



# Governance of socio-ecological systems: EU policy framework and communication

Fall semester, 2018-2019

Coordinator	<b>Olga Likhacheva</b>
Credits	3 ECTS (optional course), 30 in-class hours
Lecturers	<b>Anton Shkaruba</b> (Erda RTE, The Netherlands / Estonian University of Life Sciences, Estonia) <b>Viktar Kireyeu</b> (Erda RTE, The Netherlands / St.-Petersburg State University, Russia) <b>Attila Katona</b> (Central-European University, Hungary) <b>Olga Likhacheva</b> (Pskov State University, Russia) <b>Tatiana Vasilieva</b> (Pskov State University, Russia)
Level	BSc
Host institution	<b>Pskov State University</b> , Faculty for Natural Sciences, Medical and Psychological Education
Course duration	November 27 – December 8, 2018

## Summary

*This 3 ECTS course serves as an introduction to Jean Monnet module **European Agenda on Nature-Based Solutions and Re-Naturing Cities for Russia**. It provides students coming from natural science backgrounds (and a limited exposure to multidisciplinary environmental studies) with a basic understanding of social aspects of environmental sciences, management and policy, in particular those related to communication and information. In addition, it introduces students to the EU environmental policy framework and institutions of environmental governance. The course includes several group exercises, such a biogeographical seminar role play, and develops such in-hand practical skills as creation of web-based interfaces, and communication strategies targeting specific stakeholder groups.*

## Target student audiences

Last year BSc students in geography and biology (majoring in environmental sciences)

## Prerequisites

Required courses (or equivalents):

- Economic Theory,
- Ecology,
- Spatial Analysis,
- Introduction to Computer Science or Information Technologies,
- Environmental Management,
- Environmental Law.

## Aims and objectives

The main course objective is to introduce the students to relevant policy and governance frameworks of the European Union, to explain how research and innovation are integrated to its development agendas, what is the role of environmental protection and sustainable natural





resource management in the agenda of the European Union, and what policy and management mechanisms are in place to promote them. In particular, the course will discuss relevant policy and management approaches, and in-hand tools that are promoted by EU institutions and recognised as the best practices. We will also discuss the external dimension of EU policies, including relevant MEAs (both ratified by Russia, as e.g. Bern Convention and not-ratified, but having impact on environmental governance in Russia, e.g. Aarhus Convention), EU external funding instruments and political initiatives, e.g. cross-regional and transboundary programs, such as NDEP etc), EU-driven non-governmental initiatives that potentially can be of use for NBS development in Russia, and private governance tools adhering to the principles of the EU natural resource policies (e.g. forest certification schemes).

To support the understanding of relevant tools and mechanisms, and to provide the necessary background to multidisciplinary research inquiry in general, we will also discuss the variety of issues related to the governance of socio-ecological systems (SES) in general, and introduce the concepts of institutions, social justice and environmental conflicts, functions of environmental governance systems, public and private governance, principles of accountability and transparency, multilevel governance. A special attention is given to the governance as participatory process, and to stakeholder identification and communication issues. A part of the course will be constructed as a guide for communicating complex SES issues to both experts and lay audience; we provide knowledge and tools that can be used to reach target audience in a persuasive and effective manner. The course focuses on communication strategies that (i) employ diverse understandings, perspectives, and values, (ii) use technologically advanced interdisciplinary approaches, and (iii) promote joint-learning, cooperation, and sharing of best practices across issues, areas, scales, and sectors in addressing contemporary challenges of SES development.

The explanations are based on the examples from the EU and, where applicable, reflect on options for Russia, in particular for Pskov Region in its transboundary context.

### General learning outcomes:

By the end of the course, successful students will:

- understand governance and policy framework of the European Union and its sustainability objectives and links to global objectives and agendas (e.g. SDGs),
- be aware of EU environmental governance, its actors and institutions,
- be aware of the external dimension of EU environmental and natural resource policies relevant to Russia and NBS development,
- understand policy process and perform its structured analysis, policy transition and innovation, implementation deficits,
- have general understanding of SES and their resilience,
- critically reflect on applicability of EU institutions in the local and broader Russia's contexts,
- be able to identify major stakeholder groups, analyse their stakes and interactions, and to compare stakeholders and their incentive structure in Russia and the EU,
- understand the concept of science-policy interfaces,
- be able to develop a communication strategy targeting a specific stakeholder group, and use this strategy for creating a communication,
- understand the concept of scientific uncertainty, its communication, and its role in decision-making process,





- be aware of the best EU practices of constructing ICT tools for the visualisation of information on the state of environment and/or natural resource management,
- be able to develop interactive web-interfaces supporting a specific cause related to local sustainability.

