



## SCERIN-4 Capacity Building Workshop Zvolen, Slovakia, July 19-22, 2016

### *Climate Change and Anthropogenic Impacts on SCERIN Ecosystems*

The capacity building workshop SCERIN-4 will focus on the current LCLUC challenges in the SCERIN region connected with climate change and anthropogenic influence on ecosystems, addressing their significance and influence on ecological and social processes and ecosystem functioning. Research topics of regional interest to address include: ecosystem dynamics, based on Landsat and Sentinel archives; and Forest health and insect infestation detection and monitoring; both of increasing importance in the context of climate change. The workshop will be held in coordination with a Trans-Atlantic Training (TAT4), and the activities are jointly organized by NASA, ESA, START and our Slovakian Hosts.

#### SCERIN-4 Capacity Building Workshop: Agenda at a Glance

Day	Mon	Tue	Wed	Thu	Fri*	Sat	Sun	Mon	Tue	Wed
Date	18-Jul	19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul	26-Jul	27-Jul
Event	Arrival	SCERIN-4 CBW			LCC Trip	TAT	TAT	TAT	TAT	TAT

\* The field visit/trip of regional examples of Land Cover Change will be conducted jointly with TAT

#### The goals of SCERIN in 2016 and SCERIN-4 Capacity Building Workshop in Zvolen, Slovakia:

- Provide forum and opportunity for the SCERIN Focus Groups (FGs) to resolve specific issues (actions) to enhance capacity building in the region.
- Address SCE priority topics, with focus on 'Remote sensing in forest management and administration', 'Monitoring of protected areas' and 'Assessment of forest disturbance'.
- Discuss the availability of satellite data and products/approaches for land cover monitoring in SCE.
- Outline the specific land-cover and land-use change research, applications and development needs in the SCE region.
- Inform about ongoing scientific efforts via research highlights, to facilitate new networking activities and projects with joined contribution from the SCERIN participants.

The workshop will outline the activities to be completed by SCERIN within the following year.

#### SCERIN Focus Groups (FG):

FG1: Forest LCLUC: biomass production - decline, disturbance and driving forces

FG2: Anthropogenic LCLUC: agricultural land abandonment, urban expansion and climate change

FG3: Validation/verification for support of long term data records processing, analysis and inter-comparison

**Hosts:** The hosts include the Technical University in Zvolen, represented by Róbert Smerček (G. Masaryka 24, 960 53 Zvolen, Slovakia; robert.smrecek@tuzvo.sk), where the meeting will be hosted Slovakian National Forest Centre, represented by Ivan Sačkov (T. G. Masaryka 22, 960 92 Zvolen, Slovakia; sackov@nlcsk.org); the Slovak Academy of Sciences, represented by Andrej Halabuk (Štefániková 3, 814 99 Bratislava, Slovakia; andrej.halabuk@savba.sk); and the State Forests of Tatra National Park represented by Peter Fleischer (pfleischer@lesytanap.sk).

**SCERIN-4 Organizers and Sponsors:** The Slovakian Hosts (above), the SCERIN Network Coordinators Petya Campbell, Jana Albrechtova and Lucie Kupkova (petya.campbell@nasa.gov, albrecht@natur.cuni.cz, [lucie.kupkova@gmail.com](mailto:lucie.kupkova@gmail.com)), START, NASA/LCLUC, GOFC-GOLD and ESA.



Time	7/19/2016 Tuesday	
	<u><i>SCERIN-4 Day 1</i></u>	Presenters Name
8:30	<i>Registration &amp; Logistics</i>	
	<b>Plenary Session</b> (Session Chair: Andrej Halabuk)	
9:00	<b>Opening</b>	Andrej Halabuk, Ivan Sačkov, Róbert Smreček
9:05	Host Introduction: NFC	Tomáš Bucha, Director of NFC
9:15	Host Introduction: TUZVO	Jaroslav Šálka, Pro-Rector of TUZVO
9:25	Host Introduction: SAS	Luboš Halada, Deputy Director of SAS
<b>10:00</b>	<i>Coffee Break (Picture)</i>	
	<b>SCERIN Update</b> (Session Chair: Jana Albrechtova, Records: Petya Campbell )	
10:30	SCERIN Overview, SCERIN-4 Workshop Goals and Agenda	Petya Campbell
10:50	Overview/potential for new networking activities and scientific projects with joined contribution from the SCERIN	Jana Albrechtova, Lucie Kupkova, Petya Campbell
11:10	Intro. Paper 1: Global land cover products validation and inter-comparison in the SCERIN area	Ioannis Manakos
11:30	Intro. Paper 2: Inventory of land use and land cover change and driving forces in SCERIN countries	Gregory Taff & Přemysl Štych
<b>12:00</b>	<i>Lunch &amp; Visit of University Scientific Centre</i>	
	<b>Research highlights Slovakia</b> (Session Chair: Andrej Halabuk, Records: Géza Király )	
13:30	Analyses of land-cover change: spatial determinants and driving forces, Slovakia	Juraj Lieskovský, Andrej Halabuk
13:45	Using RS and GIS for forest mapping, monitoring and mensuration in Slovakia	Ivan Sačkov, Ivan Barka
14:00	Remote Sensing Applications in Mapping of Forest cover in Slovakia	Robert Krajčovič
14:15	Recommended practices for land cover/forest cover change validation, <i>GOFC-GOLD</i>	Brice Mora
<b>14:30</b>	<i>Coffee Break &amp; Posters</i>	
	<b>Research highlights SCERIN</b> (Session Chair: Jana Albrechtova, Records: Petya Campbell)	
14:30	Posters FG1(2 min each)	
14:50	Posters FG2 and FG3(2 min each)	
15:10	<i>Questions &amp; Discussion/ Coffee Break &amp; Posters</i>	
<b>15:30</b>	<i>Adjourn, Walk in the nearby Dendrarium with guided excursion</i>	
19:00	<i>SCERIN Networking Diner Event (location - Hotel Poľana, Zvolen)</i>	



