

INTERNATIONAL CONFERENCE SOIL DEGRADATION Riga 2009

17 – 19 February 2009



MINISTRY OF THE



ENVIRONMENT

- **Global and EU Strategies and Approaches**
- **Inventory, Monitoring, Investigation and Assessment - Methodologies and Results**
- **Remediation and Restoration - Technologies and Experience to avoid soil degradation**



Conference is organized by
**VentEko Ltd., Latvia and
Ministry of Environment of the Republic of Latvia**

with the support of
**European Commission Joint Research Centre
United Nations Development Programme
University of Latvia Faculty of Geography and Earth Sciences**



PROGRAMME
Day 1 Tuesday 17 February 2009

08:30 – 09:30	Registration
09:30 – 10:00	Opening and welcome <ul style="list-style-type: none"> ▪ <i>Mr. Raimonds Vējonis, Minister of Environment of the Republic of Latvia</i> ▪ <i>Ms. Arta Bažovska, CEO of VentEko Ltd.</i> ▪ <i>Ms. Silvija Nora Kalnins, United Nations Development Programme, Latvia</i> ▪ <i>Prof. Māris Kļaviņš, Faculty of Geography and Earth Sciences, University of Latvia</i>

Session I - Strategies & Legislation & Implementation Programmes

Chairman: Prof. Māris Kļaviņš,
Faculty of Geography and Earth Sciences, University of Latvia

10:00 – 10:30	The EU Soil Thematic Strategy: Status and Future Perspectives <i>Luca Montanarella, European Commission Joint Research Centre</i> <i>Presented by Gergely Toth, European Commission Joint Research Centre</i>
10:30 – 11:00	Latvian Environmental Policy towards Sustainable Land Management <i>Rolands Arturs Bebris, Ministry of Environment of the Republic of Latvia</i>
11:00 – 11:30	Coffee/Tea break
11:30 – 12:00	Soil Degradation – Concepts for Bridging between Science, Politics and Decision Making <i>Prof. Winfried E.H. Blum, Institute of Soil Research, University of Natural Resources and Applied Life Sciences, Austria</i>
12:00 – 12:30	Soil Degradation by Acidification and Erosion and the Thematic Strategy of Soil Protection in Europe <i>Benediktas Jankauskas, Lithuanian Institute of Agriculture, Lithuania</i> <i>Michael A. Fullen, University of Wolverhampton, United Kingdom</i>
12:30 – 13:00	The European Soil Data Centre (ESDAC): From Research and Development to full Implementation <i>Luca Montanarella, Marc van Liedekerke, European Commission Joint Research Centre</i> <i>Presented by Gergely Toth, European Commission Joint Research Centre</i>
13:00 – 13:10	Opening of Poster Session
13:10 – 14:00	Lunch and Poster Session

Cont. Session I - Strategies & Legislation & Implementation Programmes

Chairman: Mr. Gergely Toth,
European Commission Joint Research Centre

14:00 – 14:30	Land Degradation Risks in Latvia: Political and Scientific Approach <i>Prof. Aldis Kārklīšs, Latvia University of Agriculture, Latvia</i>
14:30 – 15:00	Sustainable Land Management in Latvia: Opportunities and Challenges <i>Jānis Ģērmanis, Silvija Nora Kalnins, United Nations Development Programme, Latvia</i>
15:00 – 15:30	Remediation Possibilities of Historically Polluted Sites in Latvia <i>Vija Gēme, Ministry of Environment of the Republic of Latvia</i>
15:30 – 16:00	Coffee/Tea break and Poster Session
16:00 – 16:30	Soil Degradation Processes as Environmental Problems in Hungary <i>Prof. G. Várallyay, Research Institute for Soil Science and Agricultural Chemistry, Hungarian Academy of Sciences, Hungary</i> <i>Presented by Dr. Péter László, Research Institute for Soil Science and Agricultural Chemistry, Hungarian Academy of Sciences, Hungary</i>

16:30 – 17:00	Soil and Water Management for Combating Desertification – towards Implementation of the United Nations Convention to Combat Desertification from the UAE perspectives <i>Mahmoud Ali Abdelfattah, Mohamed Abdel Hamyd Dawoud, Environment Agency of Abu Dhabi, United Arab Emirates</i> <i>Shabbir Ahmed Shahid, International Center for Biosaline Agriculture, United Arab Emirates</i>
17:00 – 17:30	Discussion and closure day 1
18:00 – 20:00	Dinner in the hall `Event Plaza`

