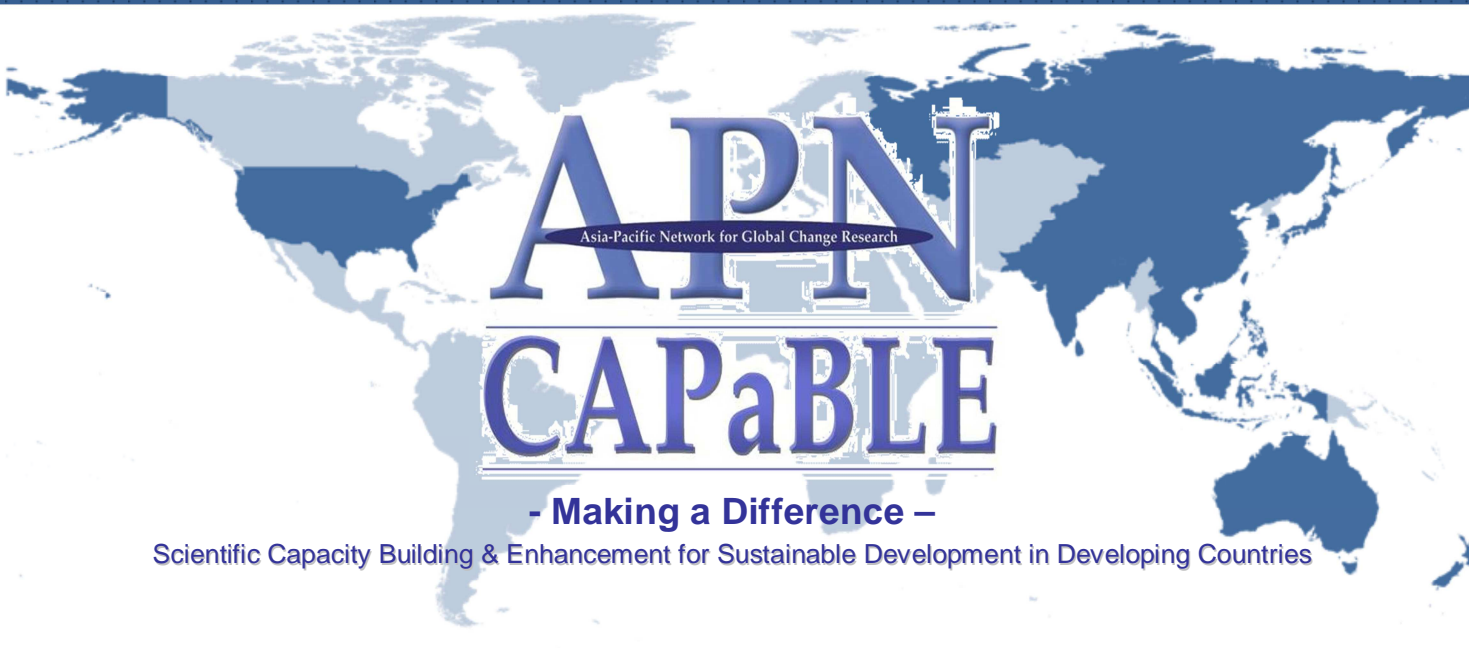


FINAL REPORT for APN PROJECT

Project Reference Number: CBA2013-11NSY-Pakharkova

Scale in Earth System Governance: Local Case Studies and Global Sustainability



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Scale in Earth System Governance: Local Case Studies and Global Sustainability

Project Reference Number: CBA2013-11NSY-Pakharkova
Final Report submitted to APN

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OVERVIEW OF PROJECT WORK AND OUTCOMES

The “Scale in Earth System Governance: Local Case Studies and Global Sustainability” summer school, held at the Siberian Federal University in Krasnoyarsk, Russian Federation from 15 until 29 July 2013, addressed challenges of scale in Earth system governance. It served as means for capacity building, and cross continental network development of early-career researchers from the Asia-Pacific region and Central and Eastern Europe while undertaking research into local sustainability in the city of Krasnoyarsk and the beautiful nature of the Krasnoyarsk region. Participants came from India, Japan, Nepal, Thailand, Russia, Belarus, Ukraine, and South Africa.

Thematic Focus

Scale is an important crosscutting theme in Earth system governance as that is more than a problem of the regulation of the ‘global commons’ through global agreements and conventions. Earth system governance is happening not only at the global level but in a variety of places and at all levels where humans shape their interaction with nature (Biermann et al. 2009).

For research, it is important to identify whether certain findings or hypotheses apply on all scales, or are valid merely for one scale and to what extent scale influences finding. In sustainable development research, there is a strong emphasis on local level studies but often these studies insufficiently address the interactions and cross-scale dynamics and the ‘fit’ of social (governance) to natural scales. Also, valuable approaches like ‘resilience’ and ‘social ecological systems’ recognize a hierarchical spatial organization of governance but developed on local scale, but they struggle with multi-level governance and favour polycentric governance to explain questions of scale.

In addition to such analytical issues of scale, there is also an important additional area for research and capacity building. That is, the politics of scale. Actors like individual politicians, agencies, institutions and mechanisms are contesting and framing scales and levels by shifting issues to between scales and levels to positions which they are most influential or powerful. Such contests can be relatively direct, as in debate or argument, or through use of technologies, controlling resource access and other ways of shaping the arenas of interaction.

Scale, scope, and interdisciplinarity

In terms of geographical scale, the summer school was special: although the school looked at local issue, the geographical scope was far beyond what is usually called “local” – the case studies were spread all over the Krasnoyarsk region with its impressive 3000 km stretch from the Arctic Ocean to Central Asian deserts, and the total area of about half the size of the EU. Although the furthestmost locations were reached only by means of phone and social networks, yet some research groups had to travel up to 650 km to reach their case study locations, and then to do a good deal of mountain hiking to make interviews and get insights into problems in hands.

The thematic scope was rather large too: The case study topics encompassed the whole range of local (in the Siberian sense of the word explained above) sustainability issues: sustainable urban planning in Krasnoyarsk; mini-hydropower facilities in the Krasnoyarsk Region; sustainable tourism and waste management in nature preserves in the Krasnoyarsk Region; human-wildlife conflicts in Southern Siberia; and energy efficiency in housing sector in Krasnoyarsk.

Still uncommon for environmental science research and for solving environmental problems in Russia and elsewhere in former USSR, all the case study research teams explored and applied tools and techniques coming from the broad range of disciplines, trying to achieve a for many participants

new, for others a deepened understanding and experience of interdisciplinarity and even of transdisciplinarity as the core idea of case study research in the summer school was co-design of research projects in collaboration with stakeholders involved into a particular environmental issue. The themes of the case study research thus reflected the interests of the recruited group; the host institution and other organisers but also local stakeholders.

Organization and Structure

The summer school has been organized jointly by the Siberian Federal University, the Central European University, the Russian State Hydrometeorological University, and the Earth System Governance Project, with the support of the Asia-Pacific Network for Global Change Research, the European Commission's Tempus EC project "Environmental Governance for Environmental Curricula" (EnGo), and the Open Society Institute's ReSET programme on "Governance of Global Environmental Change" (ReSET).

The event consisted of the four periods. A four-day introductory period included lectures on theories and research methodology as well as presentations of research designs for the case studies that were undertaken in the following five-day period in the city of Krasnoyarsk, and in the nature reserve Stolby and nature park Ergaki. The third part of two days was for analysis of the data collected in the field and preparation of draft reports which were presented and discussed on the final two days.

The workshop did partly built upon work on sets of case studies developed at a summer school in July 2012 in Lviv and Vorokhta, Ukraine, and a follow-up workshop in September 2012 in Odessa, Ukraine. Both these events have been organized under the umbrella of Tempus EnGo and OSI ReSET projects. The case study materials collected in the earlier events were used for comparisons and discussions of scale issues in similar settings to draw a more comprehensive picture of the problem of scale across global locations. In addition, participants brought case studies and experience from their own localities and context into the design and implementation of the studies in Siberia.

The diversity of case study and research experience from the APN region and outside it had created an interesting synergy: while all the non-Russian APN participants came from social and policy science background, those coming from Russia, Belarus and Ukraine were natural scientists with deep insights and overall familiarity with local environmental issues and Russia's socio-economic and political setup.

