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## The Action of Soil-environmental Criteria in Prevention and Treatment of Land Degradation

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Since 1970s, an increasing attention has been paid to land degradation worldwide (FAO, 1971; Zhou et al., 2017). Generally speaking, the connotation of land degradation commonly refers to the destroy of ecological balance, and the decline of soil quality and environmental capacity (regeneration, and carrying capacity), and could be categorized as soil erosion, land desertification, soil salinization-alkalization, land impoverishment, land contamination, land destruction according to their reasons (water/wind erosion, deforestation / overgrazing, unreasonable irrigation, inadequate fertilizer, pollution, mineral resources exploitation) (Liu, 1995; Zhou & Huang, 2001). The various related theories have been developed to evaluate the land degradation, such as global assessment of human-induced soil degradation (GLASOD), the assessment of the status of human-induced soil degradation in South and Southeast Asia (ASSOD), and the theory put forward by the Moscow State University and Russia Academy of Science (RUSSIA) (Sun et al., 2001). For each type of land degradation, it has various indicators and varied in different countries and regions (Morales & Zuleta, 2019).

Human activities are recognized as the major reason of land degradation, and countermeasures for effective prevention and treatment of land degradation are developed accordingly, including the formulation of laws and policies (Liu, 1995; Sun et al., 2001). Soil-environmental criteria are multi-objective functions with the range of values based on scientific research on relationships between soil pollutant concentrations and ecological risk or human health effects (Zhou et al., 2007). Compared with soil-environmental standards, they do not consider economic or technological factors and are not mandatory, but are the data foundations and scientific bases for development of soil-environmental standards (Zhou et al, 2017; Teng & Zhou, 2018). Currently, many countries and regions have developed various soil-environmental quality standards to meet the demand for soil management, such as screening levels, and intervention values. Generally, the methodological and deriving researches of soil-environmental criteria were far from adequacy for the development and revision of their standards, and further to serve the prevention and treatment of land degradation.

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