

# Taoyuan Wei

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Senior Research Fellow

Center for International Climate and Environmental Research - Oslo (CICERO)

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## Research interests

Integrated modeling and analysis on energy, environment, and climate

National accounting and green national accounting

## Education

**PhD of Economics**, 2009

University of Oslo, Oslo, Norway

Research on *green national accounting theory and practice*

Supervisors: Geir B. Asheim, Kjell Arne Brekke

**M.phil. of Environmental and Development Economics**, 2006

University of Oslo, Oslo, Norway

Thesis: *Theoretical analysis on income arising from the petroleum sector*

**M.A. of Economics**, 2002

Renmin University of China, Beijing, China

Thesis: *the impacts on Chinese economy of world petroleum price rise*

**B.A of Economics**, 1995

Renmin University of China, Beijing, China

## Professional training

**Research Outreach Program**

The Teaching & Learning Centre, University of Calgary, Canada, May 27 – 30, 2008

**Course of English for Academic Purposes**

Department of Literature, Area Studies and European Languages, University of Oslo, Norway,  
March 6-7, 2007

**Teaching in Canadian Classrooms**

The Teaching & Learning Centre, University of Calgary, Canada, June 10, 12, 17, 21, 2008

**University Teaching Certificate**

The Teaching & Learning Centre, University of Calgary, Canada, May 5, 7, 9, 12, 14, 16,  
2008

**Instructional Skills Workshop**

The Teaching & Learning Centre, University of Calgary, Canada, April 29 – May 2, 2008

## Experience

**Senior Research Fellow**

Center for International Climate and Environmental Research – Oslo (CICERO) (Feb. 2009– )

**Research Fellow**

Department of Economics, University of Oslo (Feb. 2007– Feb. 2009)

**Visiting Student**

Department of Economics, University of Calgary (Jan. 2008– Jun. 2008)

**Research Assistant**

Department of Research, Statistics Norway, Oslo (Oct.2004 – Feb. 2007), Part-time

**Principal Program Officer**

Department of National Accounts, National Bureau of Statistics of China (NBS), Beijing, China (Jun. 1998 – Jul. 2004)

**Senior Program Officer**

Department of National Accounts, National Bureau of Statistics of China (NBS), Beijing, China (Nov. 1996 – May. 1998)

**Program Officer**

Industrial Census Office of Kaifeng City, Henan Province, China (Dec.1995 – Nov.1996)

**Program Officer**

Department of National Accounts, National Bureau of Statistics of China (NBS), Beijing, China (Jul.1995 – Dec.1995)

**Publications**Refereed articles

**Wei, T.** (2013). Comparing approaches to valuing sectoral net investments. *Resource and Energy Economics* 35 (3) 316-328. doi: 10.1016/j.reseneeco.2013.03.002.

Glomsrød, S., **T. Wei**, and K. Alfsen (2013). Pledges for climate mitigation: The effects of the Copenhagen Accord on CO2 emissions and mitigation costs, *Mitigation and Adaptation of Strategies for Global Change*, 18 (5), 619-636. doi: 10.1007/s11027-012-9378-2.

Aaheim, A., H. Amundsen, T. Dokken, and **T. Wei** (2012). Impacts and adaptation to climate change in European economies, *Global Environmental Change* 22 (2012) 959–968, doi: 10.1016/j.gloenvcha.2012.06.005.

**Wei, T.** (2012). Capital gains and income arising from nonrenewable resources. *Environmental and Resource Economics* 52 (2) 293-300. doi: 10.1007/s10640-011-9531-5.

**Wei, T.** (2012). Stochastic National Income. *Journal of Reviews on Global Economics* Vol.1 pp.112-123. doi: 10.6000/1929-7092.2012.01.10.

**Wei, T.** (2011). What STIRPAT tells about effects of population and affluence on the environment? *Ecological Economics* 72 (2011): pp.70-74. doi:10.1016/j.ecolecon.2011.10.015

Aaheim, A., R. Gopalakrishnan, R.K. Chaturvedi, N. H. Ravindranath, A. D. Sagadevan, N. Sharma, and **T. Wei** (2011). A macroeconomic analysis of adaptation to climate change impacts on forests in India. *Mitigation and Adaptation Strategies for Global Change* 16: pp. 229-245

Glomsrød, S., **T. Wei**, G. Liu, and J.B. Aune (2011). How well do tree plantations comply with the twin targets of the Clean Development Mechanism? -The case of tree plantations in Tanzania. *Ecological Economics* 70: pp. 1066-1074.