Non-technical summary

The "Scale in Earth System Governance: Local Case Studies and Global Sustainability" summer school has been held at the Siberian Federal University in Krasnoyarsk, Russian Federation, from 15 until 29 July 2013. This capacity building event focused on the issue of scale in environmental governance, with a particular emphasis on the issues of local governance and interlinkages of local actors and institutions with existing and emerging national and global environmental regimes. In addition to classes on concepts and theories describing scale issues and their implications on environmental policies and management, the school provided a rich opportunities for practical application. About half of the school's lengths has been devoted to case study research work in thematic groups, including extended field work in the beautiful Siberian nature, and interactions with local practitioners.

Keywords

Scale, Governance, Siberia, Case studies

Objectives

The main objectives of the project were:

- Increasing understanding of early-career researchers of issues of scale as analytical problem of governance for sustainable development, in particular in relation to local level case studies.
- Bringing together a community of researchers working on governance for sustainable development and environmental management in general to jointly learn, stimulate dialogue and initiate new research endeavours.
- Linking existing networks of early-career governance researchers in the Asia- Pacific region with such in central and Eastern Europe, thereby also highlighting Russia as host country that part of both regions.
- Contributing to the crosscutting theme of Scale within the research framework of the Earth System Governance Project.

Amount received and number years supported

The Grant awarded to this project was:

- US\$ 38,000 for Year 1: 2013-2014

Activity undertaken

A 15 day summer-school, with 23 participants, 7 faculty, and 2 co-chairs, was held from 15-29 July 2013 in and around Krasnoyarsk, Russia. The summer school has been organized jointly by the Siberian Federal University, the Central European University, the Russian State Hydrometeorological University, and the Earth System Governance Project, with the support of the Asia-Pacific Network for Global Change Research, the European Commission's Tempus EC project "Environmental Governance for Environmental Curricula" (EnGo), and the Open Society Institute's ReSET programme on "Governance of Global Environmental Change" (ReSET). A set of lectures accompanied substantial and extensive field-work on various aspects of Scale in Earth System Governance: Local Case Studies and Global Sustainability.

Results

The summer-school was very well received by participants and faculty. In addition to stimulating academic discussions and knowledge transfer, the workshop mainly build capacity in real field work. Not only in terms of setting-up a realistic research design, implementing the research, often under challenging circumstances in the field, and analysing resulting data, but also in terms of learning to operate in small teams, dealing with language and cultural barriers, and developing cooperation and networks. Participants and faculty gathered useful information and insights that can serve as basis for future work and reference.

Relevance to the APN Goals, Science Agenda and to Policy Processes

The summer-school succeeded in enhancing collaboration between researchers (both leading scientists and early-career researchers) in the region and between regions (here between the Asia-Pacific region and the Eastern-European / Russian region). It built capacity of early-career researchers to better understand and shape future research on scale in earth system governance with a focus on the local scale and the field work that is an intrinsic part of research on this level. The summer-school offered an opportunity for all participants to create new networks, strengthen

existing connections and develop new ideas that could lead to greater synergies and improved research findings within the research community. The summer-school thus directly addressed APN's goal to support regional cooperation in global change research on issues relevant to the region, and through developing capacity of individual early career researchers the school also contributed to improving the scientific capabilities of nations in the region – and through between regions. The summer-school also succeeded as an important networking opportunity and platform to initiate and combine momentum for new research on governance and scale, and on regional based research under the umbrella of the Earth System Governance Project, hence has been of direct relevance to cooperation with global change networks and organisations.

Self evaluation

The summer-school itself was well structured in different phases to enable well prepared field work and allow for detailed discussions from a variety of disciplinary perspectives; and from a variety of geographical and cultural backgrounds. This showed to be important and fruitful to overcome the general problem that all science is context-bound in the person of the scientist: Bringing together early-career scientists working on specific, very local, case studies with however thematically global importance (urbanization, sustainable tourism, local energy alternatives etc.). Bureaucratic and cultural obstacles as well as language problems did cause the preparation phase to sometimes be sub-par in efficiency and clarity. Another problem turned out to be the scheduling of the event that was constraint by many factors (including budget cycles of partner institutions, space and people availability at the hosting institutions, and communication challenges). These issues however were fully compensated by the truly inspiring and well running of the actual school. Overall, the objectives have been met.

Potential for further work

The potential for further work by the participants as entire group is realistically speaking limited as the funding and research networks that brought them successfully together have different life-cycles (APN providing singular funding, TEMPUS being completed in Spring 2014, and ReSET by summer 2014) and because current political events in Russia and Ukraine are putting many of the established connections and collaboration at risk or at least making them much harder to sustain. There is however a great potential for further work by individual participants – also through the contacts made and trust build during the summer-school.

Publications (please write the complete citation)

This summer-school did not yet produce any publications directly and was not intended to. A set of reports are produced based on the field work and they will feed into ongoing or future research efforts of individual participants and the involved partner organizations.

References

--- none ---

Acknowledgments

We would like to acknowledge the generous funding of the Asia-Pacific Network for Global Change Research, the Open Society Institute (via the ReSET programme on Governance for Global Environmental Change), and the European Commission (through the EMPUS Project on Environmental Governance for Environmental Curricula) that made this workshop possible. We would also like to acknowledge the work of the local staff at the Siberian Federal University for their hard and invaluable work during the workshop.

Preface

The “Scale in Earth System Governance: Local Case Studies and Global Sustainability” summer school has been held at the Siberian Federal University in Krasnoyarsk, Russian Federation, from 15 until 29 July 2013. This capacity building event focused on the issue of scale in environmental governance, with a particular emphasis on the issues of local governance and interlinkages of local actors and institutions. In addition to classes on concepts and theories, about half of the school’s lengths has been devoted to case study research work, including extended field work in the beautiful Siberian nature, and interactions with local practitioners.

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1.0 Introduction

The “Scale in Earth System Governance: Local Case Studies and Global Sustainability” summer school, held at the Siberian Federal University in Krasnoyarsk, Russian Federation from 15 until 29 July 2013, addressed challenges of scale in Earth system governance. It served as means for capacity building, and cross continental network development of early-career researchers from the Asia-Pacific region and Central and Eastern Europe while undertaking research into local sustainability in the city of Krasnoyarsk and the beautiful nature of the Krasnoyarsk region. Participants came from India, Japan, Nepal, Thailand, Russia, Belarus, Ukraine, and South Africa.

Thematic and research strategic embedding

The summer-school topic has been imbedded in the broader research framework of the Earth System Governance Project. The Earth System Governance research alliance advances a research strategy (Biermann et al. 2009; 2010a; 2010b) that is organized around five analytical problems: The problem of the overall architecture of earth system governance, of agency beyond the state and of the state, of the adaptiveness of governance mechanisms and processes and of their accountability and legitimacy, and of modes of allocation and access in earth system governance. These research problems have been identified based on an analysis of the current state of research, of recent theoretical developments, as well as societal demands.

In addition, the research strategy emphasizes four crosscutting themes that are crucial for the study of each analytical problem but also for the integrated understanding of earth system governance: The role of power, knowledge, norms, and scale. The latter being the focus of the summer school and the ‘interface’ between the specific summer-school theme and the larger efforts on earth system governance research being undertaken all over the planet.

Finally, the Earth System Governance research alliance advances the integrated, focused analysis of case study domains in which researchers combine research on the analytical problems and crosscutting themes, and collaborate with the natural sciences.

The Earth System Governance Science and Implementation Plan (Biermann et al. 2009) outlines the research programme in detail and is available in English, Japanese, and Spanish at www.earthsystemgovernance.org.

The workshop was inspired by this analytical framework, in particular the crosscutting theme of **scale**.

