



Centro Internacional de Agricultura Tropical

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ESPECIAL

Identification and Analysis of Agroproduction Zones by the
Overlay-Correlation-Method - The Case of Costa Rica "

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The present study is the result of a three months visit at CIAT from August 13 - November 13, 1983. It attempts to demonstrate a methodology for regional analysis which should provide a basis for area-specific agricultural research and serve as a guideline for future implementation of research results into special micro-regions.

The state of Costa Rica was chosen as a test case.

Regional analysis basically consists of a comparative analysis of regional subunits. In general administrative units (e.g. provinces in a state) are used as subunits because the existing statistics are classified according to them.

The results, however, turn out to be of little relevance to the needs of agricultural research, because the border lines of agroproduction are hardly determined by administrative borders. Often they run quite opposite to them. What is needed is an analysis of a region according to its agroproduction zones.

To achieve the necessary quantitative base for such an approach it is necessary to rearrange the existing administratively ordered data according to the agroproduction zones. For this purpose we apply the overlay - correlation - method, which is performed in four steps:

- a) Mapping the spatial distribution of all important agricultural commodities separately by dot distribution (in the case of Costa Rica we chose 100 ha units per dot).
- b) Identifying and delineation of agroproduction zones by overlaying the transparent commodity maps; designing a transparent map of the agroproduction zones.

- c) Transplanting the commodity data from the maps into a new table by overlaying the agroproduction zones over the commodity maps and counting the respective commodity figures for each agroproduction zone.
- d) Correlating the agroproduction data with ecological and demographic features by overlaying the agroproduction map over respective thematic maps, e.g. rainfall-, soils-, relief-, population—maps; establishing region - profiles of each agroproduction zone.

In the case of Costa Rica 5 major agroproduction zones were identified and named after the dominating crop or crop-combination. These zones were again subdivided into altogether 32 micro-production regions. For all 32 micro regions a region - profile was constructed. According to the specific needs of CIAT eight of them were selected for more detailed interpretation.