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Global Change and Baltic Coastal Zones

Chapter 12: The Impact of Driving Forces and Protection Policies on Future Coastal Landscapes: A Case Study of Latvia

Veidemane, K.¹

(1) University of Latvia, Faculty of Geography and Earth Science

Abstract

Landscapes and related land cover changes are essential elements of sustainable coastal zone management in Europe and in Latvia. The issue of landscape protection, management and planning was promoted as a result of the adoption of the European Landscape Convention (2000), while the Recommendations concerning the Implementation of Integrated Coastal Zone Management were adopted by the European Community (2002) to address land use issues. The Recommendations also emphasise the need to recognise the threat to coastal zones posed by Climate Change. This paper aims to contribute to the enhancement of landscape and coastal zone management policies by addressing the changes in coastal landscapes. It presents an analysis of the development of major driving forces in the coastal zone of Latvia and evaluates the effectiveness of the existing policy instruments of landscape protection along the Baltic Sea coastline in this country. In Latvia and other Eastern Baltic Sea countries, landscape protection is mainly realised by setting a legal protection zone along the Baltic Sea coastline.

Key aspects include the restriction of the expansion of built-up areas, the limitation of forestry activities versus the maintenance of natural and semi-natural landscapes and also the protection of coastal areas against erosion. We studied changes in the coastal landscapes using land cover data, aerial photograph images, statistical data and legal documents. This study concludes that the coastal protection areas in Latvia have prohibited any significant changes in the land cover during the period from 1995 to 2006. However, the results also indicate that the pressure in terms of timber felling and new construction is reallocated to the neighbouring areas. Considering the erosion intensity and potential impacts of Climate Change, estimates show that the coastal landscape structures will face major changes in the future. Therefore, a debate on the realignment of the protection zone and its integration in spatial planning should be initiated to prevent undesirable losses for the country.