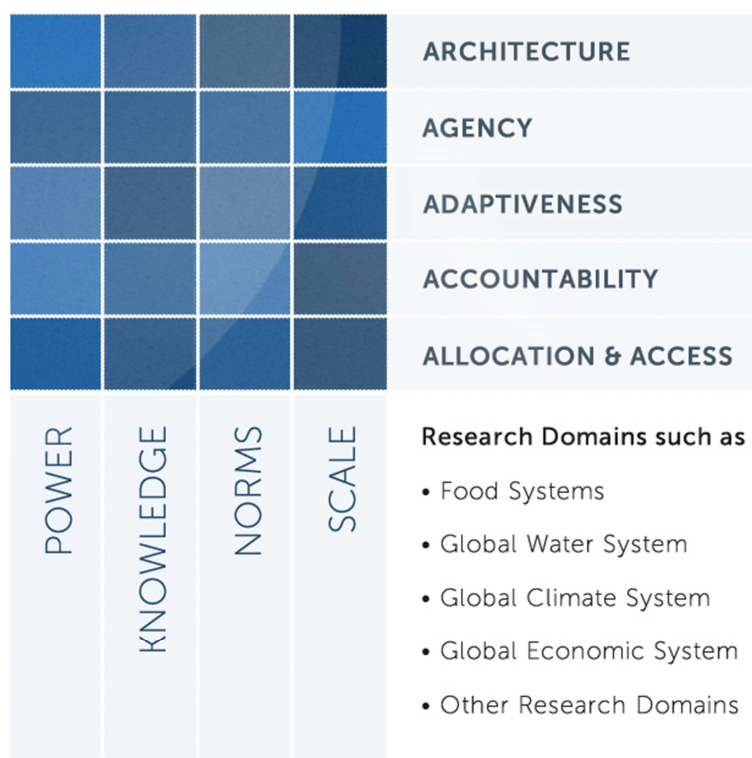


Figure 1: Earth System Governance Research Framework

Most problems of earth system transformation are unprecedented. The adequate policies, polities and, especially, modes of allocation and adaptation are uncertain and contested – and scale is crucial in the analyses and implementation of earth system governance.

Thematic Focus

Scale is an important crosscutting theme in Earth system governance as that is more than a problem of the regulation of the ‘global commons’ through global agreements and conventions. Earth system governance is happening not only at the global level but in a variety of places and at all levels where humans shape their interaction with nature (Biermann et al. 2009).

For research, it is important to identify whether certain findings or hypotheses apply on all scales, or are valid merely for one scale and to what extent scale influences finding. In sustainable development research, there is a strong emphasis on local level studies but often these studies insufficiently address the interactions and cross-scale dynamics and the ‘fit’ of social (governance) to natural scales. Also, valuable approaches like ‘resilience’ and ‘social ecological systems’ recognize a hierarchical spatial organization of governance but developed on local scale, but they struggle with multi-level governance and favour

polycentric governance to explain questions of scale.

In addition to such analytical issues of scale, there is also an important additional area for research and capacity building. That is, the politics of scale. Actors like individual politicians, agencies, institutions and mechanisms are contesting and framing scales and levels by shifting issues to between scales and levels to positions which they are most influential or powerful. Such contests can be relatively direct, as in debate or argument, or through use of technologies, controlling resource access and other ways of shaping the arenas of interaction.

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In terms of geographical scale, the summer school was special: although the school looked at local issue, the geographical scope was far beyond what is usually called “local” – the case studies were spread all over the Krasnoyarsk region with its impressive 3000 km stretch from the Arctic Ocean to Central Asian deserts, and the total area of about half the size of the EU. Although the furthestmost locations were reached only by means of phone and social networks, yet some research groups had to travel up to 650 km to reach their case study locations, and then to do a good deal of mountain hiking to make interviews and get insights into problems in hands.

The thematic scope was rather large too: The case study topics encompassed the whole range of local (in the Siberian sense of the word explained above) sustainability issues: sustainable urban planning in Krasnoyarsk; mini-hydropower facilities in the Krasnoyarsk Region; sustainable tourism and waste management in nature preserves in the Krasnoyarsk Region; human-wildlife conflicts in Southern Siberia; and energy efficiency in housing sector in Krasnoyarsk.

Still uncommon for environmental science research and for solving environmental problems in Russia and elsewhere in former USSR, all the case study research teams explored and applied tools and techniques coming from the broad range of disciplines, trying to achieve a for many participants new, for others a deepened understanding and experience of interdisciplinarity and even of transdisciplinarity as the core idea of case study research in the summer school was co-design of research projects in collaboration with stakeholders involved into a particular environmental issue. The themes of the case study research thus reflected the interests of the recruited group; the host institution and other organisers but also local stakeholders.

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The diversity of case study and research experience from the APN region and outside it had created an interesting synergy: while all the non-Russian APN participants came from social and policy science background, those coming from Russia, Belarus and Ukraine were natural scientists with deep insights and overall familiarity with local environmental issues and Russia's socio-economic and political setup.

2.0 Methodology

2.1. Scheduling of the workshop

Most of research training planned in the Summer School could have been done only in summer time, and therefore based on the availability of organisers and resource faculty, the School was scheduled on July 15-29, 2013. This also offered the participants and trainers (at least to those teaching at universities) the opportunity to incorporate their research findings to their curricula.

2.2. Application and Selection Process

We put out an open call for applications in April 2013 (see Appendix 3). It was distributed widely and was posted in the Earth System Governance Newsletter, on the Earth System Governance Project website, throughout the Earth System Governance project's networks in the region, networks of Siberian Federal University in Russia, the existing TEMPUS EnGo and ReSET communication channels as well as extensively via social media. This call was targeted to participants from the Asia-Pacific region, including Russia, because the participants from Ukraine and Belarus, as well some Russian participants were selected based on their participation in the co-organizing projects.

We received 45 formally correct and complete applications. The applications included an abstract (300-500 words) for a short paper to be presented at the workshop focusing on a specific case-study; and curriculum vitae (with list of publications). These applications were evaluated by the project collaborators first against basic formal criteria. We then closely evaluated each application based on a further set of criteria including the relevance of case study to the question, as well as academic merit, need for capacity building, and 'fit' with workshop themes.

We did specifically aim for a broad distribution of scholars in terms of their country of residence and specific issues of local sustainability they studied. In line with the mandate of the Asia-Pacific Network for Global Change Research, we intended to give priority to applications from developing countries in the Asia-Pacific region. We also targeted participants from Russia and other countries, where Russian language is broad use, with a view of counting on their assistance in case study research that would require a lot of translation from Russian and good understanding of local circumstances.

We accepted applications from (23) participants. Together with 7 trainers and 2 co-chairs, they formed a diverse group coming from Austria (1), Belarus (6), Hungary (4), Germany (1), India (3), Japan (1), Nepal (1), The Netherlands (1), Russia (9), South Africa (1), Spain (1), Thailand (1), and Ukraine (6). While all participants had academic backgrounds in a range of relevant disciplines including ecology, geography, environmental sciences, political science, meteorology, civil engineering, and law, a number of them currently have positions in NGOs, diplomacy or business (see also detailed participant and trainer profiles in appendix 2). This was important because the problem of scale is truly multidisciplinary by its nature and requires an effort from scholars from a variety of backgrounds to be understood and analysed. This diverse composition of the group was very beneficial for an active and constructive discussion and learning not only through lectures by the trainers but also through peer-to-peer interactions and joint research.

The selected participants for support by APN were:

1. PrarashGaudel, Nepal
2. WitchudaSranglam, Thailand
3. Shailendra Kumar Mandala, India

4. Kshitij Bansal, India
5. Hasrat Arjjumend, India
6. Wan-Yu Shih, Japan
7. Kopyljcova Svetlana, Russia
8. Platonova Victoria, Russia
9. Gette Irina, Russia
10. Borisova Irina, Russia
11. Sergeeva Oksana, Russia
12. Savchenko Peter, Russia
13. Shestakova Elena, Russia

The participants funded from other than APN sources were:

14. Kazlouskaya Ina, Belarus
15. Lenevich Oksana, Ukraine
16. Storozhuk Ivanna, Ukraine
17. Blyschyk Daria, Ukraine
18. Dominique Sian Doyle, South Africa
19. Prokopov Grigory, Ukraine
20. Rudyk Oleksandr, Ukraine
21. Kresova Alena, Belarus
22. Shilova Irina, Belarus
23. Skryhan Hanna, Belarus
24. Kuzniatsou Illia, Belarus
25. Filenko Vitaly, Ukraine
26. Kireyeu Vitaly, Hungary
27. Melekh Dzmitry, Belarus

The workshop trainers were:

28. Katharine N. Farrell, Humboldt-Universität zu Berlin, Berlin, Germany
29. Sybille van den Hove, MEDIAN SCP / Universitat Autònoma de Barcelona, Barcelona, Spain
30. Ayşem Mert, VU University Amsterdam, The Netherlands
31. Ruben Mnatsakanian, Central European University, Budapest, Hungary

32. Hans-Peter Nachtnebel, University of Natural Resources and Applied Life Sciences (BOKU), Vienna, Austria
33. LászlóPintér, Central European University, Budapest, Hungary
34. Eduard Podgaisky, Russian State Hydrometeorological University, St.-Petersburg, Russia
35. Anton Shkaruba, Central European University, Budapest, Hungary (academic co-director)
36. EgorZadereev, Siberian Federal University, Krasnoyarsk, Russia

In addition following persons were involved in academic management and organisation:

37. Nina Pakharkova, Siberian Federal University, Krasnoyarsk, Russia – organizing co-director, coordinator of the APN CAPaBLE project at Siberian Federal University
39. Galina Sorokina, Siberian Federal University, Krasnoyarsk, Russia, academic mobility coordinator at the Department
40. Olga Tarasova, Siberian Federal University, Krasnoyarsk, Russia – the course director
41. Ruben Zondervan, Earth System Governance Project/ Lund University, Sweden – academic co-director (*due to scheduling issues not present at the actual summer-school*)

Following the selection procedure, the results were communicated to all applicants and Letters of Invitation were provided to all those requiring assistance with visa applications.

