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THE CHALLENGE OF SUSTAINABLE MOBILITY IN URBAN PLANNING AND URBAN DEVELOPMENT: A COMPARATIVE STUDY

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This project was a study of how the challenge of sustainable mobility has been dealt with in urban planning and urban development during the period since the 1990s in the Scandinavian capitals Copenhagen and Oslo and the Chinese provincial capital Hangzhou. The study has investigated and compared the ways planners and decision-makers in these three cities have understood, interpreted, formulated policies and finally acted in relation to transport and land-use in a sustainability context during the period since 1990, with an aim to explain reasons for key similarities and differences.

The study was carried out by Aalborg University in cooperation with Institute of Transport Economics (Norway) and Zhejiang University (China). The project has been headed by Professor, Dr. Ing. Petter Næss, who has carried out most of Aalborg University's part of the research work and also (by virtue of a part-time employment) most of the part of the research work accounted for by Institute of Transport Economics. At Aalborg University, the research team also included Research Assistant Teresa Næss and M. Sc. Morten Nicolaisen. At Institute of Transport Economics, Professor Arvid Strand and Research Assistant Teresa Næss carried out some of the research work. At Zhejiang University, the research work was carried out by Yinmei Yao and Li Fen, with the former as main responsible.

Due to problems of obtaining some of the data on Hangzhou required for comparison, the publications from the project have so far mainly concentrated on the two Scandinavian capital regions. We have, however, recently got access to data which, hopefully, will enable us to publish an additional scientific article comparing the Hangzhou case with the Scandinavian cases.

The comparison of the two Scandinavian cases shows that metropolitan areas of Copenhagen and Oslo both aim to facilitate economic development, opportunities for choice and growth in the building stock while limiting negative environmental consequences. Since the 1990s, the rate of consumption of land for urban development has been lower than the economic growth rate in both city regions. Land use policies in Oslo and to some extent in Copenhagen have been explicitly geared towards limiting traffic growth. In both cities, public transport improvements have been combined with road capacity increases. Traffic growth has therefore only been weakly decoupled from economic growth. In both city regions, lack of coordination between sectors, levels and administrative territories is conceived as a barrier to sustainability.

An article focusing particularly on the Oslo case shows that sustainable mobility has been an important concern in urban planning and development in Oslo Metropolitan Area since the 1990s. The period has been characterized by concentrated and compact urban development, especially within the municipality of Oslo. This has contributed to reduce growth in car traffic. Analyses of selected land use and transport plans and policy documents, professional journal articles and interviews with key actors show that there has been a high degree of consensus about this spatial development strategy. Considerable investments have been made in public transport as well as road development; the former based on broad consensus. Road capacity increases have been contested among professionals but widely supported by politicians.

The following articles and reports based on the project have been published or have been accepted for publication:

- Næss, P.; Strand, A.; Næss, T. & Nicolaisen, M. (2011): "On their road to sustainability? The challenge of sustainable mobility in urban planning and development in two Scandinavian capital regions." Forthcoming in *Town Planning Review*, Vol. 82, 2011.
- Næss, P.; Næss, T. & Strand, A. (2011): "Oslo's farewell to urban sprawl." Forthcoming in *European Planning Studies*, Vol. 14, 2011.
- Næss, P.; Næss, T.; Nicolaisen, M. S. & Clemens, E. (2009): *The challenge of sustainable mobility in urban planning and development in Copenhagen Metropolitan Area. Second edition. Series: Publications from Department of Development and Planning No. 2009-5. Aalborg: Aalborg University.*
- Næss, P.; Næss, T. & Strand, A. (2009): *The challenge of sustainable mobility in urban planning and development in Oslo Metropolitan Area. TØI Report 1024/2009. Oslo: Institute of Transport Economics.*
- Yao, Y. & Li, F. (2009): *The challenge of sustainable mobility in urban planning and development in Hangzhou Metropolitan Area. Hangzhou: Zhejiang University, Sustainable Development Research Center.*
- Næss, P.; Næss, T. & Nicolaisen, M. (2009): "Bærekraftig, bæredygtig eller noe helt annet? Byutvikling, byplanlegging og planleggeridealer i to hovedstadsregioner?" *Plan*, no. 3-4, 2009, pp 28-31.