

Annual report 2024

Mistra Environmental Communication



Annual report 2024, Mistra Environmental Communication

Published: 2025, Uppsala Layout: Clara Jonsson Cover image: Mikael Wallerstedt

www.environmental-communication.org

The programme is funded by Mistra, the Swedish foundation for strategic environmental research





Contents

Chair's Preface	4
From the Programme Directors	6
The Board	7
The International Scientific Advisory Group	8
Reference group	9
Partnership	10
Communication for Sustainability	. 11
The programme in numbers	12
Introduction to the focus areas	
Information	
Meaning-making	
Knowledge	
Governance	-
Transformation	
	5
Synthesis	28
Environment in environmental communication	28
Communication in Environmental Communication	28
Textbook	29
The Observatory	29
NiLab	30
In collaboration	32
Swedish Library Association	32
Swedish Environmental Protection Agency	33
Biosphere Reserve Voxnadalen	
Evonte	26
Events	
Annual Programme Meeting	
Program Laboratory and Environmental Communication Day	
Programme Laboratory	
Environmental Communication Day – Power and counterpower in sustainability transformations	38
Financial summary	40
Outputs	41

Chair's Preface

Every year, the programme organises "Miljökommunikationsdagen" (the Environmental Communication Day), which in 2024 was all about power. When I arrived, I was met by a packed conference room buzzing with energy and conversation. In workshops, lectures and panel discussions, researchers and representatives from nongovernmental organisations, authorities and companies met and engaged in discussions. Who should have influence over natural resources when interests and viewpoints clash? How can dialogue be developed to foster shared understanding and responsibility, even when we disagree fundamentally? And what role will AI play in helping us define problems and find solutions to societal challenges? These questions are now more pertinent than ever, and I am proud of how the programme provides a much-needed platform to address them.

2024 was the first year of the second phase of the Mistra Environmental Communication programme. Informed by recent societal developments and insights from the programme's first phase, we refocused the programme into five areas: information, meaningmaking, knowledge, governance, and transformations. These are key areas for a sustainability transformation of our society, which I hope becomes clear from reading this report.

One thing that really stands out to me is the collaboration between researchers and societal partners. It ensures that our research isn't just useful for the future – it's making an impact here and now. In this report, you will find some good examples of this impact. Finally, I'd like to express a warm thank you to all the societal partners, researchers, and team members who contribute to Mistra Environmental Communication. A special thanks as well to our programme directors, Eva Friman and Sofie Joosse, for the fantastic way you've launched this second phase of the programme.



Berit Oscarsson Chairperson of the Board

Socio-environmental crises such as climate change and biodiversity loss are complex and controversial. How we communicate about them shapes our understandings of and actions in sustainability transformations.

From the Programme Directors



Eva Friman and Sofie Joosse Programme directors

The first year of the second phase of our research programme has flown by. And what a formative year it has been. We have learned so much from, and together with, all the researchers and societal partners. We are grateful to everybody in the programme for all their work and collaboration, as well as the positive, creative, and yet critical, working atmosphere that makes being part of this programme so rewarding!

This year was a continuation of the first phase but also a new beginning: we used the mid-term of the programme to rethink and replan. This resulted in five new focus areas that bring academic learning even closer to the emerging societal issues and the concrete challenges met in environmental communication practice. In 2024 we showed, among other things, the worrying influence of ChatGPT on the scientific literature, the challenges faced in collaborative governance and dialogue processes, but also the power of local collective action in environmental communication. As we write this annual report, in early 2025, the geopolitical situation is changing rapidly. Democracy, knowledge and information channels are increasingly under pressure, and it is becoming painfully clear that our focus areas will have many more important contributions to make in the years to come.

As the world's largest research programme in environmental communication, we are in a unique position to bring researchers and societal actors together to critically study and contribute to communication for sustainability. We want to thank everybody who helps to make this happen, who open-mindedly works across disciplines within and outside of university. We have a big task ahead.

The Board

The Programme Board directs and monitors programme activities in relation to the programme plan, including the budget and the use of the strategic reserve, and supervises its execution.



Berit Oscarsson

Berit is the head of communications at the Swedish Environmental Protection Agency (SEPA) with overall responsibility for internal and external communication.



Marie Grusell

Marie is associate professor of media and communication studies and head of department at the University of Gothenburg. She is also associate professor of political communication at Mid Sweden University.



Ylva Hillbur

Ylva is a pro vice-chancellor with responsibility for internationalisation, doctoral education and Agenda 2030 at the Swedish University of Agricultural Sciences.



Eva Lövbrand

Eva is a professor in environmental change at Linköping University. Eva is also a member of the programme's international scientific advisory group.



Sturle Simonsen

Sturle is the head of research communication and news at the Royal Institute of Technology (KTH).



Annika Sjöberg

Annika is a senior partner at Gullers Grupp and works with questions regarding strategic choices in communication work.



Johannes Stripple Johannes is an associate professor at the department of political science at Lund University.

The International Scientific Advisory Group

The International Scientific Advisory Group strengthens the programme's scientific quality, advises on how to contribute to the broader field of communication research, and forms a network for outreach and knowledge exchange.



Eva Lövbrand

Eva is a professor in environmental change at Linköping University and studies the knowledge politics of the environment.



Leah Sprain

Leah is an associate professor in communication at the University of Colorado, Boulder, USA and studies the relation between communication and democratic engagement.



Franzisca Weder

Franzisca is a professor in organisational and sustainability communication at Vienna University of Economics and Business, with a focus on sustainability communication and corporate social responsibility.

Reference group

The reference group gives feedback on the exchange of knowledge and experience between the research community and professionals in the field of sustainability, particularly in relation to programme conferences and annual Environmental Communication Days.



Hanna Alfredsson Biosphere Reserve Voxnadalen



Jenny Lindmark Svedgard Swedish Library Association



Sannna Barrineau Centre for Health and Sustainability



Jennifer Shutzberg The Swedish History Museum

Partnership

Mistra Environmental Communication is based on a strong partnership of researchers from a range of disciplines and key societal actors in sustainability, including non-profit organisations, authorities and companies.



About the programme

Communication for Sustainability

The way we express ourselves and respond to each other shapes our understanding of nature and environmental challenges. Ultimately, it influences how we act upon these issues. Socioenvironmental crises such as climate change and biodiversity loss are both complex and controversial. To address them, we need to identify and highlight harmful communication patterns and develop ways of communicating that encourage constructive dialogue and drive action toward sustainability.

Mistra Environmental Communication is an eight-year research programme dedicated to investigating how communication shapes sustainability transformations. Our work is critical and change-oriented: we advance a scientificallygrounded understanding of how communication practices can contribute to efforts towards a sustainable future. The programme is a close collaboration between researchers from diverse disciplines, authorities, civil society organisations, and companies. By drawing on multiple perspectives, experiences and forms of knowledge, we develop critical understandings and change-oriented approaches to communication for sustainability.

Through research, interactive workshops and other public events, we seek to reframe environmental communication as a driver of sustainability, creating practical tools and methods for policymakers, practitioners and communities.

Mistra Environmental Communication is hosted by the Swedish University of Agricultural Sciences (SLU), in collaboration with Uppsala University and a consortium of national and international partners.

Our five points of departure:

- 1. Environmental communication shapes the world and our understanding of it
- 2. Environmental communication is shaped by who participates and in what way
- 3. Sustainability transformations are driven by the interplay of structure and agency
- 4. Environmental communication is a field of discursive struggle, and sustainability is an inherently contested concept
- 5. Power is inherent to environmental communication

The programme in numbers (2024)



Introduction to the focus areas

The program consists of five focus areas, which each offer a critical vantage point for understanding and addressing sustainability challenges.

1. Information

Information cultures, data and technology in environmental communication

2. Meaning-making

Processes of meaning-making in environmental communication

- **3. Knowledge** The constitution of knowledge and truth in environmental communication
- **4. Governance** Governance collaboration and resistance in environmental communication
- 5. Transformation

Co-creating transformation through environmental communication

Information

Information cultures, data and technology in environmental communication

Information technologies shape environmental concerns – they prioritise some environmental knowledge over other. For example, search engines and social media, increasingly permeated and shaped by AI, promote carbon-intensive consumption and benefit from the polarisation of environmental issues.¹ Another example is how smartphone apps shape the kind of experiences we have in nature and how we represent those to others.²

Information technologies already considerably affect everyday life, environmental practice and governance, and their impact will further intensify in the coming years. At the same time as their power is increasing, information technologies are becoming increasingly complex and difficult to understand. In this focus area, researchers and societal actors therefore collaborate to investigate the impact of information technologies and data on people's understanding and communication about the environment and environmental issues.

