



Research Article

A qualitative analysis on changing pattern of agricultural scenario in India

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SUMMARY : Present study indicates that the percentage area under cereals, pulses, food grains, oil seeds, sugarcane and cotton in gross cropped area was to the tune of 59.31, 14.47, 73.79, 8.13, 1.30 and 4.46 per cent, respectively during 1950-51. The shifting scenario in cropping pattern was observed during 2010-11, the area under food grains was decreased and area under oilseed, sugarcane, cotton and other crops was increased. In productivity term crop wheat, rice, jowar, bajra, maize, gram, groundnut, mustard, sugarcane and cotton was tremendously increased but in case of tur it was found to be declined. Input utilization which is important tool of agricultural development through the enhancing the productivity indicates that the utilization of input such as seed, fertilizer and pesticides has been increased. The contribution of agriculture export in the total export was observed that during 1960-61, the total export from the country was worth Rs. 642 crores in which the share of agriculture commodities was 44.24 per cent. The export rose to Rs. 32553 crores with 19.40 per cent share of agriculture exports during 1990-91. During the last four decades the figures of agriculture exports increased from Rs. 6711 to Rs. 120185 crores. But, its percentage share in total exports has declined to 10.47 per cent. This may be due to proportionate increased in export of goods from other sector like manufactured goods, minerals, etc. The study clearly indicated that the introduction of green revolution during 1970-71 and advent of several economic measures during 1991 has given a significant positive impact on Indian Agriculture, which ultimately helps in pushing the upward momentum of progress of agricultural sector in the country.

KEY WORDS:

Food grains, Cropping pattern, Input utilization, Export

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BACKGROUND AND OBJECTIVES

On the advent of several economic measures has been introduced in the country since 1991. This has made overall impact on the development of the country through various sectors. Agriculture sector is also not lagging behind. During this era country witnessed significant growth not only in production and productivity but in export of farm commodities too. In absolute terms prior to liberalization we were able to export farm commodities 28657 crores which rose to 2120185 crores during the span of only 10 years *i.e.* during 2010-2011. The development of agriculture is a process through which the shift takes place from traditional agriculture to commercial one through efficient use of inputs, modern package and

practices which ultimately results in increased production and finally raised the living standard of poor person presents in the country. The major contributing factors towards the agriculture growth include HYV, irrigation policies of government too. In this context an attempt has been made in the paper to critically examine impact of changing scenario of agricultural development in India by the adoption of economic measures.

RESOURCES AND METHODS

The present study was based on secondary data which was collected from various sources *i.e.* Agricultural statistics at a Glance (2011) and other issues, Economic Survey 2010-11, Status of Indian Agriculture 2011-12 published by Govt. of

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India. The data collected was analyzed by simple tabular method.

OBSERVATIONS AND ANALYSIS

Shifting scenario in the cropping pattern in India during last seven decades has been depicted in Table 1. The Table 1 indicates that during 1950-51 the proportion of cereals, pulses, food grains, oil seeds, sugarcane and cotton in gross cropped area was to the tune of 59.31, 14.47, 73.79, 8.13, 1.30 and 4.46 per cent, respectively. Thus it is seen that food grains plays a dominant role in cropping pattern of the country. The contribution of food grains has declined from 73.79 per cent during 1950-51 to 68.83 per cent during 1990-91 and area under sugarcane showed increasing trend since 1950-51. The fibercrop cotton also showed increasing trend except the year 1990-91, similarly oilseed area showed increasing trend except in the year 2000-01. During 2010-11 the area under food grains declined to 64.97 per cent though the gross cropped area has increased considerably. The cropping pattern of any region of the country indicates the prosperity of the country. The oilseed which is imported to the maximum extent has increased the area under crop. This area has been constantly increasing

from 1950-51 to 2010-11 except in the year 2000-01. The sound cropping pattern for the country by considering the domestic requirements and export demand should be taken into consideration and formulated.

The change in productivity of crops during various decades has been depicted in Table 2. The Table 2 indicates that during 1950-51 the productivity of wheat, rice, jowar, bajra, maize, tur, gram, groundnut, rapeseed and mustard, sugarcane and cotton was 663, 668, 353, 288, 547, 788, 482, 775, 368, 33422 and 88 kg/ha, respectively. But after the green revolution *i.e.* during 1970-71, the productivity has been increased tremendously except in tur. However, the productivity of jowar has declined. This clearly indicates that this important input which can increase the productivity and helps in changing the desire cropping pattern should be used judiciously so that the country may gain further production of various crops. Thus, it is seen that during post WTO era the use of various productivity enhancing inputs has increased the export considerably.

