



EAAE seminar 181

Greenhouse gas emissions in the EU agriculture and food sector - potential and limits of climate mitigation policies and pricing instruments 5-7 October 2022

Humboldt-Universität zu Berlin

Dorotheenstr. 24

10117 Berlin, Germany

(the location is in the University Building of the Humboldt-Universität zu Berlin – take the train (s- or U-Bahn) to station **Bahnhof Friedrichstrasse**. (one stop from Berlin main station) and take a 5 minute walk through Georgenstr.)

Programme

Version 27nd September 2022

5 October 2022		
09:00-11:30	<p>Organised pre-seminar session „AGRIMODELS Cluster: State of play regarding modelling of individual decision making“</p> <p>Common challenges and joint activities within the AGRIMODELS Cluster. (John Helming, Marc Müller)</p> <p>AGRICORE: PMP agent-based AGRICORE model for ex-ante assessment of regional agri-environmental schemes (Filippo Arfini, Lisa Baldi)</p> <p>BESTMAP (Discrete Choice Analysis of farmers WTA for adoption agri-environmental schemes in three countries (Emmanouil Tyllianakis)</p> <p>MIND STEP: Carbon and Nitrogen taxation scenarios in a multi-model setting (John Helming, Marc Müller)</p>	Seminar room 1.102
11:00-13:00	Registration for EAAE Seminar (<i>no organised lunch</i>)	
12:30-13:00	Coffee break	
13:00-13:30	<p>Opening and welcome</p> <p>Harald Grethe (HU Berlin) Hermann Lotze-Campen (PIK) Claudia Heidecke (Thuenen Institute)</p>	Lecture hall 1.101
13:30-14:15	<p>Keynote Harald Grethe <i>Head of International Agricultural Trade and Development Group, Thuer-Institute, Humboldt-Universität zu Berlin</i> "Reducing GHG-emissions from agriculture and food in the EU: central measures and political options"</p>	Lecture hall 1.101
14:15-14:30	Short coffee break and walk to sessions	
14:30-16:00	<p>Parallel session 1-A “Climate targets” Chair: <i>Martin Banse (Johann Heinrich von Thünen Institute)</i></p> <ul style="list-style-type: none"> • Nationally determined contributions and scenarios of agricultural emission reductions at country level <i>Jensbye, Laerke (University of Copenhagen); Clora, Francesco (University of Copenhagen); Yu, Wusheng (University of Copenhagen)</i> • Impact of rural development policies in Germany on the reduction of greenhouse gas and ammonia emissions from agriculture <i>Pufahl, Andrea (Thuenen Institute); Roggendorf, Wolfgang (Thuenen Institute)</i> • Distances to climate targets 2030 in EU-27 agriculture: explorative analysis <i>Spiegel, Alisa (Thuenen); Heidecke, Claudia (Thuenen); Osterburg, Bernhard (Thuenen)</i> 	Seminar room 1.102

	<p>Parallel session 1-B “Greenhouse gas metrics”</p> <p>Chair: <i>Harald Grethe (HU Berlin)</i></p> <ul style="list-style-type: none"> Consequences for EEA and Non-EEA agriculture if countries use different GWP-metrics for policy-making <i>Mitzenzwei, Klaus (Ruralis); Hristov, Jordan (JRC Seville); Pérez Domínguez, Ignacio (JRC Seville); Witzke, Peter (EuroCARE)</i> The impact of different GHG estimation methodologies on the derivation of marginal abatement cost curves for livestock farms in Lombardy <i>Baldoni, Edoardo (Joint Research Centre); Bartolini, Fabio (University of Ferrara); Coderoni, Silvia (Università Cattolica del Sacro Cuore); Daatselaar, Co (Wageningen University and Research); Dakpo, Hervé (Université Paris-Saclay, AgroParisTech, INRAE)</i> Trade-off between cost and accuracy of soil carbon measurement <i>Photinodellis, Roxane (Université Paris-Saclay, AgroParisTech, INRAE); Bruni, Elisa (Laboratoire des Sciences du Climat et de l'Environnement, LSCE/IPSIL, CEA-CNRS-UVSQ, Université Paris-Saclay); Bamière, Laure (Université Paris-Saclay, INRAE, Paris-Saclay Applied Economics); Chenu, Claire; De Cara, Stéphane; Guenet, Bertrand</i> 	Seminar room 1.103
16:00-16:30	Coffee break	
16:30-17:30	<p>Parallel session 2-A “Carbon markets”</p> <p>Chair: <i>Bernhard Osterburg (Thuenen Institute)</i></p> <ul style="list-style-type: none"> The voluntary carbon market in Italy: state of the market, carbon credit price analysis and future prospects <i>Maluccio, Saverio (CREA); Cesaro, Luca (CREA); Severini, Simone (Università degli Studi della Toscana)</i> Impacts of being first in implementing carbon prices for agriculture <i>Stepanyan, Davit (Thuenen Institute); Heidecke, Claudia (Thuenen Institute); Osterburg, Bernhard (Thuenen Institute); Gocht, Alexander</i> 	Seminar room 1.102
	<p>Parallel session 2-B “GHG mitigation options”</p> <p>Chair: <i>Alexander Gocht (Thuenen Institute)</i></p> <ul style="list-style-type: none"> GHG Mitigation Options for the Netherlands <i>Helming, John; Wang, Scarlett; Müller, Marc (Wageningen University & Research); Schäfer, David</i> Early Adopters of Low Emission Slurry Spreading Equipment (LESS) <i>Daulagala, Chathuranga (University College Dublin); Breen, James (University College Dublin); Buckley, Cathal (Teagasc); Krol, Dominika (Teagasc)</i> 	Seminar room 1.103
19:00	<p>Joint food and drinks at ,Unter den Linden 6‘</p> <p>(short 5-minute walk from seminar rooms to main building back door)</p>	Senatssaal