People and organisations

- Jutta Haider, Professor in Information Studies at the Swedish School of Library and Information Science (SSLIS), University of Borås, Sweden
- Björn Ekström, Elisa Tattersall Wallin, Emma Román, Carin Graminius, Elisa Tattersal Wallin and Camilla Lindelöw, Swedish School of Library and Information Science (SSLIS), University of Borås
- Malte Rödl and René Van der Wal, Swedish University of Agricultural Sciences
- Lisa Engström, Lund University
- Shiv Ganesh, University of Texas at Austin
- Ossian Hall, Swedish Library Association
- Wikimedia Foundation Sweden
- Search Studies Group (HAW Hamburg)



Jutta Haider Research leader of the information focus area

1. Haider, J., Rödl, M., & Joosse, S. (2022). Algorithmically embodied emissions: The environmental harm of everyday life information in digital culture. Haider, J., Rödl, M., & Joosse, S.(2022). Algorithmically embodied emissions: the environmental harm of everyday life information in digital culture. Information Research, 27.

^{2.} Graminius, Carin & van der Wal, René: Teknisk infrastruktur styr vår relation till naturen – Sveriges Natur. https://www.sverigesnatur.org/opinion/teknisk-infrastruktur-styr-var-relation-till-naturen/

ChatGPT and media in the information crisis

Datafication is the process of transforming aspects of life into digital data that can be analysed and used for decision-making. Within the Information focus area, researchers explore how datafication shapes what we know and don't know about environmental issues, and how that forms practices and evidence. To provide insights from this focus area during 2024, professor and research leader Jutta Haider shares reflections and highlights.

Jutta, your work has featured in several news outlets like Scientific American and Forbes. Could you outline the concerns and challenges raised in these pieces?

In the last year, the public and the media have paid a lot of attention to generative AI, especially ChatGPT and similar tools. This also put a spotlight on several already existing concerns that were intensified by the enormous popularity of generative AI. Issues such as how to determine what information is correct or trustworthy, or the extreme control that corporate platforms have over information infrastructures and public knowledge. These concerns are part of what has been called a crisis of information. Environmental issues and the massive changes that are occurring right now are a part of this crisis, and they are also affected by it. Our observations and commentaries are part of that context, and hopefully we can disrupt some troubling developments.

In 2024, we examined articles that very clearly were produced with ChatGPT and we found how the articles rapidly spread through Google Scholar, an academic search engine, into the many networks and archives. This way, these non-scientific articles became part of scientific literature, which is a worrying development. We also wrote an opinion piece in which we critiqued the traditional media portrayal of climate change as an economic benefit for Sweden. This was especially the case in media headlines. We realise that the digital economy poses difficulties for the traditional media and that therefore headlines need to be catchy, some would say clickbait, to attract readers and advertisers. Both examples raise questions about how environmental evidence and information is provided to the wider public and policymakers. And to me, it boils down to highlighting that the unequal distribution of control over information infrastructures has profound implications for how societies can respond to environmental crises.



A panel discussion in Lund, Sweden, about the role of libraries in sustainability transformations. Photo: Elin Söndergaard

99

The unequal distribution of control over information infrastructures has profound implications for how societies respond to environmental crises.

Your work has received quite a lot of attention and has been picked up by newspapers and magazines, why do you think that is?

I was a bit surprised, to be honest, that our article on ChatGPT-created papers got as much attention as it did. No other paper in the journal comes even close to the number of downloads and reads that our paper attracted. It was almost a shock. But on second thoughts, it probably shouldn't have been. There is extreme hype around these so-called AI tools, and media logic responds to hype but also needs to keep it going. And with commercial algorithmic systems, this increases. Naturally, we were pleased with the attention and the new connections that came from it, but our main argument got a bit lost. The argument focused on the potential for evidence hacking and the challenges entailed for media and information literacy with this way of muddying the waters. But this is a slow development and it can't be easily quantified, which makes for boring headlines.

What do you think we need to pay more attention to, in everyday life or as a research community, when it comes to the issues you work on?

For one, the crisis of information and the various environmental crises we experience are interdependent. That requires a lot more attention and we need to develop new ways of seeing and examining this interdependence. To me, this also involves imagining new ways of thinking beyond, besides, or away from the future that we are presented with. One of my academic heroes, Susan Leigh Star, often wrote about the need to attend to boring topics and this is also my mantra: we need to pay attention to the boring stuff, to small frictions and minor breakdowns. Infrastructures, standards, metadata and routines and so on are boring but they are where change happens, power takes shape, and discourse solidifies. This can be transformative, but it is not predetermined in whose interest. \mathcal{O}

One example...

...from the work in 2024 is the article discussed above: Haider, J., Söderström, K. R., Ekström, B., & Rödl, M. (2024). GPT-fabricated scientific papers on Google Scholar: Key features, spread, and implications for preempting evidence manipulation. *Harvard Kennedy School (HKS) Misinformation Review*.

Focus area 12345

Meaning-making

Processes of meaning-making in environmental communication

Emotions play an important role in sustainability transitions. The existential threats of climate change and biodiversity loss worry many people and generate a range of emotions, such as anxiety, anger and hopelessness. These emotions are not only individual, but also social and often collectively felt. In the focus area of meaningmaking, we investigate emotions as intraindividual processes and experiences, but also as resulting from social interaction, cultural norms and as political, mobilised in discursive struggles. From these points of departure, we study the impact of emotions on people's understanding and actions in sustainability transitions. Empirically we focus on how museums and nature visitor centres can be places for people to meet and discuss their feelings.

People and organisations

- Maria Johansson, Professor in Environmental Psychology at Lund University
- Johan Rahm and Marlis Wullenkord, Lund University
- Hanna Bergeå, Swedish University of Agricultural Sciences
- Carin Graminius, Swedish School of Library and Information Science (SSLIS), University of Borås
- Shiv Ganesh, University of Texas at Austin
- Ylva Hillström, Moderna Museet
- Susanna Rappe George, Jennifer Shutzberg and Elin Fornander, Åsa Marnell, Historiska museet
- Marie Sager, Naturum Skrylle
- Jasmine Zhang, Centre for Nature Interpretation



Maria Johansson Research leader of the meaning-making focus area

Diverse collaborations for learning about emotions

The meaning-making focus area bridges environmental psychology and communication, exploring emotions as both individual experiences and a social phenomenon. Maria Johansson, research leader of the focus area, shares insights about the interdisciplinary work from the last year.

Our research deepens the understanding of how emotions play a role in meaning-making about global environmental change. We are in particular analysing how places and artefacts may matter to the emotions felt and expressed in communication, and how empathy may support people in dealing with emotions such as fear, anger and frustration.

Combining the disciplines of psychology and communication offers great promise. But, combining these two disciplines is also a challenge, as their respective theories, concepts and methods are sometimes quite different from each other: for example, a focus on individuals versus a focus on social interaction. When starting such collaboration, you need to devote much time to discussing the disciplines and the relations between them. 2024 was the first year for us to work on this focus area together. We found that our disciplines are not only different, but also similar: both environmental psychology and environmental communication stress the importance of context, though using different terminology. It is nice to see how our perspectives complement each other well and help us link individual and social processes of meaning-making. There is still a lot of conceptual work to do here, but this start is promising.

Your team is quite diverse, not only in terms of disciplines, but also consisting of a range of societal actors. What have you learned about collaboration over the last year?

Yes, our team also exists of several organisations targeting the public, such as museums and nature visitor centres (in Swedish called "Naturum"). Our collaborating institutions are excellent partners for so many reasons. They are very experienced in planning and doing guided tours for different visitor groups, share a lot of thoughts and ideas with us about their communication in relation to climate change and biodiversity decline, and are enthusiastic and curious about what we can learn together.

8

DD

Our research deepens the understanding of how emotions play a role in meaning-making about global environmental change.

The research team is exploring the use of places and artefacts in environmental communication. Photo: Maria Johansson These institutions also function as case studies, where we study both individual and social meaning-making. Together with our partners, we investigate how place, artefacts and guides influence visitors' emotions and meaning-making, and how cultural institutions can provide a space for people to meet, talk and act in relation to environmental crises.

What did we learn last year? Well, we knew from the start that an important endeavour was to build strong bridges between environmental psychology and environmental communication, and we have carefully designed our study in order to enable working together and discussion. One essential element for this collaboration are the guided tours that we study in different contexts. These guided tours function as so-called boundary cases, i.e., cases that we all – societal partners and researchers from different disciplines share. These cases gave us a concrete and common reference, which we can all approach from our different perspectives, disciplines and experiences. What have you learned so far about the role of organisations targeting the public?

We have learned that these organisations are increasingly fulfilling this public role of gathering people to discuss nature, biodiversity and climate from different perspectives. Knowledgeable guides bring these places and their artefacts to life and help visualisation of diverse thoughts and ideas.

Does your work influence how you think about your own emotions when it comes to the environmental crises?

