UiO's Comprehensive Climate and Environmental Strategy

Introduction

"UiO shall lead the way in environmental work, both nationally and internationally, and act as a role model for other institutions" –UiO's Strategy 2030

Strategy 2030 – "Knowledge – Responsibility – Commitment: For a Sustainable World" – sets high ambitions for the University of Oslo (UiO). The framework for the strategy is research-based knowledge about the pace and scope of climate and environmental change. The great challenge of our time is how we can secure social livelihoods of people all over the world, both now and in the future, without exceeding the boundaries of what the planet is able to withstand.¹ Consequently, research on planetary boundaries is increasingly integrated with research on issues that are essential for people's quality of life, such as food, health, education, and justice. There is a rising need for collaboration across academic disciplines and with various sectors in society.²

The 2021 Norwegian Universities and University Colleges Act states that one of the purposes of universities is to "contribute towards environmentally, socially and economically sustainable development". ³This is underpinned by the fact that the higher education sector is a "key player and is crucial for solving societal challenges. Society depends on research-based knowledge to make the right choices in order maintain prosperity and welfare, look after a planet that is becoming overloaded, and protect core values such as freedom and democracy".⁴

UiO shall live up to these expectations without compromising on academic freedom. We are a research-intensive, internationally oriented and comprehensive university, and our overall profile matters.

UiO conducts leading international research on climate and the environment within a wide range of disciplines, at faculties and centres. We offer research-based education relating to climate and the environment at all levels. The climate and environmental strategy will provide a clear direction for our future work. It is not limited to specific fields, methods, or theories. It embraces scientific perspectives on climate and environment, as well as the extensive social, cultural, political, legal, medical, and economic dimensions of the climate and environmental crisis. It takes climate and environment as a starting point, but extends well into the broader critical and analytical research and teaching on sustainability as a concept and as a political goal.

The Climate and Environmental Strategy aims to qualitatively strengthen UiO's sustainability work. This will be done in a way that ensures our fundamental goals of promoting independent and long-

¹ See the Stockholm Resilience Centre for research on planetary boundaries: https://www.stockholmresilience.org/research/planetary-boundaries.html

² Known attempts to integrate planetary boundaries with social criteria are seen, for example, in the model of Raworth, Leach, Rockström: https://www.kateraworth.com/doughnut/ and 2013-rapporten World Social Science Report

³ § 1-1.Formålet med universiteter og høyskoler i <u>Lov om universiteter og høyskoler (english version is not</u> updated)

⁴ Prop. 111 L (2020-2021) Endringer i universitets- og høyskoleloven (english version is not updated)

term research and educating academically strong, independent, critically minded students aware of their social responsibilities.

UiO will:

- *Education:* offer all students research-based education on climate, the environment and sustainability, and, when possible, integrated into their respective disciplines.
- Research: lower barriers to, and strengthen, interdisciplinary research and collaboration on climate, environment, and sustainability.
- *Dissemination and dialogue*: expand local and international cross-sectoral cooperation on climate, environment, and sustainability.
- *Climate and green campus*: reduce the university's climate footprint and develop 'green campuses.
- *Organisation:* incorporate all work related to climate, environment, and sustainability in the organisational culture and structure.

Research

"UiO will further develop disciplinary depth and interdisciplinary cooperation, and lead the way in the development towards a sustainable society." –UiO's Strategy 2030

UiO is characterised by its strong basic research milieus. Many of these also make important contributions to addressing major societal challenges, including within the fields of climate and environment. At the same time, climate and environmental challenges are extremely complex and require more multi- and interdisciplinary cooperation. It is therefore crucial that UiO improves the ways in which we facilitate for the exchange of knowledge and collaboration across academic communities and faculties, and with external national and international stakeholders. UiO will build on existing climate and environment-related research milieus while paving the way for more cross-disciplinary cooperation. This involves assessing new interdisciplinary structures that can support, for example, interdisciplinary initiatives, temporary interdisciplinary projects, centres, and other existing major initiatives.

