



RESEARCH PAPER

# Cropping pattern and crop diversification in Bhopal division of Madhya Pradesh

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**Abstract :** The present study was based on secondary data collected from various government publications and pertains to a period of 22 years *i.e.* from 1997-98 to 2018-19. The present study has examined the growth rates of area, production and productivity of major crops, the trend in crop diversification, changes in cropping pattern and advantageous crops in different districts of Bhopal division of Madhya Pradesh. The compound growth rates of area, production and productivity of major crops were estimated for two sub-periods *i.e.* Period-I (1997-98 to 2007-08), Period-II (2008-09 to 2018-19) and overall period (1997-98 to 2018-19). Co-efficient of variation was used for analytical tools. Simple tabular analysis was used to examine the changes in cropping pattern in Bhopal division and districts of Bhopal division *i.e.* Bhopal, Sehore, Vidisha, Rajgarh and Raisen. In order to study the crop diversification Herfindahl index have been used. In order to work out the advantageous crops, land concentration ratio in different districts with comparative advantage was computed for last 10 years *i.e.* from 2008-09 to 2017-18. In majority of districts of Bhopal division *i.e.* Bhopal, Sehore, Vidisha, Rajgarh and Raisen crop diversification has significantly increased during the study period. The diversification from subsistence crop to more crops were took place in selected districts and in division also. Results of the study revealed that growth rate of area of Lentil crop was highest during Period-I *i.e.* 45.58 per cent in Bhopal division as compared other crops. In case of production pigeonpea, wheat, pea and Lentil showed increased growth rate of production by 9.42, 11.02, 59.91 and 53.15 per cent per annum. In Bhopal division pea was showed highest variation in area, production and productivity during period-II *i.e.* 78.36, 79.30 and 65.87 per cent per annum. Wheat was showed lowest variation in area and production during period-I *i.e.* 6.54 and 13.91 per cent as compared other crops. Result of study revealed Soyabean is most advantageous crop in Bhopal, Sehore and Rajgarh district and wheat is advantageous crop in all district of Bhopal division. In Bhopal division soyabean crop showed highest percentage change of area *i.e.* 38.34 per cent from (1998-99 to 2018-19) and Lentil showed highest percentage change of area over base period collected from various government publications and pertains to a period of 22 years *i.e.* from 1997-98 to 2018-19. The compound growth rates of area, production and productivity of major crops were estimated for two sub-periods *i.e.* Period-I (1997-98 to 2007-08), Period-II (2008-09 to 2018-19) and overall period (1997-98 to 2018-19). Co-efficient of variation was used for analytical tools. In order to study the crop diversification Herfindahl index have been used. In order to work out the advantageous crops, land concentration ratio in different districts with comparative advantage was computed for last 10 years *i.e.* from 2008-09 to 2017-18. In majority of districts of Bhopal division *i.e.* Bhopal, Sehore, Vidisha, Rajgarh and Raisen crop diversification has significantly increased during the study period. The diversification from subsistence crop to more crops were took place in selected districts and in division also. Results of the study revealed that growth rate of area of Lentil crop was highest during Period-I *i.e.* 45.58 per cent in Bhopal division as compared other crops. In case of production pigeonpea, wheat, pea and Lentil showed increased growth rate of production by 9.42, 11.02, 59.91 and 53.15 per cent per annum. In Bhopal division pea was showed highest variation in area, production and productivity during period-II *i.e.* 78.36, 79.30 and 65.87 per cent per annum. Wheat was showed lowest variation in area and production during period-I *i.e.* 6.54 and