Indian economy is predominately rural in character and is still dominated by the agriculture sector, which accounts for nearly one-fifth of the gross domestic product (GDP) and employs close to two-third of the labour force. Despite respectable GDP growth rates (around 5 per cent a year), India has unemployment rate of about 15 per cent. Looking into the grim situation of employment in the country in general and agriculture sector in particular, there is urgent need to give emphasis to generate avenues for creating more jobs in this sector. Agriculture in India is constitutionally a state subject and central government’s role is restricted to
formulating policy guidelines and providing financial resources for the sector.

Government of India has accorded high priority to the development of agriculture for increasing the agricultural production to sustain the food supply for the growing population. Inspite of rapid development of non-agriculture sectors, farming continues to be critical for meeting the livelihood needs of a vast majority of small, marginal and tribal farmers. The new technologies have not filtered down amongst farmers to the desired extent. Although during the past ten years lot of efforts have been made to improve agriculture sector by introducing different schemes, yet the out come has not been reflected to the desired level in the national agricultural production, productivity, income and equity indicators. This indicates some deficiencies in the implementation process of these programmes and therefore calls for improvement in implementation strategy. This also calls for a coordinated planning and prioritization to explore the maximum benefit of the development programmes. The Rashtrya Krishi Vikas Yojana is the right kind of approach to supplement available resources for the potential development of specific production activities and to take up additional activities best suited to the specific agro-climatic and social conditions of different districts to make best use of the available resources for improving the growth of
agriculture sector through overall district planning concept. The technological change of the mid sixties was a step towards meeting the food crisis that threatened food security of the country during those years. At that time it was suggested that the technological change alone might not bring the required dynamism in the growth of agricultural sector and it needed to be supported with proper institutional backup. Therefore, a series of institutional reforms were undertaken in order to supplement and induce growth. As a first step, land reforms were revamped to herald its second phase in the early seventies. Agricultural administration and extension formed the second step in the process of institutional change. This was accompanied by strengthening the system of agricultural education. As a next crucial step the banking sector underwent the metamorphosis through nationalization with a renewed thrust on priority sector lending. The most important step followed by this was the initiative taken to evolve an agricultural price policy encouraging the envisaged growth through price incentive. In order to understand and construct a proper price policy framework, the Government of India appointed a committee under the Chairmanship of Late Shri L K Jha to suggest the required steps towards organizing the agricultural price policy of the country. Following the Jha Committee report, a series of
measures were taken and as a result the Agricultural Prices Commission came into being in January 1965. The first report was submitted in August 1965 covering the Kharif Season. The preface of this report makes clear the focus of the then emerging price policy. It is stated in the preamble of the report that “The Agricultural Prices Commission was set up in January 1965 to advise the Government on price policy for agricultural commodities, with a view to evolving a balanced and integrated price structure in the perspective of the overall needs of the economy (emphasis added) and with due regard to the interests of the producer and the consumer” (GOI, 1965). The focus on the overall needs of the economy was very clear and it needed to be kept in view. The Commission was headed by Prof M L Dantwala and in its final report the Commission suggested the Minimum Support Prices for Paddy.

This was the beginning of the price intervention scheme that went through for the last three and half decades. Agricultural Prices Commission through its reports framed and directed the price policy of the country during the last four decades. In the early years, the price policy supported the initiatives taken on the technological front providing initiative to accept the new technology. Over the years it became an accepted fact that farmers responded to price incentives more sharply now than in the past. Raj Krishna in his seminal paper, for the first time,
emphasized the price response of Indian farmers despite the dominance of subsistence farming (Raj Krishna 1963). Following this, a number of price response studies showed the strong role of prices as incentives in agricultural sector. It has been noted by Acharya (Former Chairman of the CACP) that “In fact, the instruments of Minimum Support Prices, food subsidy and input subsidies have played an important role in achieving the objectives of food security and accelerated growth of the economy and benefits all the sections of the society” (1997). Thus, the contribution of Agricultural Price Policy towards sustaining the tempo created by the technological change of the mid-sixties has been widely acknowledged. During the last four decades the agricultural policy connotations have changed significantly. Prices played a much wider and more crucial role than just supporting the adoption of technology. It was during the eighties that the farmers’ organizations emphasized remunerative role of prices and insisted on revisiting the method of arriving at the Minimum Support Prices. Quite a few changes were introduced in the methodology and approach following Sen Committee (GOI 1980) and Hanumantha Rao Committee (GOI 1990) reports. The next issue was marked by the debate on terms of trade between agriculture and non-agricultural sector (GOI 1995). The situation in the agricultural sector underwent substantial changes in the wake of
liberalisation. In this context, questions are being raised about the efficacy and effectiveness of the instruments of price policy specifically the Minimum Support Prices.