## Overview of sessions and teaching methods

The course will make most of interactive and self-reflective methods of teaching and learning and, where possible, avoid standing lectures and presentations. It will start with an overview of environmental governance principles and EU institutions, next it will continue with exercise of preparing a communication about the same event, but for various media targeting various audiences, and this will serve a starting point for a discussion on appropriate communication tools, means and strategies for different audiences and themes. Subsequent sessions will combine interactive lecturing, moderated role-play games, and assisted work on individual exercises. The focus will be either on one of the communication streams between key nature resource management players (e.g. from public authorities/politicians to public, from scientists to public authorities etc.), transparency and accountability issues typical for the streams in the EU and Russia, and specific communication/information tools used in different contexts. The third part of the course is built around group case-study assignments: a multi-part project, and an on-line web application addressing a particular issue of transboundary nature resource management.

## Course workload

The table below summarizes course workload distribution:

Activities	Learning outcomes	Assessment	Estimated workload (hours)
<b>In-class activities</b>			
Lectures	Understanding theories, concepts, methodology and tools	Class participation	10
Moderated in-class discussions	Understanding various policy and management contexts and common problems in communication in environmental governance	Class participation and preparedness for discussions	10
In-class assignments	Understanding various policy and management contexts and common problems in communication in environmental governance	Class participation and preparedness for assignments	10
<b>Independent work</b>			
Group work: <ul style="list-style-type: none"> <li>- Contribution to the group case-study projects</li> <li>- Contribution to the preparation and delivery of individual presentation</li> <li>- Contribution to</li> </ul>	Ability to interpret data, to analyze audience, and to use the concepts, tools, and methods for communicating information to NRM participants  Plan and develop a message to nature resource management (NRM)	Quality of group assignments and individual presentations	30





the web-application	participants, be aware of information visualization tools and methods		
Course group assignment	Ability to conceptualize and frame an environmental governance problem, find related literature and data, interpret data, use the concepts, tools and methods covered in the course, and draw policy/management relevant conclusions	Quality of developed ICT tools and their presentation	30
Reading and discussion of assigned papers for seminars and preparation for lectures	Familiarity with and ability to critically and creatively discuss key concepts, tools and methods as presented in the literature	Class participation, creative and active contribution to discussion	18
<b>Total</b>			<b>108</b>

## Grading

The students' performance will be based on the following:

- Level of preparedness for participation in class discussions and seminars (10 %) (from 100 % for active participation and demonstrated familiarity with the course readings to 0 % for completely ignoring in-class discussions);
- Contribution to Biogeographic seminar group assignments (10 %) (from 100% for clearly demonstrated input to 0 % for non-participation);
- Quality of the web application (40%)
  - +20% if done in readable English
  - -20% if done in unreadable Russian
- Quality of communication strategies (40%)
  - +20% if done in comprehensible English
  - -20% if done in incomprehensible Russian

## Course schedule

Day	Time	Topic	Lecturer
November 27, Tuesday	12:30-14:00	- Guide to the course – purpose, objectives, learning outcomes, assignment and grading - Governance of natural resources and socio-ecological systems – why it is interesting and fun - Introduction to EU policy framework and institutions; EU research and innovative agendas and their uptake	Viktar Kireyeu, Olga Likhacheva, Tatiana Vasileva Anton Shkaruba (via videoconferencing)
November 29, Thursday	12:30-14:00	- Habitat and Bird Directives; Natura 2000	Viktar Kireyeu, Olga Likhacheva,
	14:15-15:45	- Biogeographical Seminar game	Viktar Kireyeu, Olga Likhacheva, Tatiana Vasileva
	16:00-17:30	- Biogeographical Seminar game	Viktar Kireyeu, Olga Likhacheva, Tatiana Vasileva
December	12:30-	- Water Framework and Flood Directives	Viktar Kireyeu,