Table 3 indicates the input utilization pattern in India from 1951-2011. It is found that production of breeder seed, foundation seed and certified seed was increasing 119.21 (thousand Qt), 17.53, 277.34 (lakh Qt) as compared to 1981,

Table 1 : Shifting scenario in cropping pattern in India [Area (million ha)]

Years	Cereals	Pulses	Food grains	Oilseed	Sugarcane	Cotton	Other crops	GCA
1950-51	78.23 (59.31)	19.09 (14.47)	97.32 (73.79)	10.73 (8.13)	1.71 (1.30)	5.88 (4.46)	16.25 (12.32)	131.89
1960-61	92.02 (60.23)	23.56 (15.42)	115.58 (75.65)	13.77 (9.01)	2.42 (1.58)	7.61 (4.98)	13.39 (8.78)	152.77
1970-71	101.78 (61.39)	22.54 (13.60)	124.32 (74.99)	16.64 (10.04)	2.62 (1.58)	7.61 (4.59)	14.60 (8.80)	165.79
1980-81	104.21 (60.37)	22.46 (13.01)	126.67 (73.38)	17.60 (10.20)	2.67 (1.55)	7.82 (4.53)	17.87 (10.34)	172.63
1990-91	103.18 (55.55)	24.66 (13.28)	127.84 (68.83)	24.15 (13.00)	3.69 (1.99)	7.44 (4.00)	24.42 (12.18)	185.74
2000-01	100.69 (54.33)	20.36 (10.98)	121.05 (65.31)	22.77 (12.29)	4.32 (2.33)	8.53 (4.60)	28.67 (15.47)	185.34
2010-11	100.36 (51.44)	26.40 (13.53)	126.76 (64.97)	27.22 (13.95)	4.88 (2.50)	11.24 (5.76)	25.00 (12.81)	195.10

Figures in parentheses are to gross cropped area of the respective years

Table 2 : Change in productivity for major crops in India (kg/ha)

Crop	Years						
	1951	1961	1971	1981	1991	2001	2011
Wheat	663	851 (28.35)	1307 (53.58)	1630 (24.71)	2281 (38.09)	2708 (18.71)	2989 (10.37)
Rice	668	1013 (51.65)	1123 (10.86)	1336 (18.97)	1740 (30.24)	1901 (9.25)	2121 (11.57)
Jowar	353	533 (50.99)	466 (-12.57)	660 (41.63)	814 (23.33)	764 (-6.14)	949 (24.21)
Bajra	288	286 (-0.69)	622 (117.48)	458 (-26.36)	658 (43.66)	688 (4.56)	1069 (55.38)
Maize	547	926 (69.28)	1279 (38.12)	1159 (-9.38)	1518 (30.97)	1822 (20.03)	2540 (39.40)
Tur	788	849 (44.05)	709 (-16.49)	689 (-2.82)	673 (-2.32)	618 (-8.17)	655 (5.98)
Gram	482	674 (39.83)	663 (-1.63)	657 (-0.90)	712 (8.37)	744 (4.49)	896 (20.43)
Groundnut	775	745 (-1.32)	834 (11.95)	736 (-11.75)	904 (22.83)	977 (8.07)	1268 (29.78)
Soybean	-	-	426	728 (70.89)	1015 (39.42)	822 (-19.01)	1325 (61.19)
Rapeseed and mustard	368	467 (26.90)	594 (27.19)	560 (-5.72)	904 (61.42)	935 (3.43)	1179 (26.09)
Sugarcane	33422	45549 (36.28)	48322 (6.09)	57844 (19.71)	65395 (13.05)	68577 (4.86)	68596 (0.02)
Cotton	88	125 (42.05)	106 (-15.20)	152 (43.40)	225 (48.03)	190 (-15.55)	510 (168.42)

(Figures in parentheses are percentage over previous decade)

respectively. Similarly in case of fertilizer it is found that utilization of N, P and K was increased in 2011 as compared to earlier decades. The total input utilization of fertilizer N, P and K was increased in 2011 as compared to earlier decades. The total input utilization of fertilizer N, P, K was 281.22 kg⁻¹ that comes to near about 68.37 per cent to the total fertilizer utilized. As compared to phosphorus and potassium, nitrogen was used as input utilizes to about 51.63 per cent and phosphorus 90.98 per cent. In case of utilization of pesticides it is found that in 2011 use of utilization of pesticides was found to be increased as compare to 2001 *i.e.* 55.54 kg/ha and decreased as compared to 1991. It has been also observed in Table 3 the

gross area under irrigation increased as compared to last decades.

