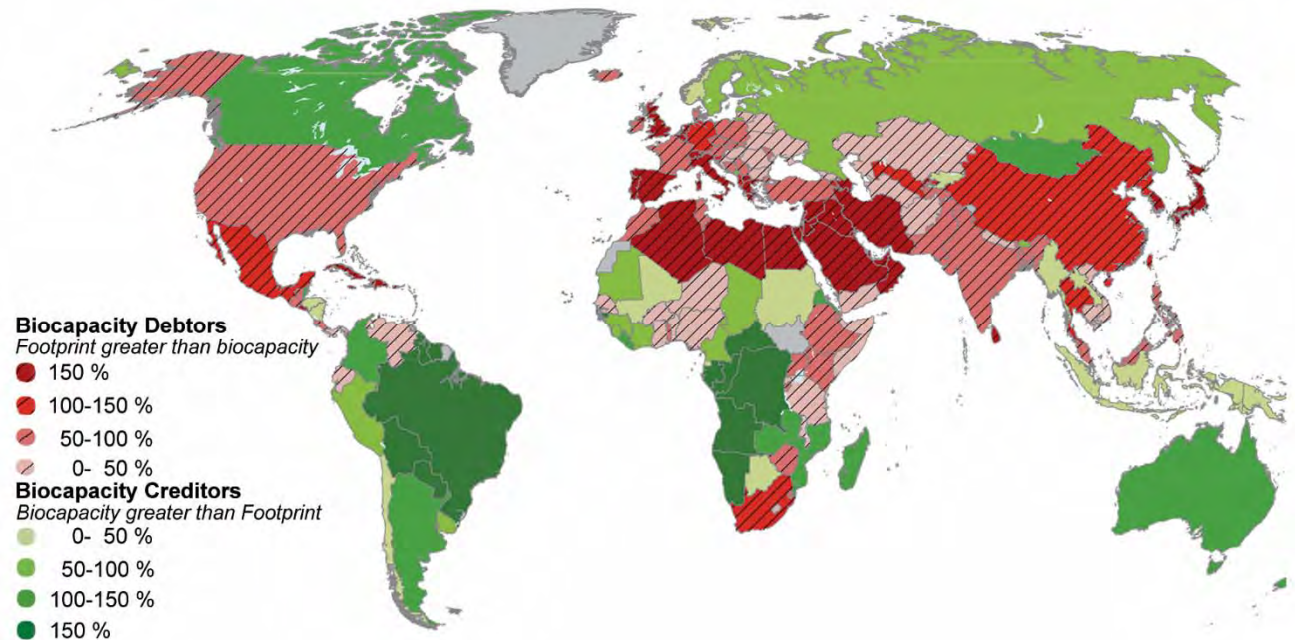


# International Conference on Natural Capital, Ecosystem Services and Biodiversity

Moscow, 19-20 November 2019

Welcome and introduction by Karsten Grunewald (IÖR) and Alexey Zimenko (BCC)

**РОССИЯ.**  
**СТРАНА**  
**ВОЗМОЖНОСТЕЙ.**



Ökologischer Fußabdruck und durchschnittliche globale Biokapazität, 2008  
(Quelle: Global Footprint Network 2011: Annual Report 2011)