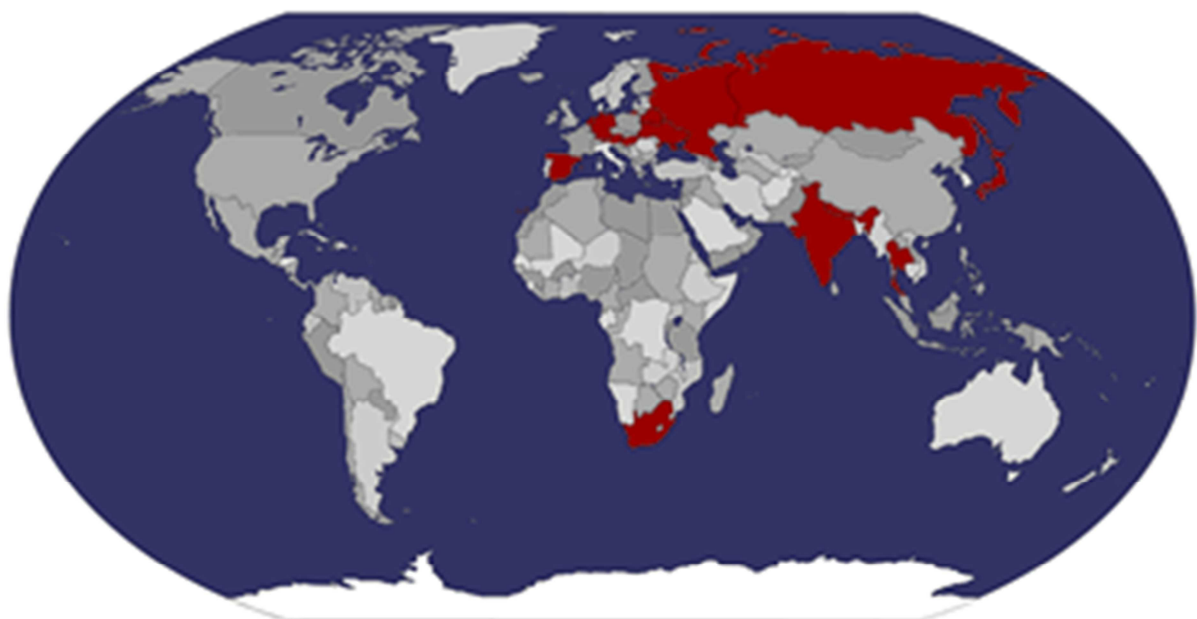


Figure 2: Graphic overview of the diversity in country of residence of participants. Map created with: © worldmapmaker.com

2.3. Preparation Process

Project Activities 2013-2014

Project Activities	Year 1 (2013/2014) (from 15 April 2013 – 15 December 2013)							
	1	2	3	4	5	6	7	8
Project Planning Meeting 1: refining the list of faculty and confirming the final dates	15.04	15.05	15.06	15.07	15.08	15.09		15.03
Publication and circulation of the call for applications								
Circulation of selection results, sending off invitation and visa support letters								
Project Planning Meeting 2: refining the workshop contents and distributing draft programs to the faculty								
Distribution of pre-course assignments and reading								
Distribution of the participant directory								
Workshop in Krasnoyarsk								
Final versions of workshop assignments received								
Final report and project recommendations/dissemination								
APN project & financial reporting								

Figure 2: Project time table

By May 2013, trainers had been secured and a preliminary program prepared. Between May 2013 and July 2013 travel arrangements were made for participants and trainers through the travel agent of Siberian Federal University by the Department of Ecology and Environmental Studies in Siberian Federal University.

Extended abstracts were due one month prior to the workshop. This allowed for all of the abstracts to be distributed to the participants, and trainers ahead of time.

2.4. Workshop Program

The Summer School program (see appendix 1) was built around the three periods:

2.4.1. Introduction and planning

This period was all about introduction to the school. Its aim was to get together, to provide the participants with background in the issue of scale and introduce them to case pre-set studies, and to develop research plans for exploring local case studies. This period started on July 15, and its duration was 5 days. The venue for all the events in the tourist hotel Buzim near Krasnoyarsk.

The get-together part included 5 min presentations by the participants, identification of case study groups, and a team-building role play. It helped to get the participants to know each other, to understand what can be their role in the group, but also allowed for changing the group if the group dynamics felt wrong.

Taught sessions were on different approaches of the issue of scale (including governance, engineering, environmental management perspectives) and, in particular, on its implications for local sustainability and construction of science-policy interfaces. The other focus of this part was on background materials to case studies, e.g. a session on environmental history of Siberia, and an overview of environmental policies in Russia. The pre-set case studies were presented by the participants in charge for their preparation. Although we started with distribution of case study descriptions before the School, and most of the participants placed their choices before they came to Krasnoyarsk, during the first two periods we gave an opportunity to change a case study topic, i.e. a case study group.

July 18-19 were booked for semi-independent group work on case study detailed research plans. Each group had a resource faculty helping with their planning, while other resource persons were available for consultations too. At the end of the 19th all the research plans were presented and discussed on the open plenary.

2.4.2. Case study research

The case studies addressed various issues of local sustainability that could be analysed in the context of the problem of scale in Earth System Governance.

On one hand, researching each case study was a very challenging and ambitious task. We realised that many of the participants did not have any research experience in the region and did not possess commands of Russian, which was, in principle, essential for performing any sort of social science research in Russia. The time frame was also very tough: some of the proposed case study topics did not constitute the core area of the participants' research expertise, and the inception period, in which they were supposed to master the topic and find how to connect it to their own research was, indeed, very short.

On the other hand, we believed that the whole task was perfectly doable, and we had a few reasons for that. More than a half of the group were researchers who could speak Russian and understand local context, and it was one of the groups' tasks to find out how to distribute tasks, and how to build the communication flow, so everyone was involved, the information was shared and the case study research was moving forward. All the groups proved to be very good in this. We also did our best to assemble a good team of experts who could help the participants both with local sustainability issues in question and with how to relate them to the concept of scale. What was even more useful, the research expertise the participants was very diverse – we had people from various natural, social, political science background, many of them were well versed in multidisciplinary research, and apparently knew how to make things running in an international and multi-background team.

This summer school thus not only served as a capacity building event in terms of academic knowledge but also in terms of communication and team-work skills.

The following case study projects have been prepared and run:

1. Sustainable urban planning in Krasnoyarsk – Most of its history the city has been developed according to master plans prepared and implemented in a very top-down manner; this did not prevent it from never-ending transport collapse of nowadays, and from the evil question of many cities – “where to grow?” – large spaces in the city, including the areas next the very downtown are occupied by large industrial facilities, and many of those either extremely difficult to move, or require large investments to ecological remediation; there are other options for brownfield development, but those come with many social and economic problems. Greenfield development is problematic too, because most of the available options involve large infrastructure costs or compromise local or even some of the national nature conservation objectives.
2. Mini hydropower facilities in the region – Few attempts have been made to develop mini hydropower in Siberia that did not work. Research objectives related to the following questions: Is innovation successful and competitive with traditional ways of energy production in remote areas? What are barriers and constraints, and how they can be overcome? What are the possible environmental and social costs and how it compares to conventional ways, how it can be governed?
3. Sustainable tourism and waste management in nature preserves in the region – This topic included case studies in Stolby and Ergaki nature parks and addressed questions like what are the issues, how they can be governed, what are the lessons learned and possible solutions under the growing number of visitors (and with even more growth expected), cross-sectoral issues and interactions, multiple governance layers emerging over the conflict.

