



Re-naturing cities: EU experience for Russia

Fall semester, 2018-2019

Coordinator	Anton Shkaruba
Credits	2 ECTS (optional course), 28 in-class hours
Lecturers	Anton Shkaruba (Erda RTE, The Netherlands / Estonian University of Life Sciences, Estonia) Viktar Kireyeu (Erda RTE, The Netherlands / St.-Petersburg State University, Russia) Attila Katona (Central-European University, Hungary) Olga Likhacheva (Pskov State University, Russia) Tatiana Vasilieva (Pskov State University, Russia)
Level	BSc
Host institution	Pskov State University , Faculty for Natural Sciences, Medical and Psychological Education
Course duration	December 10-17, 2018

Summary

*This 2 ECTS course is a part of Jean Monnet module **European Agenda on Nature-Based Solutions and Re-Naturing Cities for Russia**. It focuses on cities, and on management and governance aspects of their resilience through re-naturing. The course refers to the EU policy framework and institutions created for the promotion of nature-based solutions, and also policy, management and technical innovation developed in the EU countries and that can be considered for Russia. The course will specifically explore the legacies of an EU project on the development and promotion of green infrastructure that was recently implemented in Pskov. In their final group course works the participants will analyse its sustainability and options for follow ups.*

Target student audiences

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

Prerequisites

Required courses (or equivalents):

- Governance of socio-ecological systems: EU policy framework and communication
- Economic Theory,
- Ecology,
- Spatial Analysis,
- Introduction to Computer Science or Information Technologies,
- Environmental Management,
- Environmental Law.





Aims and objectives

The course on re-naturing cities addresses the following objectives of the EU Research and Innovation policy agenda for Nature-Based Solutions & Re-Naturing Cities (where they are concerned with urban areas):

- Enhancing sustainable urbanisation
- Restoring degraded ecosystems
- Developing climate change adaptation and mitigation
- Improving risk management and resilience.

With 75% of European citizens living in urban areas, cities are facing great challenges in managing continuous transformation, ensuring the welfare of their inhabitants and safeguarding the natural environment. Several cities in Europe have taken steps to develop innovative approaches for addressing environmental challenges and the impacts of the economic crisis through the use of NBS. The will introduce policy and management aspects of re-naturing in Europe, demonstrating how nature can play a more central role within urban planning and management in the future, taking into account assessing the prospects for protecting biodiversity and supporting ecosystem services in urban areas.

Recognising the progress many EU countries achieved in the development of green infrastructure and promotion of ecosystem services for more resilient cities, the course will discuss the replicability in of the best practices Russia. Another aspect taken up by the course is related to transboundary cooperation opportunities with the EU under its cross-regional cooperation schemes and other funding mechanisms: several funded activities related to promotion and development of urban green in the Region of Pskov have been funded by the EU, and the course will discuss how to make most of their outcomes and how to boost further EU cooperation. Finally, in order to get an in-hand experience with EU NBS policy and management context, the students will be asked to explore the legacies left by relevant EU projects in Pskov.

General learning outcomes:

By the end of the course, successful students will:

- be aware of EU policies in relation to re-naturing cities
- understand the concepts of “green and blue infrastructure”, “living labs”
- critically reflect on the importance of participatory in urban planning and management
- be aware of the key urban sustainability issues in European cities (including urban sprawl), the approaches to their solution (including the sprawl containment) and critically reflect on their applicability in Russia
- understand the policy and management contexts of urban regeneration through nature-based solutions (including the awareness of the specific issues in EU countries and Pskov Region);
- understand the policy and management contexts of nature-based solutions for improving well-being in urban areas (including the awareness of the specific issues in EU countries and Pskov Region);
- be able to develop summaries for policy-makers;
- be able to understand the contents of calls for project proposals and to provide meaningful contribution to the development of a project application.





Overview of sessions and teaching methods

The course will be using interactive and self-reflective methods of teaching and learning and, where possible, avoiding standing lectures and presentations. It will open with an extended introduction to relevant EU policies and issues, and briefly introduction to urban and green infrastructure planning as fields of studies (lectures will be interrupted for quick group discussions aimed to put the specific EU issue or an example from the European spatial and urban planning into the Russian context). The second part of the course will discuss the specific objectives of the EU NBS agenda, usually taking a specific case in the Region as an example, and analysing possible options using case studies in the EU. At the end of this part, an overview of green infrastructure in the city of Pskov (co-funded by the EU) will be offered followed up a discussion, how they can be used to promote NBS. As the third part of the course, the students will be working in groups analysing the legacy of the EU GreenMan project and developing all kinds of mechanisms for promoting the project outputs and ensuring follow-ups.

Course workload

The table below summarizes course workload distribution:

Activities	Learning outcomes	Assessment	Estimated workload (hours)
In-class activities			
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	8
Independent work			
Group work: <ul style="list-style-type: none"> - Contribution to the group case-study projects - Contribution to the preparation and delivery of individual presentation - Contribution to the web-application 	Ability to interpret NRM 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) participants, be aware of information visualization tools and methods	Quality of group assignments and individual presentations	20
Course paper	Ability to conceptualize and frame a environmental governance problem, find related literature and data, interpret data, use the concepts, tools	Quality of paper presentation and the paper	20





	and methods covered in the course, and draw policy/management relevant conclusions		
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	4
Total			72

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 group assignments (10 %) (from 100% for clearly demonstrated input to 0 % for non-participation);
- Quality of group work outputs (50%)
 - +20% if done in readable English
 - -20% if done in unreadable Russian
- Quality of the individual presentations (30%)
 - +20% if done in comprehensible English
 - -20% if done in incomprehensible Russian