Uttar Pradesh is the largest state of the country in terms of population and forth largest state in terms of area of the country. The reporting area of the state is 24.2 million ha, out of which cultivated area is 16.68 million ha. The gross cropped area is 25.5 million ha. The cropping intensity in the state is 153 percent. Farming community is dominated by small and marginal farmers. Average size of holding is only 0.83 ha per farmer. However, the average size of holding of marginal farmers is 0.40 hectare only. The state accounts for 11 per cent India's net sown area and contributes more than 41.1 million tonnes of foodgrain which is about 20 percent of the total foodgrain production of the country. The state produces 38 percent of India's Wheat, 20 percent of Paddy, 21 percent of Sugarcane, 34 percent of Groundnut, 17.5 percent of Rape-seed, 8 percent of Fruits and 16 percent of Vegetables" Uttar Pradesh is the largest potato producer in the country, contributing 43 per cent of the total production. The state is the largest milk producing state of the country with an annual milk production of 11.7 million kilo litres accounting for 16 percent of total milk production of the country. Keeping in view of vast potential, the state has major role to play in ushering in farm sector led economic growth of the country.
Despite largest contribution to agriculture produce of the country and achieving some improvement in the State's growth rate in the Tenth Five Year Plan, it is still lagging behind the national average and consequently, the gap in per capita income is increasing with the passage of time. There is tremendous scope for further development in every sub-sector of the agriculture sector including crops, horticulture, animal husbandry and pisciculture. The major challenges before the State are bridging the gap in per capita income, poverty alleviation, improvement in human development index, improving growth in primary sector specially agriculture and animal husbandry sub sectors.

Few new initiatives like Rashtriya Krishi Vikas Yojana, National Food Security Mission, National Horticulture Mission are potent options for increasing farm productivity and for putting agricultural economy on a sustained growth path. Uttar Pradesh being the most populous state of India has a great influence on the economic growth of the country. For achieving the desired agriculture growth in the country, it is necessary to adopt area specific strategies for improving the agriculture sector growth in the states like UP.

In the above perspective one hundred and thirteen new programmes have been identified for farm sector under Rastriya Krishi Vikas Yojana (RKVY) for Uttar Pradesh. Programmes in crop sector has been proposed for obtaining holistic growth of
farm sector considering the available resources of each district and its convergence with resources available from other developmental schemes/programmes. These activities/programmes have been identified based on the primary and secondary data collected from different reliable sources, district profiles and vision statements of individual districts and micro analysis of the district specific requirements. The analysis of different crops grown, availability of inputs, availability of water, existing farm mechanisation facilities, existing seed replacement rate, potential of livestock and fishery sector, potential for fruits and vegetable production, market and other infrastructure facilities etc. were carried out to derive a sustainable development plan considering all sub sectors in agriculture in the state. Strategies to boost farm production and profitability of farmers for each district have also been worked out. Accordingly the District Agriculture Plans have been developed with a bottom up approach starting from the Panchayati Raj Institutions (PRI) surveys and conducting of Participatory Rural Appraisal.

The details of the agricultural development plan for each district have been drawn in the following pages of the document. These plans include programmes leading to more efficient use of natural resources, use of quality seed and planting material, seed production, seed replacement and seed treatment, balanced fertilizer application, sustainable management of soil health,
integrated nutrient & pest management, new approaches for agriculture extension and farm mechanisation etc. In the live stock sector, strategies like genetic up gradation of animals, fodder development and institutional strengthening, setting up of commercial dairy farming units, incentives for establishing mini-milk processing units etc. have been adopted. Average productivity in fishery sector is quite low at just 2.8 tonnes per ha and it has been planned to enhance it to 4 tones per ha through activities like renovation of old ponds, construction of new ponds and establishment of new hatcheries etc.

Though large area of the state is covered under irrigation, yet the expected returns from agriculture sector is not achieved due to lower water use efficiency. In the district plans possible strategies have been worked out to improve the water use efficiency by adopting latest on farm water management technologies, efficient delivery systems of surface water irrigation, encouraging drip and sprinkler irrigation in the high value crops and water scarce areas. Focus has also been placed on infrastructure and human resource development in the areas like ICT, soil analysis, seed treatment, storage, marketing, value addition etc. to translate the agriculture growth in to economic returns.

