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A Geospatial Approach to Climatic Zone Specific Effective Horticultural Planning in East Khasi Hills District of Meghalaya, India

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ABSTRACT

Climatic zone is one of the most important units for horticultural planning. Survival and failure of particular land use or farming system in a given region heavily relies on careful assessment of agroclimatic resources. Large variety of crops is being grown in Meghalaya traditionally, based on the needs and cultural practices of people without any consideration to the suitability of the climate. This study attempts to make adjustments with the climate based upon scientific knowledge to make the best use of the natural resources so as to recommend more area under horticultural crops. This has been made by identifying existing land use and appropriate land use strategies mainly for horticultural crops for each agro-climatic region. Modern Geospatial technology such as satellite Remote Sensing (RS) and Geographical Information System (GIS) and GPS have been used effectively to provide newer dimensions in identifying suitable sites for various horticultural crops and also for appropriate monitoring and management of land resources in an integrated manner with reference to agro-climatic condition.

KEYWORDS

Climatic Zone; Geospatial Technology; RS; GIS

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References

- [1] A. K. Neog, "WTO and Agriculture Development in Backward Regions," In: B. J. Deb and B. Dutta Ray, Eds., *Changing Agriculture Scenario in North East India*, Concept Publishing Company, New Delhi, 2006, pp. 25-42.
- [2] A. Das, P. K. Ghosh, B. U. Choudhury, D. P. Patel, G. C. Munda, S. V. Ngachan and P. Chowdhury, "Climate change in Northeast India: Recent Facts and Events—Worry for Agricultural Management," *ISPRS Proceedings: Impact of Climate Change on Agriculture*, XXXVIII -8/W3, 2009, pp. 31-37.
- [3] P. R. Shukla, S. K. Sharma, N. H. Ravindranath, A. Garg and S. Bhattachary (Eds.), "Climate Change and India: Vulnerability Assessment and Adaptation," Universities Press, Hyderabad, 2003, pp. 1-60.
- [4] P. G. Diwakar and S. G. Mayya, "ICT and Geomatics Process Tools for Community Centre Watershed Development," *Journal of Geomatics*, Vol. 4, No. 1, 2010, pp. 25-30.
- [5] J. Goswami, "Geomatics Based Agroclimatic Characterization of Meghalaya," *Journal of Agrometeorology*, Vol. 10, 2008, pp. 164-168.
- [6] V. B. Singh, "Climate, Site and Soil," In: *Fruits of NE Region*, Wiley Eastern Limited, Bombay, 1990, pp. 17-24.

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- [7] Central Potato Research Station, ICAR, " Package of Practices for Potato Cultivation in Meghalaya," Shillong, Meghalaya, India, p. 1.
- [8] NBSS&LUP (ICAR), " Manual Soil Site Suitability Criteria for Major Crops," Technical Bulletin, Vol. 129, Nagpur, 2006, pp. 3-4, 47-97.
- [9] Food and Agriculture Organization (FAO), " A Framework for Land Evaluation," Soil Bulletin, Vol. 32, United Nations, Rome, 1976. <http://www.fao.org/docrep/X5310E/X5310E00.htm>
- [10] Food and Agriculture Organization (FAO), " Crop Evapotranspiration—Guidelines for Computing Crop Water Requirements," Irrigation and Drainage Paper 56, 1998.
- [11] <http://www.fao.org/docrep/X0490E/X0490E00.htm> C. Sys, E. van Ranst and J. Debaveye, " Land Evaluation, Part II," ITC, Ghent, Belgium, 1991, p. 247.