4. Human-wildlife conflicts in Southern Siberia—This case study included field-work in the nature parks Stolby and Ergaki looking at issues of poaching, attacks/dangerous presence of predatory species, conflicts over crops and livestock; intersectoral issues, stakes of local communities and regional or federal authorities/public interests, lessons learned and directions for the future.

5. Energy efficiency in housing sector in Krasnoyarsk – Continental climate brings to Krasnoyarsk hot summers and extremely cold winters. This calls for intelligent approaches and appropriate technology to handle warming and cooling in the housing sector. But initiatives in this regard have been slow to develop. Questions for this groups for example included: what are the options for speeding up the process in the city, what are the barriers, constraints and the opportunities, and how the issue is seen and governed at different levels? The whole case study project was implemented in Krasnoyarsk.

2.4.3. Consultations and analysis. Graduation and closure

This period started with a day of scheduled consultations with resource faculty on the 26th and a session by Katherine Farrell on the issue of scale in environmental governance. July 27 was the day for independent work and preparing research reports and presentations. The venue for all the activities was the campus of the Siberian Federal University.

Graduation and closure were planned on July 28. All the case study groups presented on a seminar arranged at the Siberian Federal University. Formal closure and farewell dinner will followed.

2.4.4. Resource faculty

The role of our resource faculty was to give taught sessions, provide input into the development of research plan and to the field and desk research of case study groups:

1. Katharine N. Farrell, Humboldt-Universität zu Berlin, Berlin, Germany – lecture on the complexity and scale in environmental governance, feedback on final presentations
2. Sybille van den Hove, MEDIAN SCP / Universitat Autònoma de Barcelona, Barcelona, Spain – lectures on science-policy interfaces, precautionary principle and biodiversity governance; moderation of the get-together exercise; input to the development of research plans
3. Ayşem Mert, VU University Amsterdam, The Netherlands – lectures on the ontological interpretation of the issue of scale, technologies of scale and sustainability partnerships; input to the development of research plans

4. Ruben Mnatsakanian, Central European University, Budapest, Hungary – lecture on environmental history of Siberia and history of environmental protection in USSR and Russia; input to the development of research plans
5. Hans-Peter Nachtnebel, University of Natural Resources and Applied Life Sciences (BOKU), Vienna, Austria – lectures on environmental management and engineering aspects of scale, on mini-hydropower facilities and their economics; input to the development of research plans
6. LászlóPintér, Central European University, Budapest, Hungary - input to the development of research plans (by skype)
7. Eduard Podgaisky, Russian State Hydrometeorological University, St.-Petersburg, Russia – consultations and supervision of case study groups working on energy efficiency and mini-hydropower; feedback on final presentations
8. Anton Shkaruba, Central European University, Budapest, Hungary – academic supervision of the School, including case study research; input to the development of research plans; feedback on final presentations
9. EgorZadereev, Siberian Federal University, Krasnoyarsk, Russia - consultations and supervision of case study groups working on sustainable urban planning; feedback on final presentations

We are grateful to the resource faculty for their highly relevant contribution that was welcome and appreciated by all participants.

2.4.5. Social and Networking events

As the objectives of the summer-school included “Bringing together a community of researchers working on governance for sustainable development and environmental management in general to jointly learn, stimulate dialogue and initiate new research endeavours” and “Linking existing networks of early-career governance researchers in the Asia- Pacific region with such in central and Eastern Europe, thereby also highlighting Russia as host country that part of both regions”, we have placed emphasis on and provided opportunities for social interaction and network development. In addition to the team-building exercise, this included long, well catered coffee breaks and lunches in a convenient setting at the Hotel “Buzim” and later, after the end of the field research period, in the café “Barcelona”. In addition we have been able to invite all participants to a welcome dinner in “Buzim”, and a farewell dinner at “Barcelona”. We have also arranged a city tour and an excursion to the Krasnoyarsk Hydropower Plant. The highest networking value, however, had brought joint research in case study groups, and joint work on case study report during and after the end of the School.

3.0 Results & Discussion

The Scale in Earth System Governance: Local Case Studies and Global Sustainability brought together a community of researchers working on the various dimensions of local sustainability to jointly learn, discuss research, undertake extensive field-work and build networks for future collaboration.

With the generous support of the Asia-Pacific Network for Global Change Research the summer-school enabled early career researchers from the Asia-Pacific region to participate in an international event together with early-career researchers from other countries supported by the collaborating organizations, and to receive feedback and support from established colleagues and their own peers and the workshop contributed to improved awareness and skills in research and research presentation and first and foremost in undertaking field-work on environmental governance.

4.0 Conclusions

As such, the workshop met the objectives. The workshop was well structured to allow for detailed discussions on a range of topics from a variety of disciplinary perspectives. In addition, the overall setting allowed for good network development between participants and between participants and senior scholars and organisers.

5.0 Future Directions

The field-work, embedded in theoretical lectures and methodology tutoring has resulted in a significantly increased capacity for local environmental governance research by all participants. They have brought home these strengthened skills, the experience from the international and interdisciplinary work during the summer-school and will use this beneficially for the many courses they teach (as most participants are active teachers at universities). In case of the ReSET participants, the findings from the summer-school will, in line with the aims of that programme, also feed into their ongoing efforts to develop new and reform existing curricula in their home institutions and between their home institutions.

Some workshop participants especially from the Asia Pacific region, who generally were more social science oriented than those from the other countries, have become Research Fellows in the Earth System Governance Project and thereby remain engaged in this field of research in a more structural way. This contributes to our conclusion that, despite rather fragmented future directions, this summer-school build well on existing programmes and has evolved from a one-off successful event to the start of many long-term research contacts and networks with a strong (and growing) regional presence in the Asia Pacific.

References

- Biermann, Frank, Michele M. Betsill, Joyeeta Gupta, Norichika Kanie, Louis Lebel, Diana Liverman, Heike Schroeder, and Bernd Siebenhüner, with contributions from Ken Conca, Leila da Costa Ferreira, Bharat Desai, Simon Tay, and Ruben Zondervan. 2009. Earth System Governance: People, Places and the Planet. Science and Implementation Plan of the Earth System Governance Project. *Earth System Governance Report 1, IHDP Report 20*. Bonn, IHDP: The Earth System Governance Project.

Scale in Earth System Governance: Local Case Studies and Global Sustainability

July 15-29, 2013, Krasnoyarsk, Russia

The Schedule

Overview of the School schedule

The School will consist of the four periods:

- Introductory period – introduction to the school, sessions on theories and research methodology, presentations of case study projects,; this period will start on July 15 with a formal School opening and the informal celebration, continue from July 16 to 18 with sessions by our research faculty and with case study presentations and discussions; semi-independent work on case study research plans will follow on July 18-19, and at the end of the day of July 19 the research plans will be presented and discussed. The venue for all the events in the Tourist hotel Buzim near Krasnoyarsk; on the 19th we all will also move to the city Krasnoyarsk, and on the 20th do some sightseeing.
- Field trip period – it will focus on field research in nature reserve Stolby and nature park Ergaki (departure to Stolby on the 21st, and to Ergaki on the night of 20th by a night bus), and also in the city of Krasnoyarsk and its close neighbourhood. All the field research (including interviews and archive search) shall be finished by July 25.
- Consultations and analysis – this period will start with a day of scheduled consultations with resource faculty on the 26th and a session by Katherine Farrell on the issue of scale in environmental governance. July 27 is the day for independent work and preparing research reports and presentations. The venue for all the activities is the campus of the Siberian Federal University.
- Graduation and closure – this is planned for July 28. All the case study groups will present on seminar arranged at the Siberian Federal University. Formal closure and farewell dinner will follow. The day of departures is July 29 (except the ReSET group departing on July 30).