**Research highlights SCERIN: POSTERS (2 minutes each)**

	First Name	Last Name	Focus Group (FG/Topic)	Title
1	Ivan	Pilas	FG1: Forest monitoring	Responses to recent climate changes in the common beech ( <i>Fagus sylvatica</i> L.) ecosystems in Croatia
2	Ivan	Medved	FG1: Forest monitoring	The use of remote sensing and piezometric groundwater data in the management and adaptation of water regime in Croatian lowland forests
3	Ivan	Barton	FG1: Forest monitoring	Monitoring system for natural forest dynamic in the fragments of virgin forest of Carpathian region
4	Luka	Rumora	FG1: Forest monitoring	The use of satellite imagery in the assessment of the restoration of the Česma forest in North-Western Croatia
5	Mihai Daniel	Nita	FG1: Forest monitoring	Long-term disturbance patterns in Romanian forests
6	Sophiko	Kenkebashvili	FG1: Forest monitoring	Forest Fires in Georgia monitoring with MODIS
7	Giorgi	Ghambashidze	FG2: Land Cover Changes	Fire monitoring on agricultural lands and prediction of possible effects on soil
8	Gregory	Taff	FG2: Land Cover Changes	Strategies to Study Invasive Weed Management
9	Roman	Sitko	FG2: Land Cover Changes	Human impact on the land cover change in University forest enterprise in Zvolen
10	Minucsér	Mészáros	FG2: Land Cover Changes	Inland excess water mapping using RapidEye images
11 12	Volodymyr Volodymyr	Starodubtsev Starodubtsev	FG2: Land Cover Changes	1. New land resources formation in large water reservoirs (in Ukraine and global) 2. New landscapes formation in water reservoirs
13 14	Petya	Campbell	FG3: Validation/verification network	Towards 'flexible' spectral time series and measurements for assessment of ecosystem productivity and bio-diversity
15 Posters, 2 minutes/each, total 30 minutes; Questions & Answers 30 minutes				



Time	7/20/2016 Wednesday	
	<u>SCERIN-4 Day 2</u>	Presenters Name
8:30	<u>Registration &amp; Logistics</u>	
9:00	<b>SCERIN Programmatic Panel</b> (Bulgaria, Romania, Poland, Czech Republic, Slovakia, Hungary, Croatia, Ukraine, Greece, Turkey)	<i>(Chair: Gregory Taff, Records: Petya Campbell)</i>
10:00	<u>Questions &amp; Discussion</u>	
10:30	<u>Coffee Break (Picture)&amp; Posters</u>	
11:00	<b>Parallel working sessions on the overview papers 1 and 2</b>	
	Paper 1: Global land cover products validation and inter-comparison in the SCERIN area	<i>Lead: Ioannis Manakos</i>
	Paper 2: Inventory of land use and land cover change and driving forces in SCERIN countries	<i>Leads: Gregory Taff and Přemysl Štych</i>
12:30	<u>Lunch</u>	
	<b>Research highlights SCERIN</b> (Chair: Levente Ronczyk, Records: Gregory Taff)	
13:30	Hyperspectral datasets for monitoring spruce health in Czechia	Jana Albrechtova, Lucie Kupková
13:40	Multi-scale forest monitoring	Géza Király
13:50	Long-term forest cover changes in Czechia - trends, drivers and consequences	Přemysl Štych
14:00	Mapping forest cover change in two Bulgarian test sites using SPOT and Landsat data	Ilina Kamenova
14:10	VALIDATION OF LAND COVER MAPS USING IN-SITU DATA AND PHOTOINTERPRETATION	Mykola Lavreniuk
14:20	SAR data application for hydrological issues	Levente Ronczyk
14:30	New land resources formation in large water reservoirs - in Ukraine and global	Volodymyr Starodubtsev
14:40	<u>Questions &amp; Discussion</u>	
15:00	<u>Coffee Break &amp; Posters</u>	
15:10	Urban Sprawl Impacts on Surface Temperature Using Landsat Imageries: Case Study of South Marmara, Turkey	Levent Genc
15:20	Impact of urban ecosystem structure on thermal properties of town	Olga Brovkina and Frantisek Zamek
15:30	Urban-rural contrasts in Central-Eastern European cities using MODIS 4 µm time series	Monika Tomaszewska
15:40	<u>Questions &amp; Discussion</u>	
16:00	<b>Discussion: New networking activities and scientific projects with joined contribution from SCERIN</b>	<i>Lead: Albrechtova, Records: Campbell</i>
17:00	<b>ADDITIONAL Parallel working sessions on papers 1 and 2</b>	<i>Leads: Manakos, Taff &amp; Stych</i>
18:00	<u>Adjourn</u>	
19:00	<b>Diner</b> (location TBD)	



