The largest portion of the natural resources of India consists of land and by far the larger proportion of its inhabitants are engaged in the exploitation of land. In any scheme of planned economic development of the country, therefore, agricultural reorganization and reform hold a position of basic importance. With the increasing pressure of population on land and the growing need for food and raw materials, there has been a growing desire in recent years for the rationalisation of our agriculture so that every piece of ground could be properly utilized. This desire calls for a scientific study of the utilization of the agricultural lands. And in any plan which aims that the land resources of a region should be used in the most scientific, rational and economic manner, the importance of Land Use Surveys cannot be overlooked. The value of such a survey lies in the detailed information it provides regarding the existing use and misuse of land, and this information when analysed leads to a full appreciation of the rationality or irrationality of the present use and of possibilities of its further improvement.

Taking into consideration the land area of our country in general and the agricultural land in particular and also the large percentage of population that depends on land, no serious attempt has so far been made in this country to carry out a detailed survey of the agricultural land and to assess its carrying capacity.
In the present work an attempt has therefore been made to study and interpret the use of agricultural land as it exists today in the thirteen selected villages of the Central Ganga-Yamuna Doab. It is admitted that it would have certainly been more useful if the total survey of all the agricultural land in the Doab were carried out, but keeping into consideration the time and cost such a survey would have needed there was no better alternative before the writer other than to adopt sampling technique. However, it could be pointed out at the very outset that utmost care has been taken in the selection of the sample villages. The villages studied in detail are representative of a large class of villages found in similar geographical and socio-economic conditions. Thus, besides showing the land use patterns as it exists today in these villages, they also exhibit the general pattern of land use in the whole region.

As for as the writer is aware, no attempt has so far been made to study the use and misuse of agricultural land, on the basis of intensive local surveys, in the Central Ganga-Yamuna Doab. Consequently information on land use for this region is meagre. ¹ A study of considerable value based on intensive land use surveys and dealing with various problems connected

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¹. There is hardly any standard work of reference on the land use problems of the Doab. Certain books and reports, for example, Moreland, W.H., *The Agriculture of the United Provinces*, 1912; Das, G. Raya, *Agricultural Improvements with special reference to U.P.*, 1931; Report on Agriculture in U.P., submitted to the Royal Commission of Indian Agriculture, 1926, do give a general account of the agricultural conditions of the whole of U.P., but besides being out of date, they make little attempt to study the land use on the basis of intensive local surveys.
with land use in eastern Uttar Pradesh has recently come from Dr. Mohammad Shafi. Although the problems and patterns of land use differ considerably in the Doab as compared to those of Eastern Uttar Pradesh yet the book has been of immense help to the writer.

The information on land use, thus, being confined to some old books and records, the present study is mainly the outcome of the field work done by the writer during the year 1961-62. There were two main objectives in taking up this work. First, the collection of land use data through an intensive field work and recording them on large scale maps. For this purpose outline maps of the selected villages showing the field boundaries were obtained from the headquarters of the various Revenue Departments. The villages were visited during the Kharif season of 1961 and the Rabi season of 1961-62 and the use of land was recorded on the outline maps. Further informations regarding the general agricultural conditions, for instance, the methods of cultivation, use of implemints and manures, yield of crops and the general standard of living of the people were also obtained. An enumeration of the population in each village was also undertaken. For a study of occupational structure the population was classified into three groups (i) the primary rural which depends on the cultivation of land exclusively and (ii) the secondary rural which serves the primary population. The third category, namely adventitious

population, which includes people who live in the villages by choice rather than by necessity, was not noted anywhere.

The second objective was to interpret the land use maps in the light of the prevalent geographical and socio-economic conditions of the area. This interpretation gives in detail an account of the geographical location of the village, the classification of land on the basis of its productivity and fertility, the various uses to which it is being put, facilities of irrigation and the practice of double cropping. For an appraisal of the present productivity of land, the relative potential productivity of the village lands has been ascertained which will be of much help in the profitable use of different types of land. On the basis of land use maps and population figures as well as the data of per acre yield an attempt has also been made to calculate the caloric intake per head per day.

It should be mentioned here that besides an interpretation of the nature and crop land use, special emphasis has been given on maps and an attempt has been made to bring this work in conformity with the recommendations of the Commission on World Land Use Survey. The Commission says "we consider that for all parts of the world there should be a survey of land use together with an interpretation. This involves (A) maps embodying the survey and (B) explanatory memoirs".

"we place our main emphasis on maps because there is no other way of showing actual location and distribution of the
varying types of land use, and any change proposed will involve changes in the patterns of distribution shown on these maps. 3

Thus taken as a whole the present study falls into three parts. In the first part a study of the physical condition for the whole area has been made. It includes chapters on structure and relief, climate and soils. The second part is the study of land use and its interpretation in each of the selected villages. Part third embodies the conclusion and discusses the carrying capacity of agricultural lands, the caloric intake per head per day. Suggestions have also been given for increasing the agricultural production.

It is my pleasant duty to express my very sincere and deep gratitude to my supervisor, Prof. Mohammad Shafi, Head of the Geography Department, Aligarh Muslim University, for the encouragement, guidance and help which I have received from him at every stage in the preparation of this thesis. I am also grateful to Dr. Mohammad Anas and Mr. Moonis Raza who have given valuable suggestions and have helped me in understanding some of the difficult problems connected with my research.

Thanks are also due to the University Grants Commission for awarding me a scholarship to carry on this project, and to the librarians of the libraries of the Council of Scientific and Industrial Research, the India Meteorological Department and the Indian Agricultural Research Institute.

Institute, all in New Delhi, who placed at my disposal all
the desired materials connected with my work.

I am grateful to all the district and tahsil authorities who have helped me in many ways, and wish to express my
heartfelt thanks to all the village people, mostly farmers,
with whom I had long discussions during the course of my field
work. Needless to say that without their help and cooperation
field investigations would have been very much difficult.

For many acts of kindness in the various stages of
the work I must also express thanks to my friends Dr. Aijazuddin
Ahmad, Dr. Farooq Siddiqi and Mr. Amir Arefee.

Khalid Zaheer Askari