The detail schedule

July 15, Monday

Arrivals, checking in (Tourist Hotel “Buzim”), independent preparations to the wrapping up session

18.00-19.00: Formal opening and presentation of the Spring School and workshop, introduction of the faculty (*all the faculty*)

Starting 19.00: Ice breaker dinner

July 16, Tuesday

10.00-11.40: Presentations by the participants (*the faculty, participants*)

11.40-12.00: Coffee break

12.00-13.00: Presentations by the participants (*the faculty, participants*)

13.00-14.00: Lunch break and space for informal interactions

14.00-15.30: Environmental protection in fUSSR and Russia – an overview and lessons not learned (*Ruben Mnatsakanian*)

15.30-16.00: Coffee break

16.00-18.00: Intro to the issue of scale in environmental governance; Technologies of scale: From Schumacher to current practice (*Ayşem Mert*)

18.30: Dinner

July17, Wednesday

10.00-11.40: Mini-hydropower facilities – technology, environmental and social costs (*Hans-Peter Nachtnebel*)

11.40-12.00: Coffee break

12.00-13.00: Sustainability partnerships – issues of scale (*Ayşem Mert*)

13.00-14.00: Lunch break and space for informal interactions

14.00-15.30: Urban morphology and a Soviet city (*Anton Shkaruba*)

15.30-16.00: Coffee break

16.00-16.40: Case study presentations and discussion– Sustainable Urban Planning

16.40-17.20: Case study presentations and discussion– Wildlife-Human Conflicts

17.20-18.00: Case study presentations and discussion– Renewable Energy

18.30: Dinner

July18, Thursday

10.00-10.40: Case study presentations and discussion– Waste Management

10.40-11.20: Finalising case study choices, preliminary consultations

11.20-11.40: Coffee break

12.00-13.00: Case study research in environmental governance – setting objectives and achieving them (*Sybille van den Hove*)

13.00-14.00: Lunch break and space for informal interactions

14.00-15.00: Case study research in environmental governance – setting objectives and achieving them (*Sybille van den Hove*)

15.00-16.00: Independent work on research plans, consultations

16.00-16.20: Coffee break

16.20-18.20: Independent work on research plans, consultations

18.30: Dinner

July19, Friday

9.00-11.20: Independent work on research plans, consultations

11.20-11.40: Coffee break

11.40-13.00: Independent work on research plans, consultations

13.00-14.00: Lunch break and space for informal interactions

14.00-15.40: Presentations of research plans (Urban Planning, WLH conflicts)

15.40-16.00: Coffee break

16.00-17.00: Presentations of research plans (Waste Management, Renewable Energy, Mini-Hydropower)

17.00-18.00: Additional consultations, acting on the feedback received

18.30: Departure for Krasnoyarsk

19.30: Dinner

July20, Saturday

An excursion (more details will be available later)

July21-25

Field research period (see the overview above)

July26-27

In-city research

July 26, 15.00-16.30: Complexity, scale and environmental governance – conceptual wrap-up
(*Katharine N. Farrell*)

July 26, 16.30-17.30: Scheduled consultations with the school faculty

July28, Sunday

9.00-11.40: Independent work on presentations, consultations

11.40-12.00: Coffee break

12.00-13.00: Presentation of findings: Renewable Energy, Waste Management

13.00-14.00: Lunch break and space for informal interactions

14.00-15.30: Presentations of findings: WLH conflicts, Urban Planning, Mini-Hydropower

15.30-16.00: Coffee break

16.00-16.30: Wrapping up and closure

17.00-19.00: City tour

19.30: Graduation Dinner

July29, Monday

Departures of APN participants

Program for the ReSET group only (9.00-15.30; to be announced later)

July30, Sunday

Departures of ReSET participants

Case studies

1. **Sustainable urban planning in Krasnoyarsk** – most of its history the city has been developed according to master plans prepared and implemented in a very top-down manner; this did not prevent it from never-ending transport collapse of nowadays, and from the evil question of many cities – “where to grow?” – large spaces in the city, including the areas next the very downtown are occupied by large industrial facilities, and many of those either extremely difficult to move, or require large investments to ecological remediation; there are other options for brownfield development, but those come with many social and economic problems. Greenfield development is problematic too, because most of the available options involve large infrastructure costs or compromise local or even some of the national nature conservation objectives. The case study research can focus on the comparative analysis of brownfield and greenfield development as strategies for city growth; analysis of options, potential of remediation and rehabilitation techniques for polluted formerly industrial and disposal areas, infrastructure development on remote greenfields, regeneration of the downtown area and old residential areas, locations for new industrial facilities, land-use conflicts and problems of communication, governance of urban forests and other open spaces etc.
2. **Mini hydropower facilities in the region**—few attempts have been made to develop mini hydropower in Siberia that did not work. Possible research objectives can be related to the following questions: Is innovation successful and competitive with traditional ways of energy production in remote areas? What are barriers and constraints, and how they can be overcome? What are the possible environmental and social costs and how it compares to conventional ways, how it can be governed? The field work will be done in Krasnoyarsk and nature Park Ergaki (1-2 persons); other field trip destinations around Krasnoyarsk are considered too.
3. **Sustainable tourism and waste management in nature preserves** in the region – that would include case studies in Stolby* and Ergaki** nature parks; what are the issues, how they can be governed, what are the lessons learned and possible solutions under the growing number of visitors (and with even more growth expected), cross-sectoral issues and interactions, multiple governance layers emerging over the conflict.
4. **Human-wildlife conflicts in Southern Siberia** - case studies in nature parks Stolby* and Ergaki**; issues of poaching, attacks/dangerous presence of predatory species, conflicts over crops and livestock; intersectoral issues, stakes of local communities and regional or federal authorities/public interests, lessons learned and directions for the future.
5. **Energy efficiency in housing sector** in Krasnoyarsk –continental climate brings to Krasnoyarsk hot summers and extremely cold winters; why the initiatives are so slow to develop, what are the options for speeding up the process in the city, what are the barriers, constraints and the opportunities, and how the issue is seen and governed at different levels. The whole case study project is planned in Krasnoyarsk, although other towns in the neighborhood can be considered too.

Faculty:

Katharine N. Farrell, Humboldt-Universität zu Berlin, Berlin, Germany

Sybille van den Hove, MEDIAN SCP/ Universitat Autònoma de Barcelona, Barcelona, Spain

Ayşem Mert, VU University Amsterdam, The Netherlands

Ruben Mnatsakanian, Central European University, Budapest, Hungary

Hans-Peter Nachtnebel, University of Natural Resources and Applied Life Sciences (BOKU), Vienna, Austria

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Galina Sorokina, Siberian Federal University, Krasnoyarsk, Russia;

Olga Tarasova, Siberian Federal University, Krasnoyarsk, Russia – *the course director, focal point for the EC Tempus project “Environmental Governance for Environmental Curricula” at Siberian Federal University*

Egor Zadereev, Siberian Federal University, Krasnoyarsk, Russia

Ruben Zondervan, Earth System Governance Project/ Lund University, Sweden– *academic co-director*

Scale in Earth System Governance: Local Case Studies and Global Sustainability

July 15-29, 2013, Krasnoyarsk, Russia

Introduction, case studies and practical details

Introduction

Welcome to Krasnoyarsk! If you look at the map of Asia, you would see that the city is situated right in the centre of this enormous continent, in the upper reaches of the great River of Yenisei. For centuries the city was an outpost of Russian and then Soviet colonisation of Siberia; in early 18th century it became a major logistical centre, where the great road from European Russia to Far East crossed the river of Yenisei, and due to the rapid growth and prosperity that followed, in 1822 it also became the main administrative centre of the whole Eastern Siberia – the function Krasnoyarsk proudly serves since then. In 2013 the population of the city reached one million people, which is a big figure for Russia, and in particular for such a sparsely populated region as Siberia. The city is a major industrial centre, especially for all kinds of industries related to the defence and space, and it is also a home to great many research institutes and universities, including the most important of them, the Siberian Federal University, which is the host of our 2013 summer school.

You are welcome browse web sites of the University (<http://www.sfu-kras.ru/en>) and the city of Krasnoyarsk (<http://www.admkrsk.ru/sites/eng/pages/default.aspx>) for more information about the city and the university, while in this leaflet we will find more details about the school and the check list of things to bring with you.

Accommodation

Your accommodation will be arranged by the summer school, both during the on-campus and field research periods; we will mostly offer twin rooms. All the participants will stay 15-19 July in the holiday center Buzim (60 km from Krasnoyarsk)

<http://turizm.ngs24.ru/local/objects/996/?fr=54> – a tourist hotel by a beautiful forest late, and then (20-29 July) in the Dormitory of Siberian Federal University (<http://photo.sfu-kras.ru/node/1079>) or/and at the locations of field trips (depending on case study groups). If you are going to join one of the case study groups, then please make sure that you have carefully examined the check list; please also observe that the living conditions in the Ergaki nature park can be on a harsher side, so if you have certain disabilities that prevent you from going afield, or have no experience with using simple accommodation options in forests or mountains, then this trip is better to be avoided.

