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HELSINGIN YLIOPISTO
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Tampereen yliopisto
Tampere University



ILMATIETEEN LAITOS
METEOROLOGISKA INSTITUTET
FINNISH METEOROLOGICAL INSTITUTE



UNIVERSITY OF
EASTERN FINLAND

When: April 22-25, 2025

Where: Sofia Cultural Center, Kallvikinniementie 35, 00980 Helsinki

ACCC is organizing the 4th Impact Week at the Sofia Cultural Center in Vuosaari, Helsinki, April 22-25. During the week, we organize various seminars, workshops and panel discussions related to different ACCC Impact Program topics. The event is free of charge. The language of the different sessions is Finnish or English.

ACCC IMPACT WEEK 2025 SCHEDULE

TIME	TUESDAY 22.4	WEDNESDAY 23.4	THURSDAY 24.4	FRIDAY 25.4
08:00-08:45	BREAKFAST – FOR REGISTERED	BREAKFAST – FOR REGISTERED	BREAKFAST – FOR REGISTERED	BREAKFAST – FOR REGISTERED
08:45-09:00	Opening words	Opening words	Opening words	Opening words
09:00-10:00	// PEEEX (Auditorium, hybrid)	09:00-10:00 PLENARY TALK Bishop Kaisamari Hintikka (Auditorium)	09:00-10:15 PLENARY TALK Prof. Tuukka Petäjä PANEL DISCUSSION (Auditorium)	09:00-10:45 PANEL DISCUSSION Climate change policies (Auditorium)
10:00-10:30	// PEEEX (Auditorium, hybrid) // Safer Climate (Restaurant)	// Sofia Forum (Auditorium) // Digital Twin (Valburga, hybrid)		
10:30-10:45	COFFEE	COFFEE	COFFEE	COFFEE
10:45-12:00	// PEEEX (Auditorium, hybrid) // Safer Climate (Restaurant)	// Sofia Forum (Auditorium) // Digital Twin (Valburga, hybrid)	// ACCC RI (Valburga) // Indoor AQ (Auditorium, Restaurant)	// Carbon pricing (Auditorium, hybrid)
12:00-13:00	LUNCH	LUNCH	LUNCH	LUNCH + Business lunch SIAB Suomi, invited guests / plenary speakers
13:00-14:00	13:00-13:45 PLENARY TALK Acad. Markku Kulmala, INAR University of Helsinki (Auditorium)	13:00-13:45 PLENARY TALK Ottmar Edenhofer, Chair of the European Scientific Advisory Board on Climate Change (Auditorium)	// Fuels (Valburga) // Global South (Auditorium) // CoCarbon (Teresa, hybrid)	// Carbon pricing (Auditorium, hybrid) // Stakeholder influence (Valburga)
14:00-15:00	// Safer Climate (Restaurant) // Future Earth Finland (FES) (Auditorium) // Oceans and seas (Valburga)	// Climate University (Auditorium, hybrid) // GHG (Tekla, hybrid) // Insurance&CC (Marina) // Ilmastoviestintä (Valburga)	// Fuels (Valburga) // ForClimate (Auditorium, hybrid) // BoFF (Restaurant, hybrid)	// Carbon pricing (Auditorium, hybrid) // Stakeholder influence (Valburga)
15:00-15:15	COFFEE	COFFEE	COFFEE	COFFEE
15:15-16:00	// Safer Climate (Restaurant) // Future Earth Finland (FES) (Auditorium) // Oceans and seas (Valburga)	// Climate University (Auditorium, hybrid) // GHG (Tekla, hybrid) // Insurance&CC (Marina) // Ilmastoviestintä (Valburga) // Science Diplomacy (Teresa)	// ForClimate (Auditorium, hybrid) // BoFF (Restaurant, hybrid) // Erko (Teresa, hybrid)	
16:00-17:00	// Oceans and seas (Valburga)	// Insurance&CC (Marina) // Opportunity to interview ACCC experts (Restaurant)	// ForClimate (Auditorium, hybrid) // Erko (Teresa, hybrid)	
	16:30- Operaatio Arktis (Auditorium)	16:30- Ilmasto-2075 & Safety (Restaurant)		
17:00	DINNER including program Operaatio Arktis (Restaurant)	DINNER including program Ilmasto-2075 & Safety (Restaurant)	DINNER (Restaurant) // ACCC-SIAB (Auditorium, hybrid)	

// parallel session

*) Mini bus transfer from Sofia Center to Metro station Tuesday, Wednesday and Thursday after the dinner

NOTE: You can stay overnight in Sofia Center at a special price, please contact Myynti | Sales at 9-15: +358 (0)10 277 9102 or myynti@sofia.fi

PROGRAM

Tuesday 22.April

Plenary talk:

Academician Markku Kulmala at 13:00-13:45 (AUDITORIUM)
"Science Diplomacy"



PEEX SEMINAR at 09:00-14:00 Seminar / Open for all / Hybrid / On-site for the Finnish participants
AUDITORIUM

The PEEX online seminar aims to introduce the research and educational activities and projects at PEEX partner universities, and to discuss future collaboration in a frame of climate change and air quality research. The seminar includes plenary talk on Grand Challenges & Science Diplomacy by Academician Markku Kulmala and general info update about PEEX programme e.g projects and proposal in-progress by PEEX Secretary General Hanna Lappalainen and PI Alexander Mahura. New PEEX partners will introduce their organizations and research activities. We welcome all ACCC researchers who conduct research in the PEEX area to the seminar on site at the Sofia Center.

Organizers Hanna Lappalainen, INAR University of Helsinki
Alexander Mahura, INAR University of Helsinki

Language English

Schedule

Session I (09:00-09:20): General Information (20 min)

- 09:00-09:10 – Welcome, opening, on Grand Challenges, Markku Kulmala / Hanna Lappalainen
- 09:10-09:20 – PEEX Programme overview, Hanna Lappalainen / Alexander Mahura
- Session II-A (09:20-10:30): Welcome new Partners (70 min)
- 09:20-09:30 – Agricultural University of Iceland research and educational activities – by Pavla Dagsson-Waldhauserova, onsite (Agricultural University of Iceland (AUI), Hvanneyri, Iceland)
- 09:30-09:40 – Odessa Polytechnic National University research and educational activities – by Oleg Shablil, online, Odessa Polytechnic National University, Odessa, Ukraine
- 09:40-09:50 – Ukrainian Joint Meteorological and Hydrological Society: overview of activities – by Sergiy Stepanenko, online, Ukrainian Joint Meteorological and Hydrological Society (UHMS), Odessa, Ukraine
- 09:50-10:00 – University of Belgrade research and educational activities – Ana Vuković, online, University of Belgrade, Faculty of Agriculture (UoB), Belgrade, Serbia
- 10:00-10:10 – Istanbul Technical University research and educational activities – by Hüseyin Toros, online, Istanbul Technical University (ITU), Istanbul, Republic of Türkiye
- 10:10-10:20 – ARIANET research activities – by Sandro Finardi, online, ARIANET, Milan, Italy
- 10:20-10:30 – Charles University in Prague research and educational activities – by Tomas Halenka, online (tomas.halenka@mff.cuni.cz), Charles University in Prague (CUNI), Prague, Czech Republic

