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# Thesis topic brochure



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## Table of Contents

Introduction .....	5
This brochure .....	5
Thesis Supervisors .....	7
Research programme of the Environmental Policy Group .....	8
Thesis topics .....	11
Sustainable Food Transformations .....	11
Sustainable Urban Infrastructures .....	17
Governing Environmental Mobilities .....	26
Governing Marine Futures .....	35
Climate Governance .....	43
Previous thesis titles .....	50
Internships .....	53
How to get started .....	55



# Introduction

## This brochure

This brochure presents a list of topics or themes for students who wish to pursue their MSc thesis at the Environmental Policy Group. The purpose of this brochure is to attract students to write an MSc thesis within the domain of environmental policy and to provide inspiration to those who wish to formulate their own thesis topic. The ENP group very much stimulates students to develop their own ideas and research questions. The topics presented in this brochure have been identified as interesting topical areas by ENP staff members and can be used as a starting point or source of inspiration while proposing your own thesis topic.

The topics and themes presented in this brochure are often linked to research lines and running projects of staff members. This increases the interest and commitment of staff members in the thesis research and the impact of the knowledge generated. The thesis topics will be presented categorized in the three research areas of the Environmental Policy Group (for an overview see following section). Further information on the content and running projects under each of these research areas check out the ENP website: [www.wageningenur.nl/enp](http://www.wageningenur.nl/enp)

ENP thesis students tend to originate from a broad range of MSc programmes. It is worth mentioning that ENP has a junior position available each year for an excellent MSc thesis student, who is offered a one year contract to work on an article, assist in education, develop a PhD proposal and possibly obtain research funding. Also, several ENP supervised MSc theses have been nominated for prizes.

Besides potential thesis topics and themes this brochure includes a list of recently completed ENP MSc theses, a list of companies and organizations where ENP MSc students have recently performed internships, and the next steps in the thesis writing process.

Internship possibilities are published on the ENP facebook page: <https://www.facebook.com/Environmental.Policy>. For inspiration or more information you can also check the education pages of the ENP website: <http://www.wageningenur.nl/enp> .

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Dr. Mandy de Wilde

# Research programme of the Environmental Policy Group

The mission of the Environmental Policy chair group (ENP) is to *develop innovative ways of analysing and understanding social and political transformations of the environment*. Core to this mission is the analysis of how and to what extent environmental considerations become incorporated into and change modernisation and globalisation processes, and the design of environmental governance arrangements that extend across multiple levels and spatial scales.

The core objectives of the research programme are threefold:

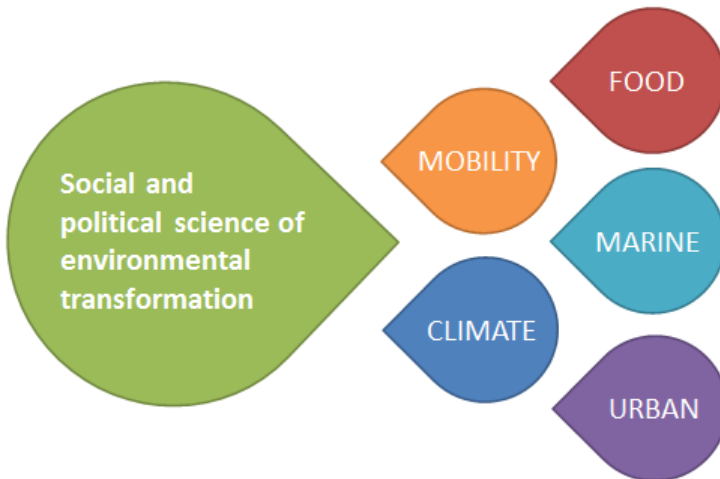
1. Analyse and understand transformations in local, national and global environmental governance arrangements, against the background of a rapidly changing cultural, political and economic global order.
2. Analyse how individuals, groups and organisations deal with and respond to the environmental and health risks and uncertainties that emerge as side effects of modernisation/globalisation.
3. Contribute to the institutionalisation of fair and equitable environmental and sustainability standards, requirements and criteria in (international) processes, networks and practices of production, consumption and governance.

ENP research focuses theoretical development for understanding and critically analysing social and political transformations of the environment. Theoretical diversity characterises the group, but is organised into two clear lines of inquiry. First, the group continues to develop an eco-modernist perspective to environmental change, drawing on a combination of macro-sociological theories of global risk and network society, micro-sociological perspectives focused on social practices, and institutional perspectives of political modernisation and transition theory. Second, the group will invest in critical social science perspectives drawing on international political economy, political ecology, and global production chains and networks. Bringing these eco-modernist and eco-critical



perspectives together will enable the group to explore the tension between the social innovations (e.g. policy instruments and governance arrangements), and social consequences (e.g. inequality, control and exploitation) inherent in environmental change processes.

The research programme of ENP is divided into five parallel thematic areas that represent key, contemporary global environmental challenges (see Figure 1). First, reflecting the challenges of ongoing population growth and distributive challenges of global nutrition, ENP explores the governance and practices of *sustainable food transformations*. Second, the design and governance of sustainable *urban infrastructures*, exploring the dynamic nature of cities and their regional and global environmental footprint. Third, the challenges involved in global *environmental mobilities* associated with tourism, migration and transport. Fourth, the *marine governance* theme incorporates research on the largest single largest global environmental resource, exploring issues related to spatial planning, fisheries and offshore infrastructures. And fifth, *climate governance*, with analysis focusing on both global and regional climate policies and their intersection with strategies for renewable energy provision.



Next to thesis topics on these five core themes we welcome ambitious and interested students to discuss and explore a more theoretical or methodological thesis topic. Examples could be:

- Theories of modernity in sociology and political science
- Analysing globalisation from a non-western point of view
- The role of material objects in social theories
- Theories of social practices and sustainable consumption
- Transparency and accountability in reflexive modernity
- Sociological theories of mobilities
- Etc.

## Thesis topics

### Sustainable Food Transformations

#### **Sustainability and/in Collaborative Consumption**

Over the past 10 years, there has emerged a revived interest in the 'sharing economy' and all forms of 'collaborative consumption'. From AirBnB, Uber, Coach-surfing, Velib city bikes to all forms of car-sharing and shared ownership of windmills, the basic idea is that by sharing goods and services with others, there will be possible both economic and environmental gains/savings while at the same time enjoying new forms of collaboration with fellow citizens. From the literature on this topic it can be concluded that next to the economic and the social dimension, also the environmental dimension is a very important motive for people to enter these new forms of consumption. This thesis will explore in more detail the environmental gains that are (claimed to be) connected to the collaborative economy.

*Contact person: Gert Spaargaren*

#### **Access to Safe, Sustainable and Healthy (SSH-) food**

In the discussion on sustainable food production and consumption, it is argued that low income groups of the population have less easy access to SSH-food when compared to consumers from middle-class or high-income groups. Differential access to SSH-food can be witnessed both in OECD countries as in other, less developed regions of the world-economy. This project will explore in more detail what kind of barriers to SSH-food exist for what groups of citizen-consumers, and in what respects these barriers can be said to be specific for SSH-food when compared to other/normal food. Next to premium prices for higher (SSH-)quality of food, also issues of distance to the nearby shop for SSH-food and issues of cultural framing (this is not our kind of food) of SSH-food are expected to play a role in accessibility. The use of a comparative perspective between Asia (China/Thailand/Vietnam), Latin-America (Brazil) and Europe (UK, Netherlands) will make it possible to related differences in access to SSH-

food to regionally different cultures of consumption as well as different structures of the food provision systems.

*Contact persons: Gert Spaargaren and Peter Oosterveer.*

### **Mapping the sustainable seafood movement**

The push to sustainable seafood has emerged as one of the most globally important environmental movements in the last decade. It has been accompanied by a range of industry-NGO partnerships aimed at improving the performance of fisheries and aquaculture production. Examples include certification, corporate social responsibility programmes, and fisheries and aquaculture improvement projects. In this project you will contribute to a global study mapping and assessing the functionality and legitimacy of a selection of these partnerships.

*Contact person: Simon Bush, Peter Oosterveer*

### **Transparency and traceability in global seafood trade**

A recently published study concluded that almost one third of all Indonesian seafood imports to the United States are from illegal, unreported or unregulated fisheries (IUU). IUU fishing is thought to contribute to unsustainable fisheries, and thus transparency in value chains is one way to combat the global trade of IUU fish. Transparency can either be driven by public policy, i.e., government regulation, or can be driven by value chain actors. One way to operationalize transparency is through traceable seafood, whereby information about the origin and processing path of fish or seafood items is communicated. A wide range of traceability systems are rapidly being developed and implemented in seafood value chains, often with different goals, technologies, requirements and users. How do traceability systems become embedded at various nodes of seafood value chains? How do various stakeholders define traceability? And how do traceability systems transform fisheries management and global seafood trade? Field work is focussed on producers and traders in the Philippines or buyers and retailers in Europe or the United States.

