

CONSCIENCE



CONCEPTS AND SCIENCE

FOR COASTAL EROSION MANAGEMENT

Coastal erosion management – a matter of CONSCIENCE

The CONSCIENCE project is an EU Specific Targeted Research Project that aims to develop and test concepts, guidelines and tools for the sustainable management of erosion along the European coastline, based on best available scientific knowledge and on existing practical experience. The project started in March 2007 and will be completed in three years.

Key science for coastal erosion management

CONSCIENCE will provide a scientific contribution to the implementation of a common European coastal erosion management policy. The project will produce:

- * common criteria to apply coastal sediment management concepts, thereby enhancing effective cross-border cooperation and regulation throughout the EU
- * a general procedure to implement coastal sediment policy and management applicable for all European coasts
- * guidelines to apply a common methodology for monitoring requirements and evaluation of coastal erosion
- * guidance to facilitate coastal actors to integrate the methodology into multi-risk management of the coastal zones, planning and environmental assessment.

Key concepts for policy making

In order to reach its aim, CONSCIENCE will define and validate, through pilot applications, a methodology to support the implementation of the 4 key concepts for policy making for the European coasts, formulated by the EUROSION project. These concepts are:

- * coastal resilience
- * strategic sediment reservoirs
- * favourable sediment status
- * coastal sediment cell



www.euroSION.org

A European initiative for sustainable coastal erosion management.
(EC, DG Environment, 2002–2004)

Partners

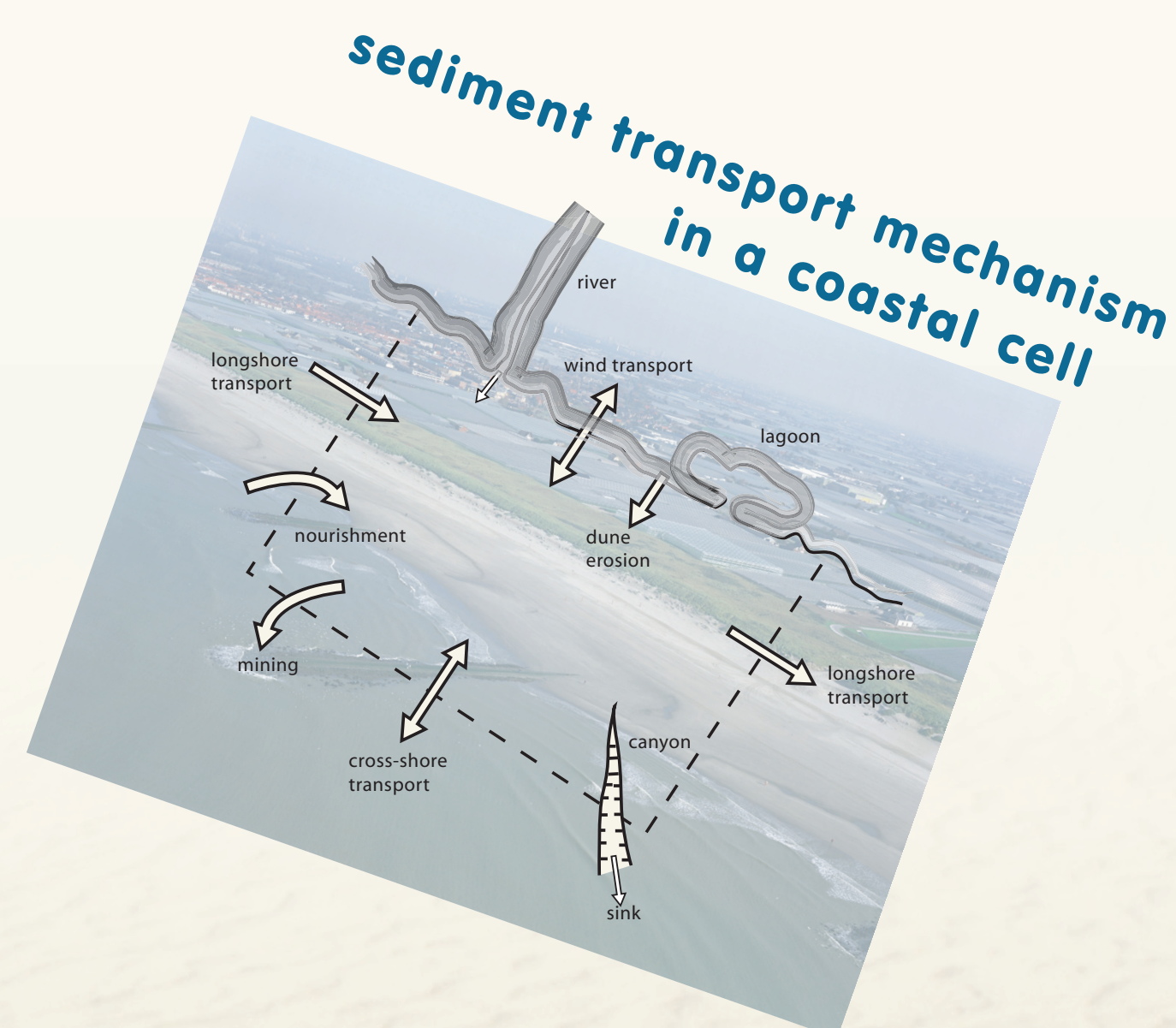
A European consortium under the lead of Deltares, The Netherlands, is implementing the CONSCIENCE project. Other project partners are, International Centre for Coastal Resources Research (CIIRC), Spain, EUCC Mediterranean Centre, Spain, National Institute for Marine Geology and Geoecology – GeoEcoMar of Romania, HR Wallingford, United Kingdom, Institute of Hydroengineering of the Polish Academy of Sciences (IBW PAN), Poland, National University of Ireland, Cork (NUIC) and UNEP – Priority Actions Programme Regional Activity Centre (PAP/RAC of UNEP), Croatia.

Key research questions and research approach

Central to the project is the notion that coastal erosion is a result of a sediment imbalance occurring in a coastal cell.

Important questions that will be addressed are amongst others:

- * how can we measure and model the sediment balance? can we formulate a favourable sediment status?
- * where to find strategic sediment reservoirs?
- * how can scientific knowledge on the coastal behaviour be made available to the management and decision making process?
- * how should erosion management be incorporated in the general concept of ICZM?



Results

If The experiences in the pilot sites showed that the sediment balance approach can be applied for almost any coastal type. The pilot tests also clearly indicated that the use of this approach to accomplish a sustainable coastline management is often hampered by a lack of a well defined government policy for ICZM. This policy should set the objectives of coastal erosion management which determine the appropriate spatial and temporal scale on which the sediment balance should be assessed.

Based on these findings CONSCIENCE is producing a common methodology to support the implementation of sustainable coastal erosion management, aiming to safeguard coastal resilience.

The results of the project will be documented through:

- * a full final report,
- * a web-based guidance to facilitate the application of and integration of the methodology into planning and management of the coastal zones,
- * a case study report covering the selected field studies sites and
- * a concise report for policy makers.

All relevant documents and results will be widely disseminated and progressively made available in the project website to allow researchers, coastal managers, local authorities and policy makers to access results of all project components.

The results will be presented during a special session of the International Conference on Coastal Conservation and Management, 11-17 April in Estoril, Portugal.

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