10:30-10:40 – Coffee/ Tea Break (10 min)

Session II-B (10:40-11:10): Welcome new Partners (30 min)

- 10:40-10:50 – Dalian University of Technology research and educational activities – by Yu Zhao, online, Dalian University of Technology (DUT), Dalian Liaoning, China
- 10:50-11:00 – Institute of Atmospheric and Oceanic Sciences research and educational activities - by Bo Yao, online, Department of Atmospheric and Oceanic Sciences, Fudan University, Shanghai, China
- 11:00-11:10 – Integrated Research on Disaster Risks International Center of Excellence research and educational activities – by Xu Tang, online, IRDR-ICoE-RIG-WECEIPHE, Fudan University, Shanghai, China

Session III (11:10-11:50): Invited presentations from PEEEX Partners (40 min)

- 11:10-11:20 – COST Action PEEEX-EU-NEN-ReN “Pan-Eurasian EXperiment – Europe – Near Europe Neighbourhood countries Earth System Research Network” (17 countries, 31 partners; 4 yr; 600 KEu) – by Hanna K. Lappalainen & Alexander Mahura, onsite, University of Helsinki, Institute for Atmospheric and Earth System Research, Helsinki, Finland
- 11:20-11:30 – Interreg REOPEN “Next Generation Workforce – Empowering Young People for Improved Employment” (3 countries, 6 partners; 2.5 yr; 1.2 MEu) – by Sintija Lase, online, University of Latvia, Riga, Latvia
- 11:30-11:40 – PEEEX implementation plan for Shanghai MegaCity & Yangtze River Delta urban agglomeration – by Alexander Baklanov, online/onsite, University of Copenhagen, Denmark
- 11:40-11:50 – Erasmus+ CLUVEX concept, training of moderators and students as Climate Messengers – by Name Surname (e-mail), Affiliation, City, Country
- 11:50-12:00 – Wrap-up & Next Steps (10 min)
- 12:00 – End of the PEEEX Seminar
- 12:00-13:00 – Lunch (60 min) for onsite participants
- 13:00-14:00 – Plenary talk by Acad. Markku Kulmala on Grand Challenges & Science Diplomacy

BUILDING TRANSDISCIPLINARY COLLABORATION TOWARD A SAFER CLIMATE at 10:00-16:00

Workshop/ Open for all/ On-site RESTAURANT

In this one-day workshop, we look at the connections between climate change, the environment and security from a transdisciplinary perspective. We welcome researchers, civil society organization representatives, private sector actors, security experts, activists and artists alike to share information, find new approaches and explore collaboration opportunities. How do researchers in natural sciences and humanities/social sciences approach issues related to climate security? What kind of examples and possibilities are there for adopting a truly comprehensive security approach that includes research, civil society engagement, social justice and psychosocial safety? How are climate change, the environment and conflicts related?

Climate change causes and multiplies risks that vary from extreme weather phenomena to worsened social injustices, political tensions, and beyond. To cope with these changes and uncertainties, it is important to discuss different understandings of security, safety and preparedness in relation to climate change and research. Different actors such as universities and research institutes, the European Commission, NATO, the OSCE and numerous humanitarian and non-governmental organizations are working with issues related to climate and security. Scientists are gathering and analyzing complex data about the effects of war on climate and the environment but often there exists no shared language or forum around the topic for different actors.

The increased tendency to discuss climate change and the environment in the security context has also raised concerns about increasing securitization and militarization of climate change and the environment. The session invites participants to explore critical takes on security and related issues such as economic and colonial power dynamics.

The consists of invited expert presentations and joint discussion. Note: this session is on-site only and follows the Chatham house rule. Discussions will be documented (anonymously) and proceedings of the session will be shared with the participants after the event.

Organizer Rosa Rantanen, INAR University of Helsinki

Language English

Schedule for the program updates <https://www.saferclimate.org/blog/safetyclimateenvironment>

10.00 – 12.00 Session 1: Science in the time of conflict and peace

Assessing the Effect of the War in Ukraine Using Satellite Data

Iolanda Ialongo

Senior research scientist, Earth Observation Unit Finnish Meteorological Institute

How to find solutions to increase the dialogue and participation of the Sámi people in the impact assessment phase?

In collaboration with Rauhanlähettiläsakatemia. PeaceLabs projects working group: Sara Vanhanen, Iida Pyykkö, Kide Rinne

Elina Mikola

Advisor, Climate and Environment

Amnesty Finland

12.00 - 13.00 Lunch and networking

13.00 - 14.00 Plenary by Prof. Markku Kulmala for all Impact Week Participants

14.00 – 16.00 Session two: What can history teach us about climate and security? Finding pathways for environmental science and action in oppressive systems

Hosted by Historians without Borders in Finland

Bradley Reynolds

Researcher, Political History, University of Helsinki

Board member, Historians without Borders in Finland

Elena Holmgren

Doctoral Researcher, Doctoral Programme in Political, Social and Regional Changes, University of Helsinki

Other speakers tbc

Short presentations will be followed by discussion in groups

THE CHANGING ROLE OF THE OCEANS AND THE SEAS IN THE CLIMATE CHANGE DISCUSSION at 14:00-16:30 Seminar/ Open for all / On-site VALBURGA

The oceans have played a significant role in absorbing the effects of the changing climate. A large part of the anthropogenic emissions of carbon dioxide have been absorbed by the oceans and they have captured around 90 percent of the excess heat generated by emissions. However, as we gain more understanding, we may see the role of the oceans changing. The limits of the oceans to absorb carbon and heat without dire consequences to the life under water may have been reached and oceans and coastal ecosystems can become sources of greenhouse gasses. Our session creates a platform for discussion among a diverse group of experts from the academia, government, NGOs, and corporates to better understand these developments and their impacts on our planet.

Organizers Sami Paatero, INAR University of Helsinki

Tommi Juusela, John Nurminen Foundation

Alf Norkko, University of Helsinki

Language English

Schedule

- 14.00 Welcome & Opening words - Sami Paatero/Tommi Juusela
- 14.10 Oceans and Climate Change – Professor Alf Norkko, Professor of marine ecology, Academic leader of Tvärminne Marine Research Station, University of Helsinki
- 14.40 Baltic Sea as a test laboratory for climate impact – Dr. Anna Villnäs, Centre for Coastal Ecosystem and Climate Change Research (CoastClim), University of Helsinki
- 15.10 Break
- 15.30 Eutrophication in the Baltic Sea – Causes and Cures – Dr. Ulla Rosenström, John Nurminen Foundation
- 15.50 Tackling the climate challenge in the shipping industry – Case Neste – Sveta Rusanen, Head of Sales & Trading, Renewable Products, Neste
- 16.20 Commentary – Dr. Maria Laamanen, Senior Ministerial Adviser, Ministry of the Environment
- 16.30 Concluding words and wrap-up

FUTURE EARTH FINLAND (FES) at 14:00-16:00 *Seminar / Open for all / On-site only AUDITORIUM*

Future Earth (futureearth.org/networks/global-research-networks) supports the activities of 27 Global Research Networks (GRN) across various fields. These networks together form a global community of approximately 50,000 researchers. Individual networks provide Finnish early-career researchers with opportunities for international collaboration. However, participation requires support, and this is where FES plays a crucial role. To enhance information dissemination, the committee will organize a seminar to discuss a national research network "Finnish Network of Sustainability Science" through which we could effectively convey information about different opportunities and at the same time strengthen Finnish cooperation in sustainability sciences. You are welcome to learn about Future Earth and to discuss higher education networking in the field of Sustainability Science.

