Stockholm, Sweden

Congestion tax and public transit decrease traffic volume

**Summary:** With an expected population rise of 200,000 inhabitants between 2000 and 2030, Stockholm is devoted to creating a sustainable community. Following the introduction of a city congestion tax, the city has decreased CO2 emissions by 25%. The local government is ambitious and is striving to reduce CO2 emissions to zero by 2050 by reducing traffic and replacing fossil fuel-run public transport vehicles with ones that run on renewable energy.

**Congestion tax decreases overall traffic in city center**

In 2003, the local government agreed to a trial period of a congestion tax aiming to reduce congestion and improve the accessibility and quality of life in the city. The trial period took place from January to July 2006. Following the trial, a referendum and city vote made the congestion charge permanent. The congestion charge has reduced traffic in the city center by 25% or approximately 100,000 trips. Travel times have reduced 30-50% and CO2 emissions have decreased 14%. The congestion charge also created an incentive for residents still choosing to travel by car to buy vehicles powered by renewable energy since they are exempt from charges. These vehicles now make up 40% of the market share. The congestion tax has reduced traffic to the inner city by 15-20%. The CO2 emission by far less since there has been a slight increase in the suburbs.

The emissions have decreased from 5.4 tonnes CO2 e/cap in 1995 to 4 tonnes in 2005 and will reach 3 tonnes by 2015. The reductions per capita are mostly a result in lower emissions, but also of the growing population (even though they require transport and new dwellings).

The main source of reduction is the increased proportion of the dwellings connected to the district heating system. 75% of all building space is connected and only 20% of the fuel used is fossil.

**A reliable public transportation system**

Stockholm's public transit network consists of three metro lines, three shuttle trains, two local train connection lines, three light rail lines, 17 bus routes, and an inner-city boat. A single ticket system is valid for all systems throughout the city. The city has coordinated schedules between all modes, to minimize waiting time. The central train station is the hub where all public transport lines meet. The terminal provides real-time information for all lines. With constantly updated information, transitions between modes can be made efficiently. At all end stops on the rail lines, there is a Park and Ride station so people living outside the city can get to the city with their car, but can use public transportation within the city to save money and energy.
As for transport the emissions also have decreased. For ex between 2000 and 2005 the population grew by 5% but the emissions decreased. A PT in the inner city runs on renewables, the sales of clean cars has been stimulated so that 40% of all new cars sold are biofueled, electric or low emitting conventional vehicles (<120g CO2/km). Cycling has also doubled during the past decade and will be even further stimulated in the new budget proposal.

**A world leader in sustainable transport**

Walking and biking are the only modes of transportation with virtually no negative environmental impacts. In Stockholm’s city center, 62% of trips are made on foot and 6% by bicycle. In the past decade, the number of bicycles has increased by 75%. Twenty-five percent of trips in the city center are made by public transport, but the figure rises to 78% during rush hour periods. By the end of 2011, half of the public transport fleet vehicles will run on renewable energy. Currently, all rail traffic is powered by hydropower and wind energy. Thirty percent of the city buses are powered by renewable energy.

**Stockholm’s polycentric development**

Focusing urban development near transit stations has been a priority in Stockholm. Along these stations, the city is broken up into many compact, self-sufficient districts that contain homes and a wide variety of businesses. These districts are mixed-use, with workplaces and shops built close to residential areas. All housing is less than 500m from a transit station and there is a bus-rail interchange in each community. A drawback to this system is that smaller satellite centers cannot contain the diversity of a large city center. This is compensated by good transit connections in each district as well as the network of footpaths and bicycle paths linking sub centers.

**The City of Stockholm** is Sweden’s capital and most populated city. It is also the most populated urban area in Scandinavia. Stockholm has a population of 850,000 people within 188 km². The metropolitan area has a population of 2.1 million people in an area of 6,520 km². There is very little heavy industry in Stockholm, making it one of the cleanest metropolises in the world. Stockholm has been an ICLEI member since December 1991.

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