*Экологический след и средняя глобальная биологическая емкость,*



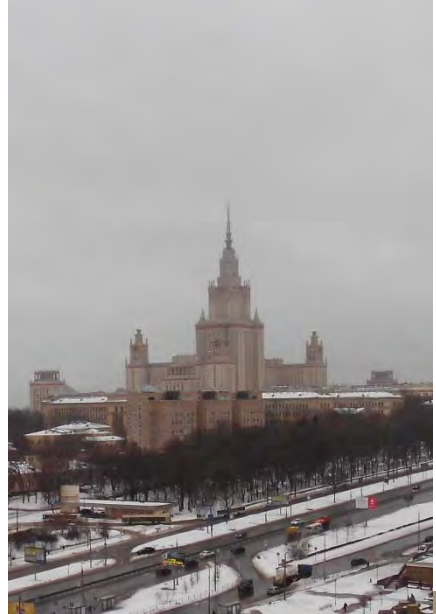
## Gorno-Altaiisk 2012



# Moskau 9-2012

Chamber of Commerce





Moskau 12-2012  
University hotel, 13th floor



## Sankt Petersburg 2013



# Insel Vilm, Deutschland



ESP Costa Rica 2014

Mapping and Modelling ES

Assessing ES and Biodiversity





Irkutsk/  
Baikal 2014





Moskau 2015/2016



# Moskau 2-2018



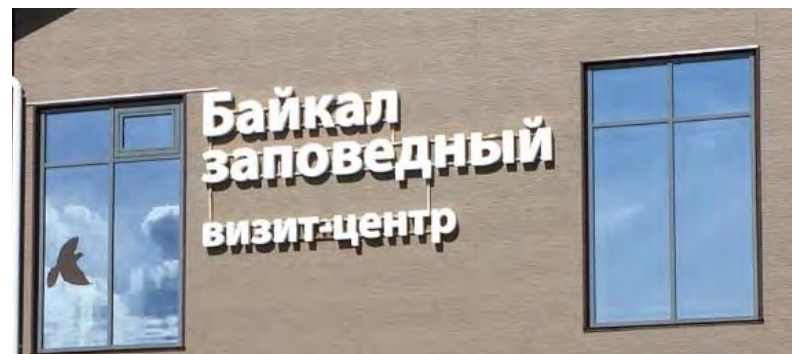
# Tyumen / Tobolsk 2017



# Irkutsk 8-2018









Moskau 8-2018

# IÖR Dresden 4-2019 (Moskau, Minsk in May 2019)





# ESP 2019 Hannover

## Application of the ecosystem service concept in Russian cities - state of the art and the case study: city of Tyumen

Liliia Sulkarnaeva, Dmitry Marinskikh, Irina Akhmedova, Valentina Dobryakova, Viktor Osipov  
University of Tyumen, Russian Federation  
Contact: l.d.sulkarnaeva@utmn.ru

B10a-5

**Aim**  
To review the state of the art about urban ecosystem services in Russia and to make an attempt of application of ecosystem services concept for the city of Tyumen.

**The state of the art about Urban ecosystem services in Russia**  
Global distribution of studies on ecosystem services conducted in urban areas



...but probably because Russian scientific paper Russian language?

Searching in Russian scientific data bases: [www.cibernetika.ru](http://www.cibernetika.ru) and [www.cyberleninka.ru](http://www.cyberleninka.ru)

- Only 28 articles are dedicated to Urban ecosystem services assessment.
- 16 articles are reviews, 7 articles are case-studies, 1 article is a comparative analysis.
- Only 4 articles dedicated to a real Russian cities, 14 to reality in Russian cities.
- 7 articles are about economic assessment, 5 about methodological issues, 7 about natural assessment and 5 about GDA to be instrument for decision makers.

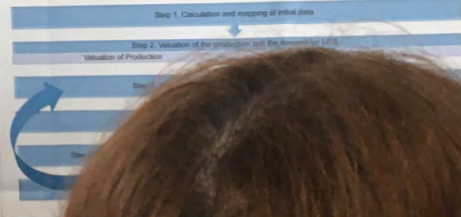
**Why Tyumen?**  
In Russia Tyumen is situated on the 1 place in index of happiness rating, 19 place - Rating of investments attraction, 19 place - Index of integral assessment. With poor city environment according to Urban Well-being quality index by <http://bit.ly/2m6u5z0>