*Contact person: Simon Bush, Mandy Doddema*

### **Circular models of production and consumption**

Industrial ecology, Cradle-to-cradle, circular economy: these are all models that aim at moving from 'linear' to 'circular' modes of production and consumption. Particularly Cradle-to-cradle and circular economy have a wide appeal to companies, designers, and policy makers. Upon a closer look, however, such models are not as easily applicable as the success stories suggest as they require a fundamental change in production and consumption practices. What are, effectively, the potentials of these models in promoting sustainable production and consumption? How can they be better understood, especially from a social scientific perspective? And how can policy makers and companies make progress in this field? Students are invited to research these questions with a focus on specific companies (Desso, Interface co, Adidas, G-star) industrial sectors (clothing, shipping, dairy, etc.) or on specific aspects (closed loop recycling, certification, stakeholder relationships, etc.).

*Contact persons: Kris van Koppen, Judith van Leeuwen*

### **Globalizing green consumption: developing the international SCP-agenda**

Sustainable consumption is no longer restricted to OECD-countries and developed economies. In this project students look at the role and impact of new middleclass-consumers in transition economies in Asia in particular. What strategies for the greening of consumption are used in countries like China, India or Brazil? In what respects do they differ from the strategies applied in OECD-countries when looking at the role of (retail)companies, NGO's, governments and organized citizen-consumers?

*Contact persons: Gert Spaargaren, Kris van Koppen, Peter Oosterveer*

### **Greening retail practices: food/clothing/appliances**

For promoting sustainable consumption practices, the role of retailers (like AH or C1000 in food; BCC or Media Markt in appliances; Bijenkorf or C&A in clothing) turns out of being very important. When retailers offer good quantities and qualities of green products and services, when they inform consumers about green products by using labels, and when they actively seek to connect to the perceptions and images about sustainable development from the side of citizen-consumers, the chances for

successfully engaging citizen-consumers in practices of 'buying green' can be significantly enhanced. In this research projects the students contribute to developing green provision strategies of retailers which take into account the ideas, perceptions and concerns of citizen-consumers with respect to green food, green appliances or green clothes.

*Contact persons: Gert Spaargaren, Bas van Vliet, Peter Oosterveer, Kris van Koppen*

### **Sustainability performances in governing internationally traded food/agricultural commodities**

Multi-stakeholder non-state organizations promoting sustainability are nowadays an integrated part of the political landscape in the governance of global value chains. Examples are independent certification schemes (FSC, MSC, UTZ certified, RSPO, Rainforest Alliance) and convening/bridging organizations (IDH/Sustainable Trade Initiative, GIZ) . These schemes and organizations come about in different forms and constellations, have different strategies and visions, but are without exception confronted with questions about their performances/impact. They need to show whether they are relevant, effective, efficient, and the extent to which they live up to their sustainability promises. MSc students choosing this theme can work from different angles. Focus could be on an organization's contribution to a key impact area, such as smallholders, deforestation, living wages, toxic loading. Such studies fit in to our research related to the Impact Academy program. Another topic of interest would be a comparison between different organizations in how they deal with pressing demands to prove their impact. This links up to our Next Generation Governance research program.

*Contact person: Peter Oosterveer, Hilde Toonen*

### **Certification schemes and labels and consumers**

The number of private certification schemes and labels as instruments for promoting sustainability in food is growing fast (organic, fairtrade, carbon-labels, animal welfare schemes and biodiversity-conservation indications like MSC). There is need to compare different certification schemes and labels in terms of their organisation and of their relationships with

consumers. Concrete topics include:; what are the perspectives for carbon labelling of food; is MSC turning into a hybrid public-private standard; how are companies represented in a scheme's organization, and how did this changed over time; how do consumers interact with schemes through products and through retailers; how can schemes profit better understanding of consumers practices; and, how is the rising middle class in emerging economies such as Brazil, China, India and South Africa affecting these schemes??

*Contact person: Peter Oosterveer, Hilde Toonen*

### **Sustainable palm oil?**

Palm oil is often criticised for its lack of sustainability, threat for biodiversity and local livelihoods. The dominant alternative response to this criticism is certification by RSPO (Roundtable for Sustainable Palmoil) where stakeholders within and outside the supply chain have defined and elaborated concrete criteria for 'sustainable palm oil production'. However different other strategies promoting sustainability with the palm oil supply chain exist as well, such as organics, Rainforest Alliance, REDD+, national GAP (Good Agricultural Practices) policies, Best Management Practices, B2B (Business-to-Business) options, etc. Within the SUSPENSE research program we are looking for an MSc-student to make an inventory of these alternatives and to determine for the most interesting alternatives how and what they can contribute to more sustainable and equitable palm oil provision.

*Contact person: Peter Oosterveer.*

### **Food, feed or fibre?**

Agricultural resources are increasingly not used for producing food, but also for producing animal feed, energy, or other industrial products. These different uses put an increasing claim on limitedly available natural resources, such as water, phosphates and energy. These challenges call for ways to address the sustainability of these different uses and leads to debates on how to prioritise between them. The growing complexity of the associated supply chains presents an extra complicating factor. Thesis research may be oriented to compare different governmental and market-

based tools available to promote sustainability under these conditions. Concrete topics for thesis research are: what ways to deal with the production and use of biofuels; the climate impacts of producing and consuming meat and how to address them; how to relate technological optimal use of available natural resources in the agro-supply chain to actual use by relevant social actors?

*Contact person: Peter Oosterveer*

### **Green procurement in municipalities**

Dutch regulation requires from municipalities that they apply sustainability requirements in buying goods and services (Duurzaam inkopen, zie [www.senternovem.nl/duurzaaminkopen](http://www.senternovem.nl/duurzaaminkopen)). Previous MSc research shows that most municipalities do not use the opportunities that this offers for greening local companies. The thesis research is directed to analyzing the reasons why, learning from best practices and providing suggestions for improvement.

*Contact person: Kris van Koppen*



## Sustainable Urban Infrastructures

### **Low-carbon cities: the right scale for climate change mitigation?**

Greenhouse gas emissions are growing rapidly in urban areas, in particularly in cities in the Global South. A variety of policies and programmes exist to mitigate this growth, including setting up programmes specifically for cities, so called 'low-carbon cities'. These might involve a combination of various policies and instruments that contribute to lowering the urban greenhouse gas emissions. Students working on this topic will evaluate the processes and outcomes of these cities in the context of a broader project on emerging carbon markets and mechanisms in the global south (see elsewhere in this booklet). Questions that may be tackled are: what exactly are these low-carbon cities? What concrete activities do they entail and what challenges do they face? Who benefits from the development of such programmes? And, conversely, who might lose out? Whether and how do these low-carbon cities contribute to a low-carbon transition? This topic would provide the opportunity to study one or more initiatives in greater detail, for example in Southeast Asia.

*Contact person: Mattijs Smits*

### **What is energy for? Household energy practices in comparative perspective**

Rapidly growing energy demand underpins many current global environmental, social and political problems, including climate change. While energy studies often focus on the production side, there is much less emphasis and (sociological) understanding of how the demand side works and develops. The 'energy practice' perspective conceptualises and analyses energy demand by asking 'what energy is for'. It recognises that energy-related practices are strongly context dependent, while at the same time connected to social, technological and political developments on a global scale. Relevant questions are: what is driving energy demand in different context? What elements of energy practices are shared and which are different? How do non-energy related policies influence energy

practices and demand? To which extent does the division between 'developing' and 'developed' countries hold when looking at household energy demand? This topic is part of a project involving ENP and the DEMAND Centre at Lancaster University (UK) which studies and compares energy practices in Europe and Southeast Asia. Students can work within this framework or develop their own approach, including in other geographical areas.

*Contact person: Mattijs Smits*

### **Smart Grids and Smart Consumers?**

Development of smart grids and smart cities in the Netherlands and Europe can be studied from various social scientific perspectives. ENP is coordinating an NWO project on E-practices: the study of newly emerging practices at household level as a consequence of smart grid and smart meter implementation. These practices involve the monitoring of electricity, the generation of renewable energy at home or in the neighbourhood, electrical mobility (cars, bikes) and participation in energy cooperatives. Case study research in one or more of these areas can be done within an MSc thesis project. The study may be done from a consumer perspective, or focussing on providers or energy cooperatives. The NWO project is a collaboration of ENP with grid operator Enexis and consumer information organization MilieuCentraal and TU/e. There are opportunities to link up with any of these partners in your thesis project.

*Contact persons: Bas van Vliet, Robin Smale, Sanneke Kloppenburg, Gert Spaargaren*

### **Energy Cooperatives and Grid Operators**

Recently a huge growth in the number of Energy Cooperatives can be observed in the Netherlands. These are community groups combining efforts in the purchase of renewable energy technology (solar panels, CHP, wind turbines) and the production and distribution of green electricity for their community and beyond. Some of these cooperatives are very small and only serving their own members with a single service (purchase of PV), others very big and starting to act like alternative energy companies.

