

TEACHING

Measure	Detailed description	Groups
Sustainability in courses	All courses (BSc/MSc) at IBI department should address how the focal field of science relates to sustainability (SDG's). This could be done as a module at some point maybe late in the course when the students have become familiar with the scientific discipline. Then sustainability (sdg's/ipbs) and sdg targets should be presented and the students could discuss and reflect over how the focal scientific discipline can contribute into the sustainability targets.	1, 3, 6, 7
New course	IBI could take initiative to a course for all departments at NTNU addressing Sustainability, emphasizing how all SDG's are resting on a well functioning ecosystem (interactions and processes) SDG 13,14,15, including also essential lectures from social sciences/humaniora (such as the value of nature, the importance of governance /institutional power structures/conflicting interests among stakeholders/economy). A course like this could settle a common standard among ntnu students about how sustainability should be understood (Irja's course includes a lot of this).	1
Sustainability in courses	Implement and discuss sustainability in teaching. The point raised was that although the importance of sustainability is easy to find, it is difficult to identify the science behind these claims. Provide scientific facts!	2
Sustainability in courses	Add sustainability lectures to the MSc course "how to do science". That can include both the global perspective on how the MSc studies can improve the world, but also details on how to conduct sustainable research at a practical level.	5
Internship	Internship program towards sustainability (bachelor – 2d summer) This implies having someone coordinating / networking (finding contacts in Norway and abroad)	7
Sustainability in courses	Active learning . Group work in courses were students are encouraged to come up with solutions to sustainability problems.	8
Sustainability in courses	Interdisciplinary courses focusing on sustainability and planetary issues and decision making.	8
Outreach, EVU	Training all the people outside IBI	8
Student projects	Student projects that increase biodiversity on campus; (e.g. planting shrubs and following up on biodiversity impact)	9
Sustainability in courses	Apply lessons from first year ecology/evolution/behavior course incorporating how theory is applied to real world problems, bringing in guest speakers from NINA, NIBIO, etc., group projects on sustainability and environmental problems that lead to posters	9
Sustainability in courses	Relating coursework to future careers and behavior (where can students make a difference); expand this type of approach into all fields of biology and across different years (climate, biodiversity, pollution, and sustainable resource use/management)	9

RESEARCH

Measure	Detailed description	Group
Outreach	Show connection of our research to SDGs more clearly on personal and group websites	4
Transdisciplinarity	Realizing that IBI research already is very connected to sustainability (e.g. Research microalgae – capturing CO2, biofuel productions. A source for omega 3.; Seabirds – environmental interactions, land use, behavioral changes.; Aquaculture – “wheel of sustainability” - social sciences, environment, economy, land use/tourism; Food production – CO2 capturing from industry using algae as food for fish; Industrial economy – algae production) we think that we are mostly grounded in the base layer of the wedding cake model of sustainability. We should try to connect more with actors that are in the societal and economy layer.	4
Outreach	We can do a much better job of communicating what we are doing: -within IBI; -within NV; -within NTNU; -to stakeholder groups; -to the wider public	6
Think global, act local	We need to think how we can best manage ‘think global, act local’ agendas in IBI. We have an incredibly international community in IBI, maybe more than in any other part of NTNU? If we are clever, this will be a huge strength – for example in building international collaborations, getting international funding, and having international impact. If we are not clever, it could become a problem for us – because it is hard for new internationals to ‘act local’ in Norway, due to language barriers, lack of understanding of local issues, and barriers to funding (e.g. if thematic programmes only support activity in Norway). We need to find ways to get around these things.	6
Collaboration	Increasing within department collaboration; a departmental committee/think tank to promote collaborative projects and more interactions across groups within IB (monthly lunch meetings/guest talks/discussions)	9
Outreach	Taking the fundamental/basic science we do and linking to applied work and ultimately to policy. Working with others who have expertise in communication/dissemination to build links between the fundamental science and applied questions; finding out what tools do managers/stake holders need that we can provide	9

REDUCE FOOTPRINT

Measure	Detailed description	Group
Increase awareness	Provide numbers showing the expected impact of measures (i.e., how much more sustainable is to travel by train vs plain). Distribute these across the department.	2
Increase awareness	Social group activities to raise awareness and allow people to have active participation in sustainability (i.e., plastic collection in Bessaker in 2021). This was self-organised. Can we arrange something at the department level?	2
Make it fun	Games to increase participation Rewards for the greenest traveller Faculty-wide competition for the most sustainable department	2
Seminar	Researcher for lunch: Invite interesting people from other disciplines (social sciences, economy, philosophy, industrial ecology...etc) to give presentations on how they approach sustainability, These people can be potential collaborators both in teaching and research.	1
Seminar	Make a Sustainability month similar to Cyber security month on Innsida. Arrange workshops etc for this. Increase outreach by showing the connection of IBI research to sustainability e.g. via a podcast. We suggest to let this be organized in part by PhD students as part of their teaching hours, as some international PhDs have challenges finding enough teaching opportunities where Norwegian is not required.	4
Seminar	Monthly lunch discussions on how to be more sustainable (e.g. how to compost waste)	9
Outreach	Developing a biodiversity plan for the university; helping to inform building plans and university growth	9
Outreach	IBI should make a statement that encourages NTNU to withdraw from all research on fossil fuels. NTNU should publicly say that fossil fuels are a thing of the past that should be quickly phased out, and that Norway should not open new oil or gas fields. Such a statement from NTNU would have more global impact than any local sustainability initiatives we could ever implement.	5

REDUCE FOOTPRINT CONT'D

Measure	Detailed description	Groups
Active measures	Choose sustainable travel to work and on conferences/field trip. Switch off equipment/computers/light Efficient knowledge and skill transfer and equipment sharing. This would prevent waste of time and energy, resulting in better resource allocation.	2, 3, 6, 9
Active measures	Which are the areas where IBI is producing much CO ₂ / using more resources than necessary -> targeted actions (e.g. department buss passes for within-Trondheim travel, e-bike etc.)	4
Active measures	Improve recycling everywhere! Add different recycling bins to each corridor for plastics, metal and so on. Also, labs create a lot of plastics and these can also be recycled (unless harmful chemicals are used).	5
Active measures	Travels! Incentivize sustainable travels and disincentivize unsustainable travels. Create a warmed bike garage for both employees and students. The bike garage should be locked by key card and include repair tools, hose for washing off salt, pressurized air, and bike racks to lock the bikes to. Companies that have these bike garages manage to increase biking and reduce driving. Encourage less air travel through the "wall of shame" strategy but only put the blame at the section level, not individual level, and reward the most sustainable travelers (e.g. use of train over air).	5
Active measures	We could provide a decision checklist, to help people evaluate whether attending a conference (for example) in person is justified. We should re-consider whether flying in Opponents for very short visits for thesis defences is really justified. These things can now be done digitally. Or, opponents can be encouraged to stay for longer, making the visit more valuable.	6
Active measures	For IBI events, can we have the default option as vegetarian (or at least environment friendly meat) with a possibility to opt in to meat. This is opposite to the current default, which is meat with a possibility to opt out to vegetarian. This would also send a message to catering venues that sustainability should be the default.	6