Yes, we have also discussed this as a team. As for me, I feel that it has made me aware of the broad range of emotions that I feel in relation to the environmental crises, and how they can fluctuate between despair and hope. \bigcirc

One example...

...from the work in 2024 is an article which highlights talking about concrete experiences as an important ingredient for constructive conversations about global environmental change. Wullenkord, M., & Johansson, M. (in press). Talk about it: An explorative study on the role of private-sphere conversations in ecological crisis communication in Sweden. *Routledge Handbook of Climate Crisis Communication*.

Another example is an article which turns to the role of humour and how irony can be used in environmental campaigns. Graminius, C., & Bergeå, H. (in press). "Bad environmentalism": irony, bodies, and spatio-temporal complexities. *Journal of Environmental Communication*.

Knowledge

The constitution of knowledge and truth in environmental communication

Science as a source of knowledge is often contested, especially in the context of environmental policy and sustainability transitions. While such contestation is part of a pluralistic democracy, anti-scientific narratives and relativism impact how knowledge and expertise are referred to and used in decision-making. Although values and emotions have always been influential in governance, their importance has become more explicit in recent years, while also becoming an object of controversy and debate.

In this focus area, we explore knowledge, emotions and values in the discussion of environmental issues, and how they affect governance practices.

People and organisations

- Anke Fischer, Professor in Environmental Communication, Swedish University of Agricultural Sciences
- Klara Fischer, Nora Förell, Amelia Mutter, Lars Hallgren, Martin Westin, René van der Wal and Jasmine Zhang, Swedish University of Agricultural Sciences
- Per Bengtson and Katrin Hammarlund-Jones, Centre for Nature Interpretation
- Maria Brandt, Biotopia
- Swedish Environmental Protection Agency
- Actors on Gotland (storytelling)



Anke Fischer Research leader of the knowledge focus area

DD

Freedom, like justice, is a powerful concept. Given their fundamental appeal, we need to carefully examine how people use them.

Negotiation of values in environmental debates

Swedish and international politics have been quite turbulent over the past year, especially regarding the contestation of knowledge, an issue that seems more relevant than ever. Anke Fischer, the research leader in this focus area, discusses the most challenging themes her team worked on in 2024.

One of the main themes we worked on was the public debate on transition governance and climate policies - an extremely fast-evolving communication arena, both domestically and internationally. We examined how value-based arguments related to justice and freedom influenced the negotiation and contestation of climate policies in Sweden. We were fascinated by the dynamics of the public debate. Just a few years ago, justice had emerged as a key principle for the climate transition and was institutionalised. for instance, in the EU's Just Transition Mechanism. In Sweden, references to justice quite rapidly became an important ingredient in the climate political debate, often used to argue that current climate policies placed an unfair burden on certain groups in society. In our analysis of the ongoing public debate, we then found that references to justice were increasingly replaced by arguments related to freedom. A typical statement was, for example, that climate policies

should not affect an individual citizen's freedom to live and work wherever they wanted.

Freedom, like justice, is a powerful concept. Given their fundamental appeal, we need to carefully examine how people use them. Everyone wants freedom and justice, and few societal actors would want to suggest that they are planning to constrain people's freedom or make society less just. Given the fundamental appeal of these concepts, we believe it is important to carefully examine the meaning of these principles as they are constituted in public debate.

We found that many speakers used the current situation as a reference point, and portrayed climate policies as an intervention that compromised current freedom. The discussion about mobility was particularly heated. Driving a car, unconstrained by fuel prices, was often equated to freedom. Although some voices questioned whether the current state really meant freedom, or whether there were other ways to think about freedom, this discussion never gained traction in the public debate. In our analysis, we thus saw that value-based arguments played an important role in climate political discourses, but that their meaning was rather 'thin' – their main function seemed to be to legitimise the speaker's argu-



Bästeträsk, Gotland: Participants in a workshop, organised by the Swedish Centre for Nature Interpretation, look for a very small snail, *Chondrina arcadica*, that grazes on lichen in limestone cracks. Photo: Eva Sandberg ment through their normative power. Based on these findings, we piloted a workshop format suitable for educational and local governance contexts that encourages participants to explore in more depth what freedom means to them – a strand of work that we plan to continue in 2025.

Can you share an example of how your research has engaged with partners within the programme, and what impact this collaboration has had?

We are working on a case study focusing on environmental storytelling, especially on how stories draw upon and mobilise knowledge, emotions and values. Our research examines the narratives told and selected within the nature interpretation systems of the emerging Bästeträsk National Park in northern Gotland. Since 2020, the Swedish Centre for Nature Interpretation (SCNI) has been involved in developing this new national park, supporting the Swedish Environmental Protection Agency and Gotland's County Administrative Board. While Lake Bästeträsk had already been designated as a nature reserve in 2001, the proposed national park covers a larger area with diverse natural landscapes typical for Gotland and Öland. At the same time, the park is adjacent to industrial landscapes shaped by limestone

mining. The process of identifying the unique values of this area has engaged many local actors, and SCNI became involved early on to support the development of the nature interpretation system as part of the infrastructure planning. SCNI has actively used the concept of 'story' to highlight values, emotions and knowledge expressed by local stakeholders. As a result, several of these stories have been acknowledged and shared.

A dialogue between SCNI and researchers began in 2024, leading to a shared interest in understanding this process in greater depth. A field visit in November 2024, during which SCNI organized a stakeholder workshop, kicked off our joint work on this case. Going forward, we will conduct interviews and observation to follow the development of the national park and examine how nature interpretation influences the stories presented. This will provide valuable insights into a key question of this focus area – how values, emotions and knowledge are negotiated through storycrafting. We believe this will be useful for both this and future national park designation processes. Ø

One example...

...from the work in 2024 is the well-received and discussed Keynote presentation that Anke Fischer gave at the Environmental Science Research Day, organised by Stockholm University. The talk was titled "Three helpful ideas about environmental communication – and how they might contribute to a better relationship between science and society", which gave Anke the opportunity to discuss the programme's take on science communication with a large group of natural scientists.

Governance

Governance, collaboration and resistance in environmental communication

As resistance to sustainability transformations is growing, environmental governance is under increasing pressure. Process facilitators and other governance practitioners face significant challenges in participatory processes, for example related to wind power establishments and climate policy. In this focus area we study how polarisation and resistance are reshaping power relations in collaborative governance and public participation.



Martin Westin Research leader of the governance focus area

DD '

A dialogue-tool that we developed helps to assess if and how dialogue is possible in situations where truth and facts are contested.

People and organisations

- Martin Westin, researcher at the Swedish University of Agricultural Sciences
- René van der Wal, Camilo Calderon, Robert Österbergh and Miron Arljung, Swedish University of Agricultural Sciences
- Alexander Hellquist, Uppsala University
- Christina Frimodig and Stina Söderqvist, Swedish Environmental Protection Agency
- Raymond Wide and Johan Wester, Swedish Forestry Agency
- Ida Wiking, Linda Ahlford, Helena Nordström-Källström and Emma Ringqvist, Uppsala municipality
- Bodil Elmhagen, The Swedish Hunters' Association
- Eva K Sandberg, Katrin Jones Hammarlund and Jasmine Zhang, Centre for Nature Interpretation
- Anna Lena Lohaus, Greenpeace
- Joakim Lindmarker, Urban Minds

Developing tools for dialogue and reflection

How do organisations shape public participation? What happens when experts and communities collaborate? Martin Westin, research leader of the governance focus area, shares key insights from 2024 – including new methods for democratic engagement and sustainable urban planning.

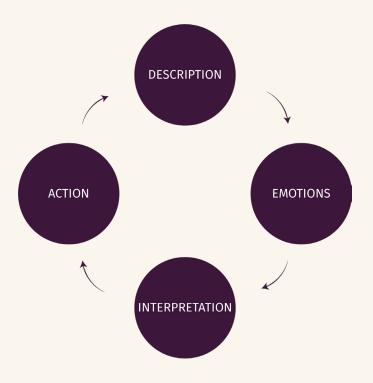
Can you share one insight from your work last year?

If I can pick only one... then it is the agendadriven participation. We studied how organisations described the participatory processes they designed. Interestingly, the organisations viewed participation not only as a method for democratic conversation, but also as a way to advance their policy preferences. We call this agendadriven participation. For example, a political party suggested the establishment of citizen councils, so that residents could discuss infrastructure plans, but also to enable the residents to resist the plans that the party did not like. This kind of participation is paradoxical: it offers democratic renewal, but the participatory designs support specific policy agendas. This raises thorny questions about the legitimacy of public participation across social divides. For example, do those in favour of the infrastructure plans find the citizen

councils legitimate? Our study highlights the need to scrutinize the choices made during the design of participation to ensure that democratic innovations are legitimate across political divides.

You work with several societal partners, such as the Swedish Forest Agency, the Hunters' Association, and Greenpeace. What have you learned from working together?