Grid operators are regional public corporations responsible for distribution of electricity over existing infrastructure which they own and maintain. They are the key responsible for balancing demand and supply in the regional distribution grids. Now that electricity supply becomes distributed as well, with the electricity production by energy cooperatives and individual households, the challenge for grid operators is to manage this patchwork of production and consumption sites in order to keep the balance between demand and supply. ENP is working in a new research project with Enexis, a regional grid operator that offers opportunities for thesis research in the area of smart grids, smart meters, domestic consumers and energy cooperatives.

*Contact person: Bas van Vliet, supervisors: Bas van Vliet, Robin Smale, Gert Spaargaren*

### **Amsterdam Metropolitan Solutions (AMS)**

The world is urbanizing fast and the number of large metropolitan cities is growing swiftly (with now over 600 cities with more than 750,000 inhabitants). To achieve and maintain a high quality of life in these cities is of paramount importance. But the solutions of today will not automatically work for the city of tomorrow. AMS is set up as a collaboration (in Amsterdam) between Wageningen University, Delft University of Technology and Massachusetts Institute of Technology to investigate and design new solutions for sustainable and smart metropolitan areas. With a focus on new technologies, new urban organizational models, new forms of citizens and consumer involvement, new public private partnership, and experiments within the city (living labs) solutions for tomorrow are investigated in Amsterdam and other metropolitan areas in the world. Within ENP we contribute to the AMS research-cum-design agenda by carrying out research on smart energy systems where consumers are closely involved; citizens science systems for urban quality of life (air, water, waste, mobility); new models for decentralized sanitation and drinking water provisioning involving households and neighborhoods; urban agriculture/food systems with food waste minimization and re-use; a sharing economy in mobility, durable goods and other services;

environmental transparency and information disclosure for urban citizens.  
*Contact person: Bas van Vliet, Ingrid Boas*

### **Towards energy independence? Energy communities and storage of renewable energy in Germany**

In Germany, energy storage at household level is quickly becoming an integral part of the transition towards a low-carbon society. Battery storage systems that are located in households allow owners of solar panels to store their self-generated energy for later use, for example in the evening. This 'storage revolution' is expected to change the way we engage with energy in fundamental ways. For citizens, new energy practices will emerge around storage, such as charging, monitoring, and the trading, and sharing of stored energy. Energy start-ups are developing innovative concepts based on the idea of citizens becoming 'energy independent'. This includes the introduction of virtual communities such as sonnenCommunity and SchwarmEnergie® in which members all around Germany can share self-generated electricity, thereby bypassing traditional energy companies. In this project you examine how German citizens engage with storage systems and services and how these developments challenge the existing distribution of tasks and responsibilities in the energy system. Your thesis project will be part of a wider project on small-scale storage at ENP in which developments in the UK, the Netherlands and Germany are compared.

*Supervisor: Sanneke Kloppenburg*

### **Creating digital environments: the politics of eco-hacks and digital environmental monitoring**

Rapid developments in ICT, including the internet, social media, big data, and smart sensors, allow for new ways of collecting, sharing, and using data about our environment. The underlying idea is that gathering more data helps to address environmental issues in better ways, often connected to aspirations of citizen participation in the collection of data. In this project you critically engage with these assumptions by focusing on issues of transparency and inclusion in the design, development and use of digital tools for measuring and monitoring environmental issues. This

includes questions such as who participates in deciding what is measured and how? Who participates in data collection, and what skills and expertise are required? Possible case studies include contestations over the visualisation of environmental degradation, the creation of open hardware for biodiversity monitoring, and ‘sustainability hackatons’ organised by city administrations. Your thesis project will be connected to the development of a new ENP project on this theme and may include contributing to a scientific publication.

*Supervisors: Sanneke Kloppenburg, Ingrid Boas*

### **Smart Urban Retrofitting in Amsterdam and Mianyang**

ENP recently started a joint project with Chinese researchers on smart urban retrofitting, which aims to identify the social and institutional conditions under which smart retrofitting of urban housing in China and in Amsterdam may lead to decoupling of domestic energy demand and greenhouse gas emissions. Most commonly “smart systems” and “smart retrofitting” refer to the use of smart technologies like smart meters and smart energy systems in energy retrofitting. This projects adopts a social scientific approach to “smartness” in which end-user perspectives and energy practices are explicitly included. The energy practices that emerge as an implication of smart urban retrofitting are central to this study, next to the identification of new social relations amongst and between householders and housing and energy providers. What are the implications for consumers and providers of smart retrofitting projects in terms of new emerging energy practices and new relations between consumers and providers?

*Contact persons: Bas van Vliet, Frank de Feijter, Gert Spaargaren*

### **Urban water management**

Megacities in the world have problems with developing the infrastructures for the equitable and sustainable delivery of water services: drinking water, sanitation, transport and purification of sewage water. The research aim of this topic is to analyse the provision and development of urban water infrastructures and services in terms of management, access and use by diverse groups in urban societies, for instance by comparative case

study research between various cities in North and South.

*Contact person: Bas van Vliet*

### **Citizen generated transparency**

The relationship between transparency and sustainability is often approached through a top-down perspective, with a focus on institutions, rules and technocratic monitoring systems. An alternative to this approach is how transparency can be achieved bottom-up. Citizens are increasingly involved in the analysis and provision of sustainability; in the creation of smart city solutions; and influence sustainable governance through new technologies, such as mobile apps. What do these developments mean for transparency and sustainability? Do smart city technologies, social media and open data platforms offer citizens more control over, and influence on, sustainable development? Who are these citizens and in what ways do they become empowered? Or do new technologies actually control and constrain citizen involvement, demanding more top-down oversight?

*Contact person: Ingrid Boas and Sanneke Kloppenburg*

### **Smart citizens and citizen science**

The concept of citizen science has often been used in the context of projects where citizens are asked by scientists to generate data, or where citizens generate data under the direction of professionals. But the form of citizen science is evolving. There is a shift towards the trend that citizens become "scientists" themselves and work independently from professional science institutions. With the emergence of big data, mobile sensing, gamification, and the role of open data sources, this latter role is increasingly being promoted. For instance, citizens use sensors to measure levels of air pollution in their city. Ideally, citizens do not only monitor problems of urban sustainable development, but also have the means to analyse this data themselves through open data sources and thereby obtain more influence in the governance of urban sustainable development. In this research domain, you scrutinize and conceptualize this emerging form of citizen science and examine its effects for citizen empowerment and local democracy.

*Contact person: Ingrid Boas and Sanneke Kloppenburg*

## **Smart Cities**

Many cities around the world now frame themselves as a smart city. In the most ideal form a smart city can be understood as a city in which smart technologies will make it sustainable, safe and comfortable and as a city that will enable citizens to have more control over their surroundings (Zandbergen 2015). And all this should happen in a very efficient manner facilitated by smart technologies. But how “smart” are cities really, and to what extent is this based on a democratic process involving the urban civil society? What is the role of big ICT companies in steering the smart city versus small innovative-startups and citizen- initiatives? How are city governments adjusting to the “smart” nature of its city? These are questions a master thesis can address.

*Supervisors: Ingrid Boas, Sanneke Kloppenburg*

## **The urban nexus**

Water, Energy and Food have long been acknowledged as essential inputs to feed cities. Urban planners have, however, often treated water, energy and food as separate domains. What is missing is an ‘Urban Nexus’ perspective which assumes that Environmental Flows of WEF interact and relate to one another in achieving urban sustainable development. This research seeks to contribute to theorize, analyze, identify and visualize this Urban Nexus, which thus far remains quite obscure and complex to policy-planners, producers and consumers. A master thesis can analyse how urban policies on sustainable development interact and can better be managed; or how citizens draw on and thus combine these different environmental flows in their daily lives and how this interacts with systems of provision and governance.

*Supervisors: Ingrid Boas, Gert Spaargaren, Bas van Vliet*

## **Cities: leaders of climate action?**

Cities are active agents when it comes to climate action. Many cities have organised themselves in international networks to promote climate action and to learn from one another. Cities often take on more ambitious mitigation targets than the respective nation state. In a master thesis, it

can be examined why cities are taking the lead in climate action. For what reasons are they more ambitious than nation states? In addition or alternatively, it can be examined what difficulties cities face in the context of climate governance. What cities are excluded from city networks? In what way are cities from the global north more powerful in determining the nature of city climate governance compared to cities from the global south?

*Contact person: Ingrid Boas*

### **Decentralised energy generation: technological, policy and governance challenges**

The production and consumption of energy is involved in some of the key global problems, such as local pollution, geopolitical conflicts and climate change. Decentralised energy systems can provide an alternative to the dominant large scale (fossil-fuel) based systems. These systems play a historical and contemporary role, both in the Global North and in the Global South. However, the dissemination of these systems are fraught with technical and social problems, related to technologies, policies and governance. What is the 'best' technology to be used in a certain context? What interests are driving these seemingly neutral technologies? How can policies stimulate these technologies? What policies (and discourses) explicitly or implicitly inhibit the development of decentralised energy systems? Whether and how can the transitions to decentralised energy systems be governed? These are just some of the questions that can be tackled using a variety of theoretical and empirical approaches.

