Poverty reduction is one of the overreaching objectives of union and state governments of India. In India, tropical, semi-tropical, arid, semi-arid humid and temperate climates are found. The bulk of food production is being produced in the Indo-Gangetic plains of the country in which Uttar Pradesh falls. The Upper-Gangtic, Medium-Gangtic /Central Gangetic are the area of bulk of production for cereals-Rice and Wheat. The success of green revolution in mid 60s had been accompanied by adoption of high yielding varieties, agro-chemicals and greater water use. Earlier, in Indian agriculture, the relative merits of various household income strategies and land management practices were determined with the help of most effectively improve agricultural production system, level of household income and the condition of natural resource base- primarily land. They determine the cause of land deterioration, examine the possible impact of policy and programme on income strategies and other production management, decision, assess the trade-offs and complementary among different objectives.

The investigation of socio-economic aspect of farming system is considered here imperative because of most policies that boost income and productivity while reducing adverse effects on environment. The socio-economic parameters like caste, occupation, assets structure, education etc, have positively impacted on management decisions, for example improved education, shows to lead to higher income and better soil nutrient balances, but it may also reduce crop production and increase soil erosion and result of reduced farm labour intensity.

The study area-Central Uttar Pradesh had also been endowed with production shift in rice and wheat productivity accompanied by concentration of crop breeding programs, utilizing high pay-off genetic characteristics particularly rice and wheat, and then distributing new varieties, together with inputs of fertilizer and pesticides, to farmers. An estimate, about 10.5 Million ha land is under rice and wheat sequence in India, out of which, 4.8million ha. Land is in the U.P. In Central region of Indo-Gangetic plain, nearly 41.5 per cent area of the total grossed cropped area comes under Rice and Wheat system and thus, rice-wheat cropping system has been important in the Central region. Further importance of Central region and Indo-Gangetic Plain s are known by many reasons, like (i) Rice and wheat production. In this region both crops (rice & wheat) constitute about
half of the total food grains production of the country. It is of crucial importance for country’s food securities (ii) About 45 per cent of farm households depend directly on rice and wheat economy of IGP. Prior to 1966-67, that was a pre-revolution period, was known for traditional agriculture systems, which was based on locally available natural resources and building on traditional knowledge, which could highlight the cultural, social, economic environmental values of sustainable agriculture. However, a traditional agricultural system was often no longer viable when the conditions under, which they were developed and changed radically. For example, high population pressure often leads to shorter rotation periods, causing rapid soil and water depletion. This has resulted into decline in sustainability and total factor productivity growth (Kumar et al. 2002).

Uttar Pradesh is one of the most important states for the national economy; Agriculture sector is crucial for the state. Agriculture in the state contributes about 40 per cent to the Gross Domestic Product of the state against 22 per cent at the national level. Agriculture engages about 65 per cent of the work force and most of them are below poverty line. Nature bestowed the state with bountiful resources. The state is geographically located in the map of the world’s most fertile track- the Gangetic-Plains. It is being observed that productivity of important crops in this region has been declining and thus, improved farming systems are to be needed for sustainment of agriculture. Farming system can be considered at various levels, farming system from regional to which is district level. To get the answer of questions first the sustainability of agricultural system which is determined more by its biological and, second, economic properties. Both properties are creating sustainable system importantly because the sustainability debate has shifted the balance of the relative importance of these two factors in both the research and policy areas. All the level of farming systems, the science of ecology has had a major impact on both research and policy institution in changing the status of farms from production systems to agro-eco-system. The old perception on farm management has shifted the focus from input-output relationship, enhancing and ecological balance and system resilience through such avenues as increased diversity, component interactions and enhanced biological sub system. The economic role of the existing farming system can be viewed in the light of more than money. Farm productivity need not necessarily mean the economic returns.

It is necessary to illustrate the abject poverty while one would like to characterize existing farming system abject poverty can force people to use natural resources in an unsustainable way, thereby degrading the environment and further undermining their
livelihoods. That’s why the study of farm household is a must to go into in depth for diagnosing reality of success as claimed. Choice of any policy to make farming system sustainable requires detailed information about the existing farming situation. A system comprises interrelated and interacting components (or sub-system) within whose boundaries there are tangible and intangible elements (sub-system, components) possessing objectives and purposes requiring inputs to produce outputs and whose equilibrium is influenced by supporting, catalytic and opposing other systems and sub-system \((\text{Cameons, 1985})\) systems are not actually visible. A system approach is an extremely subjective and personal tool.

Farming is a system because it consists of several activities, which are closely related to each other by the common use of farmers’ own labor, land and capital by risk distribution and by the joint use of farmers’ management capacity. It is an organized decision making unit in which crop and livestock production is carried out with the purpose of satisfying the farmers’ goals. Hence, it can be said that farm is a goal oriented and multi objective system. A farmer may have several goals and the emphasis varies from case to case. To achieve the goal, farmers perform various activities or translating inputs into outputs. Farm system is influenced by environmental factors such (1) natural conditions (e.g. soil, climate, disease, etc.); (2) technological innovations; (3) institutional (tenancy farm size, tax laws, credit and input supply, etc); (4) economic (process of inputs and outputs); (5) Social and cultural factors; and (6) political intervention.

In context to exploring socio-economic, problems associated with existing farming systems, the present study has been attempted for and possible solutions suggestions. The central Uttar Pradesh has been adopted as a study domain. Keeping in view above, the present study entitled \("\text{An Economic Analysis of Existing Farming Systems and Developing Viable Alternatives in Central Uttar Pradesh}\"") has been undertaken with following objectives:

**OBJECTIVES:**

1) To study the socio-economic conditions of the selected households under the existing farming system in the Central U.P.

2) To characterize the existing farming system and associated factors in shaping them \((\text{farming system})\) in the present context.

3) To identify income gap along-with limiting factors for the solution.

4) To suggest a sustainable, economically viable alternative.
Hypotheses:

1) The poverty persisted despite of implementation of 1\textsuperscript{st} phase of the green revolution.
2) The existing farming is not enough to meet livelihood security.
3) Off-farm income is the main supplement to livelihood security.