



**The first international Workshop within the project
“Development of expert systems based on large-scale soil-
geographic databases”**

May 14-19 2018, Faculty of soil science of Lomonosov Moscow State University,
Moscow, Russian Federation

Program of the first Workshop

Training subjects:

- The organization of soil information interchange at the International network of National Soil Institutes; Regional standard analogs of the ISO28258 series – project and object models.
- Methods of accumulation and storage of soil information and solution of problems of harmonization of soil data. Comparison of methods, qualitative and quantitative attributes, their correlation.
- The GSOC17 project – analysis of results and the applied methods. Calculation of uncertainties. On the example of Russia (RF regions), Thailand, Myanmar.
- Typical informational infrastructure of the regional soil data centre.
- Practical aspects of soil data centre development, practical solutions of applying the Soil-Geographic Data Base of Russia (SGDB) for various regions (on the basis of expert’s soil data and experience).
- Informational infrastructure of National Soil Institutes of Thailand and Myanmar, development of the plan of interaction and information exchange of soil data between the three countries.

Participants:

 Kingdom of Thailand	
Mr. Satira Udomsri	Expert level on Soil Survey and Classification of Land Development Department
Mr. Wattana Pattanathaworn	Soil surveyor, Professional Level of Land Development Department
Ms. Sumitra Watana	Soil Surveyor, Senior Professional Level of Land Development Department
Ms. Kaesorn Jumpa	Plan and Policy Analyst of Land Development Department
 Republic of the Union of Myanmar	
Mr. Naing Kyi Win	Director General of Department of Agricultural Research
Ms. Su Su Win	Director of Department of Agricultural Research
Ms. Ni Ni Tint	Research Officer of Department of Agricultural Research
Mr. Aung Kyaw Thu	Senior Research Assistant of Department of Agricultural Research
 Experts	
Ermakov Anton Aleksandrovich	Director of Federal State Centre of Agrochemical Service “Moscow”, PhD
Zhukov Roman Sergeevich	Director of Scientific Research Company “Vikron”
Morozov Igor Vadimovich	Department of soil science and assessment of land resources of Academy of Biology and Biotechnology of D.I. Ivanovsky SFU, the associate professor, PhD, judicial expert of the Centre of judicial examinations in the Southern Federal District
Nazarenko Olga Georgievna	Federal State Centre of Agrochemical Service “Rostovsky”, director, Dr. of Biological Science, professor
Hizhnyak Roman Michailovich	Head of department of GIS and design of agrolandscapes of Federal State Centre of Agrochemical Service “Belgorodsky”
Khomyakov Dmitry Mikhailovich	Department of agroinformatics, Faculty of soil science of Lomonosov Moscow State University, Dr. of Technology Science, professor

Organizers of the international Workshop:

Shoba Sergey Alekseyevich: Dean of Faculty of soil science of Lomonosov Moscow State University, Doctor of Biological Science, corresponding member of Russian Academy of Science

Alyabina Irina Olegovna: Project manager, leading researcher of Department of geography of soils of Faculty of soil science of Lomonosov Moscow State University, Doctor of Biological Science

Golozubov Oleg Modestovich: The technical project manager, leading researcher of Department of geography of soils of Faculty of soil science of Lomonosov Moscow State University, PhD

Kubarev Evgeny Nikitich: The assistant manager of the project, researcher of Department of geography of soils of Faculty of soil science of Lomonosov Moscow State University, PhD

Kirillova Vasilisa Alekseevna: The assistant manager of the project, researcher of Department of geography of soils of Faculty of soil science of Lomonosov Moscow State University, PhD

Sunday, May 13:
Arrival and settling of participants of a Workshop in Universitetskaya hotel.
Evgeny Kubarev

Monday May 14, 1st Day:
Official opening of a Workshop

TIME	TOPIC	RESPONSIBLE
9:00 - 10:00	Registration of participants of a Workshop.	Vasilisa Kirillova Evgeny Kubarev
10:00 - 10:30	Greeting and representation.	Sergey Shoba Irina Alyabina
10:30 - 11:00	COFFEE BREAK	
11:00 - 13:00	History of SGDB. Formulation of Soil information interchange standardization problem.	Irina Alyabina Oleg Golozubov
13:00 - 14:00	LUNCH	
14:00 - 17:30	Acquaintance to tasks of participants.	Oleg Golozubov
17:30 - 18:00	Excursion across MSU territory (Universitetskaya Square, Observation deck Vorobyovy Gory).	Vasilisa Kirillova Evgeny Kubarev