*Contact person: Mattijs Smits*

### **Energy and environmental movements**

As demand for energy is growing and resources become scarcer, energy increasingly becomes the site of heated controversies. Examples are the siting of coal-fired or nuclear power stations, but also transmission lines and renewable energy projects. In these energy controversies, environmental movements frequently play a central role, highlighting what is at stake in these developments. Often, these movements are not merely 'local' phenomena, but link different actors, issues and policies at various



scales. Sometimes, they ‘fail’ and move quietly to the background, but sometimes, they lead to lasting changes at national or even international level. How can we study these environmental movements? How do they transform something seemingly neutral, like energy, into a ‘matter of concern’? What is the influence of movements on local and national energy policy and vice versa? Students are encouraged to explore these questions through existing research and networks in countries like Thailand and Myanmar, or in other parts of the world.

*Contact person: Mattijs Smits*

## Governing Environmental Mobilities

### **Tourism 2.0 and sustainability**

During the last years the role of Web 2.0 tools, or social media, has enabled internet users to create and exchange user generated content. Particularly in tourism the social media now empowers tourists to actively and simultaneously collaborate with others for producing, consuming and diffusing internet based information and applications. Examples include: wikis (e.g. Wikitravel), blogs (e.g. Travelblog) and microblogs (e.g. Twitter), media-sharing sites (e.g. Flickr, YouTube, videos), review sites (e.g. TripAdvisor, Booking.com), or photo sharing sites (e.g. Instagram). Tourism 2.0 is expected to boost the development of tourism, but could also promote and stimulate sustainable tourism. Little literature is currently available on the greening role of tourism 2.0. Assisted by the informational governance framework in this thesis you will explore this potential. Research strategies could include case study work, carrying out content analysis of tourist reviews or blogs, and carrying out interviews.

*Contact person: Machiel Lamers*

### **Climate adaptation in vulnerable tourism destinations**

Coastal regions and islands are among the most popular tourist destinations. They are also highly vulnerable to climate change. The literature on vulnerability and adaption of tourism destination is still scarce. There is still a dearth of knowledge on what vulnerable tourism destinations can do to decrease their vulnerability, and how various adaptive measures relate and interact. Thesis research can take the form on in depth case studies of Mediterranean, Caribbean or South East Asia islands, or comparing insights from a range of destinations.

*Contact person: Machiel Lamers and Jillian Student*

### **Energy tourism: a new frontier in sustainable tourism?**

There are many different types of tourism. One relatively new type is energy tourism, which falls more broadly under sustainable or eco-tourism. Examples are tours to islands in Indonesia that want to switch to 100% renewable energy sources or day trips to villages in Thailand that

generate their own electricity through hydropower. There are more questions than answers in this field. What is energy tourism exactly and how 'big' is it? What types of people are attracted to this type of tourism? What is the role of tourists, NGOs, tour operators and local people in these projects? Does this type of tourism help to support more sustainable forms of energy production and consumption or does it rather do the opposite, for example by encouraging people to undertake long-distance travels? Student choosing this topic have the opportunity to delve into this uncharted territory, both theoretically and empirically.

*Contact persons: Machiel Lamers and Mattijs Smits*

### **Tourism and Marine Protected Areas**

The objective of many Marine Protected Areas in the world is to generate financial support for the protective measures as well as alternative livelihood options for local communities through tourism (e.g. fishing communities). Across the world different approaches for realising this tourism potential are being developed assisted by nature conservation organisations, such as WWF, Conservation International and The Nature Conservancy, as well as local NGOs. The aim of this thesis topic is to explore one, or to compare some, of these approaches, and to assess the effectiveness of tourism in marine conservation and livelihood. In-depth casestudy work in key marine environments, such as Indonesia, the Caribbean, the Mediterranean, could provide the empirical basis for your thesis.

*Contact person: Machiel Lamers*

### **Tourism and water**

Fresh water is crucial for life and livelihood, but its limited availability is threatened by population growth, climate change and irreversible use. Tourism is the largest service industry on the planet and therefore among the largest consumers of water. To reduce tourism-related water use, a better understanding of the behaviour surrounding its use is needed. Social practices theory provides a relevant and fitting framework for analysing tourism activity as a collection of 'water-use practices'. By focusing on one or relating more of these tourism-related water use

practices our understanding of the behavioural dynamics of water uses can be enlarged. In addition, the research can focus on innovative measures suggested by providers of water and tourism services and assess their effectiveness in relation to the dynamics of the tourism related water use practices, such as smart water meters, rainwater harvesting, recycle showers, etc. An in-depth case study in one of many water scarce tourism destinations (for example islands) forms the empirical basis of your thesis.  
*Contact person: Machiel Lamers*

### **The governance of climate migration**

Climate change is expected to cause human migration. Small island states populations may be forced to move because their islands are at risk of being submerged by sea-level rise. Vulnerable populations in developing countries may move away from rural areas, in case of food and water scarcity. While much research on this topic has been conducted, many questions remain. For instance: Which groups tend to migrate due to climate change impacts (the vulnerable, those that are relatively well-off)? Where do they go (to cities, to neighbouring countries, do people remain close to their original habitats)? Do affected communities perceive migration as a threat or (also) as an opportunity to improve their livelihoods? How can national governments and/or the international community cope with the issue of climate migration? Who is responsible for the protection of climate migrants (the national government or the international community)? How should we define climate migrants (are they refugees or migrants or displaced persons)? Such questions can be addressed in a master thesis about climate migration.

*Contact person: Ingrid Boas*

### **Environmental migration in a digital age**

Environmental impacts are a growing factor in human migration. Since 1970, the likelihood of being displaced by an environmental disaster has risen with 60%. Since 2008, each year more than 25 million people were forced to migrate due to environmental impacts such as floods. Climate change is expected to make this worse. Whilst much scholarly research has been done on environmentally-related migration, a blind spot remains

when information and communication technologies (ICTs) come into the equation. This whilst ICTs – such as mobile phones and smart phones – and related information exchange are playing a crucial role in decisions and practices of migrants.

The central aim of this master thesis research is to provide a fundamental understanding of the ways in which ICT-enabled information exchange shapes practices and flows of environmentally-related migration. How do ICT-practices of migrants interact with social network building and environmental migration? How do ICT-enabled governance systems interact with the management of environmental migration?

*Supervisor: Ingrid Boas*

### **Networks and flows of conservation finances**

The greatest contemporary challenge in nature conservation is to sustain and increase finances for conservation. This has been a discussion item in all UN Convention on Biological Diversity (CBD) forums since its inception in 1992. Consequently, efforts are being made to expand traditional sources of financing such as bilateral aid and tourism, and in experimenting with innovative financial mechanisms such as payments for ecosystem services (PES) and biodiversity derivatives. To diversify sources of conservation finance, new forms of networks and partnerships are being formed between the state, market and civil society. These include forums that seek financing solutions such as the Conservation Finance Alliance (CFA) where governments, NGOs, private companies, academic institutions and others come together to exchange information and expertise, and to develop studies and tools. By examining publications and tools promoted within this forum, how can we better understand the recent trends and consequences of developments in conservation finance in terms of networks and flows? This study is part of a wider project that traces conservation finances as global flows through the various contexts in which it occurs.

*Contact persons: Machiel Lamers and Nowella Anyango-Van Zwieten*

### **The Arctic as new frontier for environmental governance**

The Arctic is attracting global attention because of accelerating rates of

melting (summer)ice. Rapid economic development in the region could be reality before we know it. The main economic activities that may evolve are shipping, oil and gas production, tourism and fisheries. Currently, no clear regulatory structure exists to deal with the ecological effects of these activities. That means that now is the time to develop effective environmental governance strategies for this pristine area of the world. Questions throughout this challenge will be among others: who will be able to take decisions on activities that will take place in the High Sea parts of the Arctic. What is the role of indigenous communities in the economic development and development of environmental governance strategies. How will Ecosystem-based management be operationalized for the Arctic? And how will external interests from China, the EU, but also from environmental organizations influence future governance arrangements for the Arctic? MSc thesis research can contribute to the debate on effective governance for sustainable development of the Arctic.

*Contact person: Machiel Lamers*

### **The role of weather and physical environment information in Arctic resource and livelihood practices**

The Arctic is undergoing rapid and major climate, physical and weather changes resulting from global warming. Arctic communities and resource use actors are facing serious consequences as well as opportunities resulting from these changes. For example, the dynamic state of Arctic sea ice means that particular activities may or may not be possible, that areas become unliveable, or that resources are not present. These actors rely on each other or, increasingly, on web-based sources of information to substantiate decisions on day to day practices. To what extent and what types of information are used, and how this affects various forms of resource use and livelihood practices (e.g. fishing, hunting, tourism, industrial activity). Insight in these relations is important to inform decisions on investments in satellite-based or in situ observation systems in the Arctic to aid various groups of stakeholders. This thesis would explore the role of information for a particular Arctic activity, based on fieldwork or interviews.