Working with these partners has been centrally important. In 2024 the researchers and societal partners met regularly to develop knowledge about, and to improve, collaborative practices in times of tension and resistance. Together we discussed the research questions, and the societal partners helped interpret the findings, based on their knowledge of the practice and context. Additionally, they helped us develop tools for collaboration and participation. One example is a dialogue-tool that we developed, which helps to assess if and how dialogue is possible in situations where truth and facts are contested. Together with the partners, we could ensure that the tool is relevant for practice. From this experience we learned that for the combination of theoretical and practical work that we do, collaboration with societal partners is absolutely key.



Can you share an unexpected finding from 2024?

Our study on the reflection cycle led to a surprise. We developed this tool to help facilitators learn from challenging situations in their work. It is based on the ideas of reflective practice and experienced-based learning. These ideas are critiqued for ignoring power relations. Even if our tool is widely used and well-appreciated by facilitators, the power-question kept on bugging us. We took on the challenge of making the reflection cycle power-sensitive and helpful for facilitators also in contentious, power-laden situations. To our surprise, this was not as impossible as it seemed at first: the literature on reflective practice and power were rather easily combined, it just had not been done yet! Sometimes, we just need to look only a little bit outside a field to make breakthroughs, which really speaks to the importance of working across disciplines and beyond the walls of the university.

You developed 'The Sustainability Walk'. What is it?

The Sustainability Walk is a method for planning areas that enable and encourage people to use everyday sustainable practices. Experts and residents walk together to explore, experience and try out a place. During the walk they work on two main questions: 1. What everyday choices does this place encourage? 2. How can the place be changed to promote sustainable everyday choices? Getting experts and residents together is a very productive way of integrating general expertise and local knowledge in sustainable planning. These walks are really quite powerful; they always provide new insights both for residents and experts. Moreover, the walks have led to further collaboration and a willingness to engage for the local neighbourhood. There is quite a lot of interest in this tool, including internationally, so we plan on also making it available to an international audience. Stay tuned! Ø

One example...

...from our work is the network we created for practitioners working with collaborative governance and public participation. The network brings together over 80 practitioners from civil society, companies and authorities to exchange experiences, develop knowledge and promote professional development. It is an important forum for identifying relevant research questions, interpreting preliminary findings and putting research findings into collaborative and participatory practices. In 2024, we organized several webinars which, beside outreach, also provided us with valuable feedback on research and the practical tools that we developed.

Focus area 1 2 3 4 5

Transformation

Co-creating transformation through environmental communication

The focus area of transformation centres on practical initiatives that bring people together to envision new and more sustainable futures together, while putting these futures into practice. The research team collaborates with several initiatives, such as regenerative agriculture, continuous-cover forestry and restoration of wetlands, and studies how local land-use narratives resist and enable change towards more regenerative land-use practices.

We are a transdisciplinary team who share an interest in developing forms of meaning-making and communicative processes that:

- are attentive to the co-dependence of people and nature
- strengthen capacity to cope with uncertainty and competing knowledge claims
- address unequal power relations

People and organisations

- Sara Holmgren, researcher at the Swedish University of Agricultural Sciences
- Susanna Barrineau, Thao Do, Max Whitman, Neil Powell and Eva Friman, Uppsala University
- Stina Powell, Amelia Mutter, Jasmine Zhang and Ann Grubbström, Swedish University of Agricultural Sciences
- Marcus Bussey, University of the Sunshine Coast
- Michael Wilson, Loughborough University
- Magnus Bergström, Paskaia
- Leonard Palmberg, film photographer
- Hanna Alfredsson, Biosphere Reserve Voxnadalen
- Maria Richter Simsek, graphic recorder, illustrator and facilitator
- Elin Ångman, Mälarens vattenvårdsförbund
- Åsa Larsson, The Swedish National Heritage Board
- Paula von Seth, artist and art pedagogue



Sara Holmgren Research leader of the transformation focus area

Co-creating alternatives for sustainable transformations

In this focus area, we study how sustainability transformations are brought into being and resisted, as well as how they unfold in different directions. Transformations are not just about bright ideas and innovations. They are processes that shape and are shaped by communication. We are particularly interested in the role of storytelling and narratives, and how co-creative research design can help us phase out destructive ideas and practices, and provide a space and a vocabulary in which new ways of thinking, seeing and doing can develop. Research leader Sara Holmgren introduces the work.

Sara, your research team has been engaged in local development processes. What does your work involve?

Initially, a lot of time and effort has gone into finding local partners who are interested and have the possibility to collaborate with us. Once we had established relationships, we started working closely together to design and facilitate communicative spaces and processes. This allowed us to jointly explore visions of desirable futures and different ways to achieve them. It paved the way for more concrete projects that we are developing, including an excursion series on alternative forest management and a pilot project focusing on creating income from forests in ways other than by cutting them down all at once and replanting.

> I wouldn't say we are studying alternative land-use futures; we are actively coproducing them.

Alternative land-use is one of your study areas. What are you studying more specifically?

Well, actually, I wouldn't say we are studying alternative land-use futures; we are actively co-producing them! The climate and nature crisis challenges us to fundamentally rethink how we live, produce and consume. The concept of alternative land-use futures highlights that there are many possible ways of using land, which differ from dominant approaches. It involves an active development of alternatives. To this end, we recognise and collaborate with actors who think and do differently from those dominant approaches. These actors are often not so visible. Providing opportunities for them to articulate their perspectives and experiences generates important insights into how current norms, rules and organising enable or hinder alternative ways of thinking and doing. Moreover, by highlighting their work, we help make alternatives possible for a wider group of people: if you only know of dominant land-use, it is difficult to think of and do something else. Here we provide new ways of thinking and doing. We have found that our co-creation activities are important platforms for building relations and capacity for action.

Can you share some results from collaborations that took place within your focus area during 2024?

There have already been many exciting spin-offs and implementation activities. Members of the focus area team had previously led a co-creation process in Honduras on carbon farming for local development and global climate compensation. They began exploring possibilities for a similar co-creation initiative in Voxnadalen Biosphere Reserve (Sweden), which led to a successful application for an excursion series there, open to anyone interested in alternative forest management. This collaboration has spilled over into local food production, where another co-creation process has recently kicked off. Parts of the ongoing work have been summarised scientifically in two PhD theses presented in 2024.

How do you approach these issues from an environmental communication perspective?

An important part of societal transformations is the construction of new narratives that can help us work for sustainable futures. Narratives structure the way we think, imagine, interpret, take action and identify with other humans or non-humans. As such, they are fundamental to individuals, communities and societies. To critically study the assumptions of these narratives, and highlight assumptions that do not contribute to sustainable transformations, is an important task of environmental communication studies, and an important step in co-creating new narratives. Through co-creative methods, we not only study, but also gather people and provide space for alternative futures to be narrated, including how these futures can be enacted here and now. In the coming years, we will work to conceptualise and situate our narrative and co-creative approach in the wider field of communication studies. 🗘

One example...

...from our work is the project with our partner, Paskaia, and the indigenous Miskito communities in Honduras. Through a collaborative research process we have explored various methods to co-design the savannah restoration initiative. Paskaia recently sold its first carbon credits. With the project now certified, efforts can expand beyond the pilot sites to restore the currently degraded savannah.

Synthesis

Synthesis includes activities and projects that connect themes, theories, and people from the different focus areas. These projects can be long- or short-term, and respond to societal developments or questions that arise within the programme and the field of environmental communication.

Environment in environmental communication

What we mean by 'environment' in environmental communication is seldom discussed, yet it is a key question for the further development of the field. In this project, we explore how 'environment' is approached in the study of environmental communication. In 2024, we conducted a literature review of 100 research articles in the journal Environmental Communication. In these articles, environment was used as a context for the research (29 %), as connected to the research (52 %), or as integrated in the research (19 %). Articles that integrated environment in the research gave environment a prominent role conceptually, empirically and/or in how the paper was written. These papers are interesting examples of additional directions to develop the field of environmental communication and enable interesting new collaborations with other fields. We are now working on the next step, to explore how we can put these findings to work in our programme, in the field, in connections to 'environment' centred disciplines and wider society.

Communication in Environmental Communication

How and where can our environmental communication research contribute to the wider field of communication research? In this ongoing project, leaders and participants from the different focus areas and ongoing projects collaborate to link empirical and theoretical developments to communication studies. In 2024, an essay about the transdisciplinary approach of Mistra Environmental Communication was accepted by the *Journal of Applied Communication Research*, and more academic papers are in preparation.

Textbook

In order to gather knowledge from the research programme and the Master's education in Environmental Communication, and make it widely available, we are writing the open access textbook 'A Critical Introduction to Environmental Communication'. As part of the writing process, the author team gathers participants from across the programme in discussions and meetings, which enables programme-wide conversations and learning. For instance, the author team coorganised a programme laboratory in 2024, which focused on the theme of 'Power in Environmental Communication'. The first book chapters have been completed and positively reviewed by the publisher, Routledge. The book is scheduled for publication in summer 2026 and will be available for use in courses during the following autumn.

