

International knowledge exchange Nature Based Solutions for groundwater recharge. BMPs from from Australia and Europe

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Highlights

- Over 8000 NBS contributing to groundwater recharge locations mapped around the world
- Category with most uploads is bio (in)filtration with over 2000 projects in Europe and Australia
- Analysing results in relation to urban characteristics leads to promoting green infrastructure

The open source citizen science platform ClimateScan mapped over 8000 NBS projects around the globe in 8 years with an average of more than 1500 registered users uploading projects thanks to the openness of the website and active online and offline promotion. In terms of international knowledge exchange, The Netherlands and Australia are two countries separated by significant geographical distance. Despite this, both countries have contributed to the highest number of projects in the (bio) swale (bio retention, raingarden) category that contribute to groundwater recharge. Cross collaboration between the countries has seen the open and detailed exchange of knowledge regarding the implementation, maintenance and design of such systems.

Over 8000 NBS locations are mapped around the world making it the biggest database of climate adaptation locations in the world. Analysing the open source Change Adaptation Platform ClimateScan shows that bio filtration is the category with most uploads (1181 projects) with the highest contributions from The Netherlands and Australia. Despite that these two countries are separated by significant geographical distance, climate and geohydrological circumstances, cross collaboration between the countries has seen the open and detailed exchange of knowledge regarding the implementation, maintenance and design of NBS. New monitoring methods are developed and determined the groundwater recharge on several locations in relation to urban characteristics which will help urban planners to promote green infrastructure.

More knowledge will be exchanged in place in the near future during new international projects on climate adaptation where mapping of NBS will take place such as Vancouver and New Orleans. Climate Change Adaptation Platforms such as Climatescan are an inspiration to stakeholders to make their cities more resilient to climate change and promote groundwater recharge. Potential upgrades of these platforms have been identified with stakeholders and discussed in 'looking forward' and will be discussed in the full paper.