*Contact person: Machiel Lamers*

### **Mitigating the global environmental impact of tourism mobility**

The considerable contribution of tourism to global environmental change (i.e. greenhouse gas emissions) has fairly recently started to receive attention from NGOs, researchers, consumers, and policy makers. The role of this growing awareness on tourism consumption, in particular in cases of holiday choice, has not been investigated much. Transport and mobility has a dominant position in tourism practices, in particular for hyper-mobile tourist consumers (i.e. those that go on multiple long haul trips per year). There appears to be a growing group of consumers that wish to be/are green (in their daily lives: food, dwelling), but also hyper-mobile (travel around the world: for leisure and work). In the face of shifting norms and values due to global climate change this combination seems to be incommensurable. Is this incommensurability recognized by tourists? To what extent are tourists, tourism organizers, and tourism regulators aware of the global environmental impact of their traveling behavior, and do they find it problematic? Is there scope for developing carbon budgets for tourists?

*Contact person: Machiel Lamers*

### **Environmental governance of transnational cruise shipping**

Cruise tourism is the fastest growing segment in the global tourism industry. Cruise tourism is a global and highly mobile activity, with companies operating worldwide and cruise vessel and tourist flows literally spanning the globe on their delivery of tourism products, including the most remote and vulnerable regions. It is an activity of increasing economic importance, but not free from concerns over the scale and distribution of environmental impacts. Cruise tourism takes place in environmentally, socio-economically and politically vastly diverse regions, which raises questions about the sustainability and governability of the activity. Moreover, cruise flows and impacts are difficult to regulate by place-bound governance actors due to their global and mobile character. Nevertheless, cruise activities are targeted by intergovernmental policy processes, industry self-regulation, civil society initiatives, and other governance arrangements that are not recognised in the literature. This

thesis topic, aims to assess the dynamics of multi-actor governance arrangements that regulate cruise tourism.

*Contact person: Machiel Lamers, Judith van Leeuwen*

### **Moving forward; the fuel transition in shipping**

Commercial ships emit lots of SO<sub>x</sub>, causing air quality problems in coastal areas, because of their use of heavy fuel oil as fuel. The International Maritime Organization (IMO) has negotiated an International Treaty and has set ambitious reduction targets for SO<sub>x</sub> to be achieved in 2020. An element of this Treaty is the switch to distillate fuels that contain much less SO<sub>x</sub>. This ambitious set of reduction targets and measures is remarkable given the conservative nature of IMO and the shipping sector. Possible topics for an MSc thesis are explaining why and how IMO has adopted these standards. Who were advocates and who opposed, what were their interests and which power politics was at play? But a topic could also include analysing how this shift from heavy fuel oil to distillate fuels will be managed in practice by the shipping sector. How will this shift affect the shipping sector and how will companies manage this transition?

*Contact person: Judith van Leeuwen*

### **The missing target of climate change policies: CO<sub>2</sub> emissions from commercial shipping**

Commercial ships are the most environmental friendly mode of transportation if you calculate their air emissions per tonnage transported goods. However, this sector contributes for about 3% to global CO<sub>2</sub> emission and this is still growing. The Kyoto Protocol does not include shipping and has given the International Maritime Organization (IMO) the mandate to come up with reduction targets and measures. Until today, the IMO has not been successful in agreeing on CO<sub>2</sub> reduction measures. Although the European Union prefers a global approach through the International Maritime Organization (IMO), it has taken a proactive role and adopted its own legislation to monitor CO<sub>2</sub> emissions from shipping. The proposed thesis research could for example be to explain why the IMO has not been able to adopt CO<sub>2</sub> targets and reduction measures by studying which factors have impeded decision making within the IMO. A



topic could also be how EU legislation on this topic has been developed and will be implemented. Or how innovative governance measures such as certification schemes could move this debate forward.

*Contact person: Judith van Leeuwen*

### **A social license to operate for economic activities in a vulnerable environment**

Companies engaged in an economic activity often receive their license to operate from the national government for example through a permit or licensing system. Included in this system are procedures for environmental impact assessments and environmental criteria during execution of the economic activity. Increasingly, having this license to operate from the government is not enough. Public opinion is easily mobilized through social media. In addition, local communities and NGOs as well as international NGOs might try to inform public opinion. Companies therefore also need to obtain a social license to operate in which they ensure the social acceptance of their activity. What makes a social license to operate so difficult is its intangible, dynamic and informal nature. It strongly relates to trust, accountability and legitimacy, for which there is no checklist or legal procedure one can follow to obtain it. Rather companies will have to engage in a continuous dialogue with its local and international stakeholders. Research questions on this topic can include how to conceptualize a social license to operate, how to measure it, how to structure a dialogue between companies and (local and international) stakeholders. While empirical research on this topic has been done for the mining industry, it is certainly possible to apply this concept on other economic activities or environmentally vulnerable areas.

*Contact person: Judith van Leeuwen*

### **Closing material cycles: integrating production and recycling networks**

A growing population and growing affluence in major parts of the global economy comes together with increasing use of natural resources. While innovations are made to increase reuse and recycling of products and materials, the analysis of global production networks or value chains have left the issues of recycling and reuse largely aside. Closing the material

loops within value chains is being proposed as a solution to simultaneously deal with wasting waste as well as with growing scarcity of natural resources. But in terms of their regulation and steering, global production networks exist separately from global recycling networks. Little empirical research is done into how do these networks look like, how they are different and how they are governed? Where rest the power? What are the geopolitics of waste and of resources? Do we see redefinitions of waste as a consequence of new corporate environmental strategies, urban mining or circular economy initiatives? In addition, integration of these two networks seems needed in order to close material loops and to allow waste becoming a new resources. Analysing specific global production and recycling networks, also between North and South, would give us much more information on alternatives for virgin mining, and of the problems and complication that come along with that. Focus of an MSc –thesis on this topic could be on certain materials (e.g. plastic, rare metals) or on specific products.

*Contact person: Judith van Leeuwen*

### **Electric Bicycles, emerging bike practices, and sustainability**

Over the past decade, the E-bike has entered the market for personal transport. Sales-figures are impressive and still growing. However, the relationship between E-bikes and sustainability is as yet unclear and little specified. On the one hand, there is the e-bike promoted by employers to green short-distance commuting practices of their employees. On the other hand there is the e-bike expanding the scope of recreational travel both in terms of distance and lifestyle-groups. On the one hand there is the e-bike as new, crucial element of transport chains making possible the modal-shift towards low-impact transport. On the other hand there is the e-bike substituting (wo)man power for electricity and thereby contributing to more CO<sub>2</sub> emission. In this research project we investigate the new transport practices made possible by the E-bike, the sustainability aspects of increased e-bike use, and the relationships between bike-design, user-practice and the lifestyles of the bikers involved.

*Contact persons: Gert Spaargaren*

## Governing Marine Futures

### **Marine Ecosystem-Based Management**

Ecosystem-Based Management (EBM) is a holistic/integrated approach in which the structure, functioning and key processes of ecosystem, including humans, are considered. In EBM, ecosystem boundaries are determining in delineation of areas to be governed, however this is difficult given the lack of knowledge (in particular in data-poor/understudied environments like the High Seas). More and more, EBM is promoted in marine governance, especially if ecosystem protection is the main objective. Balancing marine conservation and maritime activities by taking area-based measures, such as creating Marine Protected Areas with different zoning regimes, is seen as putting EBM in practice, and natural scientists, especially ecologists, are taking the lead to develop (stepwise and Deming cycle-like) approaches to do so. Research related to this thesis topic can range from studying the tension between area-based approaches and the moving nature of various protected marine species (such as sharks) and of maritime activities, to ways in which data deficiencies and knowledge gaps affect delineation but also to the role played by ecologists (and/or other actors) in formulating management plans. Also, focus can be on established MPAs, to what extent and why management has shifted to EBM, or on recently designated MPAs, for example in the High Seas.

*Contact person: Hilde Toonen*

### **Offshore wind energy developments and (inter-) national arrangements**

Wind power is widely celebrated and promoted, because it is a renewable energy source and of its technical/financial feasibility. Since the early/mid-2000s, its offshore potential has been explored, especially in the North Sea area. Governance scholars indicate that the extent to which offshore developments are actually moving forward, is much affected by institutional factors, especially on the national level. Focus is however on comparing North Sea countries, while a study of OWF governance arrangements in other parts of the world would be interesting to find and validate institutional drivers and barriers. Especially Asia is of interest because OWF developments are speeding up in countries like China,

Japan, Taiwan, and South Korea. These countries can be compared with each other, but also with a North Sea country (or countries). Another research angle related to this thesis topic is the tension between dominant national approaches and the call for international cooperation, needed to address common challenges at the North Sea. For example, the issue of cumulative effects can shed light on opportunities and constraints in international collaboration regarding offshore wind energy.

*Contact person: Hilde Toonen*

### **Invisible ecological costs and benefits: communication from the sea to the shore**

Oceans and seas are global commons. Many environmental issues at sea remain however invisible to the general public, limiting their ability to participate in promoting sustainable use of marine resources. Offshore wind power for example is considered "green", since wind is a renewable energy source, but the extent to which messages about ecological benefits (and costs) of offshore wind farms are brought to (and taken up by) the public is rather limited. Other challenges, such as marine mammal conservation and overfishing, seem to be more easily communicated to the shore. There is a need to better understand how and by whom marine environmental concerns are communicated, and why. This study will be based on a comparison in terms of the nature of a marine issue, the organisation of involved maritime sectors, the role and engagement of NGOs, and relationships with the general public.

