 58.39 | 56.42 | 68.93 | 55.63 |
| Gram | 21.24 | 13.03 | 6.77 | 1.91 | 0.97 | 13.09 | 8.82 | 5.83 | 1.06 | 0.53 | -1.16 | 12.76 | -7.82 | -0.22 | -6.14 | 6.92 | 4.94 | -3.91 | -1.03 |
| Tur | 0.15 | 0.52 | 0.73 | 0.46 | 0.18 | 0.11 | 0.45 | 0.63 | 0.31 | 0.09 | 22.39 | 20.97 | -3.03 | 11.33 | -22.82 | 0.60 | 0.68 | -0.02 | -0.56 |
| Other Pulses | 1.57 | 1.14 | 0.79 | 0.56 | 0.25 | 0.15 | 0.09 | 0.03 | 0.02 | 0.01 | -2.02 | -6.70 | 5.66 | -1.00 | 29.49 | 0.06 | 0.02 | 0.01 | -0.03 |
| All Pulses | 22.97 | 14.68 | 8.30 | 2.93 | 1.40 | 13.34 | 9.36 | 6.48 | 1.39 | 0.63 | -0.86 | -1.71 | -17.81 | 2.75 | -6.33 | 7.58 | 5.63 | -3.92 | -1.61 |
| Linseed | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Groundnut | 0.20 | 0.13 | 0.03 | 0.03 | 0.06 | 0.20 | 0.08 | 0.02 | 0.01 | 0.03 | 7.29 | -1.17 | -12.20 | 22.34 | 3.70 | 0.03 | 0.00 | 0.01 | 0.08 |
| Sesamum | 0.08 | 0.09 | 0.07 | 0.08 | 0.04 | 0.07 | 0.06 | 0.02 | 0.03 | 0.02 | 8.20 | 10.50 | 5.77 | 6.80 | -4.53 | 0.05 | 0.01 | 0.03 | -0.01 |
| Rapeseed and Mustard | 3.35 | 6.06 | 10.14 | 9.84 | 8.63 | 2.36 | 6.82 | 10.82 | 8.03 | 8.00 | 3.96 | 9.07 | -0.72 | 8.88 | 3.12 | 8.80 | 12.01 | 5.13 | 7.88 |
| Castor | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | - | - | - | -35.59 | -12.85 | 0.00 | 0.00 | 0.02 | -0.02 |
| Other Oilseeds | 0.00 | 0.02 | 0.78 | 0.24 | 0.15 | 0.00 | 0.00 | 0.00 | 0.03 | 0.01 | - | - | 25.25 | -1.77 | 9.52 | 0.00 | 0.00 | 0.06 | -0.06 |
| All Oilseeds | 3.63 | 6.30 | 11.02 | 10.20 | 8.89 | 2.63 | 6.96 | 10.87 | 8.11 | 8.05 | 5.75 | 15.98 | 2.12 | 8.00 | 3.20 | 8.88 | 12.02 | 5.24 | 7.87 |
| Cotton | 5.68 | 7.83 | 10.50 | 9.34 | 9.86 | 12.07 | 11.34 | 12.99 | 11.49 | 11.40 | 13.51 | 12.50 | 1.26 | 7.94 | 1.57 | 11.02 | 13.48 | 9.93 | 11.11 |
| Other Fibers | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.44 | 0.01 | 0.00 | 0.00 | 4.00 | -38.67 | -11.61 | -0.30 | -31.04 | 0.62 | -0.11 | 0.00 | -0.01 |
| All Fibers | 5.73 | 7.83 | 10.50 | 9.34 | 9.86 | 12.10 | 11.78 | 13.01 | 11.50 | 11.40 | 13.47 | 6.60 | 1.25 | 7.94 | 1.56 | 11.64 | 13.37 | 9.93 | 11.11 |
| Fruits and vegetables | 0.23 | 0.85 | 1.13 | 4.40 | 7.21 | 6.39 | 5.76 | 7.05 | 11.40 | 15.36 | 2.47 | 1.01 | 11.42 | 7.97 | 5.85 | 5.48 | 7.43 | 15.93 | 27.06 |
| Sugarcane | 3.39 | 2.68 | 2.55 | 2.34 | 1.61 | 8.64 | 8.21 | 5.83 | 4.88 | 3.63 | 0.97 | 17.52 | 9.04 | -3.18 | 4.41 | 8.02 | 5.12 | 3.89 | -0.06 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 6.31 | 5.28 | 7.88 | 7.65 | 1.87 | 100 | 100 | 100 | 100 |

*Source*: Computed by the author from the data collected from Sources mentioned in the section on data and methods.

TABLE A.6 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: HIMACHAL PRADESH

| Crops/ Period | Share in the Gross Cropped Area (per cent) | | | | | Share in real value of output (per cent) | | | | | Annual Compound Growth rate in the real value output (per cent /pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1980s | 1990s | 2000s | 2010s |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
| Rice | 11.26 | 10.06 | 8.72 | 7.42 | 6.89 | 17.53 | 12.27 | 9.00 | 5.46 | 3.33 | 2.59 | 5.72 | 14.48 | 1.46 | -9.86 | 9.02 | 8.14 | 3.03 | -2.04 |
| Wheat | 37.82 | 39.86 | 39.38 | 33.52 | 31.81 | 28.26 | 24.53 | 16.15 | 11.51 | 11.03 | 7.58 | 7.95 | -0.30 | 14.70 | -0.94 | 22.23 | 13.96 | 8.33 | 9.83 |
| Maize | 31.52 | 32.38 | 32.64 | 27.93 | 27.01 | 30.58 | 32.14 | 20.01 | 13.95 | 11.32 | 4.90 | 11.97 | 0.33 | 4.74 | 0.87 | 33.10 | 16.83 | 9.80 | 4.69 |
| Bajra | 0.00 | 0.00 | 0.01 | 0.02 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | 0.00 | -6.65 | 0.00 | 0.00 | 0.00 | 0.01 |
| Jowar | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Barley | 4.54 | 3.51 | 2.77 | 2.22 | 1.88 | 3.62 | 2.62 | 1.26 | 0.77 | 0.62 | 3.77 | -3.39 | 6.97 | 7.37 | 2.96 | 2.00 | 0.90 | 0.43 | 0.27 |
| Ragi | 1.48 | 0.86 | 0.48 | 0.28 | 0.20 | 0.59 | 0.24 | 0.07 | 0.05 | 0.03 | 2.99 | -6.86 | 8.33 | 2.26 | -1.58 | 0.02 | 0.02 | 0.04 | -0.04 |
| All Cereals | 86.63 | 86.71 | 84.01 | 71.39 | 67.84 | 80.57 | 71.79 | 46.49 | 31.73 | 26.34 | 5.40 | 1.73 | 9.33 | 7.03 | -1.23 | 66.37 | 39.86 | 21.63 | 12.73 |
| Gram | 3.32 | 0.77 | 0.27 | 0.12 | 0.04 | 2.02 | 0.40 | 0.21 | 0.14 | 0.03 | 1.73 | 3.24 | 12.64 | -4.96 | -4.42 | -0.60 | 0.16 | 0.10 | -0.26 |
| Tur | 0.04 | 0.02 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | 17.18 | 0.00 | 0.00 | 0.00 | 0.01 |
| Other Pulses | 5.13 | 5.23 | 4.73 | 2.75 | 2.14 | 0.76 | 0.42 | 0.71 | 1.08 | 0.57 | 11.61 | 13.94 | 30.46 | 4.38 | -19.27 | 0.21 | 0.79 | 1.33 | -0.71 |
| All Pulses | 8.49 | 6.02 | 5.03 | 2.89 | 2.19 | 2.78 | 0.82 | 0.93 | 1.23 | 0.60 | 4.78 | -6.12 | 2.38 | 8.94 | -5.98 | -0.39 | 0.95 | 1.43 | -0.96 |
| Linseed | 0.75 | 0.53 | 0.36 | 0.16 | 0.09 | 0.32 | 0.19 | 0.14 | 0.03 | 0.02 | 4.88 | 6.44 | -1.56 | 3.56 | -1.16 | 0.12 | 0.12 | -0.03 | -0.01 |
| Groundnut | 0.21 | 0.11 | 0.04 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | - | - | - | 5.34 | -1.65 | 0.00 | 0.00 | 0.01 | 0.00 |
| Sesamum | 0.93 | 0.82 | 0.65 | 0.35 | 0.19 | 0.51 | 0.42 | 0.29 | 0.16 | 0.08 | 4.70 | 12.77 | 6.18 | -6.91 | -19.77 | 0.36 | 0.26 | 0.07 | -0.14 |
| Rapeseed & mustard | 0.58 | 0.76 | 1.00 | 0.89 | 0.82 | 0.20 | 0.21 | 0.26 | 0.33 | 0.34 | 2.26 | 2.17 | 8.03 | 5.30 | -0.70 | 0.21 | 0.27 | 0.37 | 0.37 |
| Castor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Other oilseeds | 0.14 | 0.05 | 0.07 | 0.06 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| All Oilseeds | 2.61 | 2.26 | 2.12 | 1.48 | 1.17 | 1.02 | 0.82 | 0.68 | 0.53 | 0.44 | 15.07 | 5.48 | 16.25 | -10.67 | 4.05 | 0.69 | 0.65 | 0.42 | 0.22 |
| Cotton | 0.07 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | - | - | - | 25.51 | 11.93 | 0.00 | 0.00 | 0.03 | -0.04 |
| Other Fibers | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.16 | 0.12 | 0.05 | 0.10 | 0.00 | 18.22 | -8.05 | -3.61 | -3.68 | 8.01 | 0.10 | 0.03 | 0.13 | -0.25 |
| All Fibers | 0.09 | 0.04 | 0.01 | 0.00 | 0.00 | 0.16 | 0.12 | 0.05 | 0.12 | 0.00 | 18.22 | -8.05 | -3.61 | 21.21 | -14.28 | 0.10 | 0.03 | 0.17 | -0.28 |
| Fruits & vegetables | 1.76 | 4.65 | 8.52 | 23.98 | 28.64 | 15.04 | 26.24 | 51.59 | 66.17 | 72.51 | 6.31 | 10.28 | -0.03 | 8.40 | -3.83 | 33.15 | 58.24 | 76.14 | 88.49 |
| Sugarcane | 0.42 | 0.32 | 0.30 | 0.25 | 0.17 | 0.43 | 0.21 | 0.26 | 0.23 | 0.11 | 10.76 | 5.05 | 20.49 | 7.02 | -0.01 | 0.07 | 0.27 | 0.21 | -0.19 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 6.17 | 3.26 | 4.07 | 7.79 | -3.23 | 100 | 100 | 100 | 100 |

*Source*: Computed by the author from the data collected from Sources mentioned in the section on data and methods.