Organizer Hanna Lappalainen, INAR University of Helsinki
Julia Karhumaa, INAR University of Helsinki

Language Finnish / English

Schedule

- | | |
|-------|---|
| 14:00 | Welcome, Introduction of FE-Finland Committee, Hanna Lappalainen, University of Helsinki |
| 14:15 | Opportunities offered by Future Earth (FE) to Finnish researchers through FE GRNs Judit Ungvari, Future Earth (remote) |
| 14:30 | Discussion on "how we can promote the active involvement of Finnish researchers in FE research networks ". Facilitator Jaana Halonen, THL |
| | e.g reflections by FES members Hannele Korhonen Finnish Meteorological Institute Jarkko Levänen LUT University Sirkku Juhola, University of Helsinki (remote) |
| 15:00 | Coffee break |
| 15:20 | "Finnish Network of Sustainability Science"
On the coordination and actors of Finnish sustainability research, Facilitator Jukka Käyhkö, University of Turku |
| | <ul style="list-style-type: none"> • Supporting sustainability science at Higher Education Institutions - what do we learn from HELSUS? Vilma Sandstrom, HELSUS • Sustainability Transformations Doctoral Education pilot, Meri Löyttyniemi and Arto Salonen (10 min) |
| 16:00 | End of the session |

OPERAATIO ARKTIS' EVENT ON TIPPING POINT RISK MANAGEMENT AT 16:30-17:30 incl. dinner
Seminar/ Open for all/ On-site AUDITORIUM/RESTAURANT

Earth System Tipping Points (ESTPs) pose significant risks to society but are inadequately addressed in national and international strategies. This is partly because ESTPs involve uncertainty and are poorly integrated into global climate models that inform government action. Consequently, strategies for mitigation and adaptation are designed under the false assumption that ESTPs will not be triggered or do not exist. However, some ESTPs could be triggered even within the Paris Agreement's 1.5–2°C limits. These limits will likely be temporarily exceeded, regardless of emission reduction efforts, leaving governments ill-equipped to prevent or respond to ESTP impacts. Varying with ESTP and location, triggering ESTPs would lead to widespread and lasting damage to e.g., food security, ecosystems, economies, health, infrastructure, and national security.

Governments must integrate ESTP risk management into their strategies, prioritizing precaution over uncertainty. Key actions include (1) improving the predictability of ESTPs and their impacts, (2) researching and developing prevention-focused strategies, and (3) preparing for adaptation where possible. However, since adapting to ESTPs vary from challenging to nearly impossible, prevention must take precedence. Minimizing ESTP risks would require rapid emission cuts, large-scale carbon dioxide removal (CDR), and potentially emerging climate interventions. Climate interventions involve political, environmental and scientific uncertainties, and a potential for ESTP risk reduction. With current warming already in the danger zone, solar radiation modification (SRM) has the potential to offer the only rapid cooling option. However, other interventions must be investigated as well to protect ice sheets from accumulated ocean heat.

In this seminar we make the case for governmental ESTP risk management, present research on possible international ESTP governance frameworks, and explore Seabed Curtains, one possible measure for slowing down ice sheet loss.

Organizers Anton Keskinen, Operaatio Arktis in collaboration with ACCC
Liina Huttunen, Operaatio Arktis in collaboration with ACCC

Language English

Schedule

16:30-17:30

Seminar: Yulia Yamineva, John Moore, Ellen Haaslahti, Anton Keskinen

17:45-18:15 (during the dinner at 5.30-6.30 pm)

Discussion: Markku Kulmala and Ville Voipio, moderated by Viktor Jaakkola

Wednesday 23.April

Plenary talk: Bishop Kaisamari Hintikka,
09.00-10:00 (AUDITORIUM)

"Ylempi vai yhdenvertainen –
kristillinen käsitys luomakunnasta muutoksessa"



Plenary talk: Chair of the European Scientific
Advisory Board on Climate Change Ottmar Edenhofer,
13:00-14:00 (remote, AUDITORIUM)

"Scaling Up Carbon Dioxide Removals –
Recommendations for Navigating Opportunities and
Risks in the EU"



NÄKÖKULMIA IHMISEN JA LUONNON SUHTEeseen (Sofia Earth Forum) at 10:00-12:00 *Seminar/ Open for all / On-site AUDITORIUM*

Avauspuheenvuorot luonnontieteilijöiltä ja teologeilta valottavat erilaisia lähestymistapoja ihmisen ja luonnon suhteeseen. Keskustelu jatkuu paneelikeskustelun muodossa. Kokonaiskesto 2h. Järjestäjä: Sofia Earth Forum, luonnontieteilijöiden ja teologien keskusteluryhmä.

Organizers Laura Riuttanen, INAR, Helsingin yliopisto
Ilkka Sipiläinen, EVL

Language Finnish

Schedule

09:00 Plenary talk: Kaisamari Hintikka, Espoon piispa
10:00 Tervetuloa: Laura Riuttanen, Helsingin yliopisto ja Isä Ambrosius
10:10 Avauspuheenvuoro: Risto Saarinen, Helsingin yliopisto
10:25 Avauspuheenvuoro: Atte Korhola, Helsingin yliopisto
10:40 Avauspuheenvuoro: Jyri Komulainen, Kirkon tutkimuskeskus
10:55 Avauspuheenvuoro: Gabriel Salmela, Studium Catholicum
11:10 Paneelikeskustelu

CLIMATE DIGITAL TWIN: GLOBALLY CONSISTENT EARTH SYSTEM AND IMPACT SECTOR INFORMATION AT SCALES OF A FEW KILOMETERS at 10:00-12:00 *Seminar / open for all / on-site recommended, hybrid VALBURGA*

The session is targeted at researchers and stakeholders. The session introduces Destination Earth (DestinE) which is a flagship initiative of the European Commission to develop a highly-accurate “digital twin” of the Earth to model, monitor and simulate natural phenomena, hazards and the related human activities. These features assist users in designing accurate and actionable adaptation strategies and mitigation measures as well as decision-making. The presentations cover topics:

- What are DestinE and Digital Twins?
- Recent progress in km-scale, multi-decadal timescale simulations of Climate Adaptation Digital Twin
- Several presentations from the Finnish partners of the Digital Twins

Organizer Heikki Tuomenvirta, Finnish Meteorological Institute
Tero Aalto, CSC

Language English

Schedule

10:00-10:45 1st part of the session

- Welcome - Jenni Kontkanen, CSC
- Overall status of the initiative DestinE – Sebastian Milinski ECMWF (remote)
- Climate DT overview objectives, models and simulations - Theresa Kiszler, CSC
- Break

10:45- 12:00 2nd part of session (speakers tbc)

- On-Demand Weather-Induced Extremes Digital Twin – Niko Sokka, FMI
- Off-shore wind power use case – Aleksi Nummelin, FMI
- Wildfire use case – Joonas Kolstela, FMI
- Harvester use case – Mikko Strahlendorf, FMI
- Observation based verification – Lauri Tuppi, University of Helsinki

GREENHOUSE GASES REGULATORY ECOSYSTEM SERVICES IN CATCHMENTS at 14:00-16:00 *Workshop / open for all / hybrid TEKLA*

Catchments provide essential ecosystem services in regulating atmospheric CO₂ and other climate-relevant gases. These processes are strongly influenced by water, which transports organic matter and nutrients between terrestrial and aquatic systems. Climate change, extreme weather events, and land use influence the water fluxes in the ecosystems and soil-water nexus. Understanding the multiple feedback effects

resulting from climate change and human-induced disturbances on the ecosystem services provided by the catchments requires multi- and interdisciplinary collaboration.

