Topsoil - Review of Stakeholder Involvement

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TOP SOIL Interreg North Sea Region European Regional Development Fund

EUROPEAN UNION

Table of Contents

Introduction

The TOPSOIL project looks to improve the climate resilience of the North Sea Region by improving our knowledge and management of soil and groundwater.

Project activities were focussed locally in 16 pilot locations with the aim of developing new management solutions to climate related challenges. Knowledge and best practice was shared transnationally between the partners from Denmark, Germany, UK, Netherlands and Belgium.

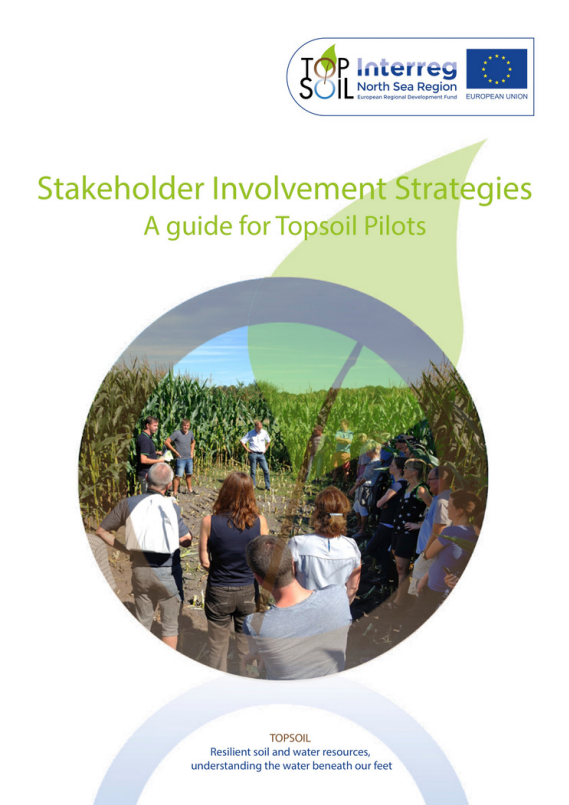
Activities in the project addressed five Specific challenges;

1. Flooding in towns and agricultural areas due to the rising groundwater table caused by changed precipitation patterns.
2. Saltwater intrusion into freshwater reserves due to rising sea levels and changed irrigation, drainage and drinking water demands.
3. The need for a groundwater buffer to store water in periods of excess rainfall. The buffer of fresh water can be used for irrigation purposes during dry periods.
4. Better knowledge and management of soil conditions, which will provide better resilience to extreme rainfall events, improve water quality and crop yields.
5. The capacity to break down nutrients and other environmentally hazardous pollutants in the uppermost layers is yet unexplored. By improving our understanding, better land management can be implemented.

Identifying and implementing solutions to address such challenges is complex and requires the effective collaboration across different sectors and the involvement of many stakeholders from farmers to management authorities. This report sets out a summary of our stakeholder involvement activities during the Topsoil project and the lessons we have learned along the way.

Planning Stakeholder Involvement

Stakeholder involvement was a key aspect of the Topsoil project. It was acknowledged that effective stakeholder involvement at the pilot level would be critical to ensuring the uptake of solutions and the improved management of soil and groundwater within the pilot locations.



Supported by a user-friendly guide, partner workshops and a simple template, stakeholder involvement strategies were developed for each of the pilot areas to identify key stakeholders, objectives and tactics for involvement. Regular reviews provided an opportunity to exchange ideas and experiences and refine the strategies throughout the project.

In addition, at the project level, stakeholders were invited to participate in project meetings and workshops, providing expert knowledge, and contributing to discussions on the key challenges of the Topsoil project.

Stakeholder Involvement in the Netherlands

Pilot Objectives

Pilots in the Netherlands focused on developing a catchment based approach to tackling pesticide pollution, and balancing the seasonal availability of groundwater with the need for drainage, irrigation and environmental protection. This required data collection to validate current groundwater models and model the impact of climate change on groundwater levels, surface water run-off and pollutant leaching. A range of suitable interventions were developed and tested aimed at making the catchments more resilient in the future.

Key Stakeholders

Regional Water Authorities, Provinces, individual farmers, farmer associations, consultancies, universities, nature organisations, forestry organisations, drinking water company, and the general public.

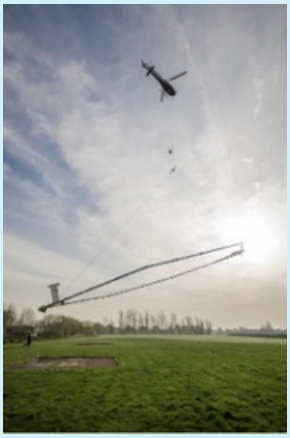
Tactics for involving stakeholders

Field visits, farm demonstration events, 1-2-1 farm advice, participatory modelling, and workshops.

Stakeholder Involvement in Belgium

Pilot Objectives

Pilots in Belgium focused on mapping the distribution of fresh and salt water aquifers using helicopter mounted survey equipment to assessing opportunities for to increase water for agriculture by implementing interventions such as creek ridge infiltrations.



Key stakeholders

Regional management authorities and agencies, polder boards and farmers associations

"stakeholders are far more likely to take actions to rectify a problem if they fully understand and trust the scientific basis upon which the problem is defined, we think it was very important to get them involved from the start".