The Observatory

The environmental communication observatory started in 2024 as part of the Information focus area. It explores, investigates, and comments on emerging issues at the intersection of environmental communication and information cultures. We use rapid response research with short study time frames to explore these emerging issues and contribute to societal debates in scholarly and popular scientific outlets.

Two activities that we conducted in 2024 had particularly high impact. The first is a short academic publication on the risk of ChatGPTfabricated research. This has been featured in many national and international news outlets. The other is an opinion article written in *Dagens Nyheter* that critiqued the opportunistic reporting by Swedish media on the accelerating climate breakdown. Other activities led to published popular science pieces in *Sveriges Natur* and *Tech Policy Press.* All these are listed in Outputs (see page 41).

NiLab

The Nature Interpretation Lab, NiLab, is a platform where researchers and practitioners work together and learn about nature interpretation, a form of communicative practice that typically happens in outdoor environments. It often focuses on knowledge, experiences and feelings of cultural and natural landscapes. Jasmine Zhang, coordinator for NiLab, explains how it facilitates mutual learning.



Jasmine Zhang Coordinator for NiLab



Where did the idea for NiLab come from?

It arose from a search for collaboration across disciplinary and professional boundaries. When the Swedish Centre for Nature Interpretation was established, the idea was to develop methods and knowledge to support nature interpreters nationwide. This is what has been done over the past sixteen years – building and supporting a strong network of practitioners who are passionate about communicating the values of being in nature. Research has also been conducted, but more is needed. For instance, what kinds of interaction does nature interpretation enable between people, as well as between people and their surroundings? And what do these interactions lead to?

When we started to explore collaboration opportunities with Mistra Environmental Communication, we realized that it was the perfect way to connect the rich experiences of practice with the systematic and critical perspectives of researchers. Use of the word 'lab' is appropriate, as we see NiLab as a constant process of experimenting, detecting and implementing. It aims to make connections and spark common interests, very much like an incubator encourages growth.

What inspired your involvement in this?

I came across nature interpretation while still a bachelor student in Southwest China, working as a volunteer in the first national park there. I helped to work out texts for information panels

The local photographer, nature guide and entreprenur Antti Kurola tells about landslides that happened in the past. In Pyhä-Luosto National Park, Finland. Photo: Jasmine Zhang



The programme is perfect to connect the rich experiences of practice with the systematic and critical perspective of research.

and nature guides' narratives, which were included as part of an interpretation system for the national park. That experience has sent me on a journey ever since, searching for some kind of solution to reduce anthropogenic damage to planet Earth. I think I have grown more critical over the past fifteen years, and nowadays, I am more interested in understanding the complexities and possibilities of different situations rather than looking for solutions. But I still believe that nature interpretation is an essential part of sustainable transitions.

You have already organized and hosted several activities. Could you share some insights about them?

We had a kick-off symposium in April. It was a wonderful gathering of researchers and practitioners from diverse backgrounds. The goal was to make it loud and clear: we are now doing research on nature interpretation together with Mistra Environmental Communication, and we want to do it together with you! It was inspiring to see the room filled with ideas and energy. The discussions between researchers and practitioners were spot on. While research and practice may differ, their questions and knowledge complement each other! The day spoke to the importance of facilitating connections between them. While many recognise the value and synergies of such collaborations, researchers and practitioners sometimes need help finding each other. The programme is perfect to connect the rich experiences of practice with the systematic and critical perspective of research. Many themes were discussed, including how change occurs through nature interpretation in the context of environmental issues such as climate and biodiversity crises. The themes are very closely connected to the overarching vision of the programme.

We have also worked with facilitating concrete collaborations between practitioners and researchers from different focus areas within the programme. For instance: Upplandsstiftelsen (a regional trust that promotes public use and understanding of nature) gave researchers from the focus area of meaning-making a wonderful guided tour to explore overlapping interests; researchers from the the focus area of knowledge had a field visit to an upcoming national park on Gotland, exploring the role of nature interpretation when defining and communicating conservation and experiential values. NiLab is also collaborating with other projects of the Mistra Environmental Communication programme, such as in creating a textbook.

Looking ahead, I hope the work of NiLab continues to support collaboration that could lead to research and practices as part of the larger sustainable transition, while caring for the relationships built in the process. Ø

> The NiLab was launched in 2024. It is led by the Swedish Centre for Nature Interpretation.

In collaboration

Mistra Environmental Communication consists of a broad range of organisations from different societal sectors. It involves twenty societal partners, who participate in the programme in various ways: from contributing to the research process to participating in specific research activities and knowledge exchanges. Among the partners in the programme, there are local, regional and national authorities, agencies, businesses, cultural organisations, independent artists, and academic institutions. This collaborative approach helps to connect research and practice, translating knowledge into tangible communication practices for sustainability.

Swedish Library Association

In 2024, Mistra Environmental Communication welcomed the Swedish Library Association as a new partner. Ossian Hall represents the Association and emphasises the importance of integrating environmental communication into library development. He tells us about his experience in the programme.

Environmental communication was completely new for me as a field and concept. But through my participation in the programme I have come to understand its societal significance: when my colleagues and I realised environmental communication is about human interactions, power dynamics, and democratic principles, its relevance to our work became clear. Moreover, our participation in the programme is helping us shift to give more attention to environmental sustainability, something we have traditionally not worked on much in libraries but aim to work with much more.

A key event in 2024 was a panel discussion on libraries' role in the sustainable transition, coorganised by Mistra Environmental Communication, the Swedish Library Association, the libraries



Ossian Hall Swedish Library Association

at Lund University, and Regionbibliotek Västernorrland. The discussion explored both libraries' internal sustainability work and their potential to engage the public.

During the panel discussion, we saw a strong commitment to sustainability in the libraries themselves. This was very motivating and helped us to increase our efforts in this area.

I want to stress the important role libraries can play: every municipality in Sweden has at least one library, so there is an enormous infrastructure. Libraries are more than repositories of books – they are spaces for democratic dialogue. They can serve as spaces for communities to discuss environmental changes, from wind farm protests to climate policies affecting their surroundings.

Swedish Environmental Protection Agency

The Swedish Environmental Protection Agency has been a part of the programme from the start. Christina Frimodig, dialogue and cooperation lead, says that the programme's research and tools have been directly useful within the agency. She emphasises how the programme has strengthened the legitimacy of working with dialogue and collaboration in complex challenges.

For me it is always important to learn about new developments in the field of environmental communication. Of course, related areas exist, such as political science and general communication studies, but this programme integrates my specific questions. It is the kind of knowledge that I need.

I am involved in the programme's governance focus area, which is about dialogue and cooperation, and which has had two main impacts. First, for us as professionals, the research strengthens the legitimacy and mandate to work with dialogue and collaboration in complex socio-environmental challenges – that is not always a given. Second, the programme's work contributes directly to our organisation's development. We bring the knowledge into our internal network on dialogue and collaboration, and we have integrated several of the programme's tools into our own toolbox. This has been very beneficial.



Christina Frimodig Swedish Environmental Protection Agency

I appreciated the 2024 Environmental Communication Day. We talked about polarisation, power and counterpower, and we worked hands-on with a dialogue tool. That is what I find so valuable: in my profession I meet and think about certain challenges. And you do research on those things that are relevant for me, and then also organise a workshop or event where these ideas come to life.

It is also really good to hear about others' practices. Sometimes you feel as if you are the only one working on these issues, but that is of course not the case and then it is so valuable to come to the Mistra Environmental Communication events and meet other professionals.

I find it really good and important that we as professionals are part of the research and can participate in, for example, developing the tools from the programme. Both research results and experience-based knowledge are valuable, and this programme does a great job elevating both. An activity from one of the two ongoing projects currently being implemented in collaboration with the programme. The activity shown in the image focuses on the food chain and civil preparedness. Photo: Hanna Alfredsson



Biosphere Reserve Voxnadalen

In 2024, the programme welcomed Biosphere Reserve Voxnadalen as a partner. The Biosphere Reserve is an UNESCO-designated site and has as its mission to support research, education, and learning for sustainable societal transformation. The partnership has proven beneficial for both parties, specifically in exploring how research can be translated into practice to contribute to a sustainable societal shift. Hanna Alfredsson, coordinator for Biosphere Reserve Voxnadalen, shares her thoughts about the collaboration.

