

CLASSIFICATION OF CLIMATE OF NORTHEAST BRAZIL -
- a review¹

S. Jeeyananda Reddy²

The purpose of climatic classification is to identify those aspects of climate which distinguish a region from nearby regions and to derive inferences on the influence of climatic factors on human, animal and plant life. In dividing the world into a number of 'climatic types' there is a certain artificiality in the establishment of their boundaries. For a general climatic classification to be realistic, boundaries should at least conform with known plant distribution boundaries. If the interest is directed towards dryland agriculture or semi-arid zone, as a first step it should be separated at a broad level from arid and sub-humid zones. There is ambiguity both in the usage of the term semi-arid and its implied practical application. This ambiguity stems from (i) the method of defining broad zones; both in terms of the choice of

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 - (2) Consultant (Agroclimatology), CPATSA/EMBRAPA/IICA, C.P. 23, Petrolina (PE), Brazil.

climatic parameters that are used to define an index and the class limits of the index and (ii) the association of defined zones with specific natural vegetation formations and/or land use systems. The literature is rich with methodologies. Three methods, namely Troll, Hargreaves and modified Thornthwaite approaches were compared and analysed in order to understand their potential applicability for the demarcation of the semi-arid tropics as relevant to dryland agriculture zone. At least for India the modified Thornthwaite approach best fits existing patterns. Hence, this approach is adopted to demarcate the semi-arid boundary for northeast Brazil using about 1000 locations data. However, none of these methods are applicable for the sub-division of the semi-arid tropics into agronomically relevant homogeneous zones.