Overview of Western Uttar Pradesh Region and Sampled Districts
Uttar Pradesh is the most populous state in the country accounting for 16.4 per cent (199,812,341) of the country’s population. It is also the fourth largest state in geographical area covering 9.0 per cent of the country’s area, 2,40,928 Square km. and comprising of 75 districts. The density of population in the state is 828 persons per square km. as against 274 persons per square km. of the country. The total literacy rate in the state is 69.72 percent (As per census 2011) containing 79.24 percent male literacy and 59.26 percent female literacy. The main crops of the state are Sugar cane, Paddy, Wheat, Jawar, Bajra, Barley, Millet, Maize, Urad, Moong and Arhar(Tur) etc.

The universe of the study has been taken in the five districts of Meerut commissioner of western Zone of Uttar Pradesh. They are Meerut, Ghaziabad, Bagpat, Gautam Budha Nagar and Bulandshahr of Meerut commissionery. A brief Account of all the five districts is given for proper understanding the background of the study region.

**Meerut Commissionery**

There are 5 districts under Meerut commissionery in 1971 census Viz. Dehradun, Saharanpur, Muzaffar Nagar, Meerut and Bulandshahr. After that Dehradun district was merged with Garhwal Mandal. Before the 1981 census a new Ghaziabad districts was created and before the 1991 census a new Haridwar district was carved out in 1988. In this way there were six districts
renamed in Meerut commissionery namely Haridwar, Saharanpur, Muzaffar Nagar, Meerut, Ghaziabad and Bulandshahr in the year 1997-1998. But in the first quarter of the year 1997-1998 a new Saharanpur commissionery was created taking Haridwar, Saharanpur and Muzaffar Nagar districts. After this division the Meerut commissionery had only 3 districts Viz. Meerut, Ghaziabad and Bulandshahr. After that a new district was formed dividing the Ghaziabad and Bulandshahr district as Gautam Budha Nagar district subsequently the Meerut district was also bifurcated and a new Bagpat district was declared. In this way, there are 5 districts which are covered under Meerut commissionery at present viz. Meerut, Ghaziabad, Bagpat, Bulandshahr and Gautam Budha Nagar.

Meerut commissionery is situated in north west of the plain area of Uttar Pradesh. River Ganga flows in east and Yamuna river flows in the west of Meerut commissionery. Therefore Meerut commissionery is situated between the DO-AB of Ganga and Yamuna. This DO-AB area is very fertile for the agriculture purpose. Apart from this Hindon and Krishna rivers flow in the western side of the Meerut commissionery.

**Profile of Meerut district**

Meerut district lies between the parallels of 29° north latitude and 77.9° east longitude. It is situated in Upper DO-AB formed by the two famous rivers of north India Ganga and Yamuna. The total
area of district is 2522 sq.kms of which 91.9 % that is 2317.71 sq. kms is rural.

Profile of Ghaziabad district

Ghaziabad district was carved out of Meerut district in 1976. With a population of 4,461,452 persons being in the close proximity of the national capital, New Delhi, it has developed more or less as a satellite town of Delhi. The total area of district is 1548 sq.kms with 73.54 percent literacy.

Profile of Bulandshahr district

Bulandshahr district is situated between the political limits of district Ghaziabad, J.P. Nagar, Badaun and Aligarh. The Ganga River flows on the eastern side and form natural boundaries with district Jyotiba Foolay Nagar and Badaun. Bulandshahr district has in all 1195 villages, out of which 1122 villages are inhabited and the number of un-inhabited villages is 73. The total area of district is 3719 sq.kms.

Profile of Gautam Budha Nagar district

Gautam Budha Nagar district was carved out of Ghaziabad district and Bulandshahr district in 1997-98, with a population (1991) of 1,674,714 persons in the close proximity of national capital New Delhi. Noida is a town of district has emerged more or less as a satellite town of Delhi. The total area of district is 1501 sq.kms which has a major rural area.
Profile of Bagpat district

Bagpat was a tehsil under the political limit of Meerut district during 1991. However, in the year 1997-98 Bagpat was carved out as an independent district separating it from, Meerut district. Yamuna river flows in the west of the district from north to south. Similarly, Hindon river flows in the middle of the district from north to south. The district is very rich in term of irrigation. The total land area of district is 1321 sq. kms. Total population of the district is 1,302,156 persons as per census 2011.