Local transportation and meals

All local transportation will be arranged by the organisers. This includes airport transfers, and travel to and from field research and excursion locations. If you will need to travel on your own, there is a broad range of options available at a reasonable price. To enjoy these transportation options however, basic Russian speaking and understanding is useful (or at

least ability to read), so the closer you socialise with your Russian schoolmates, the more good it brings to you!

Likewise, we arrange your meals. The standard meal package will include three hot meals a day (regular Russian mensa food) and on top of this two coffee breaks during the introductory and wrapping up sessions. During the field trip period your meals will be arranged by yourself if you travel to nature parks (the organisers will provide tourist food) or partly by yourself (grocery bills paid within a certain allowance; cooking facilities available at your residence – try to make good friends with Belarusian, Russian and Ukrainian girls in the group – usually they are kind and cook well!) and breakfasts by the organisers. Please, let us know if you have any diet preferences or limitations; we will take note of them and do our best to consider them in our planning.

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- Field trip period – it will focus on field research in nature parks Stolby and Ergaki (departure to Stolby on the 21st, and to Ergaki on the night of 20th by a night train), and also in the city of Krasnoyarsk and its close neighbourhood. All the field research (including interviews and archive search) shall be finished by July 25.
- Consultations and analysis – this period will start with a day of scheduled consultations with resource faculty on the 26th and a session by Katherine Farrell on the issue of scale in environmental governance. July 27 is the day for independent work and preparing research reports and presentations. The venue for all the activities is the campus of the Siberian Federal University.
- Graduation and closure – this is planned for July 28. All the case study groups will present on seminar arranged at the Siberian Federal University. Formal closure and farewell dinner will follow. The day of departures is July 29 (except the ReSET group departing on July 30).

Case studies

For the summer school in Krasnoyarsk we have prepared a few case studies addressing various issues of local sustainability that can be analysed in the context of the problem of scale in Earth System Governance. Your task, therefore, will be to identify research objectives related to the school theme, to design a research plan, to undertake field research, to report the first findings by the end of the school, and to complete your research papers based on your own data and Krasnoyarsk materials until April 2014.

On one hand, this is a very challenging and ambitious task. We realise that many of you do not have any research experience in the region and do not possess even basic commands of Russian, which is, in principle, essential for performing any sort of social science research in Russia. The time frame is also very tough: for some of the proposed case study topics do not constitute the core area of your research expertise, and the inception period, in which you are supposed to master the topic and find how to connect it to your own research is,

indeed, very short. On the other hand, we still believe that the whole enterprise is doable. More than a half of the group are researchers who can speak Russian and understand local context, and you for sure will find out how to distribute tasks in your case study research groups, and how to build the communication flow, so everyone is involved, the information is shared and your case study research is moving forward. We also did our best to assemble a good team of experts who might be able to help you both with local sustainability issues in question and with how to relate them to the concept of scale. What should be even more useful, the research expertise of you, our participants is very diverse – we have people from various natural, social, political science background, many of you are well versed in multidisciplinary research, and apparently know how to make things running in an international and multi-background team. This summer school thus will not only serve as a capacity building event in terms of academic knowledge but also in terms of communication and team-work skills.

We will offer the following case study projects:

1. **Sustainable urban planning in Krasnoyarsk** – most of its history the city has been developed according to master plans prepared and implemented in a very top-down manner; this did not prevent it from never-ending transport collapse of nowadays, and from the evil question of many cities – “where to grow?” – large spaces in the city, including the areas next the very downtown are occupied by large industrial facilities, and many of those either extremely difficult to move, or require large investments to ecological remediation; there are other options for brownfield development, but those come with many social and economic problems. Greenfield development is problematic too, because most of the available options involve large infrastructure costs or compromise local or even some of the national nature conservation objectives. The case study research can focus on the comparative analysis of brownfield and greenfield development as strategies for city growth; analysis of options, potential of remediation and rehabilitation techniques for polluted formerly industrial and disposal areas, infrastructure development on remote greenfields, regeneration of the downtown area and old residential areas, locations for new industrial facilities, land-use conflicts and problems of communication, governance of urban forests and other open spaces etc.
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at different levels. The whole case study project is planned in Krasnoyarsk, although other towns in the neighborhood can be considered too.

Please, choose your preferred case study option and notify us (anton@mespom.eu, cc shestackov@yandex.ru, ruben.zondervan@esg.lu.se) by July 1, 2013. You will have an opportunity to switch to a different case study after the case study presentation session in Krasnoyarsk and after consultations with our faculty, invited experts and other group members. We, however, would prefer to keep this at limited scale, because some of the case studies involve considerable organisational effort, and therefore we need to know in advance who is going where. You are also welcome to ask additional information and ask questions; please send your inquiries to anton@mespom.eu, cc shestackov@yandex.ru. Please also let us know, if you are interested to be involved in co-designing the case studies – the process is still underway, and most of it is done by our Russian-speaking school participants. If you are willing to help, they would be most happy to start the joint work straight away.

**Stolby nature reserve <http://www.stolby.ru/eng/> is one of the oldest protected areas in Russia with recently renewed infrastructure. The reserve has long history of tourism and researches in the field of biodiversity conservation. It is located on the boarder of Krasnoyarsk <http://whc.unesco.org/en/tentativelists/5113>. The Stolby research group will make field trips to recreation and buffer zones and stay for three nights in a log cabin in the part of PA famed for its landmarks.*

***Ergaki Nature Park was founded in 2005. Its territory belongs to Altai- Sayan Ecoregion reputed for its diversity, problems and collaborative projects. Ergaki Nature Park is located in the south-west of Krasnoyarsk kray (<http://www.krskstate.ru/eng/>) 620 kmsouth from Krasnoyarsk. The research group will get to the destination by an overnight train and a bus and will spend three days in the wilderness in a mountain lodge. <http://www.altai-sayan.com/eng/index.php> ; http://www.altai-sayan.com/about/press/Newsletter_ASE_2008.pdf*

The Checklist

Please examine this checklist carefully and ask us if you have any questions or doubts. Of course, most of the items from the list can be arranged in Krasnoyarsk too, however please observe that we are not going to have awfully a lot of time between the introductory part and the field period, and that these things are needed to be arranged at a certain point anyway. The items marked with *** are required only in case you are travelling to Ergaki, although you might be able to make use of them in any case.

Basics

- A rucksack*** or a soft travel bag,
- A daypack***
- A sleeping bag***
- Isomat***
- A warm (fleece) hat
- A cap or a hat to protect from the sun
- Sun glasses (minimum index 3 or 4 for high mountain)
- Thermal top and bottom, short and long) underwear ((for cold-weather).

- T-shirts (at least 3)
- Long sleeved shirt (at least 2)
- A warm fleece jacket (light weight/well insulated)
- Down/Synthetic Jacket (for cold-weather)
- A pair of gloves
- A waterproof windbreaker / rain poncho
- Lightweight hiking long pants
- Shorts (or zip-off pants so can have a pair of shorts as well)
- Fleece Pants***
- Jeans (at least one pair)
- Swimwear

Miscellaneous

- Headlamp/Flashlight***
- A pair of telescopic walking poles (optional)***
- Repellent
- Sun screen
- Hygiene kit + towel
- Toilet paper
- A pocket knife
- Mug, plate, spoon (*can be borrowed in Krasnoyarsk*)
- First-aid kit (medicines necessary for you individually. Basic one will be arranged by organizers)
- Notebook, pen
- Camera
- Set of batteries for your flashlight /camera
- Set of documents (passport, insurance policy) and their copies

Footwear

- Runners
- Waterproof boots, convenient for hiking in mountains and runners (or rubber boots+runners)***
- Sandals or flip-flops
- Wool Socks (at least one pair)***
- Liner Socks (at least 2-3 pairs)
- Gaiters (optional)***

Faculty:

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Your contacts:

Nina Pakharkova, focal point for the APN project at the Siberian Federal University; issues involving APN funding, nina.pakharkova@yandex.ru

Elena Shestakova, the local event manager; all the practical issues, visas, specific enquiries concerning the field trips, accommodation, your travel arrangements etc, shestakov@yandex.ru

Anton Shkaruba, focal point for Central European University, ReSET and Tempus EnGo projects; issues concerning the academic planning case study development, resource faculty, anton@mespom.eu

Egor Zadereev, local organizer of case study research; issues related to local data, people and problems, egzadereev@gmail.com

Ruben Zondervan, focal point for the Earth System Governance and ReSET Projects; issues related to academic planning, serious APN-related issues (e.g. late declines and cancellations), ruben.zondervan@esg.lu.se

Appendix3 – Call for Applications

Siberian Federal University, Central European University, Russian State Hydrometeorological University, Earth System Governance Global Research Alliance with support of Tempus EC “Environmental Governance for Environmental Curricula”, OSI ReSET “Governance of Global Environmental Change” and Asia-Pacific Network CAPaBLE program

announce the summer school:

Scale in Earth System Governance: Local Case Studies and Global Sustainability

July 15-29, 2013, Krasnoyarsk, Russia

The Summer School will focus on the issue of scale in environmental governance, with a particular emphasis on the issues of local governance and interlinkages of local actors and institutions with existing and emerging national and global environmental regimes. In addition to classes on concepts and theories describing scale issues and their implications on environmental policies and management, the School will provide rich opportunities for practical application – about a half of the School lengths will be devoted to supervised case study research work in thematic groups, including field work in the beautiful Siberian nature.

