

## Potential topics for Master Thesis Projects

### **Roberto Garcia (e-mail: roberto.garcia@nmbu.no):**

How have the UK's (aggregated and/or disaggregated) trade patterns changed since 'Brexit'? There are several possible questions to ask under this: (1) How have EU-UK trade patterns changed and which firms/sectors/countries have been affected since the UK left the EU? - Was trade affected more for the smaller EU countries?; (2) Given that the UK can now set its own trade policy, how have trade patterns with non-EU countries changed, i.e., commodity trade with former colonies?; (3) How have UK-EU price differentials changed since Brexit, i.e., goods prices by HS-code or general inflation or commodity/energy price index?

### **Frode Alfnes (e-mail: frode.alfnes@nmbu.no):**

1. Energieffektivisering og fleksibilitet i forbruk i husholdninger eller næringseiendom med leietakere: Hvorfor går det så tregt når det er økonomisk lønnsomt?

2. Digitalisering i matsektoren: Apper og nettløsninger er i økende bruk i matsektoren. Som forbrukere ser man mest av det som er rettet mot forbrukerne, men de nye løsningene krever også ny atferd fra bedrifter i sektoren. Eksempel: Reduksjon av matavfall i produksjon, transport, butikker og restauranter vil kreve omfattende tiltak fra næringsaktørene. Hvor står vi dag og hvilke strategier har bedrifter for å utnytte digitalisering for å redusere matavfallet i egen drift?

3. Hvordan ser store norske aktører på muligheter og problemer knyttet til et nytt EU direktiv for reparasjon av forbruksvarer?

<https://www.regjeringen.no/no/tema/europapolitikk/aktuelt/aktuelt/rapporter-fra-eu-delegasjonen-2022/eu-foreslar-rett-til-a-reparere-for-forbrukere/id2900406/>

### **Knut Einar Rosendahl (e-mail: knut.einar.rosendahl@nmbu.no):**

1. EU climate policy – Fit-for-55. The EU Commission has suggested several changes to its climate policy to comply with the new emission target for 2030. What are the economic consequences of these changes (emissions; emissions prices; costs)? How does EU's climate policy interact with Norway's climate policy? Suggested method: Combining economic theory with numerical simulations

2. Is export of Norwegian gas good or bad for the climate? Will Norwegian gas replace coal? Or renewables? Or gas from other countries? Or come in addition? Is it possible to reduce oil extraction without affecting gas extraction? Suggested method: Combining economic theory with numerical simulations

3. ENABLE – Enabling the green transition in Norway (NFR-project). Primary goal of the project: "Identify conditions for energy and transport policy packages and measures that are both effective

and socially accepted in a Norwegian context, thereby helping Norway to meet its ambitious targets to cut GHG emissions while at the same time provide a secure supply of energy and meet other societal goals” Suggested method: Survey? Combined with economic theory? With Frode Alfnes.

4. Differentiated tariffs on public transport. Would it be optimal with more differentiated tariffs on public transport? Optimal for society? For the transport company? Suggested method: Survey? Combined with some economic theory?

**Olvar Bergland (e-mail: [olvar.bergland@nmbu.no](mailto:olvar.bergland@nmbu.no)):**

1. How rational are Norwegian hydro-power producers? Using publicly available data it is possible to place lower and upper bounds on the water value for a hydro-power producer. As a response to the ongoing discussions, is it possible to assert something about the producers' valuation, or reservation price, of water, and assess how that valuation has changed with surging prices and declining reservoirs.