Dieter Vandevelde - Flanders Environment Agency

Tactics for involving stakeholders

Workshops, meetings, interviews and field visits were held to plan the airborne survey, discuss the results and identify pilot sites.

Stakeholder Involvement in the UK

Pilot Objectives

Pilots in the UK aimed to demonstrate the benefits of a more holistic approach to the management of soil, groundwater and surface water in the context of climate change and catchment management governance as part of the Catchment Based Approach. Specific objectives included achieving a greater understanding of surface-groundwater interactions and the development of connectivity maps, working with farmers to improve soil health and reduce the loss of contaminants into the environment, testing innovative solutions such as Managed Aquifer Recharge (MAR) to store excess winter surface water in the aquifer.

Key Stakeholders

Water companies, multi-sector catchment partnerships, farmers, agronomists, local authorities, environmental regulators, industry, general public, abstractors, retailers and supply chains

Tactics for involving stakeholders

targeted 1-2-1 farm advice, farm events and demonstrations, workshops, field trials and field visits, direct involvement in planning and delivery of activities

Stakeholder Involvement in Germany

Pilot Objectives

Pilots in Germany included technical data collection and models to characterise the sub-surface and inform climate adaptation plans, practical work with farmers to protect ground water sources used for public supply from contamination from nitrogen and other pollutants, and developing a decision support system to prevent environmental impacts from abstraction for agriculture.

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Key stakeholders

Public authorities, Consulting agencies, Water companies, Municipalities, Landowners, Farmers, Drainage association, Senator for Environment, Chamber of Agriculture, nature organisations

Tactics for involving stakeholders

Workshops, meetings, field visits, farm demonstrations and direct involvement in planning and delivering changes to land management practices.

Stakeholder Involvement in Denmark

Pilot Objectives

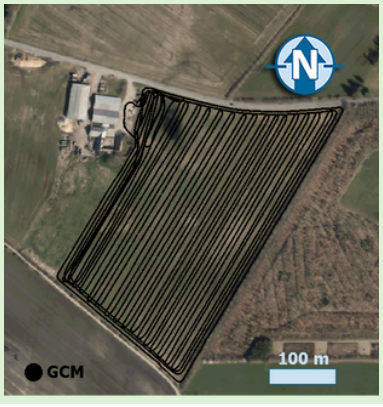
The pilots in Denmark addressed a range of issues including contaminated land, groundwater flooding, geophysical studies to explore the possibility of spatially targeted fertiliser regulations, and the development of an intergated hydrological model to reduce urban point source pollution. In addition, new technology (tTEM) has been developed to support high resolution and cost effective geophysical surveys in Denmark and in each of the four other partner countries.

Key Stakeholders

farmers, municipalities, water companies, land owners, agricultural consultancies, ministry for Environment and Food, Environmental Protection Agency, nature conservation organisations, NGO's and business support organisations.

Tactics for involving stakeholders

Workshops, field visits, direct involvement in field investigations.



Stakeholder Involvement at the project level

In addition to activities at the pilot scale, stakeholders were invited to participate in project level activities such as partner meetings, workshops and field visits. Their experience and perspective frequently providing invaluable contributions to the discussions on the key challenges of the Topsoil project and greatly complementing the stakeholder engagement at the pilot level.

Topsoil Policy Day 2019

A great example of this was the Topsoil policy day in Brussels. A number of expert stakeholders external to the project participated with presentations and joined a panel discussing key climate change challenges

Some stats from the output indicators

NEED TO ADD SOME STATS FROM OUTPUT INDICATOR PARTNER REPORTS

Recommendations

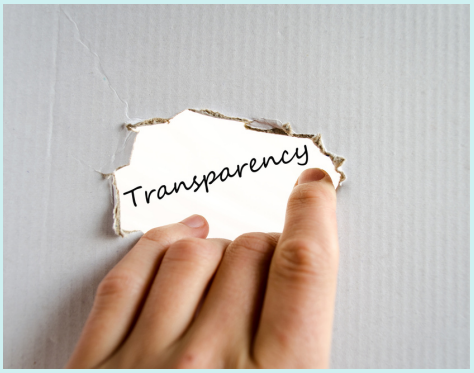
Our top 4 tips for effective stakeholder involvement in future climate resilience projects

1. Dedicate sufficient time upfront in projects to develop your stakeholder involvement strategy and ensure planned activities are properly resourced.

The Topsoil stakeholder guide is a helpful tool

2. Stakeholder engagement and project delivery is an integrated package

try not to see stakeholder involvement as a process divorced from the scientific endeavour, but as part of a “twin- track” adaptive approach. Early engagement in our pilots was critical to their success



3. The stakeholder engagement process should be underpinned by transparent sharing of information

Consider the need to make information available to suit different stakeholders. In our pilots we used a range of approaches from data visualisation methods to taking people out in the field to explain the data collection process.

4. Seek to align project delivery with other related projects and initiatives

Helps avoid stakeholder fatigue and builds confidence of a lasting impact beyond the project's lifetime. We achieved this in the pilots by aligning to local plans and partnerships and at the project level by cooperation and collaboration with other projects.

Acknowledgements

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Project partners in the Topsoil project

A special thanks to all of our external colleagues and stakeholders that have contributed to the success of theTopsoil project.

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