Course directors:

Olga Tarasova, Siberian Federal University, Krasnoyarsk, Russia – *the director*

Anton Shkaruba, Central European University, Budapest, Hungary – *academic co-director*

Ruben Zondervan, Earth System Governance Project/ Lund University, Sweden – *academic co-director*

Faculty (tbc):

Katharine Farrell, Humboldt-Universität zu Berlin, Berlin, Germany

Sybille van den Hove, MEDIAN SCP/ Universitat Autònoma de Barcelona, Barcelona, Spain

Ruben Mnatsakanian, Central European University, Budapest, Hungary

Hans-Peter Nachtnebel, University of Natural Resources and Applied Life Sciences (BOKU), Vienna, Austria

Ckees van Oijen, IVAM Universiteit van Amsterdam bv., Amsterdam, The Netherlands

László Pintér, Central European University, Budapest, Hungary

Eduard Podgaisky, Russian State Hydrometeorological University, St.-Petersburg, Russia

Egor Zadereev, Siberian Federal University, Krasnoyarsk, Russia

Theoretical foundations

Earth system governance is more than a problem of the regulation of the 'global commons' through global agreements and conventions. It is happening not only at the global level but in a variety of places and at all levels where humans shape their interaction with nature.

For research, it is important to identify whether certain findings or hypotheses apply on all scales, or are valid merely for one scale and to what extent scale influences finding. 'Scale' can be defined as the spatial, temporal, quantitative, or analytical dimensions used to measure or rank any phenomenon. 'Level' is the unit of analysis located at different positions on a scale. In sustainable development research, there is a strong emphasis on local level studies but often these studies insufficiently address the interactions and cross-scale dynamics and the 'fit' of social (governance) to natural scales. Also, valuable approaches like 'resilience' and 'social ecological systems' (SES) recognize a hierarchical spatial organization of governance but developed on local scale, they struggle with multi-level governance and favour polycentric governance to explain questions of scale.

In addition to such rather analytical issues of scale, there is also an important additional area for research and capacity building. That is, the politics of scale. Actors like individual politicians, agencies, institutions and mechanisms are contesting and framing scales and levels by shifting issues to between scales and levels to positions which they are most influential or powerful. Such contests can be relatively direct, as in debate or argument, or through use of technologies, controlling resource access and other ways of shaping the arenas of interaction.

Schooldesign and themes:

Being centered around the main problem of scale, the School sessions will look at issues of local sustainability, which are particularly relevant for the School location, the *Krasnoyarsk Krai* of Russia. These include forestry and land-use, urban sprawl and physical planning, sustainable tourism, biodiversity conservation, access to water supply and sanitation, local strategies for adaptation and adaptive management.

The School will include the three core components: (1) introduction to the issue of scale, conceptual approaches and tools for its interpretation and analysis as well as sessions on the local issues of sustainability; (2) a short field research period (6 days) by groups consisting of at least one participant from Russia or other Eastern European country, with fluent Russian and understanding of local context, so non-Russian speaker will be fully capable to contribute to case study research, (3) discussion of case study materials from scale-related perspectives, their integration and presentation.

Themes of the case study research will reflect the interests of the recruited group; the organisers will be prepared to offer case studies focusing on biodiversity conservation, local energy production, waste management, water management and water supply, urban sprawl, while other topics can be considered as well in case of a strong interest from proposing groups and sufficient capacity of organisers to provide guidance, contacts and materials.

Workshop aims to help early career researchers:

- Increase their understanding of the implications of analytical and normative uncertainties associated with the problem of scale in environmental governance, in particular its manifestations at local level;
- Strengthen and expand their network with other early career researchers as well as more established experts in the Asia-Pacific region and beyond, especially networking ties with Russia and other countries of the former USSR.
- To get in-hand skills in case study research, and to collect comparative data from the Siberian context for research papers and curricula.

Who should apply?

The workshop will include three groups of participants:

1. Early-career researchers affiliated with ReSET or Tempus projects (by invitation, funded according to applicable ReSET or Tempus rules)
2. Early-career researchers from the APN region¹ (by open call in competitive selection process, funded by APN)
3. Self-funded (local) researchers as observers (by open call in competitive selection process).

The course participants shall meet the following criteria:

- hold a positions at a university, research centre, consultancy, a research-oriented NGO or an international organisation;
- have an MSc / MA or PhD degree or equivalent, preferably in multidisciplinary environmental or social sciences;
- have demonstrable experience in research, curriculum development;
- demonstrate good communication skills.

The language of instruction is English, thus all applicants have to demonstrate a strong command of spoken and written English to be able to participate in the program.

Application Process

Participants in the early-career APN group will be selected through a competitive call process based on a submitted abstract and CV. Preference will be given to candidates from developing countries in the APN region if equally qualified.

To apply, please submit the following (in word-format):

- An abstract (200-300 words) for a short paper to be presented at the workshop;
- A curriculum vitae (with list of publications).

Applications should be send electronically to the International Project Office of the Earth System Governance Project (ipo@earthsystemgovernance.org).

The organizers expect to be able to provide funding for up to 20 early-career participants from the APN region, covering travel expenses, accommodation and full catering. Logistical support will be provided for travel arrangements and visa applications.

Selected participants will need to write a short paper (1000-2000 words) about a scale issue in environmental governance in their region, prior to attending the School and to make a brief presentation on their papers at the School. Participants are encouraged to base their papers on their own research as far as possible but also to review relevant work as needed.

Deadline for applications is 25May 2013

The School venue

¹APN member countries are Australia, Bangladesh, Bhutan, Cambodia, China, Fiji, India, Indonesia, Japan, Lao People's Democratic Republic, Malaysia, Mongolia, Nepal, New Zealand, Pakistan, Philippines, Republic of Korea, Russian Federation, Sri Lanka, Thailand, United States of America, and Viet Nam. Residents of the Pacific Island States and Singapore are also eligible.

The venues for most sessions are at the campus of Siberian Federal University (SFU, <http://www.sfu-kras.ru/en>) on the green outskirts of Krasnoyarsk, and in the “Stolby” National Nature Reserve famous for its geology and biodiversity.

SFU's main building has been recently renovated and has high quality facilities and technology. During the school the participants will have access to SFU's library, printing/photocopying facilities, e-resources and campus-wide wireless network. Accommodating will be provided at SFU Dormitories.

Organising committee:

Nina Pakharkova, Siberian Federal University, Krasnoyarsk, Russia – *organizing co-director, focal point for the APN CAPaBLE project at Siberian Federal University*

Eduard Podgaisky, Russian State Hydrometeorological University, St.-Petersburg, Russia, *organizing co-director, focal point for the OSI ReSET project “Governance of Global Environmental Change”*

Anton Shkaruba, Central European University, Budapest, Hungary – *academic co-director*

Galina Sorokina, Siberian Federal University, Krasnoyarsk, Russia

Olga Tarasova, Siberian Federal University, Krasnoyarsk, Russia – *the course director, focal point for the EC Tempus project “Environmental Governance for Environmental Curricula” at Siberian Federal University*

Ruben Zondervan, Earth System Governance Project/ Lund University, Sweden – *academic co-director*

Appendix 4 – Draft Reports of Case-Study Groups