TABLE A.7 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: JAMMU AND KASHMIR

| Crops/ Period | Share in the Gross Cropped Area (per cent) | | | | | Share in real value of output (per cent) | | | | | Annual Compound Growth rate in the real value output (per cent /pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1980s | 1990s | 2000s | 2010s |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
| Rice | 28.85 | 27.98 | 26.31 | 21.51 | 19.77 | 46.20 | 40.88 | 20.90 | 15.93 | 13.32 | 11.91 | 7.64 | 6.79 | 7.55 | 2.19 | 38.20 | 15.82 | 10.51 | 8.14 |
| Wheat | 22.41 | 23.14 | 23.81 | 22.43 | 21.30 | 13.02 | 11.25 | 11.39 | 10.02 | 8.20 | 10.62 | 10.19 | 3.87 | 12.99 | 4.64 | 10.37 | 11.42 | 8.54 | 4.57 |
| Maize | 32.31 | 29.58 | 29.42 | 27.21 | 21.61 | 24.63 | 22.57 | 18.37 | 13.27 | 8.92 | 3.27 | 7.53 | 0.50 | 3.25 | 0.95 | 21.54 | 17.30 | 7.72 | 0.27 |
| Bajra | 1.97 | 1.76 | 1.30 | 1.35 | 1.17 | 0.38 | 0.16 | 0.08 | 0.09 | 0.08 | 4.99 | 4.87 | -1.96 | 13.76 | 3.62 | 0.06 | 0.06 | 0.10 | 0.05 |
| Jowar | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | - | - | - | -3.55 | -15.91 | 0.00 | 0.00 | 0.05 | -0.04 |
| Barley | 1.53 | 0.99 | 0.79 | 0.90 | 0.63 | 0.00 | 0.00 | 0.00 | 0.07 | 0.04 | - | - | - | 7.81 | -6.87 | 0.00 | 0.00 | 0.14 | -0.01 |
| Ragi | 0.00 | 0.00 | 0.00 | 0.00 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | - | - | - | - | 1.19 | 0.00 | 0.00 | 0.01 | 0.08 |
| All Cereals | 87.11 | 83.46 | 81.63 | 73.41 | 64.74 | 84.24 | 74.87 | 50.74 | 39.41 | 30.59 | 8.98 | 0.26 | 10.62 | 6.73 | 2.53 | 70.16 | 44.60 | 27.07 | 13.07 |
| Gram | 0.37 | 0.12 | 0.13 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | -6.85 | -24.92 | 0.00 | 0.00 | 0.01 | 0.00 |
| Tur | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Pulses | 5.52 | 5.84 | 5.07 | 2.42 | 1.36 | 0.35 | 0.69 | 0.16 | 0.15 | 0.06 | 10.24 | -13.18 | 11.72 | 6.43 | -15.14 | 0.85 | 0.03 | 0.14 | -0.13 |
| All Pulses | 5.89 | 5.96 | 5.20 | 2.44 | 1.37 | 0.35 | 0.69 | 0.16 | 0.16 | 0.06 | 10.24 | -5.09 | -7.80 | 14.22 | -4.71 | 0.85 | 0.03 | 0.15 | -0.13 |
| Linseed | 0.55 | 0.23 | 0.11 | 0.07 | 0.02 | 0.59 | 0.22 | 0.04 | 0.02 | 0.00 | -0.42 | -1.81 | -2.77 | -10.63 | -1.46 | 0.04 | 0.00 | -0.01 | -0.02 |
| Groundnut | 0.00 | 0.05 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | 41.68 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sesamum | 0.77 | 0.84 | 0.83 | 0.49 | 0.33 | 0.18 | 0.50 | 0.14 | 0.06 | 0.04 | 1.91 | 16.37 | 4.68 | 2.88 | -1.34 | 0.66 | 0.04 | -0.02 | 0.00 |
| Rapeseed & Mustard | 3.87 | 5.38 | 5.96 | 5.04 | 3.92 | 4.39 | 6.78 | 3.22 | 2.11 | 1.58 | 16.83 | -3.85 | 4.02 | 10.63 | 0.77 | 7.98 | 2.32 | 0.90 | 0.52 |
| Castor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Oilseeds | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | - | - | 6.27 | -<br>12.70 | -<br>13.47 | 0.00 | 0.01 | 0.00 | 0.00 |
| All Oilseeds | 5.19 | 6.50 | 6.93 | 5.61 | 4.28 | 5.16 | 7.50 | 3.41 | 2.19 | 1.62 | 7.90 | -0.03 | 8.20 | 8.80 | 0.71 | 8.67 | 2.37 | 0.87 | 0.49 |
| Cotton | 0.07 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | -4.41 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Fibers | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 0.03 | 0.01 | 0.01 | 0.00 | -2.48 | 0.57 | -14.02 | -13.88 | -17.45 | 0.01 | 0.00 | 0.00 | -0.01 |
| All Fibers | 0.14 | 0.04 | 0.01 | 0.00 | 0.00 | 0.07 | 0.03 | 0.01 | 0.01 | 0.00 | -2.48 | 0.57 | -14.02 | -9.78 | -11.06 | 0.01 | 0.00 | 0.00 | -0.01 |
| Fruits & Vegetables | 1.50 | 3.98 | 6.20 | 18.54 | 29.61 | 10.09 | 16.81 | 45.66 | 58.23 | 67.72 | -1.76 | 4.84 | -4.74 | 12.06 | 1.66 | 20.19 | 53.00 | 71.92 | 86.59 |
| Sugarcane | 0.17 | 0.07 | 0.03 | 0.01 | 0.01 | 0.08 | 0.10 | 0.02 | 0.01 | 0.00 | 11.19 | 7.18 | -2.11 | -18.52 | 10.41 | 0.11 | 0.00 | -0.01 | -0.01 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 7.57 | 0.68 | -0.51 | 10.12 | 1.86 | 100 | 100 | 100 | 100 |

Source: Computed by the author from the data collected from Sources mentioned in the section on data and methods

TABLE A.8 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: KARNATAKA

| Crops/period | Share in the Gross Cropped Area (per cent) | | | | | Share in real value of output (per cent) | | | | | Annual Compound Growth rate in the real value output (per cent /pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1980s | 1990s | 2000s | 2010s |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
| Rice | 12.33 | 10.99 | 11.68 | 12.58 | 11.93 | 24.77 | 20.61 | 17.62 | 19.69 | 13.21 | 8.06 | 6.66 | 14.85 | 6.26 | -2.20 | 17.61 | 16.69 | 22.65 | -2.44 |
| Wheat | 3.97 | 2.78 | 2.07 | 2.38 | 1.92 | 2.11 | 1.39 | 0.82 | 0.94 | 0.69 | 14.47 | 0.67 | 5.73 | 7.11 | -6.52 | 0.87 | 0.64 | 1.11 | 0.09 |
| Maize | 1.46 | 1.84 | 3.52 | 7.95 | 12.71 | 2.37 | 2.93 | 4.07 | 8.00 | 9.12 | 9.57 | 13.73 | 9.71 | 9.67 | -1.57 | 3.34 | 4.42 | 13.61 | 11.85 |
| Bajra | 5.94 | 4.90 | 3.31 | 3.24 | 2.36 | 1.51 | 1.06 | 0.50 | 0.60 | 0.57 | 6.79 | 9.79 | 2.17 | 0.34 | -5.42 | 0.74 | 0.33 | 0.75 | 0.48 |
| Jowar | 23.04 | 21.51 | 18.07 | 13.00 | 10.85 | 18.74 | 17.31 | 7.93 | 7.21 | 4.77 | 10.14 | 8.38 | 3.02 | 6.55 | -3.66 | 16.27 | 5.04 | 6.19 | -1.14 |
| Barley | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Ragi | 11.28 | 10.68 | 8.86 | 7.89 | 6.51 | 8.66 | 8.79 | 4.43 | 3.81 | 2.42 | 9.60 | 2.26 | 9.98 | 1.30 | -8.33 | 8.89 | 3.08 | 2.93 | -0.94 |
| All Cereals | 58.02 | 52.69 | 47.50 | 47.04 | 46.28 | 58.17 | 52.10 | 35.36 | 40.25 | 30.78 | 9.04 | 1.00 | 43.63 | 6.25 | -2.90 | 47.71 | 30.21 | 47.25 | 7.91 |
| Gram | 1.78 | 1.80 | 2.66 | 5.15 | 10.07 | 0.57 | 1.16 | 1.48 | 2.66 | 3.88 | 5.39 | 17.84 | 21.59 | 13.30 | -0.61 | 1.59 | 1.58 | 4.35 | 6.83 |
| Tur | 3.32 | 4.00 | 3.83 | 5.27 | 8.66 | 2.16 | 2.79 | 2.08 | 3.16 | 4.33 | 14.26 | 15.99 | 18.48 | 5.29 | 6.84 | 3.24 | 1.86 | 4.71 | 7.16 |
| Other Pulses | 9.41 | 12.54 | 12.24 | 9.07 | 4.03 | 2.97 | 0.45 | 0.45 | 0.68 | 0.54 | 10.02 | 6.47 | 23.17 | 4.51 | -1.88 | -1.38 | 0.44 | 1.02 | 0.18 |
| All Pulses | 14.51 | 18.34 | 18.72 | 19.49 | 22.76 | 5.71 | 4.40 | 4.01 | 6.51 | 8.75 | 11.08 | 1.96 | 4.72 | 6.88 | 3.06 | 3.45 | 3.89 | 10.09 | 14.18 |
| Linseed | 0.75 | 0.47 | 0.22 | 0.13 | 0.05 | 0.27 | 0.18 | 0.07 | 0.04 | 0.01 | 8.52 | 8.62 | 0.71 | 1.63 | -21.86 | 0.11 | 0.03 | 0.00 | -0.05 |
| Groundnut | 9.73 | 9.10 | 10.67 | 8.18 | 6.13 | 10.80 | 12.67 | 9.74 | 5.33 | 3.66 | 5.92 | 15.79 | -0.89 | -3.51 | -6.87 | 14.03 | 8.84 | -0.99 | -0.38 |
| Sesamum | 1.02 | 1.30 | 1.06 | 0.75 | 0.48 | 0.61 | 0.83 | 0.48 | 0.48 | 0.24 | 10.35 | 11.30 | 11.02 | 1.85 | -11.70 | 0.99 | 0.38 | 0.47 | -0.34 |
| Rapeseed & Mustard | 0.03 | 0.04 | 0.05 | 0.05 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 9.35 | 0.91 | 3.19 | 3.89 | -8.12 | 0.02 | 0.02 | 0.02 | -0.02 |
| Castor | 0.34 | 0.26 | 0.21 | 0.19 | 0.10 | 0.35 | 0.36 | 0.18 | 0.17 | 0.05 | -1.78 | 5.65 | 2.62 | -5.22 | -21.93 | 0.36 | 0.13 | 0.14 | -0.22 |
| Other Oilseeds | 2.35 | 6.67 | 10.51 | 11.09 | 5.88 | 0.69 | 0.01 | 0.00 | 0.01 | 0.00 | 10.39 | -1.11 | 10.61 | 9.88 | -19.43 | -0.48 | 0.00 | 0.01 | 0.00 |
| All Oilseeds | 14.22 | 17.84 | 22.71 | 20.39 | 12.67 | 12.74 | 14.07 | 10.50 | 6.04 | 3.97 | 6.10 | 13.67 | 3.39 | 1.78 | -2.31 | 15.03 | 9.40 | -0.35 | -1.01 |
| Cotton | 11.03 | 7.25 | 5.31 | 4.07 | 5.91 | 10.11 | 8.28 | 9.26 | 4.28 | 6.54 | 13.22 | 9.84 | -0.33 | -2.85 | 1.56 | 6.95 | 9.56 | -2.85 | 12.01 |
| Other Fibers | 0.32 | 0.25 | 0.07 | 0.02 | 0.00 | 0.11 | 0.40 | 0.01 | 0.00 | 0.00 | 4.65 | -33.30 | -16.18 | 9.41 | -26.36 | 0.61 | -0.11 | 0.00 | -0.01 |
| All Fibers | 11.35 | 7.50 | 5.39 | 4.10 | 5.92 | 10.22 | 8.68 | 9.27 | 4.28 | 6.54 | 13.08 | 3.95 | -0.35 | -2.84 | 2.21 | 7.56 | 9.45 | -2.85 | 12.00 |
| Fruits & Vegetables | 0.51 | 1.79 | 2.96 | 6.15 | 8.24 | 5.50 | 5.72 | 24.43 | 31.81 | 37.46 | 4.02 | 8.98 | 1.99 | 8.97 | 3.95 | 5.88 | 30.19 | 42.37 | 51.09 |
| Sugarcane | 1.40 | 1.84 | 2.71 | 2.84 | 4.13 | 7.66 | 15.04 | 16.43 | 11.11 | 12.49 | 9.55 | 18.14 | 16.46 | -1.24 | 2.00 | 20.38 | 16.86 | 3.49 | 15.84 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 8.79 | 5.90 | 8.50 | 4.87 | 0.88 | 100 | 100 | 100 | 100 |

