Agricultural development occupies an important place in the economic development of Madhya Pradesh. It is paradoxical that though Madhya Pradesh is considered to be a rice bowl of the country, the yield rate of this crop in the state is poor. The low productivity of rice crop in the state is a matter of great concern to the producer, and policy makers. Keeping in view the importance and urgency of this problem, the present study attempts to analyze the factors affecting rice production and productivity in the state as well as in the selected major rice producing parts of the state. In this study an attempt has been made through analytical and graphical description to trace the broad trends in area, production and productivity of rice in Madhya Pradesh on the basis of time series data.