6 October 2022		
8:00-9:30	Registration	
09:00-10:30	<p>Plenary session / Keynote speaker(s) <i>Chair: Claudia Heidecke (Thuenen Institute)</i> Hermann Lotze-Campen <i>Head of Research Department "Climate Resilience", Potsdam Institute for Climate Impact Research (PIK), and Humboldt-Universität zu Berlin</i> Title: "The key role of agriculture and land use change for ambitious climate change mitigation: lessons from global Integrated Assessment Modelling" Hugo Valin <i>Economist, Trade and Agriculture Directorate, OECD</i> Preliminary title: "Policy options for climate mitigation in agriculture, potential impacts and state of progress in OECD countries"</p>	Lecture hall 1.101
10:30-11:00	Coffee break	
11:00-12:30	<p>Parallel session 3-A "GHG mitigation options II" Chair: Florian Freund (Thuenen Institut)</p> <ul style="list-style-type: none"> US Climate Policy can Contribute to Improved Water Quality and Reduce Hypoxia in the Gulf of Mexico Hertel, Thomas (Purdue University, Dept Agricultural Economics) GHG emission reduction potentials and economic effects of mitigation measures in Austrian agriculture Falkner, Katharina (University of Natural Resources and Life Sciences); Schönhart, Martin (University of Natural Resources and Life Sciences); Sinabell, Franz (Austrian Institute of Economic Research (WIFO)); Schmid, Erwin (University of Natural Resources and Life Sciences) Climate mitigation policy options: modelling the potential impact on agriculture of Poland Wqs, Adam (Institute of Economics and Finance, Warsaw University of Life Sciences) 	Seminar room 1.102
	<p>Parallel session 3-B "GHG abatement costs" Chair: Andrea Pufahl. (Thuenen Institut)</p> <ul style="list-style-type: none"> Considering farm heterogeneity and interaction effects of mitigation measures in marginal abatement cost curves for agricultural climate policy Huber, Robert (ETH Zürich); Tarruella, Marta (ETH Zürich); Schäfer, David (University of Bonn); Finger, Robert (ETH Zürich) Greenhouse gas abatement costs of a Norwegian dairy farm Kokemohr, Lennart (Ruralis); Kuhn, Till (Institute for Food- and Resource Economics); Mittenzwei, Klaus (Ruralis) Abatement costs of climate friendly peatland management options: case study results for two German peatland regions Buschmann, Christoph (Thünen Institut) 	Seminar room 1.103
12:30-13:45	Lunch	
13:45-14:45	<p>Parallel session 4-A "Risk and uncertainty in climate change mitigation analysis" Chair: Francesco Accatino (INRAE)</p> <ul style="list-style-type: none"> Perceived risk of climate policy's adverse effects on agriculture and rural areas along the urban-rural divide Gustavsen, Geir (NIBIO); Mittenzwei, Klaus (Ruralis); Grimsrud, Kristine (SSB); Lindhjem, Henrik (Menon Economics) 	Seminar room 1.102