*Contact person: Hilde Toonen*

### **Bottom up sustainability standards for SE Asian aquaculture?**

SEASIP is a collaborative of Southeast Asian partners developing a set of standards specifically designed to develop more inclusive market-based eco-standards for shrimp production in the region. There are a few opportunities under this programme – including: 1. Testing their protocols and standards on farms in Vietnam, Thailand and Indonesia. 2. Researching the possibility for small-holder group certification using SEASIP. 3. Assessing the programme itself to determine how SEASIP can better impact small holder inclusion into the US certified market, while

maintaining a necessary level of impact as measured by Seafood Watch. The position also comes with funding, the level of which will be determined by the design of the specific project.

*Contact person: Simon Bush*

### **Area based management and certification of aquaculture in Southeast Asia (SUPERSEAS Research Programme)**

The sustainability of aquaculture is managed at the farm scale, while many of the social and environmental impacts of this food production system accumulate across landscapes. Within an exciting new NWO funded project you will have the opportunity to help define how 'area-based management' arrangements can be designed and implemented. A variety of questions can be addressed: What can we learn from area based management in other food sectors? How does area-based management compare to concepts like integrated coastal zone management, different forms of collective action in aquaculture management, landscape approaches and inclusive business? How can shrimp, pangasius and tilapia farmers organise themselves in area based associations, and what benefits does this provide them? How can you measure the environmental impact of area-based management? Is area-based management being applied in private certification schemes in other food sectors? What claims can be made about area-based approaches by retailers? Students will have the opportunity to travel to Thailand, Vietnam or Bangladesh to answer these questions.

*Contact person: Simon Bush, Peter Oosterveer, Mariska Bottema*

### **Sustainable management of tuna fisheries in the coral triangle (BESTTuna research programme)**

Tropical tuna are under significant pressure from overfishing. Traditionally states have been responsible for regulating fishing activities, but the private sector and NGOs are increasingly becoming involved through third party initiatives such as the Marine Stewardship Council (MSC) and FairTrade, and a large number of first part brand initiatives such as the International Sustainable Seafood Foundation (ISSF), Fish4Ever and Sustunable. As part of the BESTTuna programme we are looking for

students to investigate the new roles of these actors in shifting tuna fisheries management from regulatory to ‘incentivised’ management approaches. Field work sites are negotiable but can include Indonesia, the Philippines, Thailand, and Fiji.

*Contact person: Simon Bush*

### **Marine Spatial Planning for the European seas**

In its Blue paper the European Commission proposes an Integrated Maritime Policy for the European Union. A more collaborative and integrated approach is needed to deal on the one hand with the increasing competition for marine space and the cumulative impact of human activities on marine ecosystems, and on the other hand, to overcome the inefficiencies, incoherencies and conflicts of use caused by fragmented decision-making in maritime affairs. Integrated Maritime Policy requires a governance framework that applies the integrated approach at every level as well as horizontal and cross-cutting policy tools, such as maritime spatial planning. Maritime Spatial Planning (MSP) is “a process of analyzing and allocating parts of the three-dimensional spaces to specific uses, to achieve ecological, economic and social objectives that are usually specified through the political process; the MSP process usually results in a comprehensive plan or vision for a marine region”. In cooperation with member states the EU is developing marine special plans for the North Sea, the Baltic Seas, the Black Sea and the Mediterranean. The aim of this topic is to study the development of marine spatial planning for the different regional seas.

*Contact person: Jan van Tatenhove, Hilde Toonen*

### **Stakeholder and sector participation in integrated marine governance**

Marine governance is the sharing of policy making competencies in a system of negotiation between nested governmental institutions at several levels (international, (supra)national, regional and local) on the one hand and state actors, market parties and civil society organizations on the other in order to govern activities at sea and their consequences. The development of different forms of integrated marine governance, such as marine spatial planning, ecosystem-based management or integrated

coastal zone and ocean management require new forms of participation. The challenge is to ensure stakeholder participation across a wide-variety of sectors, e.g. shipping, fisheries, energy development, etc. Existing integrating policies (such as the EU Marine Strategy Framework Directive or Marine Spatial Planning efforts) form their separate governance arrangements, while seeking links with often already existing sectoral governance arrangements around economic activities. These links are necessary to coordinate and integrate sustainability concerns between sectors. Institutional structures for cross-sectoral participation do not yet exist. The aim of this topic is to study innovative forms of participation in integrated marine governance.

*Contact person: Jan van Tatenhove , Judith van Leeuwen*

### **Marine Spatial Planning and regionalization**

In March 2013 the EU presented its Directive on Marine Spatial Planning. Maritime spatial planning (MSP) is about planning when and where human activities take place at sea. It is a transparent and comprehensive process based on stakeholder involvement. Its aim is to draw up plans which identify the most efficient and sustainable current and future use of maritime space. Besides MSP there also Integrated Coastal Zone management, the Common Fisheries Policy and environmental policy for the seas. How do all these policies relate to each other, under what conditions is regionalization at seas possible and what can MSP contribute to that process?

*Contact person: Jan van Tatenhove*

### **The interplay of formal and informal politics in integrated marine policy**

Characteristic for European governance is the interplay of formal and informal policy making. Besides the formal intergovernmental and supranational arenas, EU policy making takes place in different transnational informal arenas. Aim of this topic is to understand and analyse informal policy making in the marine policy domain. What are the result of negotiations in working groups, committees and epistemic communities for the development of EU integrated marine policy?

*Contact person: Jan van Tatenhove*

## **EU integrated marine policy: the tension between different maritime sectors and member states**

To realize integrated maritime policy an integration of different policies on different levels is needed. However, there is a tension between maritime activities such as fisheries, oil-and gas production, shipping, tourism, nature conservation and recreation. These activities are also regulated at different institutional and governmental levels. This topic examines the enabling and constraining factors for realizing integrated maritime policy given competing maritime activities and different institutional settings.

*Contact person: Jan van Tatenhove*

## **The designation and implementation of networks of Marine Protected Areas (MPAs)**

Marine Protected Areas (MPAs) are “Any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment” (IUCN 1988). Marine Protected Areas are specified areas in which there is partial or total protection from fishing and other potentially damaging impacts (e.g. dredging, drilling). Objectives are stock maintenance or recovery habitat restoration, protection of non-target species, and development of recreational and educational activities and promotion of scientific understanding. This topic focuses on the designation and implementation of MPAs in different countries. A new trend is the move beyond individual MPAs to more carefully designed networks of ecologically-connected MPAs at larger scales that can help to sustain and to restore marine populations. Thesis topic can vary from an evaluation of the designation and implementation of MPAs to analysing the role of stakeholders, the use of information or understanding the conflicts between different activities and jurisdiction of the governments involved.

*Contact person: Jan van Tatenhove*



### **Marine Infrastructural Projects: new ways of building with nature**

Marine Infrastructural projects (MIPs) are large construction works in a marine environment, such as the development of ports, land reclamation, the construction of islands and all kind of constructions of flood protection. More and more environmental objectives are taken in consideration in the development of these projects. An example is the Dutch innovation programme program “Building with Nature”. The focus of this programme is an understanding of the specific ecosystem dynamics, and taking them as a basis for the design of the project. The program focuses on developing ‘eco-dynamic design principles’. These are the technical building blocks that allow practitioners in the field to plan and design marine infrastructural projects using ecosystem based dynamics. This research projects evaluates the possibilities of building with nature in Marine Infrastructural projects.

*Contact persons: Jan van Tatenhove*

### **Deep sea mining**

Deep sea mining is an industrial activity in its infancy. The international structure to regulate this activity is however already in place since 1994 when the International Seabed Authority was established (as part of the UN Convention on the Law of the Sea. What are the environmental risks associated with deep sea mining and is this already debated and by whom? What kind of companies are interested in deep sea mining? How will the International Seabed Authority regulate this activity? The USA does not recognize this organization, what does this mean for its mandate or for the USA when it comes to deep sea mining? What is the role of national governments in regulating deep sea mining? What is the role of company environmental management in future environmental governance for this activity? Given these uncertainties, MSc thesis research can contribute to the debate on effective governance for deep sea mining.

*Contact person: Judith van Leeuwen, Jan van Tatenhove*

### **Public awareness and participation in nature and biodiversity protection**

Several thesis topics are available in this field. The importance of public engagement in biodiversity protection is broadly acknowledged, but the

concrete achievements in this field are modest and social scientific insights are underdeveloped. How to stimulate public engagement? How to monitor public awareness? How to link love for nature to sustainable practices, e.g. environmentally-friendly consumption. The thesis research aims at deepening our insight in such questions by theoretical clarification and specific case studies. One of the interesting fields of research under this theme is how municipalities can improve the cooperation with citizens in managing nature, now that responsibilities and initiatives are shifting from government to civil society.