A brief demographic overview of Meerut commissionery (according to census 2011) is given below:

**Table No.1.1**

<table>
<thead>
<tr>
<th>Districts</th>
<th>Population</th>
<th>% Growth</th>
<th>Sex ratio</th>
<th>density</th>
<th>Literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meerut</td>
<td>3,447,405</td>
<td>15.92</td>
<td>885</td>
<td>1347</td>
<td>74.8</td>
</tr>
<tr>
<td>Baghpat</td>
<td>1,302,156</td>
<td>11.87</td>
<td>858</td>
<td>986</td>
<td>73.54</td>
</tr>
<tr>
<td>Ghaziabad</td>
<td>4,461,452</td>
<td>40.66</td>
<td>878</td>
<td>3954</td>
<td>85.0</td>
</tr>
<tr>
<td>G.B Nagar</td>
<td>1,674,714</td>
<td>51.52</td>
<td>852</td>
<td>1306</td>
<td>82.2</td>
</tr>
<tr>
<td>Bulandshahr</td>
<td>3,498,507</td>
<td>16.23</td>
<td>852</td>
<td>775</td>
<td>70.23</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>199,581,477</td>
<td>20.09</td>
<td>908</td>
<td>828</td>
<td>69.72</td>
</tr>
</tbody>
</table>

Census: 2011

1.2 MAKING OF THE AGRICULTURE POLICY
1.2.1 Introduction

Agricultural Price Policy plays an important role in achieving growth and equity in the Indian economy in general, and the agriculture sector in particular. The major underlying objective of the Government's Price Policy is to protect both producers and consumers. Achieving food security at both the national and household levels is one of the major challenges in India today. Currently, the Food Security System and Price Policy basically consist of three instruments: Procurement Prices/Minimum Support Prices (MSPs), Buffer Stocks and the Public Distribution System (PDS). Agricultural Price Policy is one of the important instruments in achieving food security by improving production, employment and incomes of the farmers. There is a need to provide remunerative prices for farmers in order to maintain food security and increase the incomes of farmers.¹

1.2.2 Evolution of Agriculture Pricing Policies

In India, the agriculture price policies and allied instruments were evolved in the pre-Independence era. The procurement and distribution of major food grains were started and statutory maximum prices were fixed, but were not strictly enforced. In the post-Independence era, the objective of achieving food security was linked with environment sustainability. The objective of the

¹ Economic and Political Weekly, Vol. 26.27, June 2010, p. 174
Government's price policy for agri-produce is to set remunerative prices with a view to encourage higher investment and production. Though the Government decided to purchase food grains at fixed prices, if market prices fell precipitously, but till 1954 there was no sharp decline in food prices.

The demand for food grains particularly rice and wheat, was on the increase from year to year as a result of growing population and rising incomes. Thus a trend had developed towards increased level of consumption as well as substitution of coarse grains like maize, jawar, etc. by wheat and rice. Consequently shortages even of a marginal nature used to persist and there was a steady upward trend in price levels to bring demand and supply into balance.

1.2.3 Commission for Agricultural Costs and Prices (CACP)

Till 1964, procurement was confined to surplus States. It was extended to deficit States as well during the drought years and thereafter. In a situation of shortage or scarcity, unregulated purchase and movement of food grains by private trade led to indiscriminate and speculative rise in prices by movement of surpluses of the producing regions to areas of high purchasing power. To deal with that situation, the Government took a number of decisions. On 1 August, 1964, the Government appointed a Committee under the Chairmanship of Shri L.K. Jha, Secretary to
the then Prime Minister on the determination of the prices of rice and wheat for the 1964-65 season.

Later on, the Committee was also asked to suggest prices of coarse food grains for the 1964-65 season.

The Committee submitted its report related to prices on 24 September, 1964 and in respect of the agency to advise on price policy and price structure on 24 December, 1964. Based on the recommendations of the Committee, the Agricultural Prices Commission (APC) was set up on 1 January 1965 with the basic objective of assuring fair prices for farm produce and to advise the Government on price policy of major agricultural commodities. The thrust of the policy in 1965 was to meet the overall needs of the economy and with due regard to the interest of the producer and the consumer. At that point of time, the highest priority was to maximize production since the country was passing through a critical shortage of food grains. Perhaps the most significant aspect of the Price Support Mechanism had been the insulation of farmers against a decline in prices. When an overall balance between demand and supply was in sight in 1980, the APC's terms of reference, apart from other issues, also included for taking into account the changes in the Terms of Trade between agricultural
and non-agricultural sectors. The Commission was renamed in 1985 as the Commission for Agricultural Costs and Prices (CACP).²

