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What makes up marginal lands and how can it be defined and classified?

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Definitions of marginal lands are often not explicit. The term “marginal” is not supported by either a precise definition or research to determine which lands fall into this category. To identify marginal lands terminology/methodology is used which varies between physical characteristics and the current land use of a site as basic perspective. The term ‘Marginal’ is most commonly followed by ‘degraded’ lands, and other widely used terms such as ‘abandoned’, ‘idle’, ‘pasture’, ‘surplus agricultural land’, ‘Conservation Reserve Programme’ (CRP)’, ‘barren and carbon-poor land’, etc. Some terms are used synonymously. To the category of “marginal” lands are predominantly included lands which are excluded from cultivation due to economic infeasibility or physical restriction for growing conventional crops. Such sites may still have potential to be used for alternative agricultural practice, e.g. bioenergy feedstock production.
The existing categorizing of marginal lands does not allow evaluating soil fertility potential or to define type and level of constrains for growing crops as the reason of a low practical value with regards to land use planning. A new marginal land classification has to be established and developed. This classification should be built on criteria of soil biophysical properties, ecologic, environment and climate handicaps for growing crops, be easy in use and of high practical value.
The SEEMLA consortium made steps to build such a marginal land classification which is based on direct criteria depicting soil properties and constrains, and defining their productivity potential. By this classification marginal lands are divided into eleven categories: shallow rooting, low fertility, stony texture, sandy texture, clay texture, salinic, sodicic, acidic, overwet, eroded, and contaminated. The basis of this classification was taken criteria modified after and adapted from Regulation EU (1305)2013.
To define an area of marginal lands with climate and economic limitations, SEEMLA established and implemented the term “area of land marginality” with a broader on marginal lands. This term includes marginal lands themselves, evaluation of climate constrains and economic efficiency to grow crops. This approach allows to define, categorize and classify marginal land by direct indicators of soil biophysical properties, ecologic and environment constrains, and provides additional evaluation of lands marginality with regards to suitability for growing crops based on climate criteria.