*Contact person: Kris van Koppen*

### **Nature biographies in social context: how do we learn to appreciate nature?**

Several topics are possible within the field. The guiding question is how people shape the ways they deal with nature (recreate, study, protect, ignore, fear) over the course of their life. A basic hypothesis is that participation in social practices is a key factor in such learning practices. An important societal motive for researching this issue is concern about the continuity of public support for nature conservation and environmental protection. Examples of research topics are: impact of nature education programs (for school or households); nature activities and associations for teenagers; influence of citizen science involvement on views of nature)

*Contact person: Kris van Koppen*

### **Pros and cons of ecosystem services as a nature policy concept**

Ecosystem services are emerging as a powerful concept in global biodiversity protection. The socio-political consequences of using this concept, however, deserve more investigation. How strongly are ecosystem services tied to monetization of nature? Which meanings and practices of dealing with nature are highlighted in ecosystem services assessments, and which are obscured? Are ecosystem services a technocratic tool or can they be used participative and empowering ways? How do ecosystem services compare to other concepts, such as biocultural diversity? These questions can be explored theoretically and practically.

*Contact person: Kris van Koppen*

## Climate Governance

### **Emerging carbon markets and mechanisms in the Global South**

Market-based mechanisms have taken up a prominent role in the mitigation of climate change and the transitions towards more sustainable energy systems. Carbon markets, designed to trade emission allowances, could prove instrumental to achieve these goals by increasing the amount of sustainable energy while reducing greenhouse gas emissions in novel ways. An increasing number of these carbon markets are emerging at global, regional, national, and even local scales in emerging economies in the Global South. However, their function, mutual interaction, and contribution to sustainable energy development remain poorly understood. What are these different markets and mechanisms? What is their role in the broader context of climate and energy policies in the Global South? To which extent is their learning from other existing markets? What are the main stakeholders involved (and who are left out)? What, if any, is their role in promoting renewable energy development? This exciting and rapidly changing field requires novel theoretical and empirical approaches. Students can link up with existing research in Southeast Asia, target other geographical regions, or study specific instruments.

*Contact person: Mattijs Smits*

### **Climate change and security: the power of discourse**

Climate change has often been framed as a matter of security. It has been presented as a matter of national security, international security, human security, or as a risk. Each of these discursive frames produce different sets of knowledge of the climate change and security relationship, and would favour different practices to achieve climate security. For example, when discussing climate change in the context of national security, the discussion may centre on the role of the military in responding to climate threats, such as climate conflicts and climate-induced migration. But when climate change is presented through the prism of human security or resilience, emphasis is put on the role of local communities or on development agencies seeking to secure basic needs. For a master thesis,

you can investigate how climate change is framed in terms of security and how this affects policy-making. Do traditional security actors get an important role in climate governance? What is their role? How does this impact on the nature of climate governance?

*Contact person: Ingrid Boas*

### **Loss and damage: a new governance mechanism in the UNFCCC**

A new topic has been introduced in the UNFCCC: loss and damage. Discussions on loss and damage have been there since 1991, but it is not until recently that the issue has been formally adopted in the UNFCCC. Loss and damage focuses on human and economic losses that states face. It is an issue that has actively been promoted by small island states who face the threat of extinction due to sea-level rise. While the issue has now formally been included in the UNFCCC, many uncertainties about its institutionalisation and operationalization remain. How different is the issue from adaptation? Should it function as a separate pillar to mitigation and adaptation, or should it be dealt with under the adaptation pillar in the UNFCCC? How can a mechanism on loss and damage be operationalised (how to deal with actual human and economic losses?) Should states be compensated for loss and damage; by whom and how much should states contribute? These are questions that can be addressed in a master thesis.

*Contact person: Ingrid Boas*

### **Social learning and theories of environmental change**

Which theories of social change are guiding grass-roots environmental initiatives today? Big theories, like marxism or deep ecology may seem out-fashioned, but many of environmental movement initiatives today, e.g. transition towns, urban gardening, action against food waste, local currencies, New Age, etc., are still guided by ideas on quality of life and on how to change society. Which theories on society are, implicitly or explicitly, at the root of these ideas? Which authors are cherished? How do these theories translate into practices? Which role do they play in social learning and (global) networks? These questions can be researched with a focus on a particular group of initiatives (like the ones mentioned), by

means of interviews and literature studies. This topic is particularly suited for students with an interest in environmental movements and social learning to date, who are not afraid of taking a theoretical angle in their thesis.

*Contact persons: Kris van Koppen*

### **Climate Scepticism and the policy discourse**

How does 'made in the USA' climate scepticism influence the European and Dutch public and policy discourse? Although the scientific evidence of man-made climate change is overwhelming, climate scepticism or even denial flourishes in the public and policy debate. Arguments that have long been proven wrong in climate science, continuously pop-up in the media and in policy making debates. It is increasingly well-known and well-documented, that a network of think-tanks, front groups, echo-chambers and the like produce and spread vast amounts of climate disinformation and doubt-mongering articles, reports and books. These think-tanks are mainly free-market advocacy institutes, and are predominantly paid by vested interests and wealthy individuals promoting a specific ideological agenda (free-market, religious, conservative). The recipe is that of the tobacco industry lobby. Increasingly, but still less than in the US, climate scepticism is finding its way in Europe, including (and may be even more than its neighbouring countries) the Netherlands. Preliminary research (<http://www.gemeynt.nl/files/Pb2011-007.pdf>) reveals connections between the US anti-science and doubt industry and some European and Dutch skeptics and sceptical organisations. However, research has yet to take off. The aim of this theme is therefore to investigate the ways through which 'made in the USA' climate scepticism finds its way to Europe and particularly the Netherlands. What is the role of networks and personal contacts, what is the role of the media, how is the discourse being influenced?

*Contact person: Gert Spaargaren*

### **Reduced Emissions from Deforestation and Degradation (REDD): generating co-benefits?**

REDD is being widely embraced by policymakers, funding agencies and other actors as a promising strategy to cost-effectively reduce greenhouse gas emissions in addressing climate change. REDD (and its successor REDD+) aims to create financial incentives for forest conservation and sustainable use, through compensating developing country forest owners and users for the carbon stabilized in standing forests. Important global REDD+ initiatives include the Forest Carbon Partnership Facility of the World Bank (FCPF) and the UN-REDD programme. Both are actively supporting developing countries in preparing for REDD+. Yet many questions about REDD+ remain, including whether it can deliver so-called co-benefits (i.e. reduce carbon emissions and improve forest governance/ reduce deforestation). MSc thesis research can focus on various aspects, including: the prospects of different REDD design options to deliver co-benefits; the evolution and practices of specific global REDD+ initiatives, such as the World Bank's FCPF or the UN-REDD programme; debates and developments relating to REDD+ in a specific developing country such as India, Indonesia or Ghana etc.; and how private governance initiatives such as the Forest Stewardship Council are interacting with REDD+.

*Contact person: Aarti Gupta*

### **Reduced Emissions from Deforestation and Degradation (REDD): the politics of monitoring, reporting, verification**

With REDD being embraced globally as a win-win strategy to address both carbon emissions and forest loss, there is now an acknowledged need for effective monitoring, reporting and verification (MRV) systems to underpin REDD. Yet many aspects of these MRV systems continue to be debated: should there be one international or multiple national MRV systems? What should be measured, how and by whom? A properly functioning MRV system requires baseline data on carbon emissions, against which the additionality and impacts of REDD interventions can be measured. For example, it needs to keep track of changes affecting forest carbon, including conversion of forest land to other land uses. An often-cited problem with MRV systems, however, is that such baseline data is lacking.

Furthermore, what constitutes equitable and efficient MRV systems is not only a technical but also a political question. MRV systems include not only earth observation data but also socio-economic data on drivers of deforestation and biodiversity loss. Who gathers and interprets such data? Who has the authority to decide what data to gather, which stakeholders to consult, and for whom to make the data available? MSc thesis research can explore how these questions are being addressed in emerging global and national-level MRV systems for REDD.

*Contact person: Aarti Gupta*

### **Transparency and accountability in global environmental governance**

How to ensure the accountability of global environmental governance arrangements (both public and private) remains an important focus of scholarly research and political debate. One widely assumed means to enhance accountability is through promoting greater transparency. Increased transparency is assumed to help empower the weak and hold accountable the powerful, primarily through correcting for informational asymmetries between the governors and the governed. Transparency is also increasingly relied upon to further specific regulatory aims, such as promoting environmental improvements or better sustainability performance. Yet, does transparency deliver on its promises? Ongoing research emphasizes various dis-functionalities of disclosure-based global governance, including disclosure of incomplete or unreliable data, shirking of disclosure obligations, a lack of capacity to interpret and use disclosed data, the phenomenon of “drowning in disclosure” when too much (or irrelevant) information is provided, or lack of civil society or other intermediaries to render disclosed information useful. Thus, the ideal of transparency may not match up its practice. While positivist analyses of transparency suggest that this is because transparency has not proceeded “far enough, fast enough”, a more critical perspective suggests that transparency’s effects have to be analyzed in the broader political context within which it is being deployed. In the global sustainability realm, a growing embrace of transparency can be linked to a liberal democratic push for individual liberty, choice and participation in state-society interactions, together with a neoliberal privileging of market-based

solutions to sustainability challenges. MSc thesis research can explore these different perspectives on transparency through analyzing the design, functioning and impacts of various global governance by disclosure initiatives, where transparency is central. These include, for example, the the Global Reporting Initiative, Publish What You Pay, the Extractive Industry Transparency Initiative, Carbon Disclosure Project, or the Aarhus Convention on Access to Environmental Information.