**Methodology**

Classification of Urban Ecosystem Services for Russian Cities

Regulatory	Production	Information	Recreational
Climate Regulation - Storage of carbon stocks	Harvest	Information on the structure and functioning of ecosystems that can be used	Territories for daily recreation
Air cleaning	Production of food for livestock	A fish	Territories for weekend recreation
Air temperature Regulation	Non-timber forest resources	Genetic Resources	Recreation in country house
Wind speed Regulation	Mineral resources	Aesthetic value	Territories for active tourism and sports
Decreasing the level of Noise	Sources of alternative energy	Cognitive development of man	Territories for educational tourism
Regulation of wind speed	Pure water	Spiritual significance	Territories for health tourism
Mitigation of fluctuations in runoff volumes	Raw materials for medical industry		
Cleaning of drains			
Waste assimilation			
Prevention of erosion			
Sustaining Soil Fertility			
Control over Pest			
Control over epidemics			

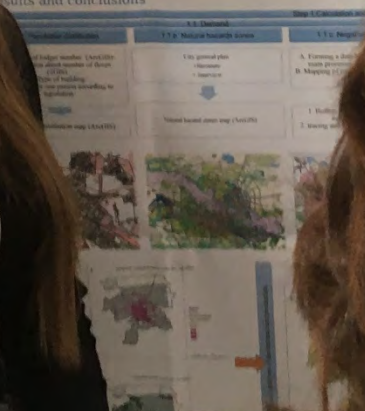
**Algorithm for Urban ecosystem services assessment**



Step 1. Calculation and mapping of initial data  
Step 2. Validation of the results and the formation of GDA

**Results and conclusions**

1.1. General plan  
1.2. Methodological issues  
1.3. Assessment



**SYKE**

### How to preserve Biodiversity in infill development – Test cities of Helsinki, Espoo

The Helsinki Metropolitan Area consists of the cities of Helsinki, Espoo, Vantaa and Kauniainen. The Metropolitan Area covers 772 km<sup>2</sup> and has a total population of 1.2 million. The housing density of the area is high by Finnish standards. Despite the high density, the area is still considered to have a high potential for biodiversity.

A burning policy question in the Helsinki Metropolitan Area is, how to construct a sustainable and resilient structure. This infill development is a condition of ecosystems, etc.

We selected a number of test cities to assess and map the potential of existing methods, etc.

Potential of existing methods



Built-up area of all built-up areas in the Helsinki Metropolitan Area

Proportion of built-up area within 100 m from water

# Meetings / Workshops → Outcomes / Outputs

- **Informing/learning about** ES/ESS approaches and related TEEB studies
- **Networking** (German-Russian-NIS ESS/TEEB community)
- **Developing** new ideas for projects and policy integration
- **Publishing** findings and recommendations (websites, brochure, policy brief etc.)

Karsten Grunewald, Olaf Bastian  
und Alexander Drozdov (Hrsg.)

## TEEB-Prozesse und Ökosystem-Assessment in Deutschland, Russland und weiteren Staaten des nördlichen Eurasiens



Карстен Груневальд, Олаф Бастиан  
и Александр Дроздов  
(Составление)

## TEEB процессы и экосистемные оценки в Германии, России и в некоторых других странах Северной Евразии

Karsten Grunewald, Olaf Bastian,  
Alexander Drozdov und Vasily Grabovsky (Hrsg.)

## Erfassung und Bewertung von Ökosystemdienstleistungen (ÖSD) – Erfahrungen, insbesondere aus Deutschland und Russland



Карстен Груневальд, Олаф Бастиан,  
Александр Дроздов и Василий Грабовский  
(Составление)