*Source*: Computed by the author from the data collected from Sources mentioned in the section on data and methods.

TABLE A.9 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: KERALA

| Crops/ Period | Share in the Gross Cropped Area (per cent) | | | | | Share in real value of output (per cent) | | | | | Annual Compound Growth rate in the real value output (per cent /pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1980s | 1990s | 2000s | 2010s |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
| Rice | 65.80 | 55.53 | 41.56 | 40.76 | 31.36 | 60.82 | 47.51 | 16.24 | 18.74 | 13.28 | 5.33 | 5.90 | 6.92 | 1.04 | 0.50 | 38.46 | 10.23 | -6.78 | -49.80 |
| Wheat | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Maize | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Bajra | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Jowar | 0.13 | 0.15 | 0.40 | 0.15 | 0.04 | 0.02 | 0.02 | 0.01 | 0.01 | 0.00 | 5.24 | 20.40 | -5.44 | 30.35 | -19.33 | 0.01 | 0.01 | 0.02 | -0.12 |
| Barley | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Ragi | 0.27 | 0.11 | 0.15 | 0.14 | 0.02 | 0.17 | 0.03 | 0.01 | 0.01 | 0.00 | -6.26 | 3.07 | 0.80 | -11.22 | 2.75 | -0.07 | 0.01 | 0.00 | -0.09 |
| All Cereals | 66.20 | 55.79 | 42.10 | 41.06 | 31.43 | 61.01 | 47.55 | 16.27 | 18.77 | 13.28 | 5.31 | -2.02 | 6.92 | 1.03 | 0.48 | 38.41 | 10.24 | -6.76 | -50.02 |
| Gram | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Tur | 0.32 | 0.06 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.08 | - | - | - | - | -20.31 | 0.00 | 0.00 | -0.27 | 0.60 |
| Other Pulses | 2.58 | 3.12 | 3.33 | 1.29 | 0.17 | 12.00 | 1.75 | 1.19 | 3.43 | 3.51 | 24.17 | -4.14 | 25.09 | -18.07 | -20.22 | -5.22 | 1.08 | -19.45 | 4.43 |
| All Pulses | 2.90 | 3.18 | 3.34 | 1.29 | 0.17 | 12.00 | 1.75 | 1.19 | 3.46 | 3.58 | 24.17 | -2.29 | 3.26 | 9.01 | -22.79 | -5.22 | 1.08 | -19.72 | 5.03 |
| Linseed | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Groundnut | 1.19 | 0.92 | 1.12 | 0.36 | 0.11 | 2.54 | 0.63 | 0.56 | 0.14 | 0.04 | 6.72 | 5.80 | -6.18 | -12.90 | -20.29 | -0.67 | 0.55 | 4.47 | -1.14 |
| Sesamum | 1.10 | 1.11 | 0.60 | 0.12 | 0.04 | 0.23 | 0.16 | 0.05 | 0.02 | 0.01 | 6.66 | 1.81 | 7.72 | -5.34 | -3.75 | 0.11 | 0.03 | 0.39 | -0.10 |
| Rapeseed & Mustard | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Castor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Oilseeds | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.75 | 0.15 | 0.04 | 0.05 | 0.02 | -13.24 | -3.97 | -4.84 | -3.78 | 5.53 | -0.26 | 0.02 | -0.04 | -0.26 |
| All Oilseeds | 2.29 | 2.03 | 1.72 | 0.49 | 0.24 | 3.51 | 0.94 | 0.65 | 0.20 | 0.07 | 11.71 | 7.72 | 7.55 | 2.74 | 0.01 | -0.82 | 0.60 | 4.81 | -1.50 |
| Cotton | 0.52 | 0.46 | 0.99 | 0.34 | 0.00 | 0.67 | 0.61 | 0.73 | 0.16 | 0.01 | 12.33 | 7.59 | -5.02 | -18.18 | -19.55 | 0.56 | 0.76 | 6.01 | -1.70 |
| Other Fibers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.05 | -0.01 | 0.00 | 0.00 |
| All Fibers | 0.52 | 0.46 | 0.99 | 0.34 | 0.00 | 0.67 | 0.64 | 0.73 | 0.16 | 0.01 | 12.33 | 0.79 | -5.02 | -18.18 | -19.55 | 0.62 | 0.75 | 6.01 | -1.70 |
| Fruits & Vegetables | 27.47 | 37.90 | 51.29 | 56.30 | 67.89 | 21.12 | 46.41 | 79.60 | 76.40 | 82.77 | -1.28 | 0.02 | -1.75 | 2.70 | 2.46 | 63.61 | 85.98 | 109.07 | 156.33 |
| Sugarcane | 0.62 | 0.64 | 0.57 | 0.53 | 0.27 | 1.69 | 2.71 | 1.56 | 1.02 | 0.29 | 8.58 | 13.58 | 13.54 | -25.80 | -36.28 | 3.40 | 1.34 | 6.57 | -8.14 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 4.69 | 2.87 | 2.42 | 2.46 | 1.08 | 100 | 100 | 100 | 100 |

Source: Computed by the author from the data collected from Sources mentioned in the section on data and methods.

TABLE A.10 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: MADHYA PRADESH

| Crops/ Period | Share in the Gross Cropped Area (per cent) | | | | | Share in real value of output (per cent) | | | | | Annual Compound Growth rate in the real value output (per cent /pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) | 1970s (2) | 1980s (3) | 1990s (4) | 2000s (5) | 2010s (6) | 1970s (7) | 1980s (8) | 1990s (9) | 2000s (10) | 2010s (11) | 1970s (12) | 1980s 13) | 1990s (14) | 2000s (15) | 2010s (16) | 1980s (17) | 1990s (18) | 2000s (19) | 2010s (20) |
| Rice | 25.00 | 23.91 | 22.05 | 22.85 | 20.69 | 31.45 | 25.13 | 23.70 | 23.16 | 16.86 | 0.70 | 7.08 | 12.39 | 11.36 | 3.88 | 21.92 | 23.20 | 22.38 | 12.17 |
| Wheat | 18.07 | 17.15 | 17.33 | 16.51 | 19.81 | 21.25 | 22.91 | 24.38 | 20.85 | 19.27 | 5.23 | 10.73 | 3.99 | 11.82 | 8.96 | 23.74 | 24.90 | 15.80 | 18.09 |
| Maize | 3.56 | 4.02 | 3.64 | 4.06 | 4.22 | 3.29 | 3.80 | 2.71 | 3.30 | 2.83 | 4.80 | 15.53 | 1.30 | 6.12 | 12.34 | 4.06 | 2.33 | 4.14 | 2.48 |
| Bajra | 1.06 | 0.84 | 0.76 | 0.75 | 0.85 | 0.74 | 0.52 | 0.40 | 0.61 | 0.58 | -7.22 | 9.85 | -0.80 | 9.62 | 5.53 | 0.41 | 0.35 | 0.92 | 0.56 |
| Jowar | 11.03 | 9.77 | 4.57 | 2.64 | 1.12 | 9.83 | 7.73 | 2.49 | 1.63 | 0.52 | 6.21 | 6.21 | -9.72 | 9.78 | -13.43 | 6.66 | 0.65 | 0.39 | -0.30 |
| Barley | 1.01 | 0.72 | 0.37 | 0.34 | 0.33 | 0.75 | 0.54 | 0.18 | 0.22 | 0.17 | 1.16 | -7.95 | 5.64 | 9.88 | 5.68 | 0.43 | 0.05 | 0.28 | 0.14 |
| Ragi | 0.11 | 0.09 | 0.06 | 0.04 | 0.03 | 0.06 | 0.04 | 0.03 | 0.01 | 0.00 | 4.40 | -1.88 | 5.24 | -2.74 | -3.82 | 0.03 | 0.03 | -0.03 | 0.00 |
| All Cereals | 59.85 | 56.49 | 48.79 | 47.21 | 47.05 | 67.37 | 60.67 | 53.90 | 49.78 | 40.24 | 3.19 | 1.76 | 11.84 | 10.95 | 6.49 | 57.26 | 51.52 | 43.88 | 33.14 |
| Gram | 9.90 | 10.32 | 10.41 | 11.84 | 12.29 | 7.34 | 14.61 | 17.52 | 15.73 | 10.13 | 8.23 | 19.33 | 15.31 | 10.77 | 6.25 | 18.29 | 18.55 | 13.16 | 5.97 |
| Tur | 2.75 | 2.33 | 1.62 | 1.59 | 2.07 | 3.91 | 4.29 | 2.75 | 1.99 | 1.69 | 4.55 | 13.93 | 7.62 | 7.44 | -0.63 | 4.48 | 2.21 | 0.91 | 1.46 |
| Other Pulses | 12.30 | 14.40 | 13.55 | 8.36 | 3.73 | 1.93 | 1.75 | 2.40 | 1.00 | 0.02 | -3.11 | -0.08 | 19.70 | -19.46 | -3.84 | 1.66 | 2.63 | -1.02 | -0.71 |
| All Pulses | 24.94 | 27.05 | 25.58 | 21.78 | 18.09 | 13.17 | 20.64 | 22.68 | 18.72 | 11.84 | 5.43 | 2.40 | 2.02 | 10.41 | 7.83 | 24.43 | 23.40 | 13.05 | 6.72 |
| Linseed | 3.81 | 2.56 | 1.63 | 0.85 | 0.51 | 2.21 | 1.74 | 0.96 | 0.44 | 0.19 | -2.39 | 11.91 | -2.40 | 3.81 | -3.51 | 1.50 | 0.68 | -0.30 | 0.00 |
| Groundnut | 2.42 | 1.46 | 1.10 | 1.00 | 0.89 | 3.22 | 2.05 | 2.49 | 1.43 | 1.00 | 2.03 | 13.32 | -1.34 | 6.37 | 3.26 | 1.45 | 2.65 | -0.10 | 0.67 |
| Sesamum | 1.51 | 1.16 | 0.80 | 0.80 | 1.25 | 0.71 | 0.61 | 0.39 | 0.65 | 0.65 | -4.68 | 16.26 | 5.71 | 24.66 | -2.53 | 0.56 | 0.31 | 1.02 | 0.65 |
| Rapeseed & Mustard | 1.22 | 1.70 | 2.76 | 2.81 | 2.79 | 1.23 | 2.86 | 3.78 | 3.55 | 2.19 | 6.18 | 9.14 | 2.47 | 14.75 | 2.59 | 3.69 | 4.10 | 3.21 | 1.17 |
| Castor | 0.02 | 0.02 | 0.02 | 0.06 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | -1.53 | -5.93 | -4.73 | -3.43 | -20.19 | 0.00 | 0.01 | 0.00 | 0.00 |
| Other Oilseeds | 1.89 | 5.89 | 15.93 | 20.57 | 21.21 | 0.88 | 0.24 | 0.09 | 0.06 | 0.01 | 0.28 | 0.40 | -4.55 | 14.64 | -27.63 | -0.09 | 0.05 | 0.01 | -0.02 |
| All Oilseeds | 10.87 | 12.79 | 22.24 | 26.10 | 26.66 | 8.26 | 7.50 | 7.72 | 6.13 | 4.04 | 7.05 | 16.39 | 9.27 | 11.69 | 0.77 | 7.11 | 7.80 | 3.86 | 2.48 |
| Cotton | 3.53 | 2.69 | 2.14 | 2.48 | 2.16 | 3.10 | 1.99 | 1.97 | 2.69 | 3.39 | 11.93 | 11.01 | 0.55 | 18.68 | 8.97 | 1.43 | 1.96 | 3.73 | 3.92 |
| Other Fibers | 0.14 | 0.03 | 0.01 | 0.00 | 0.02 | 0.08 | 0.08 | 1.26 | 0.01 | 0.01 | -9.23 | -29.80 | 4.39 | 9.83 | -6.34 | 0.07 | 1.68 | -1.78 | 0.00 |
| All Fibers | 3.67 | 2.72 | 2.15 | 2.49 | 2.18 | 3.18 | 2.06 | 3.23 | 2.70 | 3.40 | 10.24 | 4.34 | 0.62 | 18.60 | 8.94 | 1.50 | 3.64 | 1.95 | 3.92 |
| Fruits & Vegetables | 0.32 | 0.75 | 1.06 | 2.15 | 5.64 | 6.65 | 8.10 | 11.77 | 21.81 | 39.82 | 1.75 | 2.82 | 5.72 | 13.23 | 12.34 | 8.84 | 13.05 | 36.18 | 53.22 |
| Sugarcane | 0.34 | 0.21 | 0.18 | 0.27 | 0.38 | 1.37 | 1.03 | 0.70 | 0.86 | 0.67 | 2.96 | 12.13 | 14.01 | 2.20 | 10.90 | 0.85 | 0.59 | 1.09 | 0.52 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 4.00 | 4.22 | 7.61 | 11.54 | 7.40 | 100 | 100 | 100 | 100 |