The first and foremost mandate of CACP was to recommend Minimum Support Prices (MSP) with a view to make Indian agriculture a Remunerative Sector so that farmers would be incentivized to adopt modern technologies and better farming practices, raising productivity and overall production broadly in line with the emerging demand pattern.³

Assurance of a remunerative and stable price environment is considered very important for increasing agricultural production and productivity since the market place for agricultural produce tends to be inherently unstable, which often inflict undue losses on the growers, even when they adopt the best available technology package and produce efficiently. Towards this end, Minimum Support Prices (MSP) for major agricultural products are fixed by the Government, each year, after taking into account the recommendations of the Commission for Agricultural Costs and Prices (CACP).

While formulating these recommendations, the Commission analyses a wide spectrum of data, covering the costs of

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² 41st Report of Standing Committee on Agriculture (2007-08), 14th Lok Sabha, pp. 1-2
cultivation/production, trends and spread of input use, production and productivity of the crop concerned, market prices, both domestic and global inter-crop price parity, emerging supply-demand situation, procurement and distribution, terms of trade between agriculture and non-agriculture sectors, and so on. Since the price policy involves certain considerations of long-run consequences, the Commission also looks at the yield-raising research being conducted by institutions like Indian Council for Agricultural Research (ICAR). The basic data are generally collected from the Directorate of Economics and Statistics, State Governments, Central Ministries and the nodal agencies concerned with the implementation of agricultural price policy. Besides, the Commission undertakes field visits for close interaction with farmers in different parts of the country and also have wider consultation with senior officers, researchers and managers of relevant organizations.

Terms of Reference

The terms of reference of the Commission for Agricultural Costs and Prices, were framed as under:

1. To advise on the price policy of paddy, rice, wheat, jowar, bajra, maize, ragi, barley, gram, tur, moong, urad, sugarcane, groundnut, soyabean, sunflower seed, rapeseed and mustard, cotton, jute, tobacco and such other commodities as
the Government may indicate from time to time with a view to evolving a balanced and integrated price structure in the perspective of the overall needs of the economy and with due regard to the interests of the producer and the consumer.

2. To take into account the changes in terms of trade between agricultural and non agricultural sectors.

3. To examine, where necessary, the prevailing methods and cost of marketing of agricultural commodities in different regions, suggest measures to reduce costs of marketing and recommend fair price margins for different stages of marketing.

4. To keep under review the developing price situation and to make appropriate recommendations, as and when necessary, within the framework of the overall price policy.

5. To undertake studies in respect of different crops as may be prescribed by the Government from time to time.

6. To advise on any problems relating to agricultural prices and production that may be referred to it by the Government from time to time.

From time to time, the terms of reference of the Commission have been modified and expanded to keep in line with the changes
in agricultural scenario of the country. From the year 1994-95 onwards, Niger-seed and Sesamum were included under the Minimum Support Price (MSP) Scheme of CACP, in addition to the edible oilseeds already covered by the Commission. Similarly, during 2001-2002, the Government enhanced the terms of reference of the Commission by including one additional commodity, namely, lentil (masur). The numbers of crops covered by the MSP scheme have thus increased to 25.4

1.2.4 Minimum Support Price

The Commission submits separate reports recommending prices for Kharif and Rabi season crops. The Central Government after considering the report of the commission and views of the State Governments and keeping in view the demand and supply situations in the country, takes decision on the level of administered prices. The Commission recommended two sets of prices, minimum support prices and procurement prices. Minimum Support Price fixed by the government to protect the farmers against excessive fall in price during bumper production years. Minimum support price has been assigned a statutory status in case of sugarcane and as such the announced price is termed as statutory minimum price. There is statutory binding on sugar factories to pay the minimum announced price at and all those transactions or purchase at price

4 http://cacp.dacnet.nic.in/
lower than this are taken as illegal. The minimum support prices for different agricultural crops viz., food grains, oil seeds, fibre crops, sugarcane and tobacco are announced by the Govt. of India before the start of the sowing season of the crop. This makes it possible for the farmer to have an idea about the extent of price insurance cover provided by the government for the crop. The Directorate of Economics and Statistics, Ministry of Agriculture (DESMOA) is responsible for the collection, compilation and dissemination of the price data of agricultural commodities.

