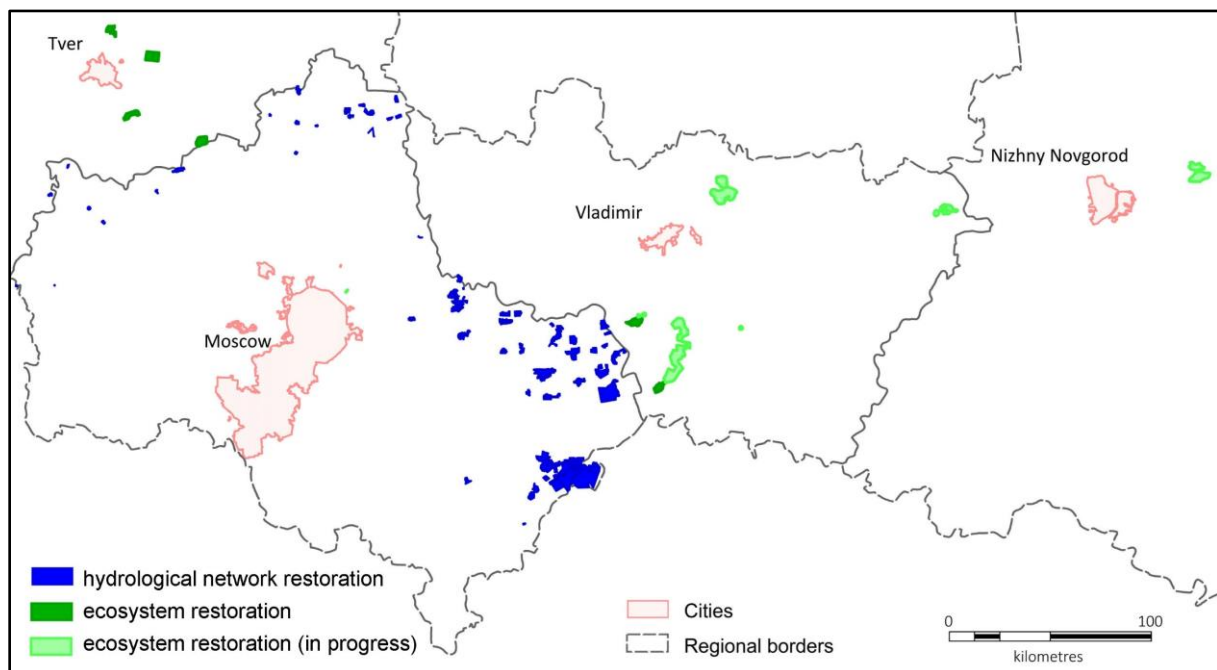


Results of the Project “Restoring Peatlands in Russia – for fire prevention and climate change mitigation” (2012–2016)

Major Project Components

- I. Peatland inventory and selection of priority sites
- II. Rewetting aimed at restoration of peatlands and reduction of fire danger
- III. Monitoring status of drained and natural peatlands
- IV. Building capacity in implementation of peatland restoration projects
- V. Development of organizational frameworks for introduction of peatland restoration techniques into practice
- VI. Economic incentives for the implementation of peatland restoration projects



Component I: Peatland inventory and selection of priority sites

- Methodology of peatland inventory using remote-sensing and sectoral information documented and published in a scientific journal.
- Peatlands in Moscow Province mapped, their status assessed using a set of parameters, the inventory results presented in a GIS format.
- Decision Support System (DSS) adapted for Russia’s conditions, tested on several sites in the course of the Project, and submitted in a form of methodic guidelines.
- Decision Support System for peatland management developed for the Moscow Province.

- Baseline inventory of peatlands made in the Vladimir Province, priority sites for restoration identified.
- Priority sites for rewetting in 2017-2018 identified in the Ryazan, Kaluga, and Nizhny Novgorod provinces.

Component II: Rewetting aimed at restoration of peatlands and reduction of fire danger

- 31,159 ha of degraded peatlands rewetted to ensure reduction of fire danger and emissions of greenhouse gases, in particular:
 - 11,946 ha rewetted using ecological restoration approach, of which:
 - 4024 ha rewetted at pilot sites;
 - 7922 ha rewetted using ecological approach and local co-financing (governments and private sector).
 - 19,213 ha rewetted using the Project's standard approach (of the total 73,000 ha rewetted in Moscow Province in 2011-2013 using hydraulic structures).
- For 9804 ha, final versions of ecological rewetting projects developed (1,700 ha in the Nizhny Novgorod Province; 3,200 ha in the Tver Province; 4,904 ha in the Vladimir Province).
- For 3000 ha of sites in Vladimir Province, rewetting concepts (pre-project solutions) developed.
- Baseline cost-benefit analyses of the ecological and industrial approaches to peatland rewetting carried out.
- Preliminary agreements on peatland sites to be rewetted in 2017-2018 scheduled and worked out in the Ryazan Province (10,000 ha), in Kaluga Province (the Ugra National Park, 864 ha), and in the Nizhny Novgorod Province (1500 ha).