*Contact person: Aarti Gupta*

### **A science-society contract in global environmental governance?**

Several topics exploring the role of science in global environmental politics are possible. Whether and how science can be separated from political decision-making processes remains a long-standing and controversial but ever more relevant debate in global environmental governance. In exploring the nature of science-politics interactions, MSc thesis research can focus, for example, on the sources of legitimacy underpinning innovative global mechanisms such as the IPCC, which is designed to provide policy-relevant scientific input into decision-making processes on climate change. Additional foci can include institutional design, credibility and sources of legitimacy of scientific input into global biodiversity or biosafety governance arrangements.

*Contact person: Aarti Gupta*

### **Environment, development and health in Laos and Vietnam**

Environmental issues, such as climate change, forces us to look at links between issues previously considered to be separate. Some organisations acknowledge this, and try to look at the linkages between issues, such as environment, development and health. An example is the Dutch NGO MCNV, which started off working on health issues for the poor in Vietnam in 1968, but gradually shifted its focus to include broader developmental and environmental challenges. More research is needed to understand the relations between health problems, development and the impacts of climate change, for example. Students are encouraged to work independently or with MCNV within this broad areas. There are existing project locations are in Vietnam and Laos, but it is also possible to find



cases in other countries.

*Contact person: Mattijs Smits*

## Previous thesis titles

Lowering the Peaks, Assessing the role of an energy cooperative on practices in the smart grid

Assessing the energy transitions of Germany and the Netherlands

Cycling in German Cities: The influence of spatial planning on the use of the bicycle in three German cities

Climate policy in Dutch municipalities – organisation, policy, implementation and performance -.

The Op Kop network: A local multi-actor network for making organizations climate neutral.

A Need for Meat? An explorative research amongst flexitarians on the cultural embedding of meat in everyday consumption rituals

Stakeholder participation in European marine policies and their implementation in the Netherlands: the legitimacy of current practices.

A social perspective on renewal energy: crucial factors affecting acceptance and adoption of solar panels in rural communities from Ocotepeque, Honduras C.A.

Governance of Metals Flows from Waste Electrical and Electronic Equipment in the Netherlands.

The Role of Stakeholders in Promoting Outdoor Environmental Education at Primary Schools in Hong Kong.

REDD+ Governance structure in low forested countries: the case of Nigeria. Invasive species policy network. Implementation of invasive species policy

in the Mediterranean Sea.

Implementing global environmental policy at the local level: analysis of Reduced Emissions from Deforestation and Forest Degradation (REDD+) preparedness in Ghana.

Institutionalizing climate governance through market based instrument. The case of the Clean Development Mechanism (CDM) in Honduras.

Stakeholder's impacts on co-management of mangrove forests: a case of Zanzibar.

Consumer response to carbon labelling in a food canteen practice. A study towards the integration of carbon labels within everyday social practices.

The provision of Fairtrade products in stores of Dutch retailers.

Clean Development Mechanism Projects in Developing countries: a case study of Nepal.

Sustainability and the Governance System of the Oil Palm Plantation Industry in Indonesia.

Consumers and carbon labeling in the food sector – a lifestyle perspective.

Trade offs between credibility and accessibility in the Marine Stewardship Council.

Towards Marine Protected Areas in the Netherlands.

Greening International Shipping through Private Governance. A case study of the Clean Shipping Project.

Dutch consumer interest towards climate labels on food products.

The Clean Development Mechanism (CDM). An analysis of the state of play in Uganda.

Ecological modernization of marine conservation. A case study of two entrepreneurial marine protected areas in Indonesia.

Energy-wise scan of Rotterdam. A study of domestic energy consumption according to socio and urban variables.

Corporate social responsibility & biofuel production in Ethiopia: five company cases.

Implementing the Plastic Hero. The implementation of the new household plastic waste collection system in the Netherlands under the perspective of the Strategic Niche Management and the Social Practices Model.

Local-scale vulnerability and adaptive capacity to climate variability and change: a case study from Northern Central Namibia.

Towards policy coherence for fish stock conservation in the EU and beyond? An assessment of the Common Fisheries Policy and the EU-Pacific tuna relations domain.

The role of mainstream clothing retailers in stimulating sustainable consumption patterns.

A political analysis of the environmental impact assessment in Taiwan: a case study of the Tseng-Wen Reservoir Transbasin Diversion Project.

## Internships

Another possibility for formulating a thesis topic would be to link it to an internship. Recent developments at public or private organizations where students perform their internship might provide an excellent case study to be worked out in a MSc thesis on environmental policy. If you would opt for a thesis research opportunity associated to an internship thorough consultation with the ENP thesis coordinator is needed. The following organizations have functioned as internship for MSc environmental policy students:

- Alliander (Grid administrator) Arnhem
- Arcadis (consultancy firm) Apeldoorn
- Arnika (Environmental NGO), Prague, Czech Republic
- Both Ends, Amsterdam
- Centrum Landbouw en Milieu, Culemborg
- CREM, Amsterdam
- Embassy of Germany, Dhaka, Bangladesh
- Embassy of the Netherlands, Sydney, Australia
- Enexis, Den Bosch
- E-On Benelux Rotterdam
- European Centre for Nature Conservation, Tilburg
- Evert Vermeerstichting, Amsterdam
- Fair Politics, Brussel, Belgium
- Gemeente Den Bosch
- Haskoning, Nijmegen
- IFOAM EU Group, Brussels, Belgium
- KWR (Water Research Institute), Nieuwegein
- Lisode (water management consultancy), Montpellier, France
- Milieuloket, Utrecht
- Ministry of Agriculture, Nature and Food Quality, The Hague
- Ministry of Environmental Protection, Beijing, China
- Ministry of Foreign Affairs ,Water and Environment Dpt., The Hague
- Ministry of Infrastructure and Environment (The Hague)

- Oeko Institut, Berlin, Germany
- RET Rotterdam
- Rotterdam Municipality, Urban Planning Dpt., Rotterdam
- Stichting de Noordzee, Utrecht
- Stimular, Rotterdam
- UNFCCC, Bonn
- United Nations Volunteers, Bonn, Germany
- WWF (Zeist)

## How to get started...

### Exploring research topics

If you intend to do an ENP thesis, please explore which research areas or topics you want to address. Use this brochure, the ENP website ([www.wageningenur.nl/enp](http://www.wageningenur.nl/enp)) for research themes the group is currently working on; and browse through previous thesis titles and summaries presented under the education section of the website. Exploring different topics with the thesis coordinator or an ENP examiner is of course also possible.

### Intake meeting with your thesis coordinator at ENP

As soon as you have made up your mind plan an intake meeting with your thesis coordinator through the ENP secretary: Corry Rothuizen [corry.rothuizen@wur.nl](mailto:corry.rothuizen@wur.nl). ENP thesis coordinators are Judith van Leeuwen for MES and MUE, and Kris van Koppen for all other Master programmes (e.g. MCL, MID, MAM). At the intake meeting the thesis coordinator will discuss the possible topic(s) and the courses you have followed, and may direct you to a possible supervisor for your thesis within the ENP group. Note that students are only allowed to start a thesis when they have completed their Bachelors and the required ENP courses according to their Masters programme (see study handbook).

### Focusing the subject

Once you have made contact with a potential supervisor you will further select and demarcate the research subject. Your supervisor can assist in this step by giving suggestions and literature. Once you have both decided about the topic, you should register as a thesis student.

### Registration as a thesis student

To register as a thesis student at the ENP group, you need to submit information on your name, address, thesis subject, and thesis period by e-mail to your supervisor. The supervisor will check the information and

forward it to the group's administration. After registration you will obtain a 30 Euro contribution for covering printing costs and you may use the research facilities of the group. For further steps and information check the Student's Guidelines for MSc Thesis Research at the ENP Group: <http://www.wageningenur.nl/en/Expertise-Services/Chair-groups/Social-Sciences/Environmental-Policy-Group/Education.htm>

### **Thesis ring**

Since 2015, ENP offers an extra mode of supervision through a Thesis Ring. This is a group of 6 ENP thesis students in various stages of their thesis project that present and discuss their “work-in-progress” with their fellow students. The discussion meetings are scheduled once every two weeks and they are moderated by a PhD student at the ENP group. Every MSc thesis student at ENP will be part of one of the two running Thesis Rings at ENP. By taking part, you are able to present your work at least twice during your thesis project and that you receive feedback from 5 peers. You will be contacted to join a Thesis Ring soon after your registration as ENP thesis student.



**Notes...**