Much of UiO's basic research is undertaken using the university's own funds, whilst externally funded activities are becoming increasingly important, both as a source of research funding and as an arena for cooperation with other national and international institutions and sectors. For research on climate, environment, and sustainable transitions, there is a great potential in funding opportunities through the European Research Council (ERC) and, to a greater extent than today, by way of the thematic areas of the Research Council of Norway, Horizon Europe, and other international research funds. UiO conducts world-leading research on renewable energy, the environment, and climate science within different disciplines. We will contribute towards putting research on the human and social aspects of these topics on the national and international research agenda to a greater degree than at present.

In practice, UiO will facilitate disciplinary and interdisciplinary career paths. A particular concern among younger researchers is professional standards relating to interdisciplinary research. UiO should consider the timeframes for multi- and interdisciplinary research fellowships with a view to ensuring that more young researchers have the opportunity to build expertise across traditional barriers between the natural sciences, humanities, and social sciences, without weakening academic

⁵ See e.g., Knowledge status for interdisciplinary climate change and environmental research

quality or work opportunities. Likewise, UiO will endeavour to make it easier to employ people in interdisciplinary, cross-faculty positions.

Key research funders in Norway and abroad are introducing guidelines on how the projects they allocate funding to shall be undertaken in the most climate and environmentally friendly way possible. At UiO, managers and directors are responsible for ensuring that any potential negative climate or environmental consequences of our research are assessed where this is relevant, and there must always be transparency as to who is funding the research.

Overall goal

R0: UiO shall make top-quality scientific contributions to the knowledge base relating to climate and environmental challenges in a broad sense of the words, both from a disciplinary and an increasingly interdisciplinary point of view.

Sub-goals

UiO shall:

R1: Experiment with new models of how to bring researchers together across disciplinary and faculty boundaries in order to further develop top-quality international research on climate, environment, and sustainability.

R2: Build on high-quality disciplinary research in the work to further developing interdisciplinary initiatives and linking research more closely to education within the field of climate and environment.

R3: Strengthen the opportunities available for enabling PhD students to conduct multi- and interdisciplinary research based on strong disciplinary knowledge.

R4: Reduce existing cultural and structural barriers to the advertising of interdisciplinary and cross-faculty positions.

R5: Assess the possible negative climate and environmental consequences of research where relevant.

Education

"UiO will educate students who place their subjects in a broader social perspective and lead the way in the green shift" -UiO's Strategy 2030

Global climate and environmental challenges are complex, and UiO will offer students teaching and learning methods that encourage critical thinking, ethical reflection, creativity, and the ability to solve problems and engage in societal changes. Many of the academic disciplines at UiO can, either by themselves or in collaborative multi- and interdisciplinary research and education, contribute with knowledge relevant to how we solve major societal challenges. UiO will engage a wider range of disciplines in the study of climate and environmental issues. We will facilitate interdisciplinary collaboration and ensure that students and candidates with strong disciplinary expertise also have the opportunity to communicate across subjects and to orient themselves at the intersection between knowledge, expertise, and political decisions. Students have called for such action on numerous occasions, among others through student organisations and the Student Parliament.

In order to achieve this, we must reduce barriers that make it challenging to establish new interdepartmental and cross-faculty study programmes, and better enable students to make use of such opportunities. It can be challenging for researchers to teach students with different academic backgrounds and varying degrees of prior knowledge, and we must establish more arenas for the sharing of experiences between those who try to engage in interdisciplinary teaching. We already offer several student-active and work-relevant study programmes that address climate, environment, and sustainability, but our portfolio appears to be fragmented, and it is too difficult for the students to find proper information. Our goal is not to undermine existing academic disciplines, but to give our students better opportunities for developing top-quality international research-based expertise on climate, environment, and sustainability as part of their education, preferably as an integral part of their own field of study.

This will also strengthen the relevance to working life of their studies, as there is a growing need for candidates with 'green expertise' and knowledge of climate and sustainability in both the private and public sectors in Norway and abroad. Like the rest of the world, Norway will need to undergo a transition of economy and society over the next few decades, and today's students are likely to become a driving force in this. With a basis in our research on climate, environment and sustainability, UiO will take a more active role in building courses relevant to "lifelong learning". We will establish offers of continuing and further education of high scientific quality in the relevant subject fields. We will also contribute towards the basic state education system providing teachers with further education and developing teaching materials.