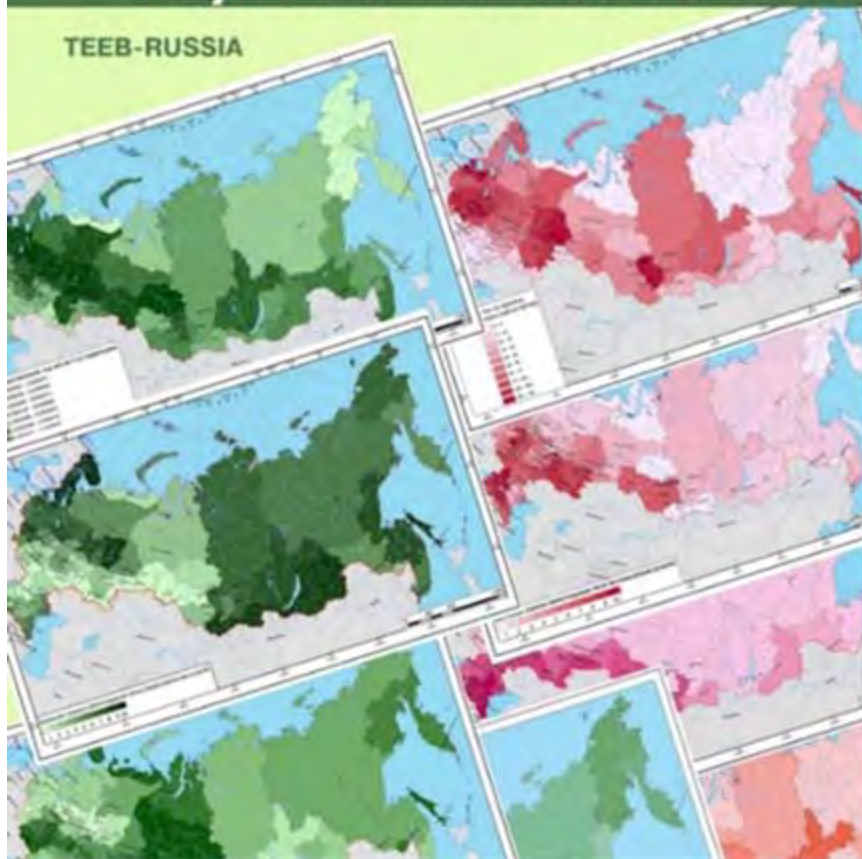
## Учет и оценка экосистемных услуг (ЭУ) – Опыт, особенно Германии и России

# Экосистемные услуги России

Прототип национального доклада

## Услуги наземных экосистем

TEEB-RUSSIA



2016

# Ecosystem Services of Russia

Prototype National Report

## Terrestrial Ecosystems Services

TEEB-RUSSIA



2018



ELSEVIER

Contents lists available at ScienceDirect

Science of the Total Environment

journal homepage: [www.elsevier.com/locate/scitotenv](http://www.elsevier.com/locate/scitotenv)

STOTEN 2019

## National assessment of ecosystem services in Russia: Methodology and main problems

E. Bukvareva<sup>a,\*</sup>, D. Zamolodchikov<sup>b,c</sup>, K. Grunewald<sup>d</sup>



ELSEVIER

Ecological Indicators 2017

journal homepage: [www.elsevier.com/locate/ecolind](http://www.elsevier.com/locate/ecolind)

Short Communication

## Supplied, demanded and consumed ecosystem services: Prospects for national assessment in Russia

E. Bukvareva<sup>a,\*</sup>, D. Zamolodchikov<sup>b,c</sup>, G. Kraev<sup>c</sup>, K. Grunewald<sup>d</sup>, A. Narykov<sup>e</sup>

DOI 10.1007/s13280-015-0674-4

THE ROYAL SWEDISH ACADEMY OF SCIENCES

REVIEW

AMBIO 2015

## The current state of knowledge of ecosystems and ecosystem services in Russia: A status report

Elena N. Bukvareva, Karsten Grunewald, Sergey N. Bobylev, Dimitry G. Zamolodchikov,  
Alexey V. Zimenko, Olaf Bastian

## First Block: 10.00 – 12.00

### Moderation: Karsten Grunewald and Alexey Zimenko (Smolensk 1)

<b>A. Zimenko / K. Grunewald</b>	BCC / IOER	Welcome notes, introduction
<b>Zhuravlev Konstantin</b>	MNR Russia, international cooperation department	Speech of MNR Russia
<b>Christiane Schell</b>	BfN Germany, Head of Directorate, Fundamental Issues of Nature Conservation	Biodiversity, Ecosystem Services and Natural Capital – Building bridges between policy and science: ecology, economics and accounting
<b>Jana Tafi</b>	EEA Copenhagen, Environmental assessment and accounting, ENI SEIS II East project	Ecosystem assessment and accounting on European Level - Approach, Results and Application in Policy
<b>Salman Hussain</b>	The Economics of Ecosystems and Biodiversity (TEEB) / Ecosystem Services Economics Unit, UN Environment, Geneva	TEEB for Agriculture and Food: Implementing change by assessing externalities and impacts for a particular sector
<b>Arkady Tishkov</b>	Institute of Geography RAS, Moscow	Biosphere functions and ecosystem services: importance for the economy and regional development of Russia

