

Application of GIS in Assessing Thailand Desertification
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Abstract

The desertification is a global problem. The desertification in Thailand by means of Geographic Information System (GIS) has studied to allocate the potential drought hazard areas and early warning for arable land. The criteria of desertification assessment must take in considerations of AGENDA 21 and The International Convention to Combat Desertification (CCD). The climatic assumptions such as the annual rainfall, AI-Index, PE-Index, TE-Index and Length of Growing Period versus the soil assumptions such as soil erosion, the problem soils, land used, soil Salinizations have calculated to spatial analysis. The results show that 6.93 Million rai (2.15 % of whole country) are severely impact of desertification in Thailand. The categorized in these areas are lowland 2.39 and high land 4.54 Million rai respectively. The early warning for agricultural land is addressed to quantify the decline in yields at least 50% decreasing. Consequently, GIS paradigm in the holistic view point is then for considered and exchanged among scientists to be an important indicator of desertification.

Keywords: Desertification, GIS