PROGRAMME
Day 2 Wednesday 18 February 2009

08:00 – 09:00	Registration
Session II - Inventory & Monitoring & Investigation & Assessment Chairman: Mr. Rolands Arturs Bebris, Ministry of Environment of the Republic of Latvia	
09:00 – 09:05	Opening and welcome to day 2
09:05 – 09:40	An European Perspective on Soil Quality: Implications for Monitoring and Assessment <i>Luca Montanarella, Gergely Toth, European Commission Joint Research Centre</i>
09:40 – 10:10	Croatian Soil Monitoring Programme <i>Andreja Čidić, Hana Mesić, Snježana Dominković Alavanja, Croatian Environment Agency, Croatia</i>
10:10 – 10:40	Monitoring of Polychlorinated Biphenyls (PCB) Pollution for the Program of Improvement of an Environment from Dioxin Similar Substances <i>Y.V. Shulzhenko, S.M. Sevostyanov, A.A Il`ina, N.F. Deeva, Institute of Basic Biological Problems, Russian Academy of Sciences, Russia</i>
10:40 – 11:10	Investigation of Harmful Heavy Metals Content in Soil, Water and Crop in Zletovica Basin in Probistip <i>Margareta Cvetkovska, Svetlana Gjorgeva, Katerina Nikolovska, Aleksandra Krsteska, Ministry of Environment and Physical Planning, Republic of Macedonia</i>
11:10 – 11:30	Coffee/Tea break and Poster Session
11:30 – 12:00	Monitoring of N₂O Emission from Agricultural Soils in St.Petersburg Region of North-Western Russia <i>E. Rizhiya, N. Buchkina, S. Pavlik, E. Balashov, Agrophysical Research Institute, St.Petersburg, Russia</i>
12:00 – 12:30	Detection of Hydrocarbons in the Soils by Laser-Induced Fluorescence Method <i>O. Aleksāns, VentEko Ltd., Latvia</i>
12:30 – 13:00	Harmonization of Risk Assessment Methodologies for Soil Threats in Europe <i>C. L. van Beek, Alterra, Soil Science Centre, Wageningen, The Netherlands</i> <i>T. Toth, A. Hagyo, RISSAC, Hungary</i> <i>G. Toth, JRC-IES, Italy</i> <i>L.Recatalá Boix, C. Año, CIDE, Spain</i> <i>J.P. Malet, O.Maquire, CNRS, France</i> <i>J. van den Akker, Alterra, Soil Science Centre, Wageningen, The Netherlands</i> <i>S. van der Zee, Wageningen-UR, The Netherlands</i> <i>S. Verzandvoort-van Dijk, C. Ritsema, Alterra, Soil Science Centre, Wageningen, The Netherlands</i> <i>C.Simota, ICPA, Romania</i> <i>P. Ehlert, P. Kuikman, O. Oenema, Alterra, Soil Science Centre, Wageningen, The Netherlands</i>
13:00 – 14:00	Lunch and Poster Session

Cont. Session II - Inventory & Monitoring & Investigation & Assessment

Chairman: Ms. Silvija Nora Kalnins,
United Nations Development Programme – Latvia