Many students and student organisations have been working for a long time to strengthen UiO's climate and environmental work. UiO will cooperate more closely with student organisations in the future in order to facilitate various activities and initiatives from our students related to climate and the environment.

Overall goal

E0: Students at UiO shall have the opportunity to develop research-based and basic knowledge about climate, environment, and sustainability throughout their studies.

Sub-goals

UiO shall:

E1: Develop new forms of top-quality research-based education on climate and environment at all levels from Bachelor to PhD and in further and continuing education.

E2: Reduce barriers to educational collaboration across units.

⁶ The NHO's 2020 Competence Barometer , Finance Norway's "2021 Competence Check", and Issues and Trends in Education for Sustainable Development. A. Leicht, J. Heiss & W. J. Byun (eds), UNESCO (2018).

- **E3:** Ensure that the teaching of as many discipline-based study programmes as possible includes subject-relevant climate, environmental and/or sustainability topics.
- **E4:** Strengthen communication towards students and employment sectors about existing educational programmes relating to climate, environment, and sustainability.
- **E5:** Promote climate and environmentally oriented student-participation and student-driven initiatives and innovation.
- **E6:** Develop teachers' competence in subject-specific and interdisciplinary climate, environmental, and sustainability education (sustainability didactics).

Innovation and Relations with Society

"UiO will contribute to sustainable social development and the green shift" -UiO's Strategy 2030

Society's trust in research and scientific knowledge is strengthened through openness, transparency, and diversity related to methods and access to data. To ensure continued high legitimacy for UiO as a knowledge-intensive organisation, we must be open to the world to a greater extent than at present. By working to ensure that knowledge is put to use, UiO will encourage the development of new ideas, technologies, and initiatives that might help improve services, resolve societal needs, and contribute to a sustainable transition. The groundwork for a knowledge-based democratic society and knowledge-informed decisions is laid through open science. Conveying the role, method, uncertainty and integrity of science — also within the fields of climate, environment, and sustainability — must be part of our dialogue with society.

The green shift and its goal of making a fair transition away from an economy dependent on fossil fuel require significant behavioural changes at a collective, institutional, and individual level. UiO aims to strengthen its research-based dialogue with decision-makers, business, industry, and others. We are a key partner in *Oslo Science City (OSC)*, which is Norway's first innovation district. Here, 'climate, energy and the environment' represent one of four focus areas, and sustainable urban development will be a consistent feature of all work being done. This initiative opens doors to increased cooperation with both the public and private sectors, with research institutes, and with society at large. UiO will contribute towards OSC also becoming an arena that initiates sustainable student innovation, green projects, and innovative learning.

When it comes to public dissemination, UiO will also focus on its own arenas and activities throughout the organisation. There is exciting potential in the fact that UiO has two museums located in the central part of the country's capital, and *Klimahuset* (The Climate House) at the Natural History Museum plays a special role in relation to research on climate and the environment. UiO also engages in extensive and close cooperation with schools in the Oslo region. Such networks are important arenas for competence development and knowledge sharing in the education sector, and for research and innovation on sustainable transition in the university's surrounding areas.

Climate, environment, and sustainability are also obvious topics for close and extensive international cooperation, both in Europe and in the rest of the world. UiO will maintain an active role in the European network for research-intensive universities, *The Guild,* in the European university alliance Circle *U.*, and in our other collaborative ventures with universities globally. One of the most

significant challenges for climate and environmental work worldwide is the enormous economic and social differences that exist both within and between countries. This underlines the importance of emphasising topics such as ethics, social inclusion, socio-economic inequality, and fairness, in research on climate, environment, and sustainability. UiO has the potential to further make use of its extensive academic domains and take a leading role.

Overall goal

S0: UiO shall be an active dialogue partner and mediator of research-based knowledge about the climate, environmental, and social crisis, as well as contributing towards a green transition and green innovation.