By acting as a bridge between the research community and other stakeholders in society, we aim to promote the social relevance and practical application of the research conducted. Being a societal partner in Mistra Environmental Communication, and the Transformation focus area, is therefore fully in line with our missions. The collaboration is valuable to us and has produced many spin-offs that are mutually beneficial. The collaboration has influenced the direction of our work. An initial series of workshops on multifunctionality in the forest landscapes in the biosphere reserve has led to new contacts, joint project applications and activities. We recently launched two projects together, one about diverse forestry and another on self-sufficiency and civil preparedness in the food chain. By working together, we benefit from each other's competences, networks and resources, leading to synergies in our different missions.

At the same time, working with the programme gives us many other benefits in return. Personally, I'm learning a lot about the subject of environmental communication, which gives me new insights and experiences that I can introduce into the Biosphere Reserve's other areas of work.



Hanna Alfredsson Biosphere Reserve Voxnadalen



It is also great that Mistra Environmental Communication offers many opportunities to get involved in the programme in various ways. For instance, I'm part of a reference group that promotes the exchange of knowledge and expertise between researchers and practitioners in the field of sustainability. From this context, I can bring knowledge and experience to the Swedish Biosphere Programme and share it with the other seven biosphere reserves in Sweden.

On behalf of the biosphere reserve, we very much look forward to continuing the collaboration with Mistra Environmental Communication in the years to come!

What is a Biosphere Reserve?

Biosphere reserves are sites for sustainable development. Designated by UNESCO, they promote interdisciplinary approaches to understanding and managing the interactions between social and ecological systems, including conflict prevention and management of biodiversity. They are places that provide local solutions to global challenges. Biosphere reserves include terrestrial, marine and coastal ecosystems. Since 2019, Voxnadalen is one of the eight biosphere reserves in Sweden.

Events

Annual Programme Meeting

The Annual Programme Meeting brings together the programme partners – researchers as well as societal partners – to share research results, reflect and learn from each other, and enable synthesising and synergistic discussions and work. The meetings are a much-appreciated opportunity for all partners to meet, discuss and learn with other groups in the programme.

Over two days in March 2024, we gathered in Uppsala for our Annual Programme Meeting. The meeting marked both the end of phase I of the programme and the start of phase II. On the first day we celebrated the work of phase I in plenary sessions by focusing on important outcomes and insights from the work done. In various working and meeting forms we discussed the societal value and impact of phase I, as a basis for the work in the coming phase. Artist Holly Keasey presented "An Atlas of Environmental Communication", which explores how visual, material, and performative meaning-making practices shape environmental discourse, governance, and sustainability. Jutta Haider, Professor in Information Studies, presented the results from "Fighting windmills" - a project about the configuration of dis- and misinformation about sustainable energy initiatives in society's dominant information infrastructures. At the end of day 1 we launched our special issue "Environmental Communication in Planning, Natural Resource Management and Sustainability Transformations" in the *Journal of Environmental Planning and Management*. We did so through an international hybrid event with programme partners and others interested.

The second day kicked off the second phase of the programme. Each of the five new focus areas, new projects and teams introduced themselves through presentations, creative exercises and guided discussions. We ended the day with three workshops about how to get your research known outside of the university, which included a host of concrete and practical tips that we will have much use of.

<complex-block>

A dialogue during the Annual Programme Meeting. Societal partners and researchers discuss their work in the upcoming four years of the programme. Photo: Raina Nadila

Program Laboratory and Environmental Communication Day

Each fall we host the Programme Laboratory and the Environmental Communication Day. This year's theme was *power in environmental communication*. The Programme Laboratory focuses on research. The Environmental Communication Day targets environmental communication practitioners in Sweden, and offers concrete learning material and processes for putting insights from the programme into practice.

Programme Laboratory

The role of power in environmental communication can hardly be exaggerated. While there is increasing interest in, and acknowledgement of, power, it is often still missed or neglected, both in theory and practice. Across the different focus areas and projects in the programme, people work with power, but quite often through different concepts and theories. In our first internal programme lab in October 2024, we focused on the theme of power in environmental communication. The overarching aim of the day was to broaden our understandings of power, consider how we come across it in different ways in our research, and then map our different and collective understandings for future work.

Participants from across the programme took part in a brainstorming session based on different vignettes from our own (research) experience. We worked through power and related concepts such as authority, influence, persuasion, agency, (dis-) empowerment, conflict, and change. In groups we thematically mapped the concepts, ideas and actors from the vignettes. We then discussed these insights in relation to a systematic analysis of power in scientific articles from Mistra Environmental Communication, presented by Shiv Ganesh, Professor in Communication Studies at the University of Texas at Austin. The discussion clarified the relation between the different power concepts and the different ways we have been working with power in the programme. It also highlighted gaps in our research. For example, the fact that we did not directly engage with capitalism and the market system was pointed out.

The programme lab provided a venue for collaboration on the concept of power and had the concrete results of contributing to the development of a chapter in the textbook 'A Critical Introduction to Environmental Communication' and providing the opportunity for us to together work on our programme principles (see page 11). Several participants also attended the practice day, which directly followed the programme lab, and remarked on how productive it was to have the theory and practice days combined, and focused on the same theme.

Miljökommunikationsdagen (the Environmental Communication Day) – Power and counterpower in sustainability transformations

The Environmental Communication Day is an annual knowledge event for professionals from civil society, government, companies and other organisations, who work with communication for sustainability. It offers concrete tools for practice, competence development, and forms a valuable opportunity to make new contacts and exchange experiences.

Changing our society to a more sustainable one is a challenge of unprecedented magnitude. It encompasses all societal sectors: how we produce and consume, travel, and relate to other living beings and ecosystems. Here, many different values, perspectives and ideologies are at play, making the 2024 theme of the Environmental Communication Day timely and urgent: Power and counterpower in the sustainability transition. The relevance and urgency of the theme was illustrated well by the fact that the event was fully booked within a matter of days.

In October 2024, a broad variety of professionals participated in an event that was packed with workshops, lectures and engaging conversations. The theme of the day was introduced by Martin Westin from SLU and Mona Lilja, Professor in Peace and Development Research at the University of Gothenburg, whose work centres on resistance. After this, the participants could choose between sessions that each highlighted a different aspect of power and counterpower. They could work with conceptual tools to better understand and deal with the complex dilemmas of justice in the green transition. They could analyse the relation between power and environmental engagement, or analyse and discuss how to enable dialogue in planning processes when people disagree on what is true. And finally, participants could try out generative AI to explore how it impacts fact-finding and may lead to fabricated content, malicious advice and encouragement of climate denial. A plenary panel brought the insights from the different sessions together, and we discussed the power relations in the transition and what possibilities and impossibilities this entails for people working with communication for sustainability.

Overall, the day allowed for plenty of discussion about this pressing topic and lots of opportunities for getting to know each other and sharing experiences of addressing power in environmental communication practice.

Elias Regelin from Biosphere Reserve Voxnadalen: The opening session on counter-power was a new concept for me. The workshop on dialogue in disagreement was particularly rewarding – it made me reflect on what conflict is really about. Taking part in these exercises and meetings gave me a better insight into what working with dialogue can look like in practice, which is definitely useful in my work. 1. Discussing power in a workshop at the Programme Laboratory. Photo: Mikael Wallerstedt

2. Meeting and discussing the <u>special issue in the *Journal*</u> <u>for Environmental Planning and Management</u>, at the Annual Programme Meeting. Photo: Raina Nadila

3. Wikimedia and the Swedish School for Library and Information Science lead a workshop on AI in environmental communication. Photo: Maria Nyström

4. The launch of the special issue in the *Journal for Environmental Planning and Management* at the Annual Programme Meeting. Photo: Raina Nadila

Carrow and the second second

Wikipedia, Wikimedia och AI

Financial summary

Mistra Environmental Communication is funded by 54 MSEK from Mistra during 2024-2027, and co-funded by 6 MSEK from its partners. As part of the total 60 MSEK budget, a reserve of 6 MSEK is available for the Programme Board to use for strategic research needs. The total budget for the first year shows underspending compared to the plan, but is on target for completion.

