



## **Land-based approach to evaluate sustainable land management and adaptive capacity of ecosystems/lands**

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A number of new concepts and paradigms appeared during last decades, such as sustainable land management (SLM), climate change (CC) adaptation, environmental services, ecosystem health, and others. All of these initiatives still not having the common scientific platform although some agreements in terminology were reached, schemes of links and feedback loops created, and some models developed. Nevertheless, in spite of all these scientific achievements, the land related issues are still not in the focus of CC adaptation and mitigation. The last did not grow much beyond the “greenhouse gases” (GHG) concept, which makes land degradation as the “forgotten side of climate change”

The possible decision to integrate concepts of climate and desertification/land degradation could be consideration of the “GHG” approach providing global solution, and “land” approach providing local solution covering other “locally manifesting” issues of global importance (biodiversity conservation, food security, disasters and risks, etc.) to serve as a central concept among those.

SLM concept is a land-based approach, which includes the concepts of both ecosystem-based approach (EbA) and community-based approach (CbA). SLM can serve as in integral CC adaptation strategy, being based on the statement “the more healthy and resilient the system is, the less vulnerable and more adaptive it will be to any external changes and forces, including climate”

The biggest scientific issue is the methods to evaluate the SLM and results of the SLM investments. We suggest using the approach based on the understanding of the balance or equilibrium of the land and nature components as the major sign of the sustainable system. From this point of view it is easier to understand the state of the ecosystem stress, size of the “health”, range of adaptive capacity, drivers of degradation and SLM nature, as well as the extended land use, and the concept of environmental land management as the improved SLM approach. A number of case studies justify the schemes developed to explain this approach.