Source: Computed by the author from the data collected from Sources mentioned in the section on data and methods

TABLE A.11 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: MAHARASHTRA

| Crops/period | Share in the Gross Cropped Area (per cent) | | | | | Share in real value of output (per cent) | | | | | Annual Compound Growth rate in the real value output (per cent /pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1980s | 1990s | 2000s | 2010s |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
| Rice | 7.93 | 7.48 | 7.23 | 7.50 | 7.13 | 15.10 | 13.35 | 9.65 | 7.46 | 7.02 | 3.80 | 9.22 | 11.79 | 5.95 | 2.02 | 12.53 | 8.55 | 4.83 | 5.80 |
| Wheat | 5.87 | 4.71 | 3.80 | 4.55 | 4.74 | 5.13 | 3.83 | 2.60 | 2.92 | 2.44 | 15.93 | 7.72 | 4.58 | 12.01 | -6.56 | 3.23 | 2.23 | 3.30 | 1.10 |
| Maize | 0.29 | 0.44 | 1.06 | 2.47 | 4.61 | 0.39 | 0.38 | 0.60 | 1.92 | 3.25 | 22.91 | 5.07 | 12.27 | 28.79 | -4.22 | 0.37 | 0.66 | 3.49 | 7.00 |
| Bajra | 9.54 | 8.72 | 8.66 | 6.74 | 3.80 | 3.91 | 3.06 | 2.86 | 1.89 | 0.99 | 1.95 | 11.81 | 0.28 | 2.66 | -12.66 | 2.67 | 2.80 | 0.73 | -1.53 |
| Jowar | 34.87 | 32.30 | 26.53 | 18.32 | 13.28 | 23.08 | 28.39 | 14.85 | 10.05 | 4.44 | 18.54 | 16.25 | -2.17 | 6.15 | -14.17 | 30.86 | 10.84 | 4.30 | -11.40 |
| Barley | 0.04 | 0.04 | 0.01 | 0.01 | 0.03 | 0.02 | 0.01 | 0.00 | 0.00 | 0.01 | 18.47 | -15.92 | 5.50 | 19.62 | 31.57 | 0.01 | 0.00 | 0.00 | 0.02 |
| Ragi | 1.21 | 1.09 | 0.81 | 0.69 | 0.50 | 0.78 | 0.84 | 0.33 | 0.27 | 0.21 | 4.95 | 0.35 | 6.39 | 7.25 | -2.50 | 0.88 | 0.18 | 0.19 | 0.04 |
| All Cereals | 59.74 | 54.77 | 48.11 | 40.29 | 34.08 | 48.40 | 49.87 | 30.88 | 24.51 | 18.36 | 10.16 | 2.58 | 8.76 | 7.94 | -5.07 | 50.56 | 25.25 | 16.85 | 1.02 |
| Gram | 2.33 | 2.59 | 3.39 | 4.92 | 7.22 | 0.97 | 2.06 | 2.24 | 3.20 | 4.37 | 14.34 | 25.10 | 16.97 | 16.48 | 0.80 | 2.57 | 2.30 | 4.36 | 7.66 |
| Tur | 3.47 | 3.84 | 4.87 | 5.33 | 5.83 | 2.59 | 3.90 | 3.40 | 3.83 | 3.61 | 14.66 | 20.16 | 20.18 | 9.36 | -1.72 | 4.51 | 3.25 | 4.35 | 2.98 |
| Other Pulses | 8.83 | 11.33 | 12.13 | 7.08 | 1.91 | 1.61 | 1.14 | 0.89 | 0.72 | 0.30 | 13.50 | 0.17 | 22.81 | -6.64 | -9.67 | 0.92 | 0.82 | 0.52 | -0.90 |
| All Pulses | 14.63 | 17.76 | 20.40 | 17.33 | 14.96 | 5.17 | 7.10 | 6.53 | 7.76 | 8.27 | 14.26 | 7.64 | 4.35 | 9.51 | -1.88 | 7.99 | 6.36 | 9.23 | 9.73 |
| Linseed | 1.41 | 1.18 | 0.65 | 0.29 | 0.10 | 0.58 | 0.56 | 0.19 | 0.07 | 0.02 | 14.84 | 11.18 | -4.88 | -0.38 | -14.06 | 0.55 | 0.09 | -0.09 | -0.10 |
| Groundnut | 4.56 | 3.81 | 2.95 | 2.02 | 1.44 | 6.71 | 6.55 | 4.40 | 2.02 | 1.37 | 8.23 | 18.55 | -5.49 | 2.46 | -7.26 | 6.48 | 3.76 | -0.83 | -0.46 |
| Sesamum | 0.91 | 1.19 | 1.05 | 0.48 | 0.18 | 0.73 | 0.85 | 0.57 | 0.21 | 0.07 | 18.46 | 15.79 | 3.68 | -3.53 | -11.57 | 0.91 | 0.49 | -0.23 | -0.34 |
| Rapeseed & Mustard | 0.02 | 0.02 | 0.05 | 0.05 | 0.04 | 0.01 | 0.02 | 0.02 | 0.01 | 0.01 | 0.00 | 7.97 | -1.40 | 7.61 | -3.77 | 0.02 | 0.02 | 0.01 | 0.00 |
| Castor | 0.02 | 0.03 | 0.04 | 0.08 | 0.06 | 0.01 | 0.02 | 0.01 | 0.02 | 0.01 | 4.14 | 4.70 | -0.58 | -4.25 | -1.34 | 0.02 | 0.01 | 0.02 | 0.00 |
| Other Oilseeds | 3.07 | 5.05 | 7.80 | 13.24 | 17.22 | 1.91 | 0.19 | 0.02 | 0.03 | 0.01 | 4.93 | -20.20 | 3.01 | 13.69 | -14.85 | -0.61 | -0.03 | 0.03 | -0.02 |
| All Oilseeds | 10.00 | 11.27 | 12.54 | 16.15 | 19.03 | 9.93 | 8.18 | 5.21 | 2.35 | 1.50 | 6.93 | 14.25 | 4.49 | 5.95 | -0.61 | 7.37 | 4.33 | -1.08 | -0.92 |
| Cotton | 13.74 | 13.23 | 13.71 | 15.00 | 19.29 | 13.20 | 8.84 | 10.32 | 12.57 | 18.14 | 26.57 | 12.03 | 5.17 | 15.51 | -1.38 | 6.81 | 10.75 | 15.27 | 33.85 |
| Other Fibers | 0.38 | 0.28 | 0.16 | 0.11 | 0.04 | 0.13 | 0.45 | 0.04 | 0.02 | 0.03 | 9.77 | -28.65 | 0.09 | 9.15 | -4.89 | 0.60 | -0.09 | 0.01 | 0.03 |
| All Fibers | 14.12 | 13.51 | 13.86 | 15.11 | 19.33 | 13.33 | 9.29 | 10.35 | 12.59 | 18.16 | 26.25 | 6.27 | 5.15 | 15.49 | -1.39 | 7.41 | 10.67 | 15.28 | 33.88 |
| Fruits & Vegetables | 0.36 | 1.20 | 2.80 | 7.83 | 8.15 | 11.63 | 9.18 | 31.13 | 39.79 | 39.26 | 3.37 | 3.23 | 5.73 | 8.23 | 3.48 | 8.04 | 37.64 | 50.19 | 37.76 |
| Sugarcane | 1.16 | 1.49 | 2.29 | 3.30 | 4.45 | 11.54 | 16.37 | 15.89 | 13.00 | 14.45 | 9.27 | 15.99 | 14.92 | 2.38 | 1.04 | 18.63 | 15.74 | 9.54 | 18.53 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 9.61 | 6.35 | 7.04 | 7.69 | -0.08 | 100 | 100 | 100 | 100 |

Source: Computed by the author from the data collected from Sources mentioned in the section on data and methods.

