

CROP-REGIONS OF MADHYA PRADESH

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1. *Introduction :*

An attempt has been made in this paper to form regions of Madhya Pradesh by land-use pattern. Quite a few studies are available wherein regionalization on the basis of cropping pattern is done. In most of such studies delineation of regions is based on the areas under major crops and at a time many crops are not simultaneously taken into consideration. When this is desired the problem of formation of regions becomes quite complicated. The situation is so, whenever the number of characteristics on the basis of which the regions are to be delineated is large, and is not specific to crop-regions.

The concept of distance may be employed in these circumstances. Richard Stone⁷ has used this concept for grouping regions into homogeneous groups — homogeneous in respect of a number of different economic criteria. In this paper the same methodology is used to prepare regions of Madhya Pradesh so that the regions homogeneous with respect to land-use pattern are obtained. Section 2 describes what data were used and Sections 3 and 4 explain the method and applications. Results are also presented in Section 4. Section 5 deals with distances within and between the regions and the paper is concluded in Section 6.

2. *Data :*

District is chosen as basic unit for clustering and is not divided further. This has the advantage that the data are readily available. The data used was the acreage under different crops, and land under non-crop categories like forests, permanent pastures etc. as reported in Agricultural Statistics.⁴ In all 15 crops and 8 other land categories were considered. The list of these categories is given in Appendix B. Appendix A gives the list of 43 districts of Madhya Pradesh with their serial numbers, as used in reporting the results. All these 23 categories of land were converted into percentages with geographical area and then all of them were standardized. These standardized percentage areas formed the set of characteristics to be used for clustering the districts of Madhya Pradesh.

3. *The concept of Distance :*

Each district can be represented by a point in the m -dimen-

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