MICHIGAN STATE UNIVERSITY

ESPP and CGCEO present a VISTAS lecture

Nature-based solutions (NBS) for Landscape Resilience

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ABSTRACT: During the past couple of years, the environment unit within the Directorate-General (DG) Research and Innovation of the European Commission launched the concept of nature-based solutions (NBS) as a way of making ecosystems and nature an integral part of sustainable development. Nature-based solutions are understood as living solutions inspired by, continuously supported by and using nature, which are designed to



address various societal challenges in a resource efficient and adaptable manner and to provide simultaneously economic, social and environmental benefits. In the various reports and publications issued by the European Commission, as well as in presentations by EC officers, a range of examples of NBS have been presented. These include, for example, the use of soil conservation measures (such as cover crops, wind breaks, deep-rooted plants and minimum or conservation tillage) to enhance storage of soil carbon; retain and restore forest cover on steep slopes; use permeable surfaces and vegetation in urban settings. Nature-based solutions provide opportunities for adaptation to climate change, thus increasing urban resilience to risks, such as droughts, floods and heatwaves, as well as opportunities for small-scale climate mitigation through increased carbon storage.