**Wei, T.** (2010). A general equilibrium view of global rebound effects. *Energy Economics* 32: pp. 661-672

Asheim, G.B. and **Wei, T.** (2009). Sectoral income. *Environmental and Resource Economics* 42: pp. 65-87.

**Wei, T.** (2007). Impact of energy efficiency gains on output and energy use with Cobb–Douglas production function, *Energy Policy* 35: pp. 2023-2030.

Glomsrød, S. and **Wei, T.** (2005). Coal cleaning: a viable strategy for reduced carbon emissions and improved environment in China? *Energy Policy* 33: pp. 525-542.

#### Journal articles in Chinese

Zhu, Q. and **T. Wei** (2013). Impact of Urbanization on Carbon Emissions from Perspective of Residential Consumption. *China Population Resources and Environment* 2013, 23(11) pp. 24-32.

Fu, X., G. Wang, and **T. Wei** (2011). Structural Decomposition on Carbon Emission Intensity of Shanghai. *Resources Science* 33 (11/2011) pp. 2124-2130. (ISSN: 1007-7588)  
[http://www.resci.cn/ch/reader/view\\_abstract.aspx?file\\_no=20111114&flag=1](http://www.resci.cn/ch/reader/view_abstract.aspx?file_no=20111114&flag=1)

He, X. and **T. Wei** (2002a). Impacts on Chinese economy of the world oil price rise. *Economic Theory and Business Management* (Issue 4/2002). Renmin University of China.

He, X. and **T. Wei** (2002b). World oil price change: effects and countermeasure. *International Economic Cooperation* (No. 194, Feb. 2002). Ministry of Foreign Trade and Economic Cooperation, PRC.

**Wei, T.** (2002). The influence of a rise in world oil price on Chinese economy. *Quantitative & Technical Economics* (Issue 5/2002). Chinese Academy of Social Sciences.

Glomsrød, S. and **T. Wei** (2002). The impact of carbon tax on the Chinese economy and reductions of greenhouse gases. *World Economics and International Politics* (Issue 8/2002). Chinese Academy of Social Sciences.

Jiao, J. and **T. Wei** (2003). The effects of import & export on GDP at constant prices. *Statistical Research* (Issue 10/2003). National Bureau of Statistics of China.

#### Articles in books

Contributing author in Aaheim, H. Asbjørn, Therese Dokken, Stefan Hochrainer, A Hof, E Jochem, R. Mechler and Detlef van Vuuren, 2009. National responsibilities for adaptation strategies: Lessons from four modelling frameworks. In: Hulme, Mike and H. Neufeldt (eds.), *Making Climate Change Work for Us: European Perspectives on Adaptation and Mitigation Strategies*. Cambridge University Press. Cambridge.

**Wei, T.** (2001). CNAGE model and its application, *Input-output Theory and Practice in China 2001*, edited by Chinese Input-Output Association, 2001, in Chinese.

Peng, Z., Shi, F. and **T. Wei** (2002). Demand growth potential, obstacle, and countermeasure. *Trace of China Macroeconomic Movement 1998-2001*, edited by National Bureau of Statistics of China. 2002, in Chinese.

Li, Q., T. Xue and **T. Wei** (1999). Sectoral development and national. *Sectoral Analysis of China Economy and New compiled Input-output Tables in Constant Prices*, edited by National Bureau of Statistics of China. 1999, in Chinese.

#### Reports

**Wei, Taoyuan** and H. Asbjørn Aaheim (2010). Impacts of climate change to the global economy in the ENSEMBLES +2 °C scenario E1. 01. CICERO, Oslo, Norway. 16pp.

Aaheim, A., H. Amundsen T. Dokken, T. Ericson and **T. Wei** (2009). A macroeconomic assessment of impacts and adaptation to climate change in Europe. ADAM, final ADAM delivery to EC. 2009.

#### Digital compendium on the web

Aaheim; A. and **T. Wei** (2009). Macro-economic analysis – Model Output. The ADAM Digital Compendium. Available at <http://adam-digital-compendium.pik-potsdam.de/macro-economic-analysis/model-output/>

#### Documents on statistics

Wang, Y. and **T. Wei** (1999). The energy account in China: a technical. *Documents 99/7*, Statistics Norway, Research Department. 1999.

Chen, J., T. Zhao and **T. Wei** (2005). Chapter 4: Annex. *Compilation methods for Input-output Table 2002 of China*, edited by Department of National Accounts, NBS, China Statistical Press. 2005, in Chinese.