Sub-goals

UiO shall:

- **S1:** Strengthen the dissemination of important interdisciplinary research that can contribute to a knowledge base for the green shift, nationally and internationally.
- **S2:** Actively use its own arenas to promote research-based dialogue on climate, environment, and sustainability.
- **S3:** Work to ensure that climate and environment become key topics in relevant national and international arenas for cooperation where UiO is a partner.
- **54:** Strengthen efforts for research-based green innovation that also includes students.

Organisation

"UiO will be an innovative organisation that takes advantage of academic opportunities and responds to new societal needs" -UiO's Strategy 2030

The university's climate and environmental strategy will be reinforced by the clarification of roles and divisions of responsibility in all parts of the organisation. The changes proposed in this strategy can only take place in close cooperation with and between employees, while at the same time involving our students as much as possible in any specific measures that we introduce. Furthermore, *The Basic Agreement for the Norwegian Civil Service* states that environmental and climate considerations shall be part of the tripartite cooperation, and that co-determination shall contribute towards sustainable development. In this respect, the civil servants' organisations play a significant role in efforts undertaken by UiO to achieve our climate and environmental goals.

Likewise, strategic academic work aimed at climate, environment, and sustainability must become an integral part of leadership at all levels in the organisation; and, in cooperation with UiO's employees, leaders of each unit must determine how to achieve the goals and ambitions in the best possible way.

During the period 2021-2025, UiO has a vice-rector who is responsible for climate, environment and cross-disciplinarity in order to ensure that our strategy and associated annual action plan are acted on. We will, furthermore, establish contact points and communication across the organisation with the intent of exchanging experiences, engaging in collaboration, and sharing best practices.

⁷ Basic Agreement for the Norwegian Civil Service, Section 11

When the Life Sciences Building is completed, larger areas at Lower Blindern will be freed up. In order to strengthen the interdisciplinary and societal dimension of our climate and environmental work, UiO will explore the possibility of launching a broader sustainability initiative with a basis in this part of campus. For example, we could establish Norway's foremost sustainability centre – a focal point that will experiment with interdisciplinary research and teaching across the organisation and engage in collaboration with other sectors of society and international partners.

UiO will investigate the possibility of initiating such a collaborative arena — digitally to start with, and then scaling up when premises become vacant, and funding becomes available.

Overall goal

O0: Incorporate climate, environmental, and sustainability perspectives in the university's organisational culture.

Sub-goals

UiO shall:

O1: Ensure that climate and environmental work is incorporated into all units – academic and administrative – with a view to continuous improvement.

O2: Facilitate the building of competence for administrative and scientific staff in the fields of climate, environment and sustainability, and for expanding collaboration – including increasing the exchange of best practices and experience.

O3: Explore opportunities available for launching a major sustainability initiative at Lower Blindern.

Climate and green campus

"UiO will reduce its own climate footprint and enable staff and students to make environmentally conscious choices" –UiO's Strategy 2030

UiO will reduce the climate and environmental impact of its operations. This work will relate to the commitments of Norway and the international community as specified in conventions such as the United Nations Framework Convention on Climate Change (UNCCC) and the Convention on Biological Diversity (CBD).

UiO is a knowledge institution with a 'population' the equivalent of a medium-sized Norwegian city, and we need to make our own environmentally conscious choices, for example as to how we travel, manage property, and use our purchasing power. Under the Paris Agreement, global greenhouse gas emissions are to be reduced by 50% by 2030 and drop to near zero by the middle of this century. Locally, the Oslo Municipality has set an ambitious goal of a 95% reduction in direct emissions by 2030, and Oslo Science City is developed in the area surrounding Blindern with the clear expectation that it will become a near-zero emission innovation district.

UiO announced its first ever greenhouse gas account in 2018. Based on this, a simple modelling has been carried out to show how the university can cut its own direct and indirect greenhouse gas

⁸ Green Operations – University of Oslo

emissions on campus by almost 90% by 2030, and its total emissions by 50% – including goods and services creating emissions outside UiO. This will be done without offsetting emissions through the purchase of climate quotas. Going forward, we will prepare annual and detailed greenhouse gas accounts, and we must consider introducing climate budgets.⁹

In 2018, the combined categories of 'Travel and transport' and 'Energy' accounted for well over half of our carbon emissions. We need to implement effective measures in these two categories, in parallel with efforts in the other areas.