The aim of the session "Greenhouse gases regulatory ecosystem services in catchments" is to get together projects related to terrestrial-aquatic continuum, especially those funded by the Water4All 2023 Joint Transnational Call on Aquatic Ecosystem Services. We will aim to have in the beginning 15 min talks to present an overall of ongoing projects related to greenhouse gas fluxes in catchments and catchment ecosystem services and, thereafter, a joint discussion for potential collaboration between projects and potential follow-up. The purpose of this meeting is to foster collaboration between researchers on this topic.

Organizer Jukka Pumpanen, University of eastern Finland (UEF)

Language English

Schedule

13:00	<i>Plenary talk, Ottmar Edenhofer (Plenary talk)</i>
14:05	Opening words, Jukka Pumpanen, UEF Presentations (<i>max 10 min/ presentations + 5 min questions</i>)
14:20	<i>Developing concepts for large-scale modelling and evaluation of aquatic ecosystem services in forested landscapes, Martin Forsius, SYKE</i>
14:35	<i>Co-creating pathways to desirable nature futures of temperate lakes, Eerika Albrecht, SYKE</i>
15:00	Coffee break
15:20	<i>Impacts of climate, N and P deposition and land use on water as a driver of the greenhouse gases regulatory ecosystem service in headwater catchments. SERVICO2, Lluís Camarero, CEAB-CSIC, Spain (remote)</i>
15:35	<i>Biogenic Volatile Organic Compound Emissions from Northern Rivers RIVERVOC, Jukka Pumpanen, UEF</i>
15:50	Joint discussion and possible follow-up
16:00	Closing the session

AKTUAARIYHDISTYS ILMASTOKOULUTUS at 14:00-16:30 Seminar / open for all / only on-site MARINA

Insurance is about bearing risks on behalf of another. When risks change, insurance companies have to react. But when a more substantial change, like climate change is happening, the insurance companies should be more proactive, they should aim for adaptation – not merely for themselves but also for the sake of the policyholders. Mere reacting to observations may lead to protection gaps as companies easily over-emphasize reactions to extreme observations in context of the old environment. If extreme weather events become more frequent or severe it affects the pricing and underwriting of insurance products retroactively. No adaptation may mean that after a major wildfire, or a flooding event a house owner is no more able to find a policy covering those risks deemed uninsurable by the companies afterwards while adaptation methods provide for policyholder risk mitigation beforehand. This session brings together ACCC's researcher's and insurance mathematicians to discuss about the future risks. What are the latest developments? What kind of risks are important to insurance industry? What kind of challenges we are facing?

Organizers Tom Kokkonen, INAR University of Helsinki
Eeva Kuntsi-Reunanen, Finnish Meteorological Institute
Toni Blomster, Finanssivalvonta | Finanssinspektionen | FIN-FSA
Mikko Kuusela, University of Helsinki

Language Finnish / English

Schedule 14:00-16:30 including coffee break

- Summer Convective Weather Storm in Finland – Antti Mäkelä tai Terhi Laurila (IL)
- Kaupunkitulvat, Tom Kokkonen (HY)
- Ilmastoasiantuntijan erikoiskoulutus aktuaarin näkökulmasta, Toni Blomster (Finanssivalvonta)
- Innovations in Insurance in a changing Climate – real world examples: Toby Behrmann (Axa Climate) (remote presentation)

- Introduction to PIISA insurance pilots and the idea of piloting: Heikki Tuomenvirta (IL)

Science Diplomacy at 15:00-16:00 meeting / on-site TERESA

This session is a brief overview on science diplomacy specifically in the context of climate and air quality research. How does science diplomacy work? Who can take part in it? What kind of challenges and opportunities does it provide for research and social impact? Join us in discussing the current science diplomacy activities in ACCC and share your experiences and ideas.

The meeting includes discussion on new volunteering tasks related to [European Union Science Diplomacy Alliance](#) in INAR, so we specifically welcome those who have expressed their interest already or want to learn more about that. If you are interested in the task but not affiliated with INAR, please contact rosa.rantanen@helsinki.fi for more information.

Organizers Markku Kulmala, Rosa Rantanen, Hanna Lappalainen INAR University of Helsinki

Language Finnish / English

Schedule

Science Diplomacy in the ACCC – current state

Markku Kulmala, ACCC Director, INAR

Joint discussion and planning of future activities

EDUCATION FOR GREEN SKILLS (Climate University) at 14:00-16:00 Workshop / open for all / on-site recommended, hybrid AUDITORIUM

Education is the key to the sustainability transition of our societies. How do we educate the work force to future skills? What are the skills needed? Who needs them? How do we organize the education in an effective and impactful way?

In this session, national and international perspectives are shared by keynote speakers, followed by Climate University Action Group meetings in hybrid small groups.

More info on Climate University Action Groups: <https://www.climateuniversity.fi/how-to-collaborate/>

Organizer Laura Riuttanen, INAR University of Helsinki

Language English

Schedule

13:00 Plenary talk: Ottmar Edenhofer

14:00 Panel discussion: Education for green skills

- Romain Boitard, European Training Foundation
- Mikko Vieltojärvi, Confederation of Finnish Industries
- Taina Ruuskanen, University of Helsinki
- Miika Marttila, LUT University
- moderated by Laura Riuttanen, University of Helsinki

15:15 Climate University Action Group meetings

NÄKÖKULMIA VAIKUTTAVAAN ILMASTOVIESTINTÄÄN / PERSPECTIVES TO IMPACTFUL CLIMATE CHANGE COMMUNICATIONS at 14:00 -16:00 Seminar/open for all/only on-site VALBURGA

Ilmastonmuutos vaikuttaa tavalla tai toisella meistä jokaiseen. Ilmastoaiheisella viestinnällä on siksi tarve tavoittaa ja puhutella ihmisiä taustoista ja lähtökohdista riippumatta. Miten eri toimijat viestivät ilmastoaiheista, ja mikä tekee viestinnästä vaikuttavaa, selkeää ja ymmärrettävää?

Tässä sessiossa esitellään erilaisia tapoja viestiä ilmastoaiheista eri kohderyhmille. Keskustelussa pureudutaan ilmastoviestinnän lähestymistapoihin, haasteisiin, parhaisiin käytäntöihin ja kehityskohtiin.