03, Monday	14:00		Olga Likhacheva, Tatiana Vasileva
	14:15- 15:45	- Environmental governance and communication issues; science-policy interfaces; citizen science	Viktar Kireyeu
December 04, Tuesday	12:30- 14:00	- A scientific communication in-class group work assignment – explaining hard science to kids and their grandmas	Viktar Kireyeu, Olga Likhacheva
December 05, Wednesday	10:15- 11:45	- Web interfaces; kicking-in group work following up the biogeographical seminar game	Viktar Kireyeu, Olga Likhacheva
December 06, Thursday	12:30- 14:00	- Development of web interfaces – in-class group work following up the biogeographical seminar game	Viktar Kireyeu
	14:15- 15:45	- Development of web interfaces – in-class group work following up the biogeographical seminar game	Viktar Kireyeu
	16:00- 17:30	- Development of web interfaces – in-class group work following up the biogeographical seminar game	Viktar Kireyeu
December 07, Friday	14:15- 15:45	- Development of communication strategies to local communities – an introduction to environmental governance in Russia, in particular in Pskov Region	Olga Likhacheva, Tatiana Vasileva
	16:00- 17:30	- In-class group work - development of a communication strategy to a local community, following up the biogeographical seminar game and the web-interface group work	Olga Likhacheva, Tatiana Vasileva
December 08, Saturday	10:15- 11:45	- SDGs, their development and delivery	Attila Katona
	12:30- 14:00	- Reports by assignment groups	Viktar Kireyeu, Attila Katona Olga Likhacheva, Tatiana Vasileva

## Course assignments

Course assignments will constitute a multi-part project:

- Assignment #1 (mostly in-class) – a biogeographical seminar suggesting Emerald network sites in the Region of Pskov
- Assignment #2 (mostly in-class) – Development of web-interfaces explaining and promoting Emerald network proposals to key stakeholder groups
- Assignment #3 – Development of communication strategies for local communities, which are potentially affected by proposed Emerald network developments

To complete the assignments the class will be divided into several groups.

**Assignment #1** (led by Viktar Kireyeu) will help students to understand the scope of the problem, rules of the game and understand stakeholder perspectives, and it will also serve as a team-building exercise whereby biology and geography students will have an opportunity to work together for the first time and see each other's strengths. The outcome of the first assignment are proposals for Emerald sites and reflections on possible standpoints of various stakeholder groups as regards the sites, their size, location and legal status (ppts and oral presentations).





**Applicable learning outcomes:**

- understanding of governance and policy framework of the European Union and its sustainability objectives and links to global objectives and agendas (e.g. SDGs),
- awareness of EU environmental governance, its actors and institutions,
- awareness of the external dimension of EU environmental and natural resource policies relevant to Russia.

**Assignment #2** (led by Viktor Kireyev) will require a greater level of self-organised work from students. Partly based on Assignment #1, it is about the development of a web-based tools explaining Emerald Network proposals to key stakeholder groups. This will include collection of spatial data, visuals, statistics, some in-depth stakeholder information, and result in a website providing answers to most common questions regarding Emerald sites, and presenting the network in an attractive form.

**Applicable learning outcomes:**

- understand policy process and perform its structured analysis, policy transition and innovation, implementation deficits,
- understand the concept of science-policy interfaces,
- be aware of the best EU practices of constructing ICT tools for the visualisation of information on the state of environment and/or natural resource management,
- be able to develop interactive web-interfaces supporting a specific cause related to local sustainability.

**Assignment #3** (led by Olga Likhacheva) is based on the previous two. Each of four groups will focus on a specific administrative district that will be (potentially) affected by proposed Emerald sites, and building on the knowledge of local socio-ecological systems and local stakeholder needs and perspectives, it will propose a communication package that would specifically target key stakeholders in the communities and their potential worries, and articulate opportunities that may be brought by new developments. The group work output can be in a form of a web-interface, series of posters or leaflets, a booklet, and so on.

**Applicable learning outcomes:**

- be able to develop a communication strategy targeting a specific stakeholder group, and use this strategy for creating a communication,
- be aware of the best EU practices of constructing ICT tools for the visualisation of information on the state of environment and/or natural resource management.

## Literature

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