

Kennis voor Klimaat Knowledge for Climate



Interactive spatial tools to support the development of regional adaptation strategies Tessa Eikelboom, Ron Janssen

Introduction

Adaptation measures are seldom respond to climate change alone (Adger et al., 2007). For example, soil subsidence in peat meadow areas also occurs under current climate conditions. The development of regional adaptation strategies is closely linked to land use planning. The planning process includes several stages. In this project the decision-making framework of Willows and Connell (2003) is used to link these stages to planning tasks (Figure 1). In this context a number of interactive spatial tools have been developed and tested in participatory planning workshops.

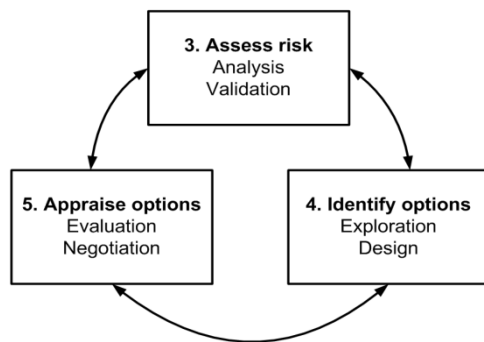


Figure 1. Decision-making framework and adaptation tasks

Research question

How should spatial tools be designed to support three various tasks in the development of regional adaptation strategies?

Method

Within this project we use an interactive mapping device (the 'Surface') to support participatory planning workshops (Figure 2).

Table 1 Overview of tasks and tools

Tasks	Tools
Analysis	Model results
Validation	Drawing tools
Exploration	Map library
Design	Simulation tools
Evaluation	Bar charts and maps
Negotiation	Bar charts and maps

Preliminary results

Tools were tested in three interactive workshops:

- Dutch Wadden Sea Island "Texel" - drawing tool
- "Zevenblokken" - simulation tool for water management.
- "Friesland" - evaluation tool to compare water management alternatives.

Negotiation tools were tested in two experimental workshops:

- Workshop 1: Researchers in the field of fen meadow adaptation
- Workshop 2: Planners and decision makers from fen meadow regions.

Results and recommendations from these workshops are used to improve and develop spatial support tools for application in planning workshops. scheduled to support a regional water plan and the regional plan for the Frisian fen meadows (veenweide visie) in 2012 and 2013.



Figure 2. Negotiation workshop

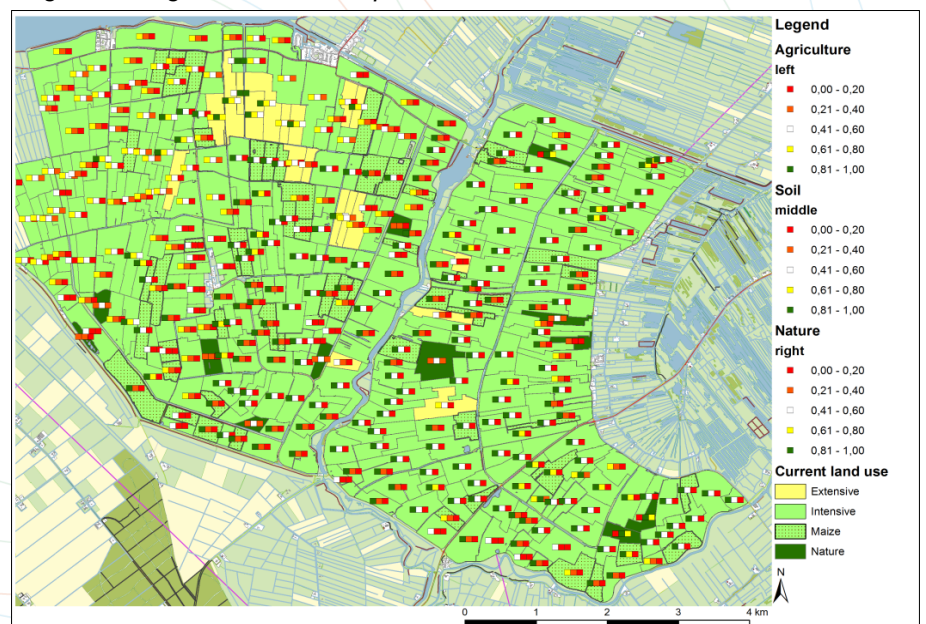


Figure 3. Evaluation tool: objective values.

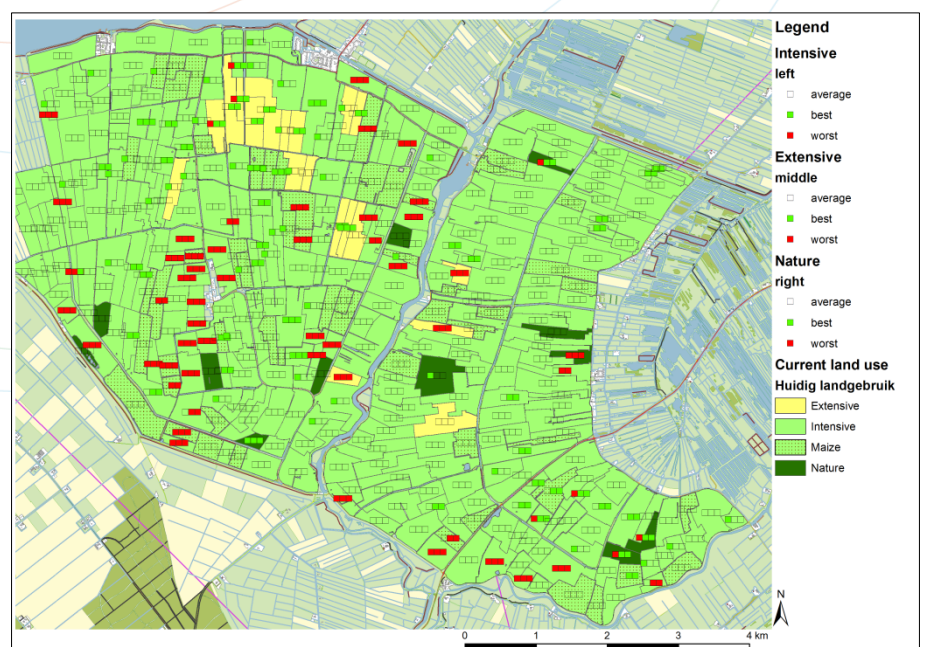


Figure 4. Negotiation tool: effects of land use changes on total value

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