The 'Travel and transport' category was dominated by flights in 2018, especially flights outside Europe. The pandemic in 2020/2021 resulted in a swift and significant decrease in emissions from such journeys and showed that many meetings can be held online. We must make use of the experiences we have acquired from this, so that we do not return to the level of emissions that we saw in 2018. At the same time, we will ensure that essential professional activities do not suffer because there are fewer opportunities for physical meetings. Students and employees must be able to travel in order to undertake fieldwork, go on exchange visits and attend conferences, and especially longer-term student exchanges, and early-career scholars' travels should be exempt from restrictions.

Based on centrally adopted guidelines and agreements, the management of our local units must help facilitate the most climate-friendly travel possible, and the entire organisation must support the development of alternative online solutions for employees and students. Considerations of climate should take precedence over financial costs when choosing means of travel and forms of meetings. Everyone must contribute to UiO's overall aim to reduce travel *emissions* by at least half in 2030 when compared to 2018. Achieving a 50% reduction by 2030 will involve an average yearly reduction of 7%.

Our greenhouse gas accounts show that energy usage relating to UiO's buildings must become further efficient, even though we have been making targeted efforts to achieve this for quite some time. ¹⁰ UiO's energy consumption was reduced by 13% between 2016 and 2018 and will be further reduced by at least 30% by 2030. This will result in a total reduction of about 40% between 2016 and 2030. In the future, UiO shall ensure better digital management systems for energy usage, develop more self-produced energy, and find ways to utilise surplus heat.

Climate and environmentally conscious choices when purchasing goods and services are key to making further cuts in emissions. UiO has adopted a procurement strategy that emphasises climate and environmental considerations. ¹¹ This work will be intensified, and we shall increase our units' knowledge and awareness on this subject. UiO is a knowledge partner in 'Skift – Business Climate Leaders' and has joined their '10 Principles of Green Purchasing'. Since 2019, UiO's fund investments have been 100% fossil-free.

We will continue to prioritise biodiversity on campus, including the protection of geological deposits, increased use of indigenous species, as well as considering new 'green roofs and walls'. The physical environment at UiO shall offer itself as a living laboratory for exploratory projects on biodiversity, energy production, transition processes, reuse, repairs, surface water handling, food, etc. UiO will also consider whether or not we should participate in the international initiative for the

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⁹ The UiO's greenhouse gas accounts

¹⁰ The UiO's 2020 environmental report: Reduced and Renewable Energy Usage

¹¹ The UiO's 2021-2024 procurement strategy

establishment of student-run and centrally supported 'Green Offices', ¹² for example in cooperation with innovation initiatives such as *Insj.* ¹³

A greener UiO also means that we must improve the opportunities available for environmentally friendly transport to and from campus; that more sustainable choices must be made when it comes to the supply of food in canteens and at meetings; and that we should facilitate increased reuse, repair, and recycling of materials. Finally, UiO must consider what kind of environmental certification seems sensible to achieve, and whether it is appropriate to participate in any of the many international sustainability rankings that are currently emerging.

Overall goal

CO: UiO shall reduce its greenhouse gas emissions by at least 50% by 2030 and develop a campus that reflects a sustainable institution.

Sub-goals

UiO shall:

C1: Reduce greenhouse gas emissions from travel by at least 50% by 2030 compared to 2018. This means an average reduction in emissions of 7% per year.

C2: Reduce energy usage in buildings by at least 30% by 2030 and generate more of our own energy.

C3: Improve online facilities for teaching, meetings, conferences, and presentations.

C4: Manage outdoor areas and buildings in ways that take the environment and biodiversity into account.

C5: Facilitate reduced and sustainable consumption both at UiO and when it comes to environmentally friendly travel to/from UiO for students and employees.

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¹² Read more about the concept here: Green Office Movement

¹³ https://insjuio.no