	<ul style="list-style-type: none"> Carbon tax in the European agricultural sector under the consideration of weather variability <i>Stepanyan, Davit (Johann Heinrich von Thünen Institute); Gocht, Alexander (Johann Heinrich von Thünen Institute); Neuenfeldt, Sebastian (Johann Heinrich von Thünen Institute)</i> 	
	<p>Parallel session 4-B “Options and barriers for GHG pricing in agriculture” Chair: <i>Mareike Söder. (Thuenen Institute)</i></p> <ul style="list-style-type: none"> Options and barriers for implementing prices on GHG emissions for agricultural products <i>Heidecke, Claudia (Thuenen Institute); Osterburg, Bernhard (Thuenen Institute); Isermeyer, Folkhard (Thuenen Institute)</i> How to design a carbon border adjustment mechanism for agri-food sectors? <i>Fournier Gabela, Julio G. (Johann Heinrich von Thünen Institute); Spiegel, Alisa; Söder, Mareike; Freund, Florian; Stepanyan, Davit; Banse, Martin; Heidecke, Claudia; Gocht, Alexander; Osterburg, Bernhard</i> 	Seminar room 1.103
14:45-15:00	Coffee break	
15:00-15:45	<p>Keynote Aline Mosnier <i>Scientific Director of the Food, Agriculture, Biodiversity, Land-Use, and Energy (FABLE) Consortium; Sustainable Development Solutions Network</i> Preliminary title: "Synergies and conflicts between climate change mitigation and other Sustainable Development Goals, and concrete food and land use systems pathways towards net zero targets"</p>	Lecture hall 1.101
15:45-16:00	Coffee break	
16:00-17:30	<p>Parallel session 5-A “Dietary impact on GHG emission” Chair: <i>Freund, Florian (Thuenen Institute)</i></p> <ul style="list-style-type: none"> A comparison of animal and plant-based proteins from an economic, environmental, and nutritional perspective <i>Merlo, Marie (University College Cork); Hennessy, Thia (University College Cork); Buckley, Cathal (Teagasc); O'Mahony, Seamus (University College Cork)</i> Impacts of supply-side climate change mitigation practices and trade policy regimes under dietary transition: the case of European agriculture <i>Clora, Francesco (University of Copenhagen); Yu, Wusheng (University of Copenhagen)</i> From Fork to Farm: Impacts of more sustainable diets in the EU-27 on agricultural incomes <i>Rieger, Jörg (Thuenen Institute); Freund, Florian (Thuenen Institute); Offermann, Frank; Geibel, Inna; Gocht, Alexander</i> 	Seminar room 1.102
	<p>Parallel session 5-B “Land use management” Chair: <i>Lennart Kokemohr (Ruralis)</i></p> <ul style="list-style-type: none"> Towards AFOLU sector – associating the changes in agricultural land use and production with GHG emissions and carbon capture in Estonia <i>Ariva, Jelena (Estonian University of Life Sciences); Viira, Ants-Hannes (Estonian University of Life Sciences)</i> Grassland management options in the Netherlands <i>Müller, Marc (Wageningen University & Research); Helming, John;</i> 	Seminar room 1.103

	<p><i>Roerink, Gerbert; Blokland, Pieter Willem</i></p> <ul style="list-style-type: none"> Modeling organic conversion in an EU-wide farm model Kremmydas, Dimitrios (Joint Research Centre); <i>Ciaian, Pavel</i> (Joint Research Centre); <i>Baldoni, Edoardo</i> (Joint Research Centre); <i>Tillie, Pascal</i> (Joint Research Centre) 	
7 October 2022		
8:00-9:30	Registration	
9:00-10:30	<p>Parallel session 6-A “Nitrogen management” Chair: <i>NN</i></p> <ul style="list-style-type: none"> Estimating Nitrous Oxide (N₂O) emissions from the application of N fertilizers to soils at higher resolution in the Republic of Ireland Francisco Cruz, Carlos Alberto (University College Dublin); <i>Breen, James</i> (University College Dublin); <i>Buckley, Cathal</i> (Teagasc) The Farm to Fork strategy and the case of reactive nitrogen in Austrian agriculture – integrated land use modeling for cost-effective measures and policy implementation Jost, Elisabeth (University of Natural Resources and Life Sciences); <i>Schönhart, Martin</i> (University of Natural Resources and Life Sciences); <i>Schmid, Erwin</i> (University of Natural Resources and Life Sciences) Undesired effects of joined pollution regulation sourced by a multi-use production factor Chiadmi, Ines (Université Paris-Saclay, AgroParisTech, INRAE, Paris-Saclay Applied Economics); <i>Jayet, Pierre-Alain</i> (Université Paris-Saclay, AgroParisTech, INRAE, Paris-Saclay Applied Economics); <i>Humblot, Pierre</i> 	Seminar room 1.102
	<p>Parallel session 6-B “Behavioral aspects in climate change mitigation” Chair: <i>Julio G Fournier Gabela</i> (Thuenen Institute)</p> <ul style="list-style-type: none"> Experimental analysis of farmers' willingness to participate in carbon sequestration programmes Block, Julia B. (Göttingen U); <i>Danne, Michael; Mußhoff, Oliver</i> Quantifying the impact of farmers' social networks on the effectiveness of climate change mitigation policies in agriculture <i>Kreft, Cordelia</i> (ETH Zurich); <i>Finger, Robert; Huber, Robert; Schäfer, David</i> Targeting the regional or farm scale? Cost-efficiency of collective climate change mitigation policies under heterogenous farmer behaviour Tarruella, Marta (ETH Zürich); <i>Huber, Robert</i> (ETH Zürich); <i>Mack, Gabriele</i> (Agroscope); <i>El Benni, Nadja</i> (Agroscope); <i>Finger, Robert</i> (ETH Zürich) 	Seminar room 1.103
10:30-11:00	Coffee break	
11:00-11:45	<p><i>Chair: Claudia Heidecke</i> Keynote Alan Matthews <i>Professor Emeritus of European Agricultural Policy, Trinity College Dublin</i> Title: “Prospects for climate action in the EU agricultural sector”</p>	Lecture hall 1.101
11:45-12:45	Plenary session / Panel discussion	
12:45-13:00	Closure / Claudia Heidecke (Thuenen Institute)	