

PROMOTING WALKING AND CYCLING FOR SETTING LOCAL CARBON MARKETS: A CASE STUDY IN PORTUGAL

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Abstract

In several cities around the world, measures have been taken to encourage and promote walking and cycling, herein designated as soft mobility modes, which had a high success and contributed to a more sustainable transport system. Within the European context, Portugal has one of the lowest modal split shares of walking and cycling. This is mainly the result of several decades of a transport planning process oriented to road transport infrastructures' investment. Recently, the national project on sustainable mobility of the Portuguese Environmental Agency (2007-2008) presented a paradigm shift and made a positive step towards promoting soft mobility modes at the country level. The work presented in this paper is part of a broad research project on sustainable mobility conducted at the LNEC I.P. which involved the cooperation with several local municipalities within the Algarve region.

This paper presents results of a mobility and attitudinal survey implemented in the municipality of Lagoa, located in the South of Portugal. This city is characterized by a dominant presence of the private car in comparison with nonmotorized transport modes and frequent illegal parking that hinders pedestrian movements.

A survey was designed and administered to employees of the local council in order to understand their daily mobility patterns and to identify possible behavioural changes. The survey also comprised the setting of a novel carbon market to be implemented at the local level (and managed by the local council) and used simplified schemes that involved simulating the trading-off of short-distance trips made by car with more sustainable transport options such as walking and cycling. Several incentives were tested such as "ticket discounts to cultural events".

The survey showed that a significant percentage of local employees whom usually use the car in short distance trips are indeed willing to change their behaviour by shifting their daily short distance car trips and to cooperate for the proposed carbon markets.. For those whom are willing to walk and cycle in a daily basis, the survey identified their preferred routes and thus provided an additional indicator for policy making in order to setting investment priorities.

The paper concludes with a comprehensive assessment of the implications of the study if carbon trading can be generalized to the 16 local municipalities within the Algarve region. (Full paper: *Proceedings* of the European Transport Conference 2009)