

## **Jesper Hedal Kløverpris, Novozymes A/S**

LCA specialist Jesper Hedal Kløverpris did his PhD at the Technical University of Denmark on the topic of 'indirect land use change' (ILUC) from crop consumption (2005-08). He now works in Novozymes' department for 'Sustainability Development'. Novozymes is the world's largest producer of industrial enzymes and the company also offers other biological solutions. Dr. Kløverpris works with life cycle assessment (LCA) of Novozymes' products and their application incl. enzymes for production of bioethanol from starch and cellulose. In this relation, he is actively involved in the improvement of the methods currently being developed for assessing the environmental consequences of replacing fossil fuels with biofuels. This especially concerns the issues of land use change and time accounting.

## Civil Engineer and PhD Jesper Hedal Kløverpris

### Personal information

Male, born 1977, Danish citizenship.

### Affiliation

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### Education

MSc (environmental engineering), Technical University of Denmark (DTU), 2004.  
PhD (modeling of indirect land use change), DTU and Novozymes, 2008.

### Foreign stays

- Center for Sustainability and the Global Environment (SAGE) at the University of Wisconsin-Madison, USA (November 2005)
- University of Washington (Seattle), USA (July – October 2005)
- University of Massachusetts Lowell, USA (August – December 2002)

### Language skills

Danish (native language), English (fluent), German (basic), Spanish (poor).

### Professional experience

- LCA specialist at Novozymes A/S
- Industrial PhD student at Novozymes A/S and DTU (2005 – April '08)
- Replacement during maternity leave in Environmental Services, Novozymes A/S (Nov and Dec '06)
- Student assistant at DUCED-I&UA<sup>1</sup> (2003 – 04)
- Assistant teacher in ecology course at DTU (2001 and 2002)

### Publications (those relevant for the application)

- Kløverpris J, Edgerton M, Mueller S (in prep): *Correct Time Accounting of Land Use Change Emissions* (title and list of authors may be subject to change)
- Kløverpris J, Baltzer K, Nielsen PH (2009): *Life Cycle Inventory Modelling of Land Use Induced by Crop Consumption Part 2: Example of wheat consumption in Brazil, China, Denmark, and the USA*, revised version submitted to Int J LCA in September 2009.
- Kløverpris J (2008): *Identification of biomes affected by marginal expansion of agricultural land use induced by increased crop consumption*, J Clean Prod 17; 463-470.

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<sup>1</sup> Danish University Consortium for Environment and Development – Industry and Urban Areas

- Kløverpris J, Wenzel H, Banse M, Milà i Canals L, Reenberg A (2008): *Conference and Workshop on Modelling Global Land Use Implications in the Environmental Assessment of Biofuels*. Int J LCA 13(3); 178–183.
- Baltzer K, Kløverpris J (2008): *Improving the land use specification in the GTAP model*, Institute of Food and Resource Economics, University of Copenhagen, Working Paper no. 2/2008, available from [www.foi.dk](http://www.foi.dk).
- Kløverpris J, Wenzel H, Nielsen PH (2008): *Life Cycle Inventory Modelling of Land Use Induced by Crop Consumption Part 1: Conceptual Analysis and Methodological Proposal*. Int J LCA 13(1);13-21.
- Kløverpris J, Wenzel H, Nielsen PH (2006): *Identifying Global Marginal Production of Major Crops and related Land Use Consequences for Implementation in LCA*, SETAC Globe, Volume 7, number 5, Sep-Oct 2006.
- Kløverpris J (2006): *Inventory Analysis of Crop Production in LCA - a Pre-requisite for Impact Assessment of Crop Use*. In: Milà i Canals L, Basson L, Clift R, Müller-Wenk R, Bauer C, Hansen Y, Brandão M (eds.): *Proceedings from Expert Workshop on Definition of Best Indicators for Biodiversity and Soil Quality for Life Cycle Assessment (LCA)*, Guildford, June 12-13. CES Working Paper 02/06, 50-53.
- Andersen JT, Kløverpris J (2004): *Environmental Assessment of Enzymatic Biotechnology*, Main Report and Case Study Report. IPL, DTU, August 2004.

#### Conference presentations

- Kløverpris (2008): *Modeling Indirect Land Use Change with the GTAP Model*, oral presentation at Expert Workshop on Biofuels and Land Use Change: Integrating Local and Global Drivers in Agro-economic Models, São Paulo, Brazil, November 2008.
- Kløverpris and Baltzer (2007): *Modelling Land Use Changes caused by Increased Crop Demand in Brazil, China, Denmark and the USA*, oral presentation at Biofuel Assessment Conference: Modelling Global Land Use and Social Implications in the Sustainability Assessment of Biofuels, Copenhagen, Denmark, June 2007.
- Kløverpris J, Baltzer K, Wenzel H, Nielsen PH (2007): *Consequential Life Cycle Inventory Modelling of Land Use Changes related to Crop Production*, oral presentation at SETAC Europe 17th Annual Meeting, Porto, Portugal, May 2007.
- Kløverpris J, Wenzel H, Nielsen PH (2006): *Model for the Identification of Marginal Crop Production in LCA - a pre-requisite for land use impact assessment of crop use*, poster presented at SETAC North America 27th Annual Meeting, November 2006, Montreal, Canada.
- Kløverpris (2006): *Inventory Analysis of Crop Production in LCA - a pre-requisite for impact assessment of crop use*, oral presentation at Expert Workshop on Definition of Best Indicators for Biodiversity and Soil Quality for Life Cycle Assessment (LCA), Centre for Environmental Strategy, University of Surrey, UK, June 2006.
- Kløverpris J, Wenzel H, Nielsen PH (2006): *Model for the Identification of Marginal Crop Production in LCA - a pre-requisite for land use impact assessment of crop use*, poster presented at SETAC Europe 16th Annual Meeting, May 2006, The Hague, The Netherlands.

#### Other

- Review of scientific paper performed for the Journal of Cleaner Production
- Review of scientific paper performed for the Journal of Biomass and Bioenergy