Tavoitteena on uusien oivallusten ja näkökulmien jakaminen sekä ajatusten ristiinpölytys eri toimijoiden välillä. Sessio koostuu neljän ilmastoviestintätoimijan esityksestä, joiden jälkeen aiheista keskustellaan pienryhmissä ja ryhmissä syntyneitä oivalluksia jaetaan kaikille osallistujille.

Climate change impacts us all, one way or another. Therefore climate change communication needs to reach and address people irrespective of their backgrounds and origins. How do different actors and stakeholders communicate climate-related topics and what renders such communications effective, clear and understandable? This session presents different ways and means to communicate about climate to a variety of target audiences. The discussion tackles approaches, challenges, best practices and areas of development relevant to climate communications. The goal is to discover and share new ideas and points of view as well as cross-pollination between different actors. The session comprises of presentations of four different climate communications actors. The presentations are followed by discussions on the topics in smaller groups as well as sharing of the identified ideas and insights between all session. The session comprises of presentations of four different climate communications actors. The presentations are followed by discussions on the topics in smaller groups as well as sharing of the identified ideas and insights between all session. Schedule Wed 23 Apr 2025 at 14-16 with coffee break at 15:05-15:20

Organizers Tero Siili and Kaisa Ryyänen, Finnish Meteorological Institute
Elina Hiltunen, University of Helsinki

Language Finnish

Schedule Wed 23 Apr 2025 at 14-16 with coffee break at 15:00-15:15

Speakers

14:00 Tilaisuuden avaus, **Tero Siili & Kaisa Ryyänen**

- Ilmastoviestintää ihmismielelle, tutkija, tietokirjailija **Mira Hulkkonen**, Ilmatieteen laitos
- Ilmastoviestintää kaupunkilaisille, viestintäpäällikkö **Anu-Liisa Rönkä**, Lahden kaupunki
- Toimittajan näkökulma: HS Lasten uutisten ilmastojutut, esihenkilö **Fanny Fröman**, HS Lasten uutiset
- Ilmastoviestinnän haasteet ja mahdollisuudet sosiaalisessa mediassa, nuorten ilmastodelegaatti **Saara Böök**

15 min Kahvitauko

15.20 Keskustelua

16.00 Yhteenveto & tilaisuuden päätös

OPPORTUNITY TO INTERVIEW ACCC EXPERTS 16:00-16:30 open for all / on-site only RESTAURANT
The opportunity, among others, for journalists to interview ACCC flagship researchers and the flagship director, Academician Markku Kulmala.

ILMASTO 2075 PANEELI JA ILLALLINEN 16.30- *Illallinen ja paneeli / on-site only RESTAURANT*

Ilmasto 2075 on paneeli, johon kutsutaan mukaan yhteiskunnan eri osa-alueilta asiantuntijoita keskustelemaan siitä, miten ilmastonmuutos vaikuttaa maailman ja Suomen tulevaisuuteen ja erityisesti eri yhteiskunnan osa-alueille. Paneelissa tarkastellaan muun muassa seuraavia osa-alueita: terveys, turvallisuus, liikenne, työelämä, elinkeinoelämä, ja niin edelleen. Paneeli alkaa kahdella key-note puheenvuorolla: Markku Kulmalan ja Elina Hiltusen puheenvuoroilla.

Organizers Markku Kulmala, INAR Helsingin yliopisto
Elina Hiltunen, INAR Helsingin yliopisto

Language Finnish

Schedule

16.30 Buffet-päivällinen

17:00 Ilmasto, biodiversiteetti ja turvallisuus, akateemikko Markku Kulmala, ACCC

17.20 Muutama sana tulevaisuudesta, futuristi Elina Hiltunen, ACCC

17.40	Paneeli Ilmastonmuutos 2075 – miten ilmastonmuutos vaikuttaa yhteiskuntamme eri sektoreille tulevaisuudessa?
Puhujat:	Markku Kulmala, akateemikko, ACCC Elina Hiltunen, futuristi, ACCC
Panelistit:	Maaria Parry, Johtava ilmastoasiantuntija, ELY-keskusten valtakunnallinen ilmastoyksikkö Seija Parvinen, vanhempi ekonomisti, Suomen Pankki Emma Hakala, johtava tutkija, Ulkopoliittinen instituutti Reija Ruuhela, ilmastoasiantuntija, meteorologi, Ilmatieteen laitos Kerttu Kotakorpi, luontotoimittaja, tieto-kirjailija, meteorologi Pekka Moren, finanssineuvos, Valtiovarainministeriö ja Valtioneuvoston kanslia
18:20	Tilaisuus päättyy

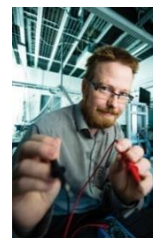
Thursday 24.April

Plenary talk by Prof. Tuukka Petäjä

“The new Air Quality Directive - opportunities and challenges“

Panel discussion: Indoor AQ Panel Discussion

09:00-10:15 (AUDITORIUM)



INDOOR AIR AND ENERGY EFFICIENCY – DO WE KNOW WHAT WE DON'T KNOW? at 09:00-12:00

Seminar & co-working / open for all / on-site AUDITORIUM

The newly revised Energy Performance of Buildings Directive (EPBD) requires that also Indoor Environmental Quality (IEQ) is considered when energy efficiency is improved. Indoor Air Quality (IAQ) is an important part of IEQ. Indoor environment influences indoor air and vice versa. As do many other factors. To ensure we understand how changes indoors will affect both energy efficiency and the processes that determine IAQ, we need to understand what are all the facts that we do not yet understand. This session aims to foster collaboration and information exchange between researchers from different disciplines, experts from companies and decision makers.

Organizers Minna Väkevä, Innoa
Markku Kulmala, INAR University of Helsinki

Language Finnish

Schedule

08:00-08:45 Breakfast is served to those who have registered for breakfast

Auditorium 9-10:10

9.00 Tervetuloa!

9.05 **The new outdoor Air Quality Directive - opportunities and challenges. Prof. Tuukka Petäjä**

9.25 – 10:10 Sisäympäristön ja energiatehokkuuden parissa lavalla paneelin kaltaisesti: **Heidi Salonen (Aalto), Vesa Pekkola (sosiaali-ja terveysministeriö), Pekka Vuorinen (Rakennusteollisuus RT), Miia Pitkäranta (AFRY), Jukka Vasara (Granolund) ja Tuukka Petäjä (ACCC)**

Ruokala 10:15-11:05

Työpajat pienryhmissä. Tarjolla kahvia ja teetä.

Pienryhmät ja niiden vetäjät:

- **Ilmanvaihto ja sisäilman epäpuhtaudet** - Miten ilmanvaihto vaikuttaa epäpuhtauksien pitoisuuksiin ja leviämiseen sisätiloissa? **Niko Siilin, VTT**
- **M1-luokitellut, vähäpäästöiset** tuotteet – käyttöolosuhteiden rooli nyt ja tulevaisuudessa. **Hanna Leppänen, Rakennustieto**
- **Emissiot ja altisteet, ja luonnonmateriaalien rooli.** **Pertti Pasanen, Itä-Suomen yliopisto**
- **Sisäilman epäpuhtauksien mittaaminen ja suodattaminen**, ja kokemuksia **GIANT** projektista. **Topi Rönkkö, Tampereen yliopisto**

Topics for a group working in English are to be announced later

Auditorium 11:15 - 12:00

Yhdistämme voimamme panelistien, yleisön asiantuntijoiden ja työryhmien kanssa, ja maalaamme kuvan siitä, miten hyvä sisäilma ja sisäympäristö varmistetaan

energiatehokkaassa tulevaisuudessa. Mukana meitä haastamassa **Ilkka Salo Talteka ry:**stä ja **futuristi Elina Hiltunen**. Erityisvieraana myös ACCC:n johtaja **Markku Kulmala**.