Component III: Monitoring status of drained and natural peatlands

- Methodology for monitoring and metering GHG emissions that meets UNFCCC reporting requirements developed and tested in Russia.
- GHG emission monitoring system introduced at several permanent plots (including measurements made using micrometeorological and chamber methods); GHG emission factors calculated for the temperate zone of Russia.

- Technique to assess rewetting effectiveness on peatlands rewetted for climate change mitigation developed using remote sensing techniques and extrapolation of monitoring results.
- GEST model (GHG monitoring based on mapping vegetation changes) adapted for the whole territory of Russia, including the first stage of remote sensing using 6 monitoring classes and assessment of rewetting effectiveness.
- Detailed study of carbon losses in peatland fires completed at a pilot site (scientific paper published), the results extrapolated for the Moscow Province.
- Biodiversity monitoring based on vegetation mapping by means of prediction estimate method carried out at selected sites that are representative for other areas.

Component IV: Building capacity in implementation of peatland restoration projects

- Six special training sessions on rewetting techniques held for 55 participants, as well as education trips to Germany and excursions to project implementation sites in Russia.
- Two training sessions on hydrology problems and economic incentives for rewetting projects in Russia were organized.
- Two Russian-German student exchange projects implemented.
- International workshop held in Vladimir to discuss all aspects of peatland restoration projects and implementation of these in Russia based on practices under the Project.
- Establishment of Peatland Information Centers devoted to restoration of peatland ecosystems approved in the Nizhny Novgorod, Kaluga, Ryazan, Vladimir, and Tver provinces.

Component V: Development or organizational frameworks for introduction of peatland restoration techniques into practice

- Technical guidelines on ecological rewetting and restoration of peatlands compiled by experts and published in the Russian language.
- Awareness-raising infrastructure established, including one education center and peat museum, 4 demonstration rewetting sites, 1 site with sphagnum floating islands, and 2 ecological trails.

- Full-length film on peatland degradation problems and solutions produced under the Project. Furthermore, the Project supported production of a Deutsche Welle documentary.
- Contradictions between legislation and rewetting practices analyzed.
- Workshop held with representatives of competent departments of the Ministry of Natural Resources and Environment of the Russian Federation on contradictions between peatland ecosystem restoration practices and current legislation.
- Recommendations given with regard to making amendments of federal and regional legislations.
- Proposals made on using various financial mechanisms to facilitate implementation and funding of peatland rewetting projects at the provincial and federal levels.
- Strategic and awareness-raising presentations on climate change made at key international forums (Ramsar COPs, UNFCCC, and other international conferences).

Component VI: Economic incentives for the implementation of peatland restoration projects

- Private sector participates in peatland rewetting and management (Tver Province).
- Two permanent plots for paludiculture established in Tver Province to study paludiculture cost-effectiveness and efficiency.
- Russian and German paludiculture experts sharing experiences (organization of joint workshops and publications).

(see Annex on the next page)

List of pilot sites for restoration of peatland ecosystems:

Site type under the Project	Rewetting Targets under the Project	Status as of 31 December 2016	Administrative region	Co-funding
Pilot sites, all activities fully financed by the Project	1,500 ha	4,024 ha of pilot sites, works completed <ul style="list-style-type: none"> • 500 ha (Vladimir Province, Meshera NP) • 3,250 ha (Tver Province, Orshinsky Mokh I+II+III) • 274 ha (Moscow Province, Taldom district, Severnoye) 	Vladimir, Tver, Moscow provinces	Meschera NP
Other sites, development of rewetting documentation funded by the Project, implementation funded from elsewhere	10,150 ha	6,157 ha, works completed <ul style="list-style-type: none"> • 5,000 ha (Ozerki and Mokhovoe II) • 1,157 ha (Vasilievsky Mokh) Rewetting documents ready for implementation in 2017: <ul style="list-style-type: none"> • 1000 ha (Lodkinsky Mokh) • 1000 ha (Orsha IV) 	Tver Province	Budget of Tver Province and private sector
		Rewetting documents ready for implementation in 2017: <ul style="list-style-type: none"> • 1,700 ha (Bolshoe Orlovskoe) 	Nizhny Novgorod Province	Budget of Nizhny Novgorod Province, International Investment Bank
		1,765 ha, works completed (Meshera NP)	Vladimir Province	Federal budget
		Rewetting documents ready for implementation in 2017: <ul style="list-style-type: none"> • 3,470 ha (B. Ursovo) and 500 ha (Makarikhinskoye) in Kameshkovsky district • 942 ha at the border of Meschera NP (780 ha – Baksheyevskoye, 165 ha – Ostrovskoye) 	Vladimir Province	Budget of Vladimir Province (planned)
Contributions to improvement of projects under governmental programme of Moscow Province	30,000 ha	19,213 ha, successfully rewetted <ul style="list-style-type: none"> • 10,816 ha (identified by on-site inspection) • 8,397 ha (identified using remote sensing data, further verification needed) 	Moscow Province	Budget of Moscow Province