TABLE A.12 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: ODISHA

| Crops/Period | Share in the Gross Cropped Area (per cent) | | | | | Share in real value of output (per cent) | | | | | Annual Compound Growth rate in the real value output (per cent /pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1980s | 1990s | 2000s | 2010s |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
| Rice | 67.36 | 47.60 | 56.82 | 66.97 | 66.88 | 63.05 | 49.73 | 53.81 | 46.21 | 40.55 | 3.50 | 10.37 | 11.46 | 8.34 | 1.51 | 42.24 | 55.45 | 36.89 | 21.78 |
| Wheat | 0.74 | 0.62 | 0.13 | 0.08 | 0.01 | 1.37 | 0.81 | 0.13 | 0.04 | 0.01 | 25.72 | -2.22 | -17.93 | -2.93 | -26.27 | 0.50 | -0.14 | -0.06 | -0.12 |
| Maize | 1.56 | 1.85 | 0.99 | 0.93 | 1.33 | 1.42 | 1.85 | 0.39 | 0.47 | 0.69 | 10.98 | 7.06 | -9.02 | 18.01 | -9.56 | 2.09 | -0.20 | 0.57 | 1.41 |
| Bajra | 0.08 | 0.09 | 0.07 | 0.05 | 0.04 | 0.03 | 0.06 | 0.01 | 0.01 | 0.00 | 14.87 | 3.56 | -10.28 | 5.66 | -4.63 | 0.07 | 0.00 | 0.00 | 0.00 |
| Jowar | 0.38 | 0.37 | 0.25 | 0.09 | 0.11 | 0.22 | 0.14 | 0.05 | 0.02 | 0.01 | 12.46 | -0.98 | -9.42 | 5.68 | -1.75 | 0.10 | 0.01 | -0.01 | -0.01 |
| Barley | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Ragi | 3.25 | 3.10 | 1.45 | 1.07 | 0.85 | 1.27 | 1.75 | 0.30 | 0.18 | 0.14 | 5.58 | -0.93 | -8.12 | 6.36 | -6.63 | 2.02 | -0.28 | 0.03 | -0.01 |
| All Cereals | 73.37 | 53.62 | 59.71 | 69.20 | 69.22 | 67.35 | 54.33 | 54.69 | 46.94 | 41.40 | 3.93 | 3.27 | 10.75 | 8.40 | 1.29 | 47.01 | 54.84 | 37.41 | 23.05 |
| Gram | 0.45 | 0.49 | 0.44 | 0.49 | 0.67 | 0.25 | 0.71 | 0.29 | 0.28 | 0.33 | 15.17 | 17.05 | 2.59 | 20.02 | -3.44 | 0.96 | 0.13 | 0.27 | 0.49 |
| Tur | 0.85 | 1.42 | 1.93 | 2.01 | 2.32 | 0.76 | 2.74 | 1.60 | 1.60 | 1.73 | 11.28 | 25.22 | 1.67 | 13.01 | 1.92 | 3.85 | 1.15 | 1.59 | 2.14 |
| Other Pulses | 15.71 | 25.73 | 17.95 | 8.60 | 5.60 | 2.16 | 1.10 | 0.81 | 0.93 | 0.79 | 9.47 | 0.11 | 14.70 | 9.17 | -3.14 | 0.51 | 0.69 | 1.09 | 0.30 |
| All Pulses | 17.01 | 27.65 | 20.33 | 11.10 | 8.59 | 3.17 | 4.55 | 2.71 | 2.82 | 2.84 | 10.44 | 2.11 | -12.70 | 15.05 | -0.60 | 5.32 | 1.96 | 2.95 | 2.93 |
| Linseed | 0.34 | 0.38 | 0.39 | 0.34 | 0.33 | 0.19 | 0.28 | 0.21 | 0.11 | 0.09 | 18.19 | 10.49 | -3.49 | 9.44 | -5.69 | 0.33 | 0.18 | 0.00 | 0.03 |
| Groundnut | 1.65 | 3.40 | 1.89 | 1.16 | 0.88 | 2.65 | 7.34 | 1.92 | 0.92 | 0.60 | 13.35 | 17.27 | -18.31 | 13.53 | -9.30 | 9.99 | -0.27 | -0.30 | -0.46 |
| Sesamum | 1.81 | 2.98 | 1.57 | 0.71 | 0.40 | 1.33 | 3.28 | 2.47 | 0.12 | 0.07 | 8.52 | 20.83 | -19.97 | 8.04 | -12.47 | 4.38 | 2.14 | -2.76 | -0.12 |
| Rapeseed & Mustard | 1.37 | 1.58 | 0.74 | 0.22 | 0.18 | 0.98 | 1.72 | 0.30 | 0.03 | 0.03 | 16.24 | -0.17 | -27.87 | 14.53 | -7.51 | 2.14 | -0.28 | -0.29 | 0.03 |
| Castor | 0.43 | 0.43 | 0.33 | 0.25 | 0.18 | 0.32 | 0.39 | 0.15 | 0.11 | 0.07 | -0.92 | -0.95 | -4.79 | 11.82 | -7.11 | 0.43 | 0.06 | 0.05 | -0.07 |
| Other Oilseeds | 1.56 | 2.00 | 2.38 | 1.93 | 1.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | - | - | - | - | 3.11 | 0.00 | 0.00 | 0.00 | 0.32 |
| All Oilseeds | 7.16 | 10.77 | 7.31 | 4.61 | 3.48 | 5.47 | 13.02 | 5.05 | 1.30 | 0.94 | 10.25 | 10.06 | -8.57 | 9.15 | -4.34 | 17.27 | 1.83 | -3.30 | -0.28 |
| Cotton | 0.04 | 0.05 | 0.18 | 0.73 | 2.06 | 0.05 | 0.09 | 0.19 | 0.80 | 1.96 | 2.02 | 23.02 | 21.39 | 15.43 | 7.33 | 0.11 | 0.23 | 1.56 | 5.79 |
| Other Fibers | 1.28 | 0.91 | 0.61 | 0.41 | 0.11 | 1.65 | 1.21 | 0.46 | 0.19 | 0.10 | 0.35 | 0.13 | -13.24 | 9.64 | -15.71 | 0.96 | 0.15 | -0.13 | -0.22 |
| All Fibers | 1.33 | 0.96 | 0.80 | 1.14 | 2.17 | 1.70 | 1.29 | 0.64 | 0.99 | 2.05 | 0.57 | 1.51 | -3.02 | 14.19 | 6.14 | 1.07 | 0.38 | 1.42 | 5.57 |
| Fruits & Vegetables | 0.53 | 6.46 | 11.54 | 13.73 | 16.37 | 19.45 | 22.05 | 35.79 | 47.38 | 52.48 | -4.27 | 3.45 | 5.34 | 11.50 | -0.35 | 23.52 | 41.34 | 61.61 | 69.40 |
| Sugarcane | 0.61 | 0.55 | 0.32 | 0.22 | 0.17 | 2.85 | 4.75 | 1.12 | 0.57 | 0.29 | 10.74 | 14.87 | -6.18 | -6.18 | -3.99 | 5.82 | -0.34 | -0.10 | -0.66 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 2.51 | 4.10 | 4.03 | 10.16 | 0.33 | 100 | 100 | 100 | 100 |

Source: Computed by the author from the data collected from Sources mentioned in the section on data and methods.

TABLE A.13 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: PUNJAB

| Crops/ Period | Share in the Gross Cropped Area (per cent) | | | | | Share in real value of output (per cent) | | | | | Annual Compound Growth rate in the real value output (per cent /pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1970s | 1980s | 1990s | 2000s | 2010s | 1980s | 1990s | 2000s | 2010s |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
| Rice | 12.74 | 25.15 | 32.18 | 36.38 | 39.46 | 15.24 | 27.38 | 32.53 | 37.30 | 36.73 | 23.40 | 14.48 | 15.27 | 7.55 | 1.92 | 33.30 | 34.32 | 43.38 | 34.51 |
| Wheat | 47.15 | 49.03 | 47.40 | 47.86 | 47.45 | 48.67 | 44.50 | 42.27 | 40.98 | 40.79 | 12.13 | 9.79 | 2.73 | 5.98 | 1.60 | 42.46 | 41.50 | 39.33 | 40.05 |
| Maize | 9.80 | 4.50 | 2.51 | 2.12 | 1.65 | 3.52 | 1.62 | 0.94 | 1.09 | 0.94 | 2.86 | 4.21 | 2.19 | 7.22 | -2.39 | 0.70 | 0.70 | 1.30 | 0.34 |
| Bajra | 2.56 | 0.59 | 0.13 | 0.08 | 0.02 | 0.77 | 0.15 | 0.03 | 0.01 | 0.00 | -11.47 | -13.06 | -10.30 | 4.43 | -14.68 | -0.16 | -0.02 | 0.00 | -0.04 |
| Jowar | 0.07 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Barley | 1.48 | 0.88 | 0.55 | 0.29 | 0.14 | 0.46 | 0.43 | 0.32 | 0.17 | 0.08 | 7.21 | -0.77 | 12.23 | -2.63 | -5.89 | 0.41 | 0.28 | -0.01 | -0.29 |
| Ragi | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| All Cereals | 73.80 | 80.17 | 82.78 | 86.73 | 88.72 | 68.67 | 74.07 | 76.09 | 79.56 | 78.54 | 13.17 | 5.03 | 14.18 | 6.68 | 1.70 | 76.71 | 76.79 | 83.99 | 74.57 |
| Gram | 6.28 | 1.97 | 0.32 | 0.07 | 0.03 | 1.54 | 0.57 | 0.09 | 0.02 | 0.01 | 2.63 | 1.39 | -9.37 | 0.79 | -0.73 | 0.09 | -0.08 | -0.06 | -0.03 |
| Tur | 0.10 | 0.43 | 0.16 | 0.10 | 0.04 | 0.03 | 0.19 | 0.07 | 0.04 | 0.02 | 43.23 | 11.12 | 9.98 | 1.92 | -5.23 | 0.27 | 0.02 | 0.01 | -0.07 |
| Other Pulses | 1.01 | 1.50 | 1.55 | 0.35 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| All Pulses | 7.39 | 3.91 | 2.02 | 0.53 | 0.14 | 1.57 | 0.76 | 0.16 | 0.07 | 0.03 | 3.79 | -6.54 | -8.86 | 0.93 | 2.24 | 0.36 | -0.05 | -0.05 | -0.10 |
| Linseed | 0.04 | 0.02 | 0.01 | 0.00 | 0.00 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 10.31 | 8.84 | -2.01 | -10.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Groundnut | 2.92 | 0.81 | 0.13 | 0.05 | 0.02 | 2.48 | 0.58 | 0.11 | 0.03 | 0.02 | 1.27 | -8.82 | -4.74 | 1.13 | -4.52 | -0.35 | -0.05 | -0.07 | -0.03 |
| Sesamum | 0.31 | 0.24 | 0.25 | 0.17 | 0.06 | 0.18 | 0.13 | 0.10 | 0.05 | 0.02 | 3.21 | 7.91 | 4.43 | -1.60 | -11.18 | 0.11 | 0.09 | -0.01 | -0.13 |
| Rapeseed & Mustard | 2.38 | 1.99 | 1.14 | 0.63 | 0.42 | 0.90 | 1.08 | 0.57 | 0.28 | 0.23 | 9.20 | 2.29 | -1.54 | 1.88 | 1.13 | 1.17 | 0.39 | -0.09 | 0.03 |
| Castor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Oilseeds | 0.00 | 0.03 | 1.10 | 0.23 | 0.13 | 0.00 | 0.01 | 0.17 | 0.08 | 0.05 | -62.20 | 33.76 | 14.15 | 34.67 | -31.01 | 0.02 | 0.23 | -0.03 | -0.10 |
| All Oilseeds | 5.64 | 3.09 | 2.62 | 1.08 | 0.62 | 3.59 | 1.82 | 0.95 | 0.45 | 0.31 | 2.43 | 4.42 | 3.96 | 4.10 | -5.57 | 0.95 | 0.66 | -0.20 | -0.23 |
| Cotton | 10.38 | 10.20 | 9.35 | 7.33 | 5.43 | 15.49 | 12.65 | 11.52 | 9.23 | 5.86 | 13.47 | 13.76 | -6.68 | 8.30 | -4.34 | 11.27 | 11.13 | 6.30 | -7.27 |
| Other Fibers | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.41 | 0.02 | 0.01 | 0.00 | -2.67 | -46.39 | -0.32 | 7.92 | 1.51 | 0.61 | -0.12 | -0.01 | -0.01 |
| All Fibers | 10.42 | 10.20 | 9.35 | 7.33 | 5.43 | 15.51 | 13.07 | 11.54 | 9.24 | 5.86 | 13.43 | 8.00 | -6.67 | 8.30 | -4.34 | 11.87 | 11.01 | 6.29 | -7.28 |
| Fruits & Vegetables | 0.66 | 1.17 | 1.61 | 2.87 | 3.91 | 5.52 | 4.33 | 6.68 | 7.64 | 12.74 | 5.20 | 4.55 | 2.69 | 11.65 | 4.70 | 3.76 | 7.49 | 8.87 | 32.64 |
| Sugarcane | 2.09 | 1.47 | 1.62 | 1.47 | 1.18 | 5.14 | 5.95 | 4.58 | 3.05 | 2.51 | 4.56 | 18.69 | 10.94 | -7.46 | 7.59 | 6.35 | 4.10 | 1.10 | 0.40 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 9.60 | 5.65 | 9.23 | 6.78 | 1.84 | 100 | 100 | 100 | 100 |