12-13 Lounas tarjoillaan ruokalassa – olethan muistanut ilmoittautua syöjäksi

Tilaisuuden moderoi Minna Väkevä. lisätietoja: minna.vakeva@innoa.fi

ACCC RESEARCH INFRASTRUCTURES at 10:30-12:00 *Seminar / open for all / on-site only VALBURGA*

The society is facing Grand Challenges, a suite of environmental problems on a global scale. The science-based solutions to the interconnected grand challenges require comprehensive and harmonized observations that can provide the society the needed capacity to monitor environmental change and quantify the impacts of policy actions. Reliable, comprehensive environmental data are needed to verify the impact of actions and to develop tools for supporting just societal transition to sustainable life. Environmental research infrastructures are vital in providing reliable and continuous long-term data of the Earth system. Integrated Atmospheric and Earth System Research Infrastructure (INAR RI) provides comprehensive environmental data and services in a Findable, Accessible, Interoperable and Reusable (FAIR) manner for the benefit of the society. The key strength of INAR RI is the interdisciplinary approach that allows to study the interactions and feedbacks between the Earth components: the biosphere, the atmosphere, the hydrosphere, and the upper parts of the lithosphere. INAR RI sets a clear example for Europe as a co-located distributed RI. It implements and coordinates the Finnish contribution to the European Strategy Forum on Research Infrastructures (ESFRI) roadmap infrastructures in the environmental domain, namely Integrated Carbon Observation System (ICOS ERIC), Aerosol, Clouds and Trace Gases Research Infrastructure (ACTRIS ERIC), Integrated European Long-Term Ecosystem, Critical Zone & Socio-Ecological Research Infrastructure (eLTER RI) and Infrastructure for Analysis and Experimentation on Ecosystems (AnaEE ERIC). INAR RI data is the key element in the scientific work done in Atmosphere and Climate Competence Center (ACCC) flagship. It provides the scientific backbone for steps toward carbon and climate neutrality in Finland, EU and globally, as well contributes to mitigate air pollution to sustain a healthy atmosphere. Research infrastructures are one of the key pathways for the flagships towards international cooperation. The overall joint goal in the development of the research infrastructures should be 1) increasing the integration of the research infrastructures at national and global levels and decreasing fragmentation and 2) enhancing research infrastructure impact on science and society.

Organizers Tuukka Petäjä, INAR University of Helsinki
Jaana Bäck, INAR University of Helsinki
Silja Häme, INAR University of Helsinki

Language English

Schedule

10:15 Coffee

10:30 Start of the session – Welcome

10:35 Opening words, Erja Heikkinen, *Ministry of Education and Culture, Merja Särkioja, Research Council of Finland*

10:50 Short comments/presentations from environmental RI representatives

- *ACTRIS ERIC (Eija Juurola): Environmental RIs, the ACTRIS perspective – benefits to the scientific community and beyond*
- *ICOS ERIC (Emmanuel Salmon): The ERIC Trilogue: A new platform for collaboration?*

- *eLTER (Jaana Bäck): Fostering interoperability in ecological and socio-ecology research: The role of eLTER infrastructure*
- *AnaEE (Jutta Kauppi): Collaboration and growing impact together- Connectivity of experimental RI's with nature-based risks*

11:20 Panel discussion

11:50 Concluding words and wrap-up

12:00 Session closes

Global South at 13:00-14:00 meeting / on-site AUDITORIUM

The aim of this meeting is to map out ongoing activities and strengthen our Global South collaboration within ACCC. This will help us to improve our understanding of the current state, future possibilities and challenges regarding Global South collaboration within ACCC. The workshop consists of brief introductory talks on ACCC Global South collaboration, the World Academy of Sciences (TWAS) collaboration and joint discussion.

The meeting is open for all interested participants. Before the event, we invite all ACCC researchers & other staff members to participate this short [survey](#) (3-5 min) about your activities and interests regarding Global South collaboration.

Organizers Markku Kulmala, Rosa Rantanen INAR University of Helsinki

Language Finnish / English

Schedule

Introduction to Global South collaboration within ACCC & the World Academy of Sciences (TWAS) collaboration, Markku Kulmala, ACCC Director, INAR

A brief overview on ongoing activities

Results of the survey and discussion: defining next steps together, Rosa Rantanen, Research Coordinator, INAR

CO-CARBON project: Recent findings on urban carbon cycle and sinks at 13:00-14:00 seminar / open for all /hybrid TERESA

Urban green infrastructure plays a key role in climate change mitigation and adaptation at the same time when having other benefits. Vegetation and soil store atmospheric carbon, modify local climate conditions, enhance stormwater cycling, and increase human well-being. CO-CARBON project studies carbon-smart urban green infrastructure from multiple perspectives and focuses, for example, on quantifying and modelling carbon sequestration and storage in urban green areas and examining the planning of carbon-smart urban green infrastructure from city-level to individual green spaces. This seminar presents some recent findings of the project.

Organizer Leena Järvi, INAR University of Helsinki

Language English

Schedule

13:00 Leena Järvi, University of Helsinki: Overview of the CO-CARBON project

13:10 Quantifying city-wide CO₂ sinks using urban land surface modelling, Minttu Havu, University of Helsinki

13:25 Unveiling Landscape Life Cycle Assessment: towards holistic understanding of carbon flows in urban green spaces, Caroline Moinel, Aalto University

13:40 Biogenic Carbon sequestration in cities: applying scalable, cost-effective and science-based models to support services and end-users, Liisa Kulmala, Finnish Meteorological Institute

14:00 Session closes

CLEAN TRANSPORT WITH NEW FUELS AND TECHNOLOGIES at 13:00-15:00 Seminar / open for all / on site only VALBURGA

To achieve the Green Deal's climate targets and the zero pollution vision by 2050, the transport sector must implement significant changes. Electrification is essential, but heavy-duty transport, non-road mobile machinery, shipping, and aviation will still rely on combustion technologies, categorized as hard-to-electrify transport modes. Decarbonizing these sectors involves switching from fossil fuels to low-carbon biofuels or electrofuels like methane, alcohols, diesel, jet, and marine fuels. At the same time, changing air quality regulations and increasing understanding of unregulated pollutants pose novel challenges for emission research.