The price policy for agricultural commodities seeks to ensure remunerative prices to the growers for their produce with a view to encourage higher investment and production, and to safeguard the interest of consumers by making available supplies at reasonable prices. The price policy also seeks to evolve a balanced and integrated in the perspective of the overall needs of the economy.

“Minimum support price is the price at which government purchases crops from the farmers, whatever may be the price for the crops”. If there is a fall in the prices of crops, after a bumper harvest, the government purchases at the MSP and this is the reason that the priced cannot go below MSP. So this directly helps the farmers.

The minimum support prices were announced by the government of India for the first time in 1966-67 for wheat in the wake of the
green revolution and extended harvest, to save the farmers from depleting profits. Since then, the MSP regime has been expanded to many crops. The minimum support prices were announced by the government of India for 27 crops at the beginning of each season viz, Rabi and Kharif.

Following are the crops which are covered by the MSP:

**Cereals:** Paddy, wheat, jowar, bajra, maize, ragi, and barley.

**Pluses:** moong, urad, arhar, gram, lentils, and peas.

**Oilseeds:** Groundnut, rapeseed and mustard, Niger seeds, soyabean, sunflower, sesame and safflower.

**Fiber crops:** Cotton and jute.

**Others:** sugarcane, VFC tabacoo, onion, potato and coconut.

In each season the Government used to announce the Minimum Support Prices (MSPs) for major agricultural commodities and organizes purchase operations, wherever required, through public, cooperative, and other designated agencies to ensure that prices do not fall below that level. It decides on the support prices for various agricultural commodities taking into account the recommendations of the Commission for Agricultural Costs and Prices (CACP), the views of State Governments and Central Ministries as well as such other relevant factors as are considered important for fixation of support prices.
The MSP is announced well ahead of the sowing season so that farmers can take informed decisions on cropping.\(^5\)

### Table No. 2

**MSP of major crops during 2004-5 to 2013-14**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Paddy</td>
<td>560</td>
<td>570</td>
<td>580</td>
<td>645</td>
<td>850</td>
<td>950</td>
<td>1000</td>
<td>1080</td>
<td>1250</td>
<td>1310</td>
</tr>
<tr>
<td>Wheat</td>
<td>640</td>
<td>650</td>
<td>750</td>
<td>1000</td>
<td>1080</td>
<td>1100</td>
<td>1120</td>
<td>1285</td>
<td>1350</td>
<td>NA</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>74.5</td>
<td>79.5</td>
<td>80.25</td>
<td>81.18</td>
<td>81.18</td>
<td>129.84</td>
<td>139.12</td>
<td>145</td>
<td>170</td>
<td>210</td>
</tr>
<tr>
<td>Jawar</td>
<td>515</td>
<td>525</td>
<td>540</td>
<td>600</td>
<td>840</td>
<td>840</td>
<td>880</td>
<td>980</td>
<td>1500</td>
<td>1520</td>
</tr>
<tr>
<td>Bajra</td>
<td>515</td>
<td>525</td>
<td>540</td>
<td>600</td>
<td>840</td>
<td>840</td>
<td>880</td>
<td>980</td>
<td>1175</td>
<td>1310</td>
</tr>
<tr>
<td>Arhar</td>
<td>1390</td>
<td>1400</td>
<td>1410</td>
<td>1550</td>
<td>2000</td>
<td>2300</td>
<td>3000</td>
<td>3200</td>
<td>3200</td>
<td>4300</td>
</tr>
<tr>
<td>Maize</td>
<td>525</td>
<td>540</td>
<td>540</td>
<td>620</td>
<td>840</td>
<td>840</td>
<td>880</td>
<td>980</td>
<td>1175</td>
<td>1445</td>
</tr>
</tbody>
</table>

Source: CACP report 2004-05 to 2013-14

There are three types of crops like, Rabi, Kharif and Jaid.

This table describes the sowing and harvesting time of major crops in the region:

### Table No. 1.3

**Sowing and Harvesting time of main crops in western U.P**

<table>
<thead>
<tr>
<th>Type</th>
<th>Sowing</th>
<th>Harvesting</th>
<th>Major crops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kharif</td>
<td>June / July</td>
<td>October</td>
<td>Rice, Jower, Bajra, Maize, Sugarcane, Soyabean, Groundnut</td>
</tr>
<tr>
<td>Rabi</td>
<td>October</td>
<td>March / April</td>
<td>Wheat, barley, Gram, Rapeseed</td>
</tr>
<tr>
<td>Zaid</td>
<td>March</td>
<td>June</td>
<td>Muskmelon, watermelon, Cucumber</td>
</tr>
</tbody>
</table>