Funding 2024 (SEK)

Total	12 029 409
Universities and research institutes	2 063 357
Mistra	9 966 052

Costs 2024 (SEK)

Focus area 1 – Information	1 179 606
Focus area 2 – Meaning-making	514 530
Focus area 3 - Knowledge	1 674 010
Focus area 4 - Governance	1 580 005
Focus area 5 – Transformation	1 674 479
Mistra EC II Commons	5 153 597
The strategic reserve	253 182
Total	12 029 409



Outputs

Scientific Publications

Special issue (2024). Environmental Communication in Planning, Natural Resource Management and Sustainability Transformations. *Journal of Environmental Planning and Management*, 67(9)

Carpentier, N., Doudaki, V. (2024). "If You Don't Nurture the Nature inside of You, You Will Eventually Die": A Discourse-Theoretical Analysis of the Discursive Assemblage of Ecocentrism and Its Ethics in the Swedish Television Series Jordskott. *Mediální studia*, 18(1), 6–26

Doudaki, V. & Carpentier, N. (2024). Unpacking the discursive assemblages of anthropocentrism and ecocentrism: Articulations of space, place and time in the documentary film Gállok. Interactions: *Studies in Communication & Culture*, 13 (1), 7–33. https://doi.org/10.1386/iscc_00050_1

Eklund, A., Edenbrandt, A., Rahm, J. & Johansson, M. (2024). The physical environment matters: room effects on online purchase decisions. *Frontiers in Psychology*, 15. <u>https://doi.org/10.3389/</u> <u>fpsyg.2024.1354419</u>

Fischer, A., Joosse, S., Hallgren, L., & Westberg, L. (2024). How research on communication can help to understand the management of natural resources and sustainability transformations: practices, concerns and new perspectives on environmental communication. *Journal of Environmental Planning and Management*, 67(9), 1871–1885. <u>https://</u> doi.org/10.1080/09640568.2024.2345737

Fischer, A., Joosse, S., Strandell, J., Söderberg, N., Johansson, K., & Boonstra, W. J. (2024). How justice shapes transition governance-a discourse analysis of Swedish policy debates. *Journal of environmental planning and management*, 67(9), 1998-2016. <u>https://doi.org/10.1080/09640568.2023.2177842</u> Ganesh, S. (2024). On Separating Data from People: Reflections on Indigenous Digital Exhaust, Transparency, and Constitutive Relationality. *Environmental Communication*, 18 (1–2), 146–154. <u>https://</u> <u>doi.org/10.1080/17524032.2023.2299749</u>

Ganesh, S. (2024). Suffering and the edges of melodrama. *Quarterly Journal of Speech*, 110 (1), 112–119. https://doi.org/10.1080/00335630.2023.2292326

Haider, J., Söderström, K.R., Ekström, B. & Rödl, M. (2024). GPT-fabricated scientific papers on Google Scholar: Key features, spread, and implications for preempting evidence manipulation. *Harvard Kennedy School Misinformation Review*. <u>https://</u> doi.org/10.37016/mr-2020-156

Nicoletta, G.C. (2024). Counter-hegemonic digital environmental communication to survive the extinction internet: The Environmental Ideologies Map website. *Journal of Environmental Media*. <u>https://doi.org/10.1386/jem_00130_1</u>

Powell, S., & Joosse, S. (2024). Putting grant/d terms to work: from promise to practice in inter-and transdisciplinary research projects. *Discover Sustainability*, 5(1), 68. <u>https://doi.org/10.1007/</u> <u>\$43621-024-00251-0</u>

Westberg, L., Bergeå, H., & Hallgren, L. (2024). Meaning-making in the practice of collaboration: how implicit normative structures guide collaborative processes around contested natural resource issues. *Journal of Environmental Planning and Management*, 67(9), 2035–2054. <u>https://doi.org/10.1</u> 080/09640568.2024.232612

Westin, M., Joosse, S., Möckel, F., Lindmarker, J. & Österbergh, R. (2024). The Sustainability Walk – Combining Nudging and Pragmatism to Facilitate Collective Action and Reflection. *Scandinavian Journal of Public Administration*, 28 (2), 40–57. <u>https://doi.org/10.58235/sjpa.2023.14134</u> Westin, M. & Montgomerie, E. (2024). Negotiating Authority in Facilitation Practice – A Conceptual Framework to Describe Facilitators' Use of Power in Collaborative Governance. *Society & Natural Resources*, 37 (12), 1635–1654. <u>https://doi.org/10.108</u> 0/08941920.2024.2394943

In media

Boran, M. (2024). AI-generated junk science is flooding Google Scholar, study claims. *Newsweek*. <u>https://www.newsweek.com/ai-genera-</u> <u>ted-junks-science-floods-google-scholar-stu-</u> <u>dy-claims-1950703</u> [2025-03-21]

Constantino, T. (2024). AI Tools Fuel Rise Of Fake Research Papers On Google Scholar. *Forbes*. <u>https://www.forbes.com/sites/torconstanti-</u> no/2024/09/13/ai-tools-fuel-rise-of-fake-resear-<u>ch-papers-on-google-scholar/</u> [2025-03-21]

Edmonds, L. (2024). Fake GPT-written studies are flooding Google Scholar. Here's why taking them down could make things worse. *Business Insider*. <u>https://www.businessinsider.com/ai-acade-</u> <u>mic-papers-google-scholar-chatgpt-covid-clima-</u> <u>te-change-2024-9</u> [2025-03-25]

Färm, L. (2024). Medborgarforskningens informationspraktiker under lupp i ny avhandling. *Högskolan i Borås*. <u>https://www.hb.se/om-hog-</u> <u>skolan/aktuellt/nyhetsarkiv/2024/oktober/med-</u> <u>borgarforskningens-informationspraktiker-un-</u> <u>der-lupp-i-ny-avhandling/</u> [2025-03-24]

Fischer, A., Friman, E., Haider, J. & Holmgren, S. (2024). Sverige riskerar att bli känt som klimatkrisens gulaschbaron. *Dagens Nyheter*. <u>https://www.dn.se/debatt/sverige-riske-</u> <u>rar-att-bli-kant-som-klimatkrisens-gulaschbaron/</u> [2025-03-21]

Förmiddag med (2024). Övervinn vargrädslan! [Radio Program]. Producer: Åsa Secher, *Sveriges Radio*. <u>https://www.sverigesradio.se/avsnitt/overvinn-vargradslan</u> [2025-03-21] Graminius, C. & van der Wal, R. (2024). Teknisk infrastruktur styr vår relation till naturen. *Sveriges Natur*. <u>https://www.sverigesnatur.org/opinion/teknisk-infrastruktur-styr-var-relation-till-naturen/</u> [2025-03-21]

Guarino, B. (2024). What Search Engine Should You Use? *Scientific American*. <u>https://www.scientificamerican.com/article/google-is-a-monopoly-should-you-use-another-search-engine/</u> [2025-03-21]

Haider, J. (2024). AI-Powered Web Search Gives Climate Deniers and Conspiracy Theorists Free Rein. *Tech Policy Press*. <u>https://techpolicy.press/</u> <u>ai-powered-web-search-gives-climate-deniers-</u> <u>and-conspiracy-theorists-free-rein</u> [2025-03-21]

Haider, J. & Sundin, O. (2024). Utan tillit betyder källkritik närmast ingenting. *Dagens Nyheter*. <u>https://www.dn.se/debatt/utan-tillit-betyder-kallkritik-narmast-ingenting/</u> [2025-03-21]

Harness, D., Vujicic, S. & Steorn, N. (2024). Endast var tionde hållbarhetsrapport håller måttet – här är 3 konkreta rekommendationer. Aktuell Hållbarhet. <u>https://www.aktuellhallbarhet.se/</u> <u>ekonomi-och-strategi/hallbarhetsarbete/en-</u> <u>dast-var-tionde-hallbarhetsrapport-haller-mat-</u> <u>tet-har-ar-3-konkreta-rekommendationer/</u> [2025-03-24]

Holmgren, S., Eggers, J., Lundström, J., Greiser, C., Wallin, I., Eckerberg, K., Lämås, T., Bengt Gunnar, J., Brukas, V., Forsberg, M., Trubins, R., Sandström, P., Raitio, K., Horstkotte, T., Bergström, D., Nordström, E.-M., Löf, A., Belyazid, S. & Skarin, A. (2024). Sveriges skogsbruk är inte hållbart, ministern. *Aftonbladet*. <u>https://www.aftonbladet.se/a/GMolOJ</u> [2025-03-24]

Just, M. (2024). Boråsprofessorn varnar: Källkritiken i kris – så undermineras demokratins fundament. *Borås Tidning*. <u>https://www.bt.se/2024-08-05/bo-</u> <u>rasprofessorn-varnar-kallkritiken-i-kris-sa-under-</u> <u>mineras-demokratins-fundament/</u> [2025-03-21] Olofsson, C. (2024). Pling! Översvämning på gång. Tidningen Extrakt. <u>https://www.extrakt.se/pling-oversvamning-pa-gang/</u> [2025-03-24]

Olofsson, C. (2024). Svårt att gå sin egen väg i skogen. *Tidningen Extrakt*. <u>https://www.extrakt.se/</u> <u>svart-att-ga-sin-egen-vag-i-skogen/</u> [2025-03-24]

Österbergh, R., Fischer, A. & Westin, M. (2024). Rättviseargument blockerar Sveriges omställning. *Dagens Arena*. <u>https://www.dagensarena.se/essa/</u> <u>rattviseargument-blockerar-sveriges-omstallning/</u> [2025-03-21]