Organizer Miikka Dal Maso, Tampere University

Language English

Schedule

13:00	Topi Rönkkö & Miikka Dal Maso: Introduction
13:05	Päivi Aakko-Saksa: PAREMPI - Particle emission prevention and impact: from real-world emissions of traffic to secondary PM of urban air
13:25	Olli Sippula: LowC - Safe and sustainable low-carbon fuels for heavy-duty, aviation, and maritime sectors
13:35	Kati Lehtoranta: Green Ray - New Generation marine engines and retrofit solutions to achieve methane abatement flexibility
13:55	Ismael Ortega: UNIC - Understanding non-CO ₂ Impact for decarbonized aviation
14:15	Miikka Dal Maso: REALCHEM - Real-world emission experiments and comprehensive assessment of low-carbon fuels: towards clean hard-to-electrify transport modes
14:30	Discussion: Exploring collaboration actions for projects researching clean and climate-friendly transport
15:00	Coffee

CLIMATE AND AIR QUALITY IMPACTS OF BOREAL FOREST FIRES (BoFF) at 14:00-16:00 workshop/ open for all /hybrid RESTAURANT

Workshop on the project "Climate and air quality impacts of boreal forest fires (BoFF)" funded by the Jane and Aatos Erkko foundation. In the seminar, results from the project so far will be presented. Another aim of the workshop is to discuss how the results can be best utilized in e.g. modelling etc. Stakeholders from Metsähallitus invited. Workshop can be partly online.

Organizer Annele Virtanen, University of Eastern Finland

Kajar Köster, University of Eastern Finland

Language Finnish/English

Schedule

14:00	Welcome, opening words <ul style="list-style-type: none">Annele Virtanen, UEF: "Introduction to the "Climate and Air Quality Impacts of Boreal Forest Fires" -project"
14:10	Short comments/presentations from BOFF (<i>max 10 min/presentation</i>) <ul style="list-style-type: none">Aurora Prättälä, Metsähallitus: "Restoration burns – what and why"Iida Pullinen, UEF: "Into the Fire – field measurements of forest fire emissions"Kajar Köster, UEF: " From flames to flow - the effect of prescribed fires on biogeochemical processes"Tero Mielonen, FMI: " Wildfire emissions in climate models"Olli Sippula, UEF: "Laboratory measurements: an efficient tool for characterizing wildfire emissions"
15:00-15:15	Coffee break
15:15	Joint/panel discussion (how to increase the impact and reach a wider audience)

MANAGING FORESTS FOR CLIMATE CHANGE MITIGATION: ForClimate -project final seminar at 14:00-17:00 seminar / open for all / on-site participation recommended/ hybrid AUDITORIUM

Forests are important for climate change mitigation as they remove CO₂ from the atmosphere through photosynthesis and store it in plant biomass and soil. Forests also lose carbon in plant and soil respiration, decomposition, run-off, leaching and disturbances. The net carbon sink of a forest is the difference between carbon absorbed in photosynthesis and carbon removal from the forest, and the accumulation of a carbon sink forms forest's carbon storage. Globally, forests absorb one third of the CO₂ that is annually emitted to the atmosphere by human activity. In addition to absorbing and emitting CO₂ and other greenhouse gases (GHG), forests have also other climate effects. The low albedo of boreal conifer forests mainly has a warming effect, whereas the contribution of forests to formation of aerosols has a cooling effect. Boreal forests emit large quantities of volatile organic compounds that can form secondary organic aerosol, affecting cloud albedos and lifetime and thus increasing the scatter of solar radiation back to space. We call the sum of all these climate effects CarbonSink+. Although the fore-mentioned climate impacts of forests are well recognized, knowledge is lacking on how forest management impacts them.

In the ForClimate project, we worked to improve our understanding of forest-atmosphere interactions in changing climate helping to make more precise predictions of the land-based climate change mitigation potential of forests in different future scenarios. We analyzed the impacts of forest management and changing climate on the various forest climate impacts by combining comprehensive long-term data sets on forest carbon dynamics and ecosystem-atmosphere interactions with empirical and process-based models on forest growth. We developed further also process-based and management-oriented model tools that will allow assessing forest management related climate feedbacks at various spatial and time scales. The consortium consists of atmospheric scientists, forest scientists and computer scientists from the University of Helsinki, the Natural Resources Institute Finland and the Finnish Meteorological Institute. The project is done in collaboration with the Finnish Forest Industries Federation, The Central Union of Agricultural Producers and Forest Owners (MTK), Metsähallitus and forest related advisory and consulting enterprise Tapio.

In this seminar, we present project results, such as the impact of forest thinning and continuous cover forestry on forest carbon sink, the capability of different ecosystems to produce aerosol particles, and the use of AI methods in analysing forest climate impacts. We also discuss in a panel the future possibilities and threats related to the climate impacts of forests together with our stakeholder collaborators.

Organizers Anna Lintunen, INAR University of Helsinki
Helena Rautakoski
Piaopiao Ke
Gonzalo de Quesada

Language English

Schedule

14:00 Anna Lintunen: Managing Forests for Climate Change Mitigation

14:10 Ivan Mammarella: Thinning turned boreal forest to a temporary carbon source - short term effects of partial harvest on carbon dioxide fluxes

14:20 Helena Rautakoski: Continuous cover forestry in nutrient-rich peatland forest: Effects of selection harvesting on forest CO₂ balance

14:30 Gonzalo de Quesada: Thinning Effects on Forest Carbon Balance Across Mineral and Peatland Soils: Evaluating the Carbon Budget with Biometrics and Soil Chambers

14:40 Otso Peräkylä: Differences in absorbed sunlight between forest and open peatland sites caused by snowmelt timing

14:50 Ekaterina Ezhova: Linking forests and clouds: organic aerosol enhances forest photosynthesis under cloudy sky

15:00 *Coffee break*

15:15 Markku Kulmala: Comprehensive climate impacts of forests

15:25 Piaopiao Ke: Potential of carbon uptake and local aerosol production in boreal and hemi-boreal ecosystems across Finland and in Estonia

15:35 Topi Laanti: Explainable AI for modeling boreal forest carbon exchange

15:45 Daesung Lee: MOTTI model portfolio enhancements: tackling contemporary forest growth issues in Finland

15:55 Ritika Srinet: Bayesian calibration of process-based model PREBAS using multi-source data

16:05 Jari Hynynen: Motti C+, new modelling tool to support adaptation of forest management to changing climate

16:15 Panel discussion on the future possibilities related to the climate impacts of forests.

Panelists: Annalea Lohila (Finnish meteorological institute, chair), Markku Kulmala (University of Helsinki), Jari Hynynen (Luke), Martin Forsius (SYKE), Karoliina Niemi (Metsäteollisuus ry), Anssi Kainulainen (MTK) and Kalle Eerikäinen (Metsähallitus).

HY ERKO ETÄLUENTO at 15:00-17:00 Lecture / closed / On-site hybrid meeting (possibility to follow event remotely) TERESA

Helsingin yliopiston järjestämän ilmastoasiantuntijan erikoistumiskoulutuksen toukokuun etätapaaminen, jossa käydään läpi kaksi toimialakohtaista katsausta ilmastotyöhön ja keskustellaan alojen ilmastotyön näkökulmista yhdessä alalla toimivien asiantuntijoiden kanssa.