\(^5\) Planning Commission, Economic Survey 2012-13, p. 180
1.2.5 Determination of Minimum Support Prices

In formulating the recommendations in respect of the level of Minimum Support Prices and other non-price measures, the Commission takes into account, apart from a comprehensive view of the entire structure of the economy of a particular commodity or group of commodities, the following factors:

i) Cost of production  
ii) Changes in input prices  
iii) Input-output price parity  
iv) Trends in market prices  
v) Demand and supply  
vi) Inter-crop price parity  
vii) Effect on industrial cost structure  
viii) Effect on cost of living  
ix) Effect on general price level  
x) International price situation  
xi) Parity between prices paid and prices received by the farmers,  
xii) Effect on issue prices and implications for subsidy  

The estimates of Cost of Cultivation/Cost of Production, an important input for forming the recommendation of MSP, are made available to the Commission through the Comprehensive Scheme for Studying the Cost of Cultivation of Principal Crops,
operated by the Directorate of Economics and Statistics, Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India. These estimates take into account real factors of production and include all actual expenses in cash and kind incurred by the farmer in production, rent paid for leased in land, imputed value of family labour, interest value of owned capital assets (excluding land), rental value of owned land (net of land revenue), depreciation on farm implements and buildings and other miscellaneous expenses.  

1.3 Need for Revisiting MSP

The initial emphasis of the Agricultural Prices Commission (APC) was on reducing the fluctuations in food grain prices in order to insulate the consumers against price increase, providing price incentives to the producers and inducing the producers to adopt new technology. As seen earlier during the mid eighties, the emphasis of the price policy, however, transformed substantially due to subsequent changes in the agricultural economy. These changes brought forth modifications in the objectives of price policy and its emphasis. Consequently, the focus of analytical issues also changed during this period. MSP is now viewed as a form of market intervention on the part of the State and also as one of the supportive measures (safety nets) to the agricultural producers. Even though it is perfectly WTO compatible, eye-brows

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6 http://cACP.dacnet.nic.in/
are raised about its continuance and effectiveness to deal with the objectives set by its architects. The issues that dominate the current debate include reasons for the continuation of the price support scheme, its effectiveness in terms of the objectives set forth in the 1986 document and support price vis-a-vis state wise remunerative price approach. More pertinent problem relates to the effectiveness of the implementation of the policy of MSP.

In sum, the context of price policy has changed substantially over the years and so also the direction and effectiveness of price policy as a tool to influence the agricultural economy. This has provoked many social scientists to have a fresh look at MSP as an instrument for interacting with the important parameters of the agricultural economy. Among the major objectives of the Price Policy (as reflected from the 1986 policy statement), the incentives to adopt new technology, rational utilization of land and other resources, the effect of prices on the-cost of living, agricultural wages as well as wages in the other sectors of the economy, have together assumed greater importance. In the wake of liberalization, MSP assumes a significant role in the form of state intervention in the agricultural product markets as well as a component of the safeguard measure. This also has a strong linkage to the factor market. In this situation, two important aspects deserve attention, viz.
(i) Insulating the farm producers against the unwarranted fluctuations in prices, provoked by the international price variations (Nayyar and Sen 1994) and

(ii) Creation of an incentive structure for the farm producers in order to direct the allocation of resources towards growth/export-oriented crops. The focus is to create value addition for the cultivators. Therefore, it becomes necessary to review the implementation process and effectiveness of MSP as an instrument in this background.

It has been noted in the recent past that the growth pattern is changing in favour of certain crops due to various reasons. At times questions are raised about the suitability of area allocated to such crops and the aggregate welfare implication of this changing crop constellation. This has an implicit provocation to check the hypothesis relating to the producer's response to MSP through market prices and infrastructure. Similarly, the trends in the gross capital formation in the recent past are also disturbing especially in the regions where technological change has not made its initial impact. Therefore, it becomes necessary to see the effectiveness of MSP as a tool to encourage the adoption of technology in the present context, capital formation as well as to ascertain and document the producers' responses to this scheme of price intervention at the micro level. The assessment of the effectiveness of the MSP scheme includes its role as an instrument of price
policy as well as an effective tool given the present administrative mechanism. It has to be viewed both in terms of its impact at the macro-level and in the form of functional ease at the micro-level. The question of its relevance and operation incidentally becomes an integral part of the analysis. These questions, however, will not fetch monosyllable answers and one need to go in depth to locate other policy tools as possible alternatives.