The relative contribution of agriculture export and import in the total export and import is given in Table 4. It is observed that during 1960-61, the total export from the country was worth Rs. 642 crores in which the share of agriculture commodities was 44.24 per cent. The export rose to Rs. 32553 crores with 19.40 per cent share of agriculture exports during 1990-91. During the last four decades the figures of agriculture exports increased from Rs. 6711 to Rs. 120185 crores. But, its percentage share in total exports has declined to 10.47 per cent. This may be due to proportionate increased in export of

Table 3 : Patten of input utilization in agriculture in India

Sr. No.	Input	Years						
		1951	1961	1971	1981	1991	2001	2011
A) Seed								
1.	Production of breeder seed (thousand qts)	-	-	-	5.27	33.89 (543.07)	42.69 (25.96)	119.21 (179.24)
2.	Production of foundation seed (lakh/qts)	-	-	-	--	3.35	5.91 (76.41)	17.53 (196.62)
3.	Distribution of certified seed (lakh qts)	-	-	-	25.01	57.10 (128.30)	86.27 (51.08)	277.34 (221.47)
B) Consumption of chemical fertilizer								
1.	Nitrogenous (N) (Lakh Tonnes)	0.55	2.10 (281.81)	14.87 (608.09)	36.78 (151.42)	79.97 (117.43)	109.20 (36.55)	165.58 (51.63)
2.	Phosphatic (P) (Lakh Tonnes)	0.08	0.53 (562.50)	4.62 (771.70)	12.14 (162.77)	32.21 (165.32)	42.15 (30.85)	80.50 (90.98)
3.	Potassic (K) (Lakh Tonnes)	0.06	0.29 (383.33)	2.28 (686.21)	6.24 (173.68)	13.28 (112.82)	15.67 (18.00)	35.14 (124.25)
4.	Total(N+P+K) (Lakh Tonnes)	0.69	2.92 (323.19)	21.77 (645.55)	55.16 (153.38)	125.46 (127.44)	167.02 (33.12)	281.22 (68.37)
5.	Kg/ha	-	1.90	13.13 (591.05)	31.83 (142.42)	67.49 (112.03)	89.63 (32.80)	144.14 (60.82)
C) Consumption of pesticide								
	(Thousand tones)	2.35	8.62 (266.81)	24.32 (182.13)	45.00 (85.03)	75.00 (66.67)	43.58 (-41.89)	55.54 (27.44)
D) Irrigated area (GIA)								
		22.56	27.98 (24.02)	38.19 (36.49)	49.78 (30.34)	62.47 (25.49)	76.19 (21.92)	88.42 (16.05)

Figures in bracket are percentages over previous decades

Table 4 : Relative contribution of agriculture export and import to total export and imports (Value Rs. in Crores)

Year	Agril. imports	Total imports	% age agril. imports	Agril. exports	Total exports	% age Agril. exports
1950-51	-	-	-	513	217	42.00
1960-61	214	1122	19.07	642	284	44.24
1970-71	242	1634	14.81	1535	487	31.73
1980-81	380	12549	3.03	6711	2057	30.65
1990-91	1205	43170	2.79	6012	32527	18.49
2000-01	12086	228306	5.29	28657	201356	14.23
2010-11	56196	1605314	3.50	120185	1148169	10.47

goods from other sector like manufactured goods, minerals, etc. It is also observed in the table the total agricultural import was increased from 214 crores to 56196 crores but the per cent share was decreased from 19.07 to 3.50 per cent. This may be due to self sufficiency in food grain production.

Conclusion:

It is concluded that the introduction of green revolution during 1970-71 and advent of several economic measures during 1991 has given a significant positive impact on Indian agriculture, which ultimately helped in pushing the upward momentum of progress of agricultural sector in the country.

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REFERENCES

Agricultural Statistics at a Glance (2011). Government of India, Department of Agriculture and Cooperation, Ministry of Agriculture, New Delhi (INDIA).

Economic Survey (2010-11). Government of India, Ministry of Finance, New Delhi (INDIA).

Status of Indian Agriculture (2011-12). Government of India, Department of Agriculture and Cooperation, Ministry of Agriculture, New Delhi (INDIA).