Organizers Eeva Kuntsi-Reunanen, Kenneth Peltokangas, Laura Riuttanen, Taina Ruuskanen, Aleks Vauhkonen, Paavo Kettunen, Henna Naumanen

Language Finnish

Schedule 15:00 Aloitus

Kaksi toimialakohtaista ilmastotyön esittelyä ja asiantuntijanäkökulmaa

17:00 Lopetus

ACCC SCIENCE AND IMPACT ADVISORY BOARD (SIAB) MEETING at 17:00-18:00 Meeting/closed / hybrid AUDITORIUM

Organizer Markku Kulmala, INAR University of Helsinki

Hanna Lappalainen, INAR University of Helsinki

Language English

Friday 25.4

Panel discussion 09:00-10:45

IMPACT AND EFFECTIVENESS OF POLICIES AND MEASURES TO COMBAT CLIMATE CHANGE at 09:00-10:45 Panel discussion/ Open for all /On-site AUDITORIUM

Finland and the EU have used different policies and measures to combat climate change in the past two decades. These are mostly regulations based on law - such as norms, emissions trading and taxes – and some are voluntary – such as compensation schemes. In the session we will i) discuss the pros and cons of the instruments, ii) ask how well they have performed thus far to reduce greenhouse gas emissions in Finland and the EU and iii) based on these learnings, discuss how to address new and tougher challenges, including sinks in forests and agriculture. During the panel discussion and the Q&A it would be helpful to identify how ACCC's research could help to provide incentives to increase carbon sinks, in particular their meaningful and efficient verification.

Organizer Matti Vainio, INAR University of Helsinki

Language English

- 09:00 Introduction: Economic instruments, compulsory norms and voluntary measures to curb climate change, Matti Vainio, University of Helsinki
- 9:15 Household-level responses to fossil fuel pricing, Prof. Lassi Ahlvik, University of Helsinki
- 9:30 Emissions trading as a steering tool for climate policy, Eleonoora Eilittilä, Ministry of Economic Affairs and Employment
- 9:45 Economics of policy measures in increasing forestry carbon sinks, Olli Tahvonen, University of Helsinki
- 10:00 Panel discussion with Q & A
- 10:30 Conclusions
- 10:45 Close of session

SCIENTIFIC CLIMATE IMPACT DATA FOR EFFICIENT CARBON PRICING at 11:00-15:00 *Keynote & panel / Open for all / on-site/ hybrid AUDITORIUM*

Climate impact is gaining more interest everywhere: in political decision-making, administrative decisions, company strategies and various scientific disciplines. We need practical daily solutions on variety of technical matters while at the same time we need to ensure comprehensive approaches and feasibility in policy making. It is therefore important to have comparable and relevant data available for setting-up critical rules and standards to foster sustainable development.

Besides the UN led climate convention process, we have witnessed many climate policy initiatives and coalitions established during the last decade. We have e.g. the Finance Ministers' Coalition for Climate Action to enhance the use of economic, fiscal and financial policy tools; Climate Club of the Heads of States to support cross border industrial transformation and many other global, regional and local examples. However, we still lack many key actions/policies that require international coordination and standards regionally and globally.

We should act in many fronts from air quality, extreme weather alert systems, climate mitigation and adaptation objectives, to management of biodiversity loss and CO₂ levels in atmosphere. One concrete goal for global community should be accelerating reliable carbon markets and efficient subsidy policies. We need to share views of climate impact findings by researchers but also evaluate impact from economic and societal angles.

Reliable and comprehensive environmental data is needed to verify the climate impact of our action as well as to develop tools for supporting just societal transition to sustainable life. Measuring and analysing climate impact is the key element in the scientific work done in Atmosphere and Climate Competence Center (ACCC) flagship. This work is widely acknowledged in regional and global research networks offering a crucial scientific backbone for steps towards carbon and climate neutrality in Finland, EU and globally. The ACCC could also be more relevant partner for transparent, efficient and legally sound carbon pricing development.

Organisers Sami Paatero, Tuukka Petäjä INAR University of Helsinki

Language English

Schedule

- 11:00 Welcome words from Sari Multala, Minister of Climate and the Environment, Finland (by video)
- 11:10 Climate Impact in Global Economic Policy Context, Financial Counsellor Pekka Morén, Ministry of Finance / Prime Minister's Office, Finland
- 11:30 Carbon pricing – importance of industry standards, CEO Tuuli Kaskinen, Climate Leadership Coalition (CLC)
- 11:50 Investment Sector Approach, Vice Chairman, Banking & Public Sector Jay Collins, Citi
- 12:15 Lunch
- 13:00 Research Infrastructures and Available Atmospheric Data from the ACCC, Professor Tuukka Petäjä, University of Helsinki, ACCC
- 13:30 Data to Drive Climate Action – Current Efforts by the New York Climate Exchange, CEO Dr. Stephen Hammer

14:00 Panel Discussion: Climate impact in business environment - from compliance to scalable added value

Financial Counsellor Pekka Morén, Ministry of Finance / Prime Minister's Office, Finland

CEO Tuuli Kaskinen, Climate Leadership Council (CLC)

Professor Tuukka Petäjä, University of Helsinki, ACCC

14:45 Wrap-up of the afternoon and ACCC impact week by Markku Kulmala

15:15 Coffee

HOW CAN STAKEHOLDERS, ESP. SCIENTISTS, PARTICIPATE IN AND INFLUENCE CLIMATE POLICYMAKING? at 13:00-15:00 Seminar / open for all / on-site VALBURGA

Climate policymaking – including determination of targets, preparation of climate plans, and selection of policy measures – is naturally state-led activity. However, different stakeholders and experts increasingly participate and are invited to participate in this work. Their participation may be clearly institutionalized (e.g. through established science panels), semi-institutionalized (e.g. through membership of preparatory bodies or national delegations to international negotiations) or unstructured (e.g. through statements on government bills, meetings with officials and public awareness-raising). The roles of stakeholders range from enhancer of legitimacy and guardian of democratic participation to provider of expertise to policymaking, and from a critical voice to a cooperative deliberation partner. Irrespective of the manner or roles of participation, or its level of institutionalization, openness and transparency of climate policymaking are the cornerstones enabling effective participation and possibilities to influence the processes.

Scientists are a crucial stakeholder group in any effort of climate policymaking. Their expertise has to be consulted in the preparation of climate policies and measures. However, the extent to which the voices of scientists are heard and genuinely taken into account in policy decisions varies. What is more, climate policymaking is dominated by Western science while traditional knowledge of Indigenous peoples is often overlooked.

Organizer Tuula Honkonen, University of Eastern Finland (UEF)

Language English

Schedule

- On the influencer-role of scientific climate panels, Katri Varis, Doctoral Researcher, UEF
- On science and participation: the case of Finnish Climate Act and climate litigation case II, Otto Bruun, Doctoral Researcher, UEF
- Preparation of voluntary carbon offsetting as an example of the science and stakeholder on climate policy making; Sara Tolonen, Doctoral Researcher, UEF
- The new Sami Climate Council: Re-thinking the role of science and participation in Finnish climate policymaking, senior Lecturer Tuula Honkonen, UEF
- Invited comment talks:
 - Niko Humalisto, Leading Advocacy Specialist, Finnish Evangelical Lutheran Mission (FELM) and Docent on social geography, UEF
 - Laura Höijer, Research Director, Ministry of the Environment
 - Kementti Näkkiläjärvi, Chair of the Saami Climate Council

15:00 Coffee