The present study has been undertaken with the focus on effectiveness of the Minimum Support Prices in its impact on various parameters of agricultural economy. These include growth parameters, distribution aspects, decision-making in the allocation of resources, environmental effects and above all as an operational instrument of the price policy.

1.4 Objectives of the Study

1. To analyse the overall relevance and effectiveness of MSP in the case of major crops in Western Uttar Pradesh.
2. To analyse the process of implementation of Minimum Support Prices and allied measures at the state level.
3. To suggest policy measures in order to enhance the effectiveness of MSP.
4. To assess the impact of MSP on adoption of improved technology and their relative contribution in increasing the production and productivity of the specified crops.
5. To analyses the effectiveness of the price in U.P. in the context of the objectives set forth by the Commission on Agricultural Costs and Prices.

1.5 Research Methodology and Data Sources

The present study, entitled “Impact of Minimum Support Price on Agricultural Economy in western Uttar Pradesh” has been carried out to analyze the trends and structure of MSP in the background of Agricultural economy of India with respect to Western Uttar Pradesh.

The methodology of the study is both descriptive and prescriptive. In the present study, we have applied simple statistical techniques to quantify the impact of MSP on agricultural development in India. The simple tabular, percentage, graphical and simple statistical techniques has been used in the study. This is because of its simplicity and its ability to providing good results.

The Estimation Procedure of Compound Annual Growth Rate

A widely accepted exponential model, \( y = a b^t e^u \), has been fitted to the time series data for estimating growth rates. The logarithmic form of this function is given by;

\[
\ln(y) = \ln(a) + t \ln(b) + u
\]

where,

- \( y \) is the dependent variable whose growth rate is to be estimated.
- \( t \) is the independent variable (Time)
- \( u \) is the disturbance or error term.
a and b are the parameters to be estimated from sample observations. The regression coefficient b is estimated by ordinary least squares (OLS) technique.

The Compound Average Growth Rate (CAGR) in % term is estimated as:

\[ \text{CAGR} = \{\text{antilog} (b) - 1\} \times 100 \]

**Time Period of the Study**

This study is covered time period from 2001-02 to 2011-12. For analytical convenience, the total time period is divided according to their relevance.

**Area of the Study**

This study is covered five districts namely Meerut, Ghaziabad, Bulandshahr, Baghpat and Gautam Buddha Nagar of western Uttar Pradesh.

**Data Sources**

In the present study, we have used secondary data sources. The data on relevant variables have been obtained from the various government publications. The main data sources are given below;

- *Hand book of Statistics on Indian Economy* (various volumes), Reserve Bank of India (RBI), Mumbai
- *Agricultural Statistics*, Ministry of Agriculture, GOI.
The computation has been done by using the simple software packages.

**Plan of the Study**

The report of the thesis is presented in six chapters. Each chapter deals with a specific issue. A brief discussion on the role of minimum support price has been already made in this introductory chapter. Besides, a layout plan, objectives, research methodology and limitations of the study has been given in this chapter. Chapter II reviews the relevant literature related to the study, Chapter III present the effectiveness of price policy, price trends, impact on input use and regional variation in prices. Chapters IV focus on administration of minimum support price scheme at the state level. This chapter goes through the analysis the relationship between agriculture growth and MSP along with the implementation process of minimum support price. Chapter V analysis the impact of minimum support price, land use and crop pattern in the specified area. Besides dealing with the impact of MSP on area allocation and adoption technology the study also focused on the cost of cultivation. Chapter VI aims to sum up the work that has been done in the preceding chapters and present main findings obtained from the empirical analysis. Accordingly, Section I presents the main findings of
the study and Section II elicits suitable policy implications of the present study. Besides dealing with the summary of the study, includes a discussion on some of the policy implications emerging from the study. In the end, selected bibliography has been given.

1.6 Limitations

Although the scope of agriculture sector is very wide & significant in the present scenario and there are so many opportunities in the field of agriculture. But our analysis is limited to a few crops ignoring the fact that these crops play an important role in food grains supply and are also the most important crops from the viewpoint of MSP and its determination in the economy. The regions chosen for the purpose of study (Meerut commissionery) represents the five districts of Western Uttar Pradesh viz. Meerut, Baghpat, Bulandshahr, Ghaziabad and Gautam Budha Nagar which are most active farm lobby. However, we do not arrogate to commit that our study has a broad coverage of the target area. This research work is based mainly on secondary data.