Source: Computed by the author from the data collected from Sources mentioned in the section on data and methods

TABLE A.14 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: RAJASTHAN

| Crops/period | Share in the Gross Cropped Area (per cent) | | | | | Share in real value of output (per cent) | | | | | Annual Compound Growth rate in the real value output (per cent /pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970s (2) | 1980s (3) | 1990s (4) | 2000s (5) | 2010s (6) | 1970s (7) | 1980s (8) | 1990s (9) | 2000s (10) | 2010s (11) | 1970s (12) | 1980s (13) | 1990s (14) | 2000s (15) | 2010s (16) | 1980s (17) | 1990s (18) | 2000s (19) | 2010s (20) |
| Rice | 1.11 | 0.92 | 0.85 | 0.74 | 0.92 | 2.72 | 0.98 | 0.81 | 1.12 | 1.65 | 2.95 | 3.07 | 19.69 | 13.89 | 6.32 | 0.25 | 0.77 | 1.59 | 2.77 |
| Wheat | 12.22 | 11.93 | 12.81 | 13.63 | 16.42 | 27.82 | 26.42 | 25.31 | 25.71 | 25.09 | 9.80 | 11.85 | 4.42 | 8.49 | 3.70 | 25.84 | 25.01 | 26.34 | 23.80 |
| Maize | 5.63 | 6.09 | 5.26 | 6.28 | 5.32 | 6.00 | 5.64 | 3.54 | 4.72 | 3.89 | 1.29 | 14.48 | -2.98 | 7.20 | -0.95 | 5.49 | 2.97 | 6.55 | 2.19 |
| Bajra | 32.89 | 32.39 | 25.45 | 29.51 | 24.80 | 10.31 | 8.49 | 6.54 | 10.46 | 7.94 | -15.20 | 14.55 | -6.19 | 4.54 | -2.00 | 7.73 | 6.01 | 16.55 | 2.73 |
| Jowar | 6.47 | 6.42 | 3.70 | 1.59 | 3.21 | 3.46 | 2.66 | 1.07 | 1.09 | 1.13 | -7.72 | 7.36 | -10.23 | 3.22 | -0.89 | 2.33 | 0.64 | 1.13 | 1.19 |
| Barley | 3.89 | 2.05 | 1.22 | 1.30 | 1.63 | 5.89 | 3.47 | 2.14 | 2.21 | 2.31 | -0.72 | -4.15 | 11.33 | 6.61 | -1.54 | 2.46 | 1.78 | 2.31 | 2.52 |
| Ragi | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| All Cereals | 62.21 | 59.80 | 49.29 | 53.06 | 52.30 | 56.18 | 47.66 | 39.41 | 45.31 | 42.02 | 1.06 | 3.28 | 11.15 | 7.73 | 1.69 | 44.10 | 37.17 | 54.47 | 35.21 |
| Gram | 11.61 | 9.84 | 8.98 | 5.89 | 8.33 | 13.95 | 11.71 | 12.23 | 5.77 | 8.50 | 3.03 | 10.11 | 12.27 | 34.80 | 1.56 | 10.78 | 12.37 | -4.28 | 14.17 |
| Tur | 0.25 | 0.18 | 0.15 | 0.12 | 0.09 | 0.21 | 0.26 | 0.24 | 0.14 | 0.08 | 0.00 | 21.65 | 6.72 | -1.72 | -6.24 | 0.28 | 0.24 | -0.02 | -0.05 |
| Other Pulses | 14.84 | 15.54 | 17.19 | 13.80 | 8.62 | 0.53 | 0.66 | 1.09 | 2.36 | 0.04 | 2.80 | 11.17 | 15.02 | -32.23 | -3.98 | 0.72 | 1.21 | 4.33 | -4.76 |
| All Pulses | 26.70 | 25.56 | 26.32 | 19.81 | 17.03 | 14.70 | 12.64 | 13.57 | 8.27 | 8.63 | 3.00 | 0.42 | -3.82 | 3.02 | 4.80 | 11.78 | 13.82 | 0.04 | 9.37 |
| Linseed | 0.63 | 0.45 | 0.13 | 0.02 | 0.03 | 0.68 | 0.50 | 0.14 | 0.03 | 0.05 | 3.53 | 8.50 | -11.86 | 6.36 | 4.74 | 0.42 | 0.05 | -0.15 | 0.09 |
| Groundnut | 1.94 | 1.46 | 1.48 | 1.65 | 2.82 | 4.08 | 2.72 | 3.01 | 4.11 | 6.88 | 1.12 | 18.84 | 1.81 | 12.55 | 8.08 | 2.16 | 3.09 | 5.81 | 12.63 |
| Sesamum | 3.11 | 2.63 | 2.31 | 2.20 | 2.06 | 1.86 | 1.23 | 1.08 | 1.31 | 1.33 | -13.93 | 24.37 | -14.09 | 30.96 | -10.26 | 0.97 | 1.04 | 1.67 | 1.39 |
| Rapeseed & Mustard | 2.33 | 6.60 | 14.40 | 15.24 | 15.18 | 5.40 | 20.45 | 26.75 | 30.01 | 26.96 | 3.59 | 17.81 | 30.85 | 12.91 | 0.48 | 26.73 | 28.46 | 35.08 | 20.65 |
| Castor | 0.02 | 0.06 | 0.18 | 0.54 | 1.06 | 0.02 | 0.06 | 0.30 | 1.03 | 1.74 | 0.00 | 36.91 | 2.72 | 14.84 | -1.65 | 0.08 | 0.37 | 2.17 | 3.21 |
| Other Oilseeds | 0.00 | 0.38 | 2.19 | 4.06 | 5.56 | 0.48 | 1.90 | 1.16 | 0.63 | 0.02 | 5.77 | 3.75 | 8.19 | -38.33 | -13.82 | 2.49 | 0.96 | -0.20 | -1.25 |
| All Oilseeds | 8.03 | 11.59 | 20.70 | 23.71 | 26.72 | 12.51 | 26.86 | 32.44 | 37.11 | 36.98 | 2.15 | 22.86 | 6.71 | 11.18 | 1.32 | 32.85 | 33.96 | 44.37 | 36.72 |
| Cotton | 2.33 | 2.45 | 3.09 | 2.50 | 2.67 | 11.05 | 7.93 | 10.72 | 5.32 | 7.28 | 19.15 | 15.38 | 0.74 | 2.91 | 10.03 | 6.62 | 11.48 | -3.08 | 11.33 |
| Other Fibers | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14 | 0.54 | 0.03 | 0.04 | 0.03 | -9.48 | -28.34 | -4.80 | 10.51 | -13.41 | 0.71 | -0.10 | 0.04 | 0.01 |
| All Fibers | 2.39 | 2.45 | 3.09 | 2.50 | 2.67 | 11.20 | 8.47 | 10.76 | 5.35 | 7.31 | 18.34 | 9.68 | 0.72 | 2.95 | 9.99 | 7.33 | 11.38 | -3.04 | 11.35 |
| Fruits & Vegetables | 0.36 | 0.41 | 0.47 | 0.87 | 1.25 | 2.68 | 2.57 | 2.91 | 3.75 | 5.00 | -0.70 | 8.45 | 8.94 | 8.87 | 5.38 | 2.53 | 3.00 | 5.07 | 7.58 |
| Sugarcane | 0.31 | 0.19 | 0.13 | 0.05 | 0.03 | 2.72 | 1.80 | 0.91 | 0.20 | 0.07 | 6.29 | 8.21 | 4.07 | -12.19 | 5.29 | 1.42 | 0.67 | -0.90 | -0.21 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 2.69 | 8.65 | 5.55 | 8.25 | 2.64 | 100 | 100 | 100 | 100 |

*Source*: Computed by the author from the data collected from Sources mentioned in the section on data and methods.