Time	7/21/2016 Thursday
	<b><u>SCERIN-4 Day 3</u></b>
9:00	<b>Observers Programmatic Panel: Georgia and Norway (Chair/Records: Petya Campbell)</b> <i>Questions &amp; Discussion</i>
9:30	Improving future ecosystem benefits through Earth observations in the SCERIN: the ECO-POTENTIAL approach (Ioannis Manakos)
9:45	Practical applications of accuracy assessment in large area land cover and land cover change monitoring with satellite data (Mutlu Ozdogan)
10:00	<i>Coffee Break</i>
10:30	<b>SCERIN papers status, action items and deadlines</b> (Report from the working sessions , 30 minutes each)
11:30	<b>Future SCERIN networking activities and scientific projects: deadlines, joined contribution, actions</b> (Outcome from discussions , review of action items, Lead: Jana Albrechtova, Records: Petya Campbell)
12:00	<i>Questions &amp; Discussion</i>
12:30	<b>Lunch</b>
13:30	<b>SCERIN-4 Workshop outcome, activities/actions and deadlines</b> (Petya Campbell)
14:30	<i>Questions &amp; Discussion</i>
15:30	<b>Break</b>
16:00	<b>SCERIN Future plans, activities and potential venues</b> (Jana Albrechtova)
16:30	Presentation and discussion of proposals for SCERIN venue(s) in 2017 (location, facility, hosts)
17:00	<i>Questions &amp; Discussion</i>
17:30	<b>Host Concluding Remarks</b>
18:00	<b><i>Adjourn</i></b>
19:00	<i>Dinner in a convenient location by host suggestion</i>



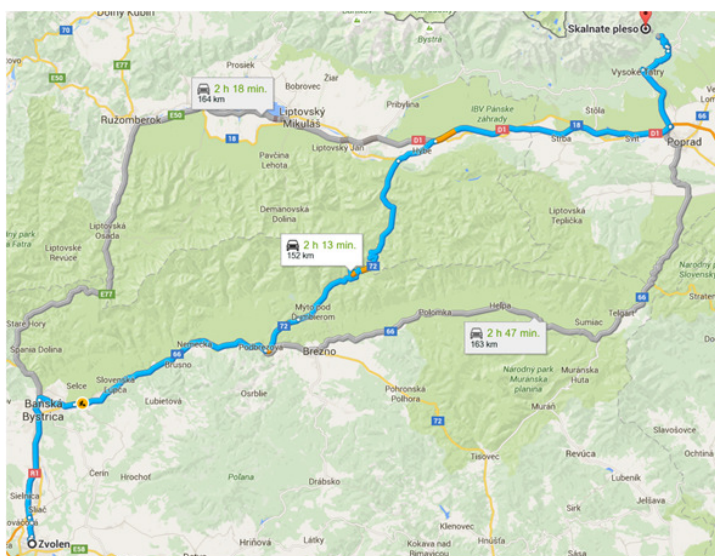


7/22/2016 Thursday

**SCERIN-4 Day 4**

**Regional Examples of LCLUC and Field Visit**

The field trip will focus on forest disturbance research in High Tatras that was accelerated after the severe windstorm in 2004. A presentation about the post-calamity research in High Tatras will be given by the staff of the Research Station of the State Forests of Tatra National Park. This will be followed by excursion to the research plots, where impacts of different forest management on forest regeneration are studied.



**Instructions for the field trip:**

We are going to leave by bus from the parking place of Hotel Polana at around 7:30 am.

The return will be around 18:30.

The average traveling time to the High Tatras will be 2 hours. There will be only short stops upon request.

**Lunch:** The lunch break will be at around 12:00 in a reserved restaurant in High Tatras.

The menu will be pre-selected during the workshop in order to guarantee no delay at the place.

**How to dress:** in a sport wear, walking shoes

**Information on the field trip is available also at:**

<http://www.csebr.cz/scerin2016/trip.html>