Tuesday May 15, 2nd Day:
Speeches of experts and practical training

TIME	TOPIC	RESPONSIBLE
9:00 - 10:30	Experience of the organization of a large-scale soil information system and its application to monitoring of an erosion of soils. Discussion.	Roman Hizhnyak, Belgorod
10:30 - 11:00	COFFEE BREAK	
11:00 - 13:00	Agrochemical inspections and monitoring of fertility of soils at the regional and state level: realization with the information system. Practical work: examples of projects from Belgorod region.	Roman Hizhnyak, Belgorod
13:00 - 14:00	LUNCH	
14:00 - 16:00	Experience of using large-scale soil data from SGDB for judicial examinations. Discussion.	Igor Morozov, Rostov-on-Don
16:00 - 16:30	COFFEE BREAK	
16:30 - 18:00	Practical work: the principles of standardization of conceptual and terminological systems used in soil science for development of soil and geographical databases.	Igor Morozov, Rostov-on-Don

Wednesday May 16, 3rd Day:
Speeches of experts and practical training

TIME	TOPIC	RESPONSIBLE
9:00 - 10:30	Using digital technologies and soil data bases for preparation of project documentation in agricultural industry.	Olga Nazarenko, Rostov-on-Don
10:30 - 11:00	COFFEE BREAK	
11:00 - 12:30	Practical work: soil and meliorative inspection (salinization on the example of the Aksay district); Engineering-ecological projects (automobile and railway road construction; Power transmission line (road to the Platov airport) and suitability for planting gardens).	Olga Nazarenko, Rostov-on-Don

12.30 - 13.30	Increase in accuracy of software for forecasting of productivity with use of digital soil maps and Machine Learning algorithms.	Dmitry Khomyakov, Roman Zhukov, Moscow
13:30 - 14:30	LUNCH	
14:30 - 16:00	Certification and cadastral assessment of agricultural lands with use of large-scale soil maps on the example of Moscow region.	Anton Ermakov, Moscow
16:00 - 16:30	COFFEE BREAK	
16:30 - 18:00	Practical work: using MS SQL servers in complex with GIS-systems for implementing of certification and cadastral assessment of agricultural lands on the example of the Moscow region.	Anton Ermakov, Oleg Golozubov, Moscow

Thursday May 17, 4th Day:

Speeches of participants from Thailand, a practical training, an excursion

TIME	TOPIC	RESPONSIBLE
9:00 - 10:30	Speeches of participants from Thailand.	Oleg Golozubov
10:30 - 11:00	COFFEE BREAK	
11:00 - 13:00	Practical work: the GSOC17 project – decisions in Russia, Thailand, Myanmar.	Oleg Golozubov, Olga Chernova
13:00 - 14:00	LUNCH	
14:00 - 15:30	Joint planning of the Second seminar in Thailand.	Irina Alyabina Oleg Golozubov
15:30 - 16:00	COFFEE BREAK	
16:00 - 17:30	Excursion at the Museum of Soil Science, Physical Geography and the Geological Museum of the Main building of Lomonosov Moscow State University (25-28 floors).	Vasilisa Kirillova, Evgeny Kubarev

Friday May 18, 5th Day:

Speeches of participants from Myanmar. Summing up

TIME	TOPIC	RESPONSIBLE
9:00 - 10:30	Speeches of participants from Myanmar.	Oleg Golozubov
10:30 - 11:00	COFFEE BREAK	
11:00 - 13:00	Practical work: practical exercise with the data of the participants from Thailand and Myanmar.	Oleg Golozubov
13:00 - 14:00	LUNCH	
14:00 - 16:00	Summing up the first Workshop.	Irina Alyabina., Oleg Golozubov
16:00 - 18:30	Closing the first Workshop.	All organizers

Saturday May 19, 6th Day:

*Tour across Moscow by bus group, walk on the centre of Moscow. A river trip across Moscow.
Evgeny Kubarev, Vasilisa Kirillova*

Sunday on May 20, 7th Day:

*Free time. Departure of participants of the Workshop.
Evgeny Kubarev*