14:00 – 14:30	Strategy, Tactic and Risk Management of Dangerous Hydrological and Geological Processes within Natural and Tehno-natural Geosystems of Ukraine <i>Dr. Heorghiy Rudko, State Commission of Ukraine on Mineral Resources, Kiev, Ukraine</i> <i>Prof. Irina Sumatokhina, Dnipropetrovs`k National University, Ukraine</i>
14:30 – 15:00	Identification and Mapping of Saline Infected Soil using a Combined Remote Sensing Tools <i>N. Goldshleger, Ministry of Agriculture and Rural Development, Israel</i> <i>E. Ben Dor, Tel-Aviv University, Israel</i> <i>V. Mirlas, Ministry of Agriculture and Rural Development, Israel</i> <i>I. Livne, Tel-Aviv University, Israel</i> <i>U. Basson, Geosense, Israel</i>
15:00 – 15:30	Accumulation and removal of chemical elements in Latvian soils <i>Aivars Gilucis, GeoPlus, Ltd., Latvia</i> <i>prof. Valdis Segliņš, Faculty of Geography and Earth Sciences, University of Latvia</i> <i>Elīna Silgaile, VentEko Ltd., Latvia</i> <i>Andris Karpovičs, Faculty of Geography and Earth Sciences, University of Latvia</i>
15:30 – 16:00	Coffee/Tea break and Poster Session
16:00 – 16:30	Assessment of Sites under Risk for Soil and Groundwater Contamination in Lithuania <i>Kestutis Kadunas, Rasa Radiene, Geological Survey of Lithuania, Lithuania</i>
16:30 – 17:00	Soil Degradation Risk Assessment Opportunities in Latvia <i>Raimonds Kasparinskis, prof. Oļģerts Nikodemus, Faculty of Geography and Earth Sciences, University of Latvia, Latvia</i>
17:00 – 17:30	Modelling of Sanitation Process for the Hazardous Liquid Waste Deposit area `Cosmos` of the Jelgava town, Latvia <i>A.Spalvins, J.Slangens, I.Lace, Environment Modelling Centre, Riga Technical University, Latvia</i>
17:30 – 18:00	Reduction CO₂ Emissions by Changing Land Use System and Combating Soil Erosion on Hilly-rolling Relief in Lithuania <i>Benediktas Jankauskas, Genovaite Jankauskiene, Lithuanian Institute of Agriculture, Lithuania</i>
18:00 – 18:30	Discussion and closure day 2
18:30 – 19:30	Latvian Folk music performance, refreshments

PROGRAMME

Day 3 Thursday 19 February 2009

08:00 – 09:00	Registration
Session III - Remediation Technologies & Experience & Best Practices Chairman: Mr. Chairman: Oļģerts Aleksāns, VentEko Ltd., Latvia	
09:00 – 09:05	Opening and welcome to day 3
09:05 – 09:40	In situ Chemical Oxidation (ISCO), Fundamentals and Applications in Europe <i>Lorenzo Sacchetti, Carus Remediation Technologies, Italy</i>
09:40 – 10:10	Groundwater Remediation by Peroxide Method: Experience and Results <i>Pēteris Šnitko, VentEko Ltd., Latvia</i>

10:10 – 10:40	Technology for Cleaning up the Soils polluted with PCBs in the Serpukhov area <i>D. Demin, S. Sevostanov, N. Deeva, A. Il`ina, Institute of Basic Biological Problems, Russian Academy of Sciences, Russia</i>
10:40 – 11:10	Remediation of the HEXION Sokolov chemical plant, the Czech Republic <i>Jan Vanek, DEKONTA Ltd., Czech Republic</i> <i>Presented by Ales Prazak, DEKONTA Ltd., Czech Republic</i>
11:10 – 11:40	Approach and Results of Remediation of the Historically Polluted Territory of the Former USSR Air Force in Lielvārde <i>Edgars Dimitrijevs, Guntis Ginters, VentEko Ltd., Latvia</i>
11:40 – 12:10	Coffee/Tea Break and Poster Session
12:10 – 12:40	Experience of Regeneration of the Objects contaminated by Oil Products of the main Oil and Oil Product Pipeline `Polotsk – Ventspils` <i>Viktors. Markulis, LatRosTrans Ltd., Latvia</i> <i>Arta Bažovska, Jānis Klimovičs, VentEko Ltd., Latvia</i>
12:40 – 13:10	Oil based engineered Carbon Sources for Enhanced Natural Attenuation (Reductive Dechlorination): CAP18 and CAP18ME <i>Lorenzo Sacchetti, Carus Remediation Technologies, Italy</i>
13:10 – 13:40	Feasibilities of Renovation Technologies for Oil Polluted Areas (Case Study: Pärnu Petrol Station) <i>Igors Seļivanovs, Inga Gavēna, VentEko Ltd., Latvia</i> <i>Tony Möttus, Neste Eesti AS, Estonia</i> <i>Niina Kulik, Tampere University of Technology, Finland</i>
13:40 – 14:10	Modelling of Soil Degradation and Restoration under Climate Change and Land Use Impact <i>P.-W. Graeber, R. Blankenburg, Technical University Dresden, Germany</i> <i>O. Kemmesies, KP Ingenieurbuero fuer Wasser und Boden, Gunzenhausen, Germany</i>
14:10 – 14:30	Discussion
14:30 – 15:30	Closure, lunch and adjourn