### Discussion

First Block: 12.30 – 14.00

Lunch 14.00 – 15.00

**Moderation: Alexey Zimenko (Smolensk 1)**

<b>Vyacheslav Rozhnov</b>	A.N. Severtsov Institute of Ecology and Evolution of the RAS, Moscow	Modern processes in the study and conservation of biodiversity in Russia
<b>Ivan Blokov</b>	Greenpeace, Moscow	Reliability of statistics and environmental protection
<b>Alexey Yaroshenko</b>	Greenpeace, Moscow	Why Russian forest industry can not avoid logging of last frontier forests when the annual allowed cut is used for less than 50%
<b>Kseniia Avilova</b>	MSU, Moscow	The natural complex of Moscow and the activities of the Moscow city Society for Nature Defense for its protection

**Discussion**

Third Block: 15.00 – 16.20

## Moderation: Karsten Grunewald

<b>Elena Bukvareva</b>	BCC, Moscow	The TEEB-Russia projects
<b>Ralf-Uwe Syrbe, Karsten Grunewald</b>	IOER, Dresden	Natural Capital Germany: the implementation in the frameworks of TEEB, MAES and SEEA
<b>Tatiana Minayeva</b>	Wetlands International/Care for Ecosystems	Ecosystem services as a driver for wetlands and peatlands restoration and wise use: experience from German-Russian project on peatlands restoration
<b>Burghard Meyer</b>	University Leipzig	Valuation of ecosystems and their services in Central Asia



Fourth Block: 16.40 – 18.00

**Moderation: Angela Lausch (Smolensk 1)**

**Dmitry Zamolodchikov**

CEPF RAS, Moscow

The assessment of forest ecosystem service to regulate the water discharge: from national to local scale

**Alena Shushkova,  
Marine Elbakidze**

NAS of Belarus, Minsk,  
Swedish University of  
Agricultural Sciences

Linking ecosystem services, landscape preferences and human wellbeing: a case-study from Belarus

**Discussion: Further research and action at the science-policy interface**

Input: Christian Welscher (Succow Foundation): “Russian-German project activities in Romincka Forest – towards a UNESCO biosphere reserve in Kaliningrad Region (Russian Federation)”

**Introduction to the program of the second day**

**Policy Brief TEEB-Russia (Smolensk 1)**

**18.30**

**Conference Dinner in Scandia Restaurant (21.30 end of the first day)**

## SECOND DAY, 20.11.2019

### Smolensk 1

Section 1: Accounting of ecosystems and ES (physical and biodiversity indicators)

Moderation: Elena Bukvareva

### Smolensk 2

Section 2: Urban ecosystems and ES

Moderation: Karsten Grunewald

10 am

2 h (5 pres.+discussion)

Coffee break (12.00-12.30)

12.30 – 14.30

Section 1: Accounting of ecosystems and ES (economic evaluation)

Moderation: Arkady Tishkov  
(5 pres. + discussion)

Section 3: ES mapping and assessment

Moderation: Ralf-Uwe Syrbe

4 pres. + discussion

14.30 – 15.30 Lunch

15.30 – 16.50

Section 4: Influencing factors on ES  
Moderation: Burghard Meyer  
(3 pres. + Discussion)

Section 5: ES importance  
Moderation: Ina Rohmann  
(3 pres. + Discussion)

17.00 – 18.00

**Summing up the work of the sections - short reports of the moderators  
(Smolensk 1)**

**General discussion**

**Proposal and discussion of results/outcomes of the conference**

**18.30**

**Conference Dinner in Scandia Restaurant (21.30 end of the second day)**