TABLE A.15 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: TAMIL NADU

| Crops/period | Share in the Gross Cropped Area (per cent) | | | | | Share in real value of output (per cent) | | | | | Annual Compound Growth rate in the real value output (per cent/pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970s (2) | 1980s (3) | 1990s (4) | 2000s (5) | 2010s (6) | 1970s (7) | 1980s (8) | 1990s (9) | 2000s (10) | 2010s (11) | 1970s (12) | 1980s (13) | 1990s (14) | 2000s (15) | 2010s (16) | 1980s (17) | 1990s (18) | 2000s (19) | 2010s (20) |
| Rice | 41.44 | 35.46 | 35.67 | 49.70 | 43.04 | 42.51 | 36.13 | 24.72 | 21.87 | 19.33 | 6.02 | 10.09 | 14.51 | 1.43 | 0.55 | 30.50 | 22.27 | 10.96 | 7.34 |
| Wheat | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Maize | 0.29 | 0.41 | 0.85 | 3.22 | 7.28 | 0.11 | 0.20 | 0.22 | 1.80 | 4.83 | 7.43 | 19.95 | 15.35 | 29.92 | 11.93 | 0.28 | 0.22 | 7.82 | 19.16 |
| Bajra | 6.74 | 5.09 | 3.29 | 1.68 | 1.18 | 2.18 | 1.67 | 0.58 | 0.36 | 0.33 | 4.75 | 8.57 | -1.91 | -0.65 | 4.80 | 1.22 | 0.35 | -0.50 | 0.21 |
| Jowar | 11.41 | 11.02 | 7.21 | 4.51 | 7.06 | 4.96 | 3.52 | 1.23 | 0.91 | 1.19 | 7.37 | 6.91 | -4.35 | 3.68 | 6.87 | 2.25 | 0.73 | -0.28 | 2.49 |
| Barley | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 41.42 | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Ragi | 4.46 | 3.37 | 2.26 | 1.94 | 1.96 | 2.16 | 1.80 | 0.62 | 0.52 | 0.67 | 4.37 | 3.26 | 6.06 | 1.41 | 4.58 | 1.48 | 0.37 | 0.14 | 1.39 |
| All Cereals | 64.37 | 55.36 | 49.28 | 61.04 | 60.51 | 51.93 | 43.33 | 27.37 | 25.45 | 26.35 | 6.01 | 3.97 | 13.83 | 2.45 | 2.73 | 35.74 | 23.94 | 18.14 | 30.60 |
| Gram | 0.13 | 0.14 | 0.13 | 0.12 | 0.15 | 0.04 | 0.07 | 0.04 | 0.04 | 0.04 | 15.43 | 5.21 | 9.30 | 7.95 | 1.03 | 0.09 | 0.04 | 0.04 | 0.04 |
| Tur | 1.26 | 1.90 | 1.54 | 0.74 | 1.15 | 0.44 | 0.92 | 0.39 | 0.20 | 0.33 | 13.65 | 24.40 | 10.70 | -2.81 | 9.05 | 1.34 | 0.27 | -0.49 | 0.92 |
| Other Pulses | 7.34 | 13.13 | 14.01 | 9.67 | 6.13 | 0.39 | 0.21 | 0.15 | 0.16 | 0.30 | 7.54 | 11.39 | 22.51 | -9.10 | 19.30 | 0.05 | 0.14 | 0.19 | 0.99 |
| All Pulses | 8.73 | 15.17 | 15.68 | 10.53 | 7.43 | 0.87 | 1.19 | 0.58 | 0.40 | 0.67 | 10.41 | 9.06 | 0.37 | 1.18 | 8.60 | 1.48 | 0.44 | -0.26 | 1.95 |
| Linseed | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Groundnut | 15.70 | 15.95 | 16.39 | 10.18 | 7.84 | 14.06 | 15.11 | 12.34 | 9.04 | 7.28 | 6.44 | 14.14 | 1.46 | 1.37 | 0.20 | 16.04 | 11.74 | -3.58 | -1.02 |
| Sesamum | 1.95 | 2.01 | 1.97 | 1.31 | 1.04 | 0.80 | 0.73 | 0.49 | 0.37 | 0.24 | 6.12 | 8.66 | 12.61 | -3.74 | -0.42 | 0.67 | 0.43 | -0.07 | -0.39 |
| Rapeseed & Mustard | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | 0.00 | -6.70 | 3.31 | -17.35 | 0.00 | 0.00 | 0.00 | 0.00 |
| Castor | 0.15 | 0.30 | 0.48 | 0.21 | 0.12 | 0.05 | 0.07 | 0.07 | 0.03 | 0.01 | 0.38 | 8.78 | 0.75 | -12.32 | -2.47 | 0.09 | 0.07 | -0.13 | -0.06 |
| Other Oilseeds | 0.62 | 0.39 | 0.43 | 0.32 | 0.20 | 0.06 | 0.05 | 0.05 | 0.03 | 0.02 | -3.09 | 8.14 | -0.99 | 3.44 | -4.86 | 0.04 | 0.05 | -0.04 | -0.01 |
| All Oilseeds | 18.43 | 18.66 | 19.28 | 12.04 | 9.21 | 14.96 | 15.96 | 12.95 | 9.47 | 7.55 | 6.01 | 12.62 | 6.53 | 3.23 | -0.93 | 16.84 | 12.30 | -3.82 | -1.48 |
| Cotton | 4.50 | 3.75 | 3.97 | 2.20 | 3.37 | 3.81 | 3.18 | 2.32 | 1.02 | 1.42 | 8.94 | 14.30 | -2.27 | -3.31 | 0.91 | 2.62 | 2.14 | -3.95 | 3.33 |
| Other fibers | 0.01 | 0.00 | 0.00 | 0.00 | 0.11 | 0.00 | 0.12 | 0.02 | 0.02 | 0.00 | 19.46 | -33.67 | 14.15 | -27.75 | -35.09 | 0.22 | 0.00 | 0.05 | -0.11 |
| All Fibers | 4.51 | 3.76 | 3.97 | 2.20 | 3.48 | 3.81 | 3.29 | 2.34 | 1.04 | 1.42 | 8.93 | 7.86 | -2.15 | -3.58 | 0.90 | 2.84 | 2.13 | -3.91 | 3.22 |
| Fruits & Vegetables | 1.62 | 3.90 | 7.22 | 8.77 | 13.25 | 12.76 | 15.72 | 32.77 | 49.84 | 56.17 | 3.81 | 2.09 | 6.06 | 6.75 | 1.85 | 18.32 | 36.44 | 115.07 | 86.08 |
| Sugarcane | 2.34 | 3.15 | 4.57 | 5.43 | 6.11 | 15.66 | 20.51 | 24.00 | 13.80 | 7.82 | 12.52 | 10.27 | 13.82 | -1.55 | -7.06 | 24.78 | 24.76 | -25.22 | -20.38 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 6.39 | 6.94 | 8.31 | 3.92 | 1.13 | 100 | 100 | 100 | 100 |

*Source*: computed by the author from the data collected from Sources mentioned in the section on data and methods

TABLE A.16 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: UTTAR PRADESH

| Crops/period | Share in the Gross Cropped Area (per cent) | | | | | Share in real value of output (per cent) | | | | | Annual Compound Growth rate in the real value output (per cent/pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) | 1970s (2) | 1980s (3) | 1990s (4) | 2000s (5) | 2010s (6) | 1970s (7) | 1980s (8) | 1990s (9) | 2000s (10) | 2010s (11) | 1970s (12) | 1980s (13) | 1990s (14) | 2000s (15) | 2010s (16) | 1980s (17) | 1990s (18) | 2000s (19) | 2010s (20) |
| Rice | 19.21 | 21.01 | 21.73 | 36.80 | 26.98 | 18.92 | 15.95 | 18.60 | 18.99 | 17.82 | 3.61 | 10.45 | 13.77 | 5.89 | 2.87 | 14.73 | 19.65 | 19.53 | 14.48 |
| Wheat | 26.38 | 32.94 | 34.78 | 30.29 | 38.50 | 24.29 | 24.60 | 27.08 | 29.82 | 27.47 | 9.27 | 9.22 | 3.39 | 7.81 | 0.85 | 24.73 | 28.05 | 33.68 | 20.72 |
| Maize | 5.53 | 4.57 | 4.09 | 2.76 | 2.93 | 2.31 | 1.99 | 1.56 | 1.27 | 1.08 | -2.31 | 16.12 | -0.52 | 2.84 | 3.43 | 1.86 | 1.39 | 0.87 | 0.52 |
| Bajra | 4.15 | 3.58 | 3.19 | 2.68 | 3.52 | 1.53 | 1.19 | 1.12 | 1.15 | 1.12 | -4.69 | 10.79 | 3.02 | 5.59 | 1.50 | 1.05 | 1.10 | 1.20 | 1.02 |
| Jowar | 2.82 | 2.43 | 1.65 | 0.78 | 0.67 | 1.16 | 0.86 | 0.48 | 0.29 | 0.18 | -4.81 | 13.02 | -4.05 | 1.03 | -1.37 | 0.74 | 0.33 | 0.02 | -0.14 |
| Barley | 4.60 | 2.33 | 1.42 | 0.75 | 0.65 | 2.53 | 1.25 | 0.92 | 0.57 | 0.39 | -2.28 | -3.36 | 11.00 | 0.78 | 3.41 | 0.73 | 0.79 | 0.08 | -0.13 |
| Ragi | 0.85 | 0.63 | 0.54 | 0.45 | 0.43 | 0.67 | 0.35 | 0.24 | 0.20 | 0.13 | 1.93 | 2.01 | 9.80 | 1.42 | -4.07 | 0.22 | 0.19 | 0.14 | -0.07 |
| All Cereals | 63.53 | 67.49 | 67.39 | 74.51 | 73.69 | 51.41 | 46.20 | 50.00 | 52.29 | 48.19 | 5.59 | 3.65 | 13.61 | 6.85 | 1.58 | 44.06 | 51.51 | 55.52 | 36.40 |
| Gram | 7.28 | 5.66 | 3.87 | 2.25 | 2.04 | 4.59 | 5.41 | 3.59 | 2.19 | 1.52 | -0.44 | 12.36 | 8.39 | 1.43 | 3.58 | 5.75 | 2.86 | 0.21 | -0.39 |
| Tur | 2.16 | 2.01 | 1.88 | 1.16 | 1.15 | 2.93 | 2.71 | 4.18 | 1.35 | 0.90 | 7.66 | 9.35 | 13.11 | -2.49 | -1.31 | 2.62 | 4.76 | -2.64 | -0.41 |
| Other Pulses | 3.80 | 5.78 | 8.27 | 4.90 | 2.46 | 0.98 | 1.16 | 1.26 | 0.51 | 0.03 | -2.93 | 3.28 | 12.50 | -20.98 | -4.87 | 1.23 | 1.30 | -0.56 | -1.35 |
| All Pulses | 13.23 | 13.44 | 14.02 | 8.31 | 5.65 | 8.50 | 9.28 | 9.03 | 4.05 | 2.45 | 2.93 | -0.56 | -0.94 | 4.52 | 1.33 | 9.60 | 8.93 | -2.98 | -2.15 |
| Linseed | 2.62 | 1.23 | 0.58 | 0.25 | 0.12 | 0.79 | 0.30 | 0.19 | 0.09 | 0.05 | -4.13 | 2.98 | -3.52 | 6.94 | -11.84 | 0.10 | 0.14 | -0.04 | -0.06 |
| Groundnut | 1.41 | 0.72 | 0.52 | 0.31 | 0.36 | 1.36 | 0.63 | 0.54 | 0.29 | 0.23 | 0.29 | 11.52 | -1.95 | -1.76 | 1.90 | 0.33 | 0.50 | -0.06 | 0.06 |
| Sesamum | 2.86 | 1.65 | 0.66 | 0.62 | 1.35 | 0.76 | 0.21 | 0.08 | 0.17 | 0.33 | -4.01 | -1.96 | 6.92 | 15.14 | 0.29 | -0.02 | 0.03 | 0.30 | 0.78 |
| Rapeseed & Mustard | 8.29 | 5.53 | 4.45 | 2.63 | 2.57 | 7.57 | 5.16 | 4.10 | 2.68 | 2.38 | 2.55 | -3.28 | -0.29 | 6.04 | -0.35 | 4.17 | 3.68 | 0.67 | 1.54 |
| Castor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Oilseeds | 0.11 | 0.51 | 0.24 | 0.09 | 0.14 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | -0.84 | -6.08 | 0.13 | -3.69 | 33.28 | 0.01 | 0.00 | 0.00 | 0.01 |
| All Oilseeds | 15.30 | 9.64 | 6.45 | 3.90 | 4.55 | 10.48 | 6.30 | 4.91 | 3.23 | 3.00 | -2.54 | 1.80 | 2.53 | 3.97 | -0.38 | 4.58 | 4.36 | 0.87 | 2.32 |
| Cotton | 0.15 | 0.11 | 0.04 | 0.01 | 0.00 | 0.07 | 0.05 | 0.02 | 0.02 | 0.02 | 3.76 | 2.87 | -9.56 | 13.61 | -31.16 | 0.04 | 0.01 | 0.02 | 0.04 |
| Other Fibers | 0.17 | 0.02 | 0.98 | 1.93 | 0.50 | 0.10 | 0.03 | 0.01 | 0.00 | 0.00 | -3.05 | -13.93 | -11.35 | -5.61 | 3.35 | 0.00 | 0.00 | -0.01 | 0.00 |
| All Fibers | 0.32 | 0.13 | 1.02 | 1.95 | 0.50 | 0.16 | 0.08 | 0.03 | 0.02 | 0.03 | -0.50 | -7.24 | -10.20 | 8.96 | -40.11 | 0.04 | 0.01 | 0.01 | 0.04 |
| Fruits & Vegetables | 1.74 | 2.79 | 3.65 | 4.43 | 6.88 | 8.72 | 10.10 | 9.72 | 16.75 | 25.04 | 1.61 | 0.88 | 9.18 | 10.71 | 5.10 | 10.66 | 9.56 | 26.68 | 48.87 |
| Sugarcane | 5.87 | 6.51 | 7.46 | 6.89 | 8.74 | 20.73 | 28.05 | 26.32 | 23.66 | 21.30 | 5.66 | 17.99 | 9.94 | 4.09 | 4.32 | 31.06 | 25.64 | 19.90 | 14.51 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 4.58 | 4.95 | 9.15 | 6.70 | 2.92 | 100 | 100 | 100 | 100 |