Course schedule

Day	Time	Topic	Lecturer
December 10, Monday	12:30-14:00	- Guide to the course – purpose, objectives, learning outcomes, assignment and grading (All) - Nature-based solutions and re-naturing of cities: introduction to the EU policy context (lecture and discussion) (AS)	Anton Shkaruba, Viktor Kireyeu, Olga Likhacheva, Tatiana Vasileva
	14:15-15:45	Ecosystem in cities: ecology, biomonitoring and remediation (lecture) (NP)	Nina Pakharkova
December 11, Tuesday	12:30-14:00	NbS in the context of urbanisation and urban sustainability (AK) Lego game (AK, OL, TV)	Attila Katona, Olga Likhacheva, Tatiana Vasileva
	14:15-15:45	Urban green in Russia: governance framework, policy barriers and enabling conditions (lecture and discussion) (OL, AS)	Anton Shkaruba, Viktor Kireyeu, Olga Likhacheva,
December 12, Wednesday	8:30-10:00	Urban green in Pskov: an overview of the state of green areas and infrastructure, EU projects and insights from Tartu (lecture and discussion) (OL, TV)	Olga Likhacheva, Tatiana Vasileva
	10:15-11:45	An introduction to the course assignment and a kick-off exercise; discussion of group work plans (ALL)	Anton Shkaruba, Attila Katona, Viktor Kireyeu, Olga Likhacheva, Tatiana Vasileva





December 13, Thursday	12:30- 14:00	Supervised project field work	Anton Shkaruba, Attila Katona, Olga Likhacheva, Tatiana Vasileva
	14:15- 15:45	Supervised project field work	Anton Shkaruba, Attila Katona, Olga Likhacheva, Tatiana Vasileva
	16:00- 17:30	Feedback and consultation session (ALL)	Anton Shkaruba, Attila Katona, Olga Likhacheva, Tatiana Vasileva
December 14, Friday	14:15- 15:45	Transition theory and management workshop, stakeholder mapping and analysis, introduction to EU Systems Innovation framework (lecture and discussion) (AK)	Anton Shkaruba, Attila Katona, Olga Likhacheva, Tatiana Vasileva
	16:00- 17:30	Urban transition in Europe – and overview of policy & management challenges and implications for Russia (lecture and discussion) (AS)	Anton Shkaruba, Attila Katona, Olga Likhacheva, Tatiana Vasileva
December 15, Saturday	10:15- 11:45	Feedback and consultation session (ALL)	Anton Shkaruba, Attila Katona, Olga Likhacheva, Tatiana Vasileva
	12:30- 14:00	Feedback and consultation session (ALL)	Anton Shkaruba, Attila Katona, Olga Likhacheva, Tatiana Vasileva
December 17, Monday	12:30- 14:00	Reports by assignment groups (OL, TV)	Olga Likhacheva, Tatiana Vasileva

Course assignment

Led by Olga Likhacheva and Anton Shkaruba

The course assignment will be in a form of supervised group work, most of which will take place in-class (including a day dedicated to research during class hours). Research groups will explore the EU co-funded project *GreenMan* completed several years ago and its legacies. The class will split in 4 groups researching various aspects of *GreenMan*. They will consider appropriate ranges of NbS to develop and promote, and work on the following outputs (one per group):

1. A policy brief summing up the impact of project and policy and options for the maintenance of its outputs
2. Proposals for follow-ups fitting EU INTERREG call objectives, including partner search, outline of deliverables and resources needed to achieve it, partners and their responsibilities
3. Communication strategy for reaching and mobilising citizens, including solutions for monitoring (citizen science) and co-management),
4. A web-based decision support tool (the target audience needs to be identified)





Applicable learning outcomes:

- be aware of EU policies in relation to re-naturing cities
- critically reflect on the importance of participatory in urban planning and management
- understand the policy and management contexts of urban regeneration through nature-based solutions (including the awareness of the specific issues in EU countries and Pskov Region);
- understand the policy and management contexts of nature-based solutions for improving well-being in urban areas (including the awareness of the specific issues in EU countries and Pskov Region);
- be able to develop summaries for policy-makers;
- be able to understand the contents of calls for project proposals and to provide meaningful contribution to the development of a project application.

Literature

- EEA (2015). Exploring nature-based solutions — The role of green infrastructure in mitigating the impacts of weather- and climate change-related natural hazards. Technical report No 12/2015. EEA, Copenhagen.
- Haase, D. (2015). Reflections about blue ecosystem services in cities Sustainability Water Qual. Ecol., 5, pp. 77–83
- Hansen, R., S. Pauleit (2014). From multifunctionality to multiple ecosystem services? A conceptual framework for multifunctionality in green infrastructure planning for urban areas. Ambio, 43, pp. 516–529
- Jones, S., C. Somper (2015). The role of green infrastructure in climate change adaptation in London. Geogr. J., 180, pp. 191–196
- Keune, H., N. Dendoncker, F. Popa, J. Sander, S. Kampelmann, F. Boeraeve, et al. (2015). Emerging ecosystem services governance issues in the Belgium ecosystem services community of practice. Ecosystem Services, 16 (2015), pp. 212–219
- Shkaruba, A., Kireyeu, V., Likhacheva. 2017. Rural-urban peripheries under socioeconomic transitions: changing planning context, lasting legacies, growing pressures, Landscape and Urban Planning, in press, doi:10.1016/j.landurbplan.2016.05.006