Persson, W. (2024). AI-genererad "skräpvetenskap" florerar i Google Scholar. *Högskolan i Borås*. <u>https://www.hb.se/om-hogskolan/aktuellt/</u> <u>nyhetsarkiv/2025/december/ai-genererad-</u> <u>skrapvetenskap-florerar-i-google-scholar/</u> [2025-03-24]

Rajkumar, R. (2024). Study finds AI-generated research papers on Google Scholar - why it matters. *ZDNET*. <u>https://www.zdnet.com/article/study-finds-ai-generated-research-papers-on-google-scholar-why-it-matters/</u> [2025-03-24]

Young, J.R. (2024). Should AI Bots Do Scholarly Research? *EdSurge*. <u>https://www.edsurge.com/</u> <u>news/2024-09-26-should-ai-bots-do-science</u> [2025-03-24]

Zandi, E. (2024). Biblioteken tar plats i miljökommunikationen. Svensk biblioteksförening. https://biblioteksforeningen.se/nyheter/biblioteken-tar-plats-i-miljokommunikationen/ [2025-03-24]

Seminars, Workshops, and Presentations

Bergeå, H. & Hillström, Y. (2024). The Role of Museums in the Sustainable Transition - A Reflective Toolbox. Presented at Virtual Expo hosted by International Environmental Communication Associ ation (IECA), 2-3 May Butler, A. (2024) Foraging and Crafting Knowledge: Going Beyond Walking, Seeing, and Being. Nature Interpretation Lab Webinar series, webinar 1, 16 October

Fischer, A. (2024). *Idéernas makt – hur formas vår relation till naturen och klimatförändringar*. Presented at seminar 'Klimatkrisen och konsthistorien', 28 November, organised by Konstakademien, Moderna museet and the Swedish Centre for Nature Interpretation at SLU

Fischer, A. (2024). Three helpful ideas about environmental communication – and how they might contribute to a better relationship between science and society. Invited talk at the Department of Environmental Science, 1 February, Environmental Research Day "How science can serve society", Stockholm University, Sweden

Fischer, K. & Fischer, A. (2024). How is Institutional Trust Built and Broken in Sustainability Transitions? Panel discussion and academic seminar, 10 October, SLU, Sweden

Friman, E. (2024) Co-Creation in Meaning-making – heterogenous voices and knowledge systems. At Transition in Progress: The Challenges and Opportunities of Electrification. February 1, Mistra's 30 years Jubelee Seminar. Skellefteå, Sweden.

Haider, J. (2024). AI and Media and Information Literacy. Presented at conference on Artificial Intelligence (AI), Text and Data Mining (TDM), and Copyright. June 14, Stockholm University, Sweden

Haider, J. (2024). Datafication of conspiracy fragments and opposition to the green transition. Presented at Conspiracy Theories and the Nordic Countries Conference. May 23-24, Department of Arts & Cultural Sciences, Lund University, Sweden

Haider, J. (2024). *Relevance and Environmental Communication through Algorithms and AI*. Presented at symposium "Speculative Technologies and Future Frictions", Nordic Summer University, July 29 - August 5, 2024, Løgumkloster, Denmark Haider, J. (2024). *The Information Crisis*. Presented at high-level Expert Meeting on Mis- and Disinformation in the Digital Age, 19 November, Geneva Academy for International Humanitarian Law and Human Rights, Switzerland

Haider, J. (2024). *Tracing the Climate Change Counter Movement across platforms*. Reflections on the role of search engines. Presented at RAT (Results Assessment Tool) Community Meeting, September 27, Hamburg, Germany

Haider, J. & Rödl, M. (2024). What can sustainability communication be in a datafied society? On infrastructural meaning-making and ignorance logics. Keynote lecture at the Planetary Communications Workshop, 15-16 October, Stockholm Resilience Centre, Sweden

Holmgren, S. (2024). Formas breakfast seminar "Kunskapskvart". Webinar, 11 September. https://formas.se/kunskap-och-fordjupning/ evenemang/genomforda-seminarier/seminarier/2024-03-26-formas-kunskapskvart-skuggskogar-och-vagar-mot-ett-transformativt-skogsbruk. html

Holmgren, S. & Wilson, M. (2024). *Storytelling as, and for, Sustainability Thinking*. Conference workshop, 4-6 June, Nordic Environmental Social Science Conference (NESS), Turku, Finland

Kjellber, S., Nilsson, T., Roos, L., Rasmussen, T.S., Mallander, M. & Haider, J. (2024). Samtal om hur våra bibliotek kan spela en roll i den hållbara omställningen. Panel debate and discussion. Collaboration with Svensk biblioteksförening and Regionbibliotek Västernorrland, 24 November, Lund, Sweden

Kreber, D. (2024). Working lab series: Tensions and (*im*)possibilities in Art for sustainability. Presented at conference "European Philanthropy for the Just Triple Transition" by Philea (Philanthropy Europe Association), 17-18 April, Zagreb, Croatia Nature Interpretation Lab. (2024). *Interpreting, learning and being with natureculture*. Symposium, 22- 23 April, SLU Ultuna, Sweden

Westin M, (2024). Demokratiutveckling i tider av spänningar och konflikt. Workshop with transition group of Ockelbro, 9 April, Ockelbo, Sweden

Westin M, (2024). Dialog och samverkan i hållbarhetsomställningen. Online workshop organised by Viable Cities, 20 March

Westin M, (2024). *Reflektionscykeln: ett verktyg för samverkansledare*. Online workshop with staff of the Swedish Environmental Protection Agency, 6 February

Westin M, (2024). *Reflektion och lärande vid vindkraftsetablering*. Workshop organised by Svensk Vindenergi, 22 February, Stockholm, Sweden

Westin, M. & Arljung, M. (2024). Facilitation strategies for policymaking in times of post-truth politics. Presented at Virtual Expo hosted by International Environmental Communication Association (IECA), 2-3 May

Westin, M., et al. (2024). Dialog och samverkan för hållbar utveckling i en tid av ökade politiska och sociala spänningar. Webinar, 6 March, SLU

Westin M, & Hellquist A, (2024). *Omstridda dialoger inför vindkraftsetablering*. Online workshop with wind power company EOULUS, 16 December

Westin M, Calderon C, Hellquist A, et al. (2024) Procedural justice in sustainability transitions: mapping alternative understandings of collaborative governance. Paper presentation: The 16th NESS - Nordic Environmental Social Science Conference, Turku, 4-6 June. Westin M, Mäntysalo R, and Mattila H, (2024) Power over in collaborative planning - Revisiting the work of Patsy Healey. Paper presentation PLANNORD 2024: Planning in the Nordic context – opportunities and challenges, Reykjavik, 21-23 August

Westin, M. & Österbergh, R. (2024) Praktiska verktyg och forskning om dialog och samverkan inom hållbarhetsomställningen. Webinar, 5 December

Zhang, J. (2024). *Trails and tales in landscapes and histories*. Nature Interpretation Lab Webinar series, webinar 2, 10 December

More events

Miljökommunikationsdagen (The Environmental Communication Day)

Fischer, A., Förell, N. & Marklund, J. (2024). Rättvisedilemman i den gröna omställningen. Workshop, 3 October, Stockholm, Sweden

Holmgren, S. (2024). Maktrelationer i omställningsprocesser – utmaningar och möjligheter i praktiken. Concluding reflection session, 3 October, Stockholm, Sweden

Johansson, M. & Wullenkord, M. (2024). Kommunikation som stärker människors frivilliga natur- och miljöengagemang. Workshop, 3 October, Stockholm, Sweden Luth, E., Haider, J. & Lindelöw, C. (2024). *Makten över fakta: Wikimedia, AI och techjättarna.* Workshop in collaboraton with Wikimedia Foundation Sverige, 3 October, Stockholm, Sweden

Westin, M., Joosse, S., Mutter, A., Arljung, M. (2024). *Vem har makten att bestämma vad som är sant?* Dialogens praktik i en tid av postsanningspolitik. Workshop, 3 October, Stockholm, Sweden

Master theses

Many students do their master thesis projects in connection to research in the programme, which is one of many ways that the programme contributes to education.

Art exhibition

Poulin, S. (2024). Co-Existence: *Un autre regard*. Art Exhibition. January-March 2024, Saxon, France



Seyifunmi Adebote won the Best Poster Award 2024 at the Swedish University for Agricultural Sciences for his master's thesis done in connection to the programme *"I don't care about climate change": climate skepticism, knowledge, and climate change engagement in Nigeria.* Photo: Anke Fischer

1. Discussing power in a workshop at the Programme Laboratory. Photo: Mikael Wallerstedt

2. "Ecological pilgrimage" workshop in Pyhä-Luosto National Park in Finland. Photo: Jasmine Zhang



Visual summary of the Special Issue Environmental Communication in Planning, Natural Resource Management and Sustainability Transformations in the Journal for Environmental Planning and Management. Illustrator: Maria Richter Simsek.



www.environmental-communication.org



Funded by Mistra