RESEARCH METHODOLOGY & WORK PLAN

Methods of Data Collection

The adoption of sound research methodology is an important aspect of research study. Taking into account the basic aspects and their variables the research methodology shall be adopted, in the present study; to suit the fulfillment of objectives in short the research methodology shall be as under: - The entire research work is based on primary and secondary sources. Primary data will be collected through the intensive field work — by executing questionnaires, conducting interview of farmers, heads of local-institutions and personal observations. Questionnaires covers the aspects like general land use, crop land use, farmers cultivation methods, use of fertilizers, education, income, problems related to agriculture. Secondary data will be collected from published reports, abstracts, Journals, documents such as census handbooks, socio economic reviews district statistical abstract, Gazatter of Maharashtra and Sangli District, National sample Survey, J and Kharland research, Report of development agencies, and soil survey units.

Methods of Data Analysis

The structure of data collection through the process of field work shall be done in three stages as selections of Tahsil of Sangli district, selection of villages from these tahsils and delectation of respondents from this village. The period selected for the study shall be 1980 to 2010. The data collected is analysis by applying different suitable statistical methods and is presented through table maps and diagrams. The spatial and temporal aspects of general and agriculture land use were studied in detail. The data obtained for the period of 1980-81 to 2010-11. Converted to the percentage to the total geographical area. To avoid the fluctuations four years data is averaged and used for analysis. The percentage is categorized in different groups. Suitable diagrams were made and interpreted the text to show the land use pattern. The data will be analyzed using statistical methods such as co-relation, regression, crop ranking, crop combination, crop diversification’s, crop concentration and agricultural productivity.

Cartographic techniques, statistical techniques and computer techniques will be used for preparation of maps, Interpretation of results will be done by analysis of data maps and diagrams, For the calculation of crop combination of the region. Rafiullah’s maximum positive deviation method in used. Rafiullah (1956) based on weaver’s method developed a new deviation method in his work- A New Approach to the functional classification of Towns.
For the assessing the crop productivity of the region, Enyedi’s formula is used. While describing geographical types of agriculture in Hungary refers to a formula for determining agricultural productivity.

The systematic purposive sampling was chosen for selecting the sample villages. The selection of these sample village based on geographical variation crop combination regions found in the district are also considered for selecting sampling village. Two villages from each geographical area were selected by considering the aspects like relief, rainfall, slope, irrigation’s, population etc. Temporal analysis of general land use agricultural land use has been studied in detail for the period of Thirty year (1980-81 to 2010-11) spatial distribution for general land use and agricultural land use has been analyzed for year 2010-11.

**Organization Of the Proposed Research Work**

The proposed research work will be carried out as per stipulated time schedule.

1st Six Months - Review of Literature with reference to agricultural Geography and proposed research work and Preparation of questionnaire, intensive field work and collection of data.

2nd Six Months - Compilation and collection of data & preparation of maps with the help of statistical data.

3rd Six Months - Analysis of maps, graphs and tabulated data Interpretation of result.

4th Last Six Months - Finalization of the thesis and synopsis.

**Design of the Proposed Research Work:**

The following will be design of the proposed research work.

First chapter will be devoted the conceptual background and the appraisal of the problem. And second will be the Geographical personality of the study region.

Chapter Third will throw light on the general land use pattern and the changes in the study region and chapter will on Agricultural land use, cropping pattern, Agricultural regions and the changes in the study region.

Chapter fifth will throw light on crop Ranking, combination and diversification. Chapter Sixth will be on crop productivity.

Studies of the spatial organization of agriculture of some sample village will be analyzed chapter number Seven.
Chapter number Eighth will dealt with the present status and future prospects of horticulture in the study region.

The last Chapter Number Ninth shall be concluded by incorporating the conclusion and suggestions.