POSTERS

Session II - Inventory & Monitoring & Investigation & Assessment

1.	Study of the Changes of Soil Agrochemical Properties within the 16-17 years period in some Rural Districts of Latvia <i>R. Timbare, A. Miķelsone, M. Jēkabsons, V. Janevica, Agrochemical Research Centre, State Ltd., Latvia</i>
2.	Soil Quality of Central Serbia <i>Dragana Vidojevic, Environment Protection Agency, Ministry of Environment and Spatial Planning, Republic of Serbia</i> <i>Maja Manojlović, University of Novi Sad, Republic of Serbia</i> <i>Nebojša Veljković, Environmental Protection Agency, Ministry of Environment and Spatial Planning, Republic of Serbia</i>
3.	Characteristics of Soil Solutions in Spruce Forests of Southern Poland Mountain Areas <i>Tomasz Staszewski, Piotr Kubiesa, Włodzimierz Łukasik, Institute for Ecology of Industrial Areas, Katowice, Poland</i>
4.	Heavy Metals Balance in Pine Forest Ecosystem, Latvia <i>Evija Tērauda, prof. Oļģerts Nikodemus, Faculty of Geography and Earth Sciences, University of Latvia, Latvia</i>
5.	Soil Science Forensic Application <i>Māra Rēpele, Maija Alksne, State Forensic Science Bureau, Latvia</i>
6.	Land Degradation in the Arid Environments and Management Options – The Case of Abu Dhabi, United Arab Emirates <i>Dr. Mahmoud A. Abdelfattah, Environment Agency Abu Dhabi, Soil Resources Department, United Arab Emirates</i>

7.	Degradation of the Black Sea Coast in the Romanian Seaside area. Stopping and Remaking Approaches <i>Brandusa Gabriela Cazacu, Romanian Society for Soil Mechanics and Foundation Engineering, Romania</i> <i>Prof. Dan Zarojanu, University of Suceava Romania, Romanian Society for Soil Mechanics and Foundation Engineering, Romania</i>
8.	Soil Pollution with Trace Elements in Territories of Military Grounds in Latvia <i>Ilga Kokorīte, prof. Māris Kļaviņš, Jānis Šīre, Oskars Purmalis, Aija Zučika, Faculty of Geography and Earth Sciences, University of Latvia, Latvia</i>
9.	Location and Geological-Hydrogeological Features of Soil Historical Pollution in the Territory of the Former USSR Air Force in Lielvārde <i>Guntis Ginters, Edgars Dimitrijevs, VentEko Ltd., Latvia</i>
10.	Results of Forest Soils Inventory in Latvia within the International Project `BioSoil` and Programme `Forest Focus 2006` <i>Andis Lazdiņš, Arta Komorovska, Dagnija Lazdiņa, State Forest Science Institute `Silava`, Latvia</i>
POSTERS	
Session III - Remediation Technologies & Experience & Best Practices	
11.	Accumulation of Lead by Maize Grown on a Lead Contaminated Soil after addition of Two Commercial Acidic Amendments <i>Antoine Karam, Laval University, Quebec, Canada</i> <i>Alfred Jaouich, University of Quebec at Montreal, Quebec, Canada</i>
12.	Detection of Hydrocarbons in the Soils by Automatic Laser-Induced Fluorescence Method <i>Oļģerts Aleksāns, VentEko Ltd., Latvia</i>
13.	Groundwater Remediation by Peroxide Method: Experience and Results <i>Pēteris Šnitko, VentEko Ltd., Latvia</i>
14.	Approach and Results of Remediation of the Historically Polluted Territory of the Former USSR Air Force in Lielvārde <i>Edgars Dimitrijevs, Guntis Ginters, VentEko Ltd., Latvia</i>
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17.	Recovery of Degradated Land by Remediation of Municipal Waste Dumps <i>Artis Ludāns, VentEko Ltd., Latvia</i>

Conference Programme Committee

- **Ms. Arta Bažovska**
VentEko Ltd., Latvia
- **Mr. Rolands Bebris**
Ministry of Environment of the Republic of Latvia
- **Mr. Luca Montanarella**
European Commission Joint Research Centre
- **Ms. Silvija Nora Kalnins**
United Nations Development Programme, Latvia
- **Prof. Oļģerts Nikodemus**
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