Soil Based Zoning for Agro-environmental Planning in Ilheus County, Bahia, Brazil. (S11-comerford143145-Oral)

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Abstract:

The land use evaluation methodology presented here was designed to assist with the agro-environmental planning of Ilheus, Bahia, Brazil. The evaluation is based on soil properties, relief, climate and vegetation. The data were acquired from thematic maps of the region, interpretation of aerial photographs, and field survey. Data were digitalized and analyzed in a GIS environment. Five land use units were identified: agriculture (I); agriculture (II); cattle raising; agro-forestry and preservation. The results showed that: the hydro-thermic regime is homogeneous. The dominant land use should be agriculture(I) utilizing 41% of the area (69,800 hectares). Twenty-eight percent (28%) of the land (48,500 hectares) should be in agriculture (II), while 31% (52,900 hectares) should be preserved or put into use only following rigorous conservation practices. The determining factors for selection of agro-environmental area suitability were soil type and relief. Latossolos, Alissolos and Argissolos dominate and occur in wavy to very wavy relief resulting in serious limitations to mechanization and agricultural use.

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