



Unmanned Aerial Remote Sensing Facility of Wageningen UR: Overview of Activities

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The term nature-based solutions (NBS) refers to the sustainable management and use of nature for tackling societal challenges. The objectives of implementation of NBS are to provide a solution for environmental issues that affect the human economy and welfare, and simultaneously increase sustainability and biodiversity. Some primary goals for the implantation of NBS include flood protection by river restoration, erosion control and limiting nutrient transport from agricultural fields into surface waters. For the NBS to have a real effect for these issues, they need to be integrated over relatively large areas.

Unmanned aerial systems (UASs) provide a platform to view and assess relatively large areas in a short amount of time at short time intervals. This allows for UAS data to be employed for the assessment of the functioning of certain NBS. Examples where UAS can be used are to look at the extent of inundated area during flooding or the migration of river meanders after (several) large events. Repeat surveys shed light on the evolution of the NBS, both at small and large scales. In this project, we are looking for effective ways to integrate UAS data and field-based measurements to obtain knowledge on the functioning of NBS. Several methods for using UAS to assess NBS implementation, measure NBS effectiveness and study the impact of NBS will be presented.