*Source*: Computed by the author from the data collected from Sources mentioned in the section on data and methods.

TABLE A.17 SHARE OF DIFFERENT CROPS IN GROSS CROPPED AREA, REAL VALUE OF OUTPUT AND THEIR CONTRIBUTION TO AGRICULTURAL GROWTH, 1970-71 TO 2018-19: WEST BENGAL

| Crops/ Period | Share in the Gross Cropped Area (per cent) | | | | Share in real value of output (per cent) | | | | | | Annual Compound Growth rate in the real value output (per cent /pa) | | | | | Share in overall growth (per cent) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970s (2) | 1980s (3) | 1990s (4) | 2000s (5) | 2010s (6) | 1970s (7) | 1980s (8) | 1990s (9) | 2000s (10) | 2010s (11) | 1970s (12) | 1980s (13) | 1990s (14) | 2000s (15) | 2010s (16) | 1980s (17) | 1990s (18) | 2000s (19) | 2010s (20) |
| Rice | 72.16 | 68.99 | 68.69 | 67.66 | 60.93 | 61.68 | 57.43 | 42.53 | 37.27 | 30.73 | 7.98 | 7.26 | 13.93 | 6.16 | 2.47 | 52.96 | 39.26 | 31.89 | 6.73 |
| Wheat | 6.31 | 4.08 | 3.76 | 4.43 | 3.16 | 5.03 | 2.72 | 1.75 | 1.57 | 1.12 | 5.05 | 7.00 | 4.85 | 2.67 | -10.04 | 0.31 | 1.53 | 1.40 | -0.56 |
| Maize | 0.65 | 0.74 | 0.54 | 0.70 | 1.75 | 0.19 | 0.77 | 0.35 | 0.35 | 0.98 | 5.36 | 24.11 | -1.63 | 18.47 | 19.36 | 1.39 | 0.26 | 0.35 | 3.29 |
| Bajra | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | 3.25 | 0.00 | 0.00 | 0.00 | 0.00 |
| Jowar | 0.00 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | 14.87 | 1.84 | 11.61 | 16.65 | 0.00 | 0.00 | 0.00 | 0.00 |
| Barley | 0.72 | 0.27 | 0.08 | 0.03 | 0.23 | 0.19 | 0.10 | 0.02 | 0.01 | 0.01 | 3.88 | -7.15 | 4.52 | 7.87 | -10.70 | 0.00 | 0.00 | 0.00 | 0.00 |
| Ragi | 0.17 | 0.19 | 0.15 | 0.15 | 0.11 | 0.06 | 0.09 | 0.04 | 0.04 | 0.02 | 6.52 | 2.11 | 9.26 | 4.21 | -15.84 | 0.13 | 0.02 | 0.04 | -0.06 |
| All Cereals | 80.02 | 74.28 | 73.23 | 72.99 | 66.19 | 67.14 | 61.11 | 44.68 | 39.24 | 32.85 | 7.68 | 3.81 | 13.97 | 6.08 | 2.66 | 54.79 | 41.08 | 33.68 | 9.40 |
| Gram | 1.50 | 0.81 | 0.28 | 0.44 | 0.31 | 0.52 | 0.50 | 0.15 | 0.18 | 0.14 | 4.99 | -0.23 | 17.72 | -1.94 | 6.67 | 0.47 | 0.07 | 0.21 | 0.02 |
| Tur | 0.36 | 0.20 | 0.05 | 0.03 | 0.03 | 0.22 | 0.23 | 0.02 | 0.01 | 0.02 | 12.54 | -0.64 | 7.86 | -14.40 | 10.86 | 0.25 | -0.02 | 0.01 | 0.05 |
| Other Pulses | 6.82 | 5.49 | 4.21 | 2.14 | 1.08 | 0.77 | 0.45 | 0.22 | 0.13 | 0.00 | 5.48 | -3.67 | 22.62 | -31.00 | 5.09 | 0.12 | 0.17 | 0.04 | -0.46 |
| All Pulses | 8.68 | 6.51 | 4.54 | 2.62 | 1.42 | 1.52 | 1.19 | 0.39 | 0.32 | 0.17 | 6.26 | -1.14 | 0.48 | 3.32 | 9.24 | 0.84 | 0.22 | 0.26 | -0.40 |
| Linseed | 0.76 | 0.55 | 0.14 | 0.08 | 0.06 | 0.12 | 0.16 | 0.02 | 0.01 | 0.01 | 6.97 | -5.01 | 8.41 | -4.44 | 2.23 | 0.21 | -0.01 | 0.00 | 0.00 |
| Groundnut | 0.00 | 0.13 | 0.30 | 0.59 | 0.81 | 0.00 | 0.19 | 0.15 | 0.43 | 0.83 | -23.69 | 51.66 | 6.12 | 20.01 | 6.88 | 0.38 | 0.14 | 0.72 | 2.28 |
| Sesamum | 0.43 | 1.30 | 1.32 | 1.85 | 2.44 | 0.21 | 1.02 | 0.68 | 0.70 | 0.90 | 18.84 | 14.09 | 9.49 | 12.61 | 3.53 | 1.87 | 0.60 | 0.72 | 1.63 |
| Rapeseed & Mustard | 1.44 | 3.32 | 4.23 | 5.00 | 5.43 | 0.45 | 2.81 | 1.69 | 1.59 | 1.99 | 12.61 | 15.15 | -1.94 | 6.62 | 6.42 | 5.29 | 1.45 | 1.49 | 3.45 |
| Castor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Oilseeds | 0.03 | 0.08 | 0.10 | 0.18 | 0.18 | 0.01 | 0.00 | 0.01 | 0.01 | 0.00 | 4.14 | -17.16 | 78.78 | -30.03 | 8.04 | 0.00 | 0.01 | 0.02 | -0.05 |
| All Oilseeds | 2.66 | 5.37 | 6.08 | 7.70 | 8.93 | 0.80 | 4.18 | 2.55 | 2.75 | 3.73 | 14.91 | 18.88 | 4.19 | 3.94 | 4.88 | 7.73 | 2.20 | 2.95 | 7.31 |
| Cotton | 0.02 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | - | - | 36.19 | 15.38 | -3.24 | 0.00 | 0.00 | 0.04 | -0.06 |
| Other Fibers | 6.77 | 6.90 | 3.66 | 0.00 | 4.89 | 10.11 | 8.22 | 6.48 | 6.01 | 4.66 | 3.00 | 0.76 | 3.25 | 7.18 | -0.63 | 6.25 | 6.10 | 5.54 | -0.29 |
| All Fibers | 6.79 | 6.90 | 3.66 | 0.03 | 4.89 | 10.11 | 8.22 | 6.48 | 6.03 | 4.67 | 3.00 | 0.76 | 3.26 | 7.20 | -0.64 | 6.25 | 6.10 | 5.58 | -0.35 |
| Fruits & Vegetables | 1.40 | 6.72 | 12.27 | 16.46 | 18.38 | 18.87 | 23.79 | 45.13 | 51.29 | 58.56 | 6.83 | 5.34 | 5.96 | 12.62 | 1.26 | 28.96 | 49.80 | 57.59 | 85.19 |
| Sugarcane | 0.44 | 0.22 | 0.21 | 0.21 | 0.20 | 1.57 | 1.51 | 0.76 | 0.36 | 0.03 | 4.19 | 14.33 | 16.41 | -22.86 | -7.14 | 1.44 | 0.60 | -0.06 | -1.16 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 6.81 | 4.70 | 8.38 | 9.15 | 1.86 | 100 | 100 | 100 | 100 |

*Source*: Computed by the author from the data collected from Sources mentioned in the section on data and methods