*Training Manual of National Input-output Survey 2002* (Participated), edited by Department of National Accounts, NBS, China Statistical Press. Published in Chinese.

*Input-output Tables 1997 of China* (Participated), edited by Department of National Accounts, NBS, China Statistical Press. 2000. Published in Chinese.

*Input-output Tables 1995 of China* (Participated), edited by Department of National Accounts, NBS, China Statistical Press. 1998. Published in Chinese.

*China Input-output Tables 1992 of China* (Participated), edited by Department of National Accounts, NBS, China Statistical Press. 1995. Published in Chinese.

#### Papers in Norwegian

Glomsrød, Solveig and **Taoyuan Wei**, 2012. Pistasjtreet får ny vår. *Klima*, 2012 (1): pp.12-13.

Glomsrød, Solveig and **Taoyuan Wei**, 2011. Kinas folkevandring. *Klima*, 2011 (2): pp.4-6.

Aaheim, H. Asbjørn, Sofie Waage Skjeflo and **Taoyuan Wei** (2010). Virkninger av klimaendringer på norsk økonomi. *Klima (NORKLIMA)*, 2010 (3): pp.30-33.

## **Teaching**

Autumn 2009: ECON4145 Mathematics 3: Differential equations, static and dynamic optimization, Department of Economics, University

Spring 2007: ECON4910 Environmental Economics, Department of Economics, University of Oslo

## **Languages**

English (fluent), Mandarin Chinese (native), Norwegian (a little)

## **Main project activities**

2014. “Implications of ageing and urbanization in China for economic growth and climate.”  
External finance: Research Council of Norway – Project Leader

2013. “Rebound effects in Chinese electricity sector.” A pre-project for large-scale Climate Programme (KLIMAFORSK). External finance: Research Council of Norway – Project Leader

2012 – “Climate change and adaptation in the forest plantation sector – an ecological and economic assessment for India.” external finance: Research Council of Norway. - Project Participant

2012 – “Climate change and Chinese agriculture: Effects on food production and options for adaptation.” Joint external finance: Research Council of Norway and Chinese Academy of Sciences. - Work Package Leader

2012 – . “Tool-supported policy-development for regional adaptation (TopDad).” External finance: the European Union's Framework-7 Programme (FP7) - Project Participant

2011 – . “CICEP - Strategic Challenges in International Climate and Energy Policy” (FME center). Main external finance: Research Council of Norway. - Project Participant

2011 – 2014. The JORDMOD project: “Strategies to reduce greenhouse gas emission in Norwegian agriculture.” External finance: Research Council of Norway. - Project Participant

2009 – 2013. The IMPLICC project: “Implications and risks of engineering solar radiation to limit climate change” 2007-2013. External finance: the European Union's Framework-7 Programme (FP7) - Project Participant

2010 – 2011. ”SIP - Tilpasning til klimaendringer i makroøkonomiske modeller for utviklingsland - Integrasjon av sektorstudier.” External finance: Research Council of Norway. - Project Participant

2010 – 2013. “Large developing economies: current and potential future contributions to climate change” 2010-2012. External finance: Research Council of Norway. - Work Package Leader

2009- 2011. “Domestic and petroleum sector implications of different international climate regimes” 2008-2011. External finance: StatoilHydro. - Project Participant

2009 – 2010. The NorClim project: “Climate of Norway and the Arctic in the 21st Century” 2007-2010. External finance: Research Council of Norway. - Project Participant

2009. The ADAM project: “Adaptation and Mitigation Strategies Supporting European Climate policy” 2006-2009. External finance: the European Community's Framework 6 Programme (FP6). - Project Participant

2009. The ENSEMBLES project: “integrating climate change impacts studies into an ensemble prediction system.” 2004-2009. External finance: the European Community's Framework 6 Programme (FP6). - Project Participant

2009. “Impact of Climate Change on Tropical Forest Ecosystem and Biodiversity in India.” 2007 – 2009. External finance: Royal Norwegian Embassy in New Delhi, India. - Project Participant

2009 - 2010. ALIANSE: Assesses the macroeconomic consequences of climate change in Norway based on existing knowledge. External finance: Research Council of Norway. Parallel funding to supplement ADAM project - Project Participant

1997-2001: “Environmental statistics and analysis.” Co-operation between Statistics Norway and National Bureau of Statistics of China. External finance: The Norwegian Agency for Development Cooperation (NORAD) - Work Package Leader