**Anders Dugstad/Ståle Navrud (e-mail: [anders.dugstad@nmbu.no](mailto:anders.dugstad@nmbu.no)/[stale.navrud@nmbu.no](mailto:stale.navrud@nmbu.no))**

1. LANDVALUSE - Integrated welfare assessment of climate and biodiversity impacts of land use: From promise to policy solutions (NFR-prosjekt). Wind energy is important for the transition to a renewable economy, both in Norway and globally. However, wind energy does not come without an environmental cost through impacting a wide range of non-market ecosystem services which have non-market values. To assess whether and how much wind energy we need, we must weight the cost against the benefits by including the non-market values of wind energy externalities, which can be elicited using stated preference methods. We have conducted a choice experiment survey to elicit Norwegian households' preferences for land-based wind power. The survey includes experimental variation in the design. The sample size is around 4000 and is representative for the Norwegian population. It will be possible to have a co-supervisor from SSB or Menon Economics.

2. PLATON - a PLATform for Open and Nationally accessible climate policy knowledge (NFR-project): We have conducted a discrete choice experiment to evaluate public acceptance of carbon tax and different revenue recycling schemes in Norway. The master student will get access to the data and develop research questions to be answered. Strong econometric skills are required. It will be possible to have a co-supervisor from SSB or Menon Economics. More information about the research project: PLATON will gain and disperse knowledge about how the policy system works and can be adjusted in feasible and effective ways to satisfy the reporting commitments and meet the 2030 and 2050 emission targets of Norway. Knowledge-building in the platform includes new insight that fill knowledge gaps in the international research frontier and domestic policymaking, overviews that assess and establish the status quo knowledge, applied analyses/assessments, accessible data and tools for public agencies, analysts and researchers outside and within the platform, and communication activities.

**Erlend Dancke Sandorf (e-mail: [erlend.dancke.sandorf@nmbu.no](mailto:erlend.dancke.sandorf@nmbu.no))**

1. Using qualitative information to inform choices: Using data from a discrete choice experiment aimed at eliciting the Norwegian population's willingness-to-pay to stop an invasive species, this master project will look at how we can use qualitative data collected using open ended questions to explain choices. Ideally, the project will use text analysis algorithms and/or machine learning/text mining tools to create indicators/classifiers from the qualitative data. This will then feed into a traditional choice model. The research problem requires strong quantitative skills. NB! The text data is in Norwegian.

2. Alternative livelihoods for forest communities: Is there a potential market for locally produced cheese in the DR Congo? Non-timber forest products contribute to the well-being of many rural and urban households. For such products to be a viable source of income there is a need to know if a market exists. This project will utilize data from a pilot survey conducted in early 2022. 100 people were intercepted at various supermarkets and asked about their preferences for cheese and their current consumption behavior. The pilot survey also included a simple discrete choice experiment, which can be used to estimate willingness-to-pay for locally produced cheese relative to different types of imported cheese. There will be a possibility to have a co-supervisor from Noragric.

**Arild Angelsen (e-mail: [arild.angelsen@nmbu.no](mailto:arild.angelsen@nmbu.no))**

1. Forest transitions in the tropics: large data sets have become available on tropical deforestation, and are suitable to analyze how changes in deforestation over time. One hypothesis concerns the forest transition, or the Environmental Kuznetz Curve: deforestation has a bell-shaped pattern over time. The thesis could test this for one or several tropical countries.

**Eirik Romstad (e-mail: [eirik.romstad@nmbu.no](mailto:eirik.romstad@nmbu.no)):**

1. Policies for reducing the environmental costs of energy production. The current high energy prices have increased pressures for increasing Norwegian energy production. New hydro electric plants or land based windmill parks pose potential large environmental costs. Policies to reduce these pressures may include various measures from indirect policies like reduced electricity demand (ENØK) to auctions to locate new installations on sites with less perceived damages (auctions and other measures to identify low damage areas).

**Ståle Navrud (e-mail: [stale.navrud@nmbu.no](mailto:stale.navrud@nmbu.no))**

1. Economic valuation of Ecosystem Services provided by Agricultural Landscapes; especially recreation and aesthetic beauty. Applying Stated Preferences methods
2. Sustainable Business models and Life Cycle Analysis of environmental Impacts of Seaweed farming for fertilizers and food production.