

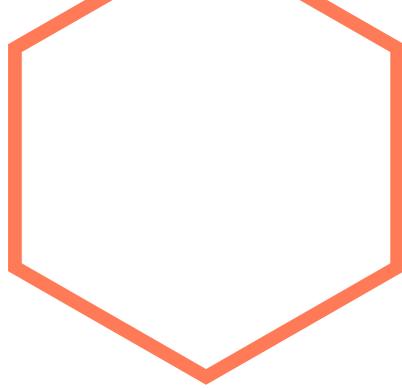


Impact stories – BIODIFUL

Mainstreaming
biodiversity awareness
across society

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**SRC Impact Report
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Impact stories – BIODIFUL

Mainstreaming biodiversity awareness across society

Societal challenge

Biodiversity is a prerequisite for all human life. Despite nature's tremendous benefits to humankind, we are currently facing a rapidly advancing global biodiversity loss mainly due to economic activities that satisfy consumption needs – often excessive and in high income countries. According to recent international reports, up to one million species risk going extinct within the next few decades. The degradation and collapse of natural ecosystems continue rapidly, and the previous international (and national) goals for halting biodiversity loss have not been achieved. In our opinion, this is partly due to the low level of biodiversity awareness and understanding across societies. Biodiversity loss has been described as a silent killer and, during the 2000s, it has become further overshadowed by other sustainability challenges (e.g. climate change).

Consequently, mainstreaming biodiversity awareness across society is among the most important and overarching impact goals of the BIODIFUL consortium. As rapid human population growth, overconsumption of natural resources, and global business structures are among the most severe drivers of biodiversity loss, good-quality and understandable knowledge of biodiversity needs to be embedded within individuals, organisations and societies. In particular, the multiple and often complex ways biodiversity affects human business activities, comprehensive security, economy, health, and well-being need to be clarified.

Multidisciplinary research and cooperation

The scientific approach throughout the BIODIFUL consortium is interdisciplinary, as we integrate knowledge across sciences, and transdisciplinary, as we co-create knowledge with our stakeholders, including, e.g. ministries, institutions, associations, cities, businesses and active individuals. To address the lack of prior empirical research on sustainable leadership beyond single-organisation settings, BIODIFUL has adopted a multi-level approach to sustainable leadership via individual (WP3), organisational (WP4), societal (WP5), and, on the other hand, landscape (WP2) levels of analysis. While each WP primarily focuses on one

level, all WPs study biodiversity-respectful leadership at 2–4 levels of analysis - in close collaboration with researchers representing other fields of sciences. In addition, all work packages conduct interdisciplinary literature reviews, integrative theorising, and data collection via co-creative stakeholder engagement.



BIODIFUL camp at Jyväskylä June 2022. Photo: Hanna Oksanen

During BIODIFUL’s first year, we have, e.g. aimed to produce a shared understanding of the concepts of “biodiversity”, “biodiversity loss” and “leadership”. The aim has been to develop a synthesised view of these concepts during the first half of the project. BIODIFUL researchers have discussed with each other monthly via Zoom meetings. In addition, we have arranged three multiday “BIODIFUL Camps” (twice in Turku and once in Jyväskylä) where all work packages and research teams presented their work. Consortium’s research and cooperation have included ongoing discussions between different research teams that form interconnected work packages.

BIODIFUL has also initiated dialogue activities to reflect our work in a very different biodiversity context. In August, a week-long intensive online course (16 hours) was organized to a group of 26 students from the Pontifical Catholic University of Peru (PUCP) on sustainability and biodiversity and associated leadership. The project also realized a research visit to Lima in November, including meetings with contact persons from the PUCP, the National Agrarian University La Molina, the Ministry of the Environment, the Finnish Embassy, WWF Peru, and the US Agency of International Development.

We have been delighted to see that many new researchers, including young researchers, have joined BIODIFUL during the project’s first year. Consequently, the consortium has almost doubled in size, indicating a fruitful and impactful future for the inter- and transdisciplinary research of the team!

Societal interaction

During the project's first year, BIODIFUL researchers have been very active in societal interaction. Our researchers have mainstreamed biodiversity awareness by actively presenting scientific information and its significance in public events, educating students, professionals and business executives, publishing various articles aimed at the wider audience (including, e.g. various articles in Helsingin Sanomat and other major Finnish newspapers) and emphasising matters requiring research and attention (e.g. via participating policy briefs on halting biodiversity loss and parliamentary hearings).



BIODIFUL had a panel discussion at KESKO with Vice President, Corporate Responsibility Matti Kalervo, researchers Ville Uusitalo, Saska Tuomasjukka and Miia Grénman

In addition to the above-mentioned activities, we have arranged two biodiversity events in collaboration with our stakeholders (in KESKO and Vihreä Härkä). We also participated in the opening carnival of the University of Turku at the city centre in September 2022, and participated in a widely broadcasted panel discussion in Pori Suomi Arena. Online we launched a biodiversity blog on our website and released a newsletter. BIODIFUL is also very active on Twitter, LinkedIn, Facebook and Instagram, with more than 500 followers. In addition, many individual researchers of BIODIFUL are active on social media and use their personal accounts for mainstreaming biodiversity awareness and highlighting BIODIFUL research (with altogether more than 8000 followers).

Biodiversity respectful leadership model for individuals

Societal challenge

In political decision-making, there are three levels of problems. First, politics includes incommensurate issues: it is impossible to position the diverse aims onto one scale. How could one prioritise children, healthcare or infrastructure? This plurality of goals calls for value discussions and cannot be solved through economic metrics. This means that the decisions related to environmental issues must also be reflected against the other goals a society deems worthy. Major decisions come always with trade-offs.

Secondly, making informed and impactful decisions that have the desired effects through the complex pathways of political processes requires deep and broad knowledge and understanding. Science and research are necessary not only to assess the subject matter but also to map out the effects emerging far from the decision-makers, be the distance an issue of time, space or social position.

Thirdly, as political positions are achieved through voting, decisions in terms of value assessments and actions are subject to the attitudes and aspirations of the voters. Therefore, a political decision-maker takes into account not only the direct impacts of their decisions, but also how the decisions are perceived.

BIODIFUL aims to contribute to the political decision-making processes on all three levels. It calls for value discussions and provides forums for such exchange. It creates knowledge about the genuinely impactful decisions that support biodiversity and shares the knowledge in collaboration with researchers from other projects with similar, biodiversity-respectful goals. It also assesses the acceptability of such decisions and encourages politicians facing difficult choices.



Ilari Säöksjärvi and Juulia Räikkönen at SuomiAreena summer 2022 with professor Hannu Salmi and member of the Parliament Ville Niinistö. Photo: Erja Hyytiäinen

Multidisciplinary research and collaboration

While biodiversity loss is a biological phenomenon, in the era of the Anthropocene, its root causes are far from natural phenomena. Biodiversity is being lost because of human actions. Therefore, to reverse it, it is essential to genuinely understand the drivers lurking within the social and economic systems guided by political decision-making and governance. This means exploring not only the formal roles and models, but also advancing understanding about epistemic governance: the same information can be utilized in diverse ways to advance even quite opposite aims.

The first part of BIODIFUL research, oriented towards creating biodiversity respectful societal decision-making, has been focused on understanding and uncovering the deeply set drivers beneath the direct and indirect drivers identified by IPBES (2019). In short, if our current systems are responsible for biodiversity loss, why and how have the systems become thus?

This research is led by futures researchers and sociologists and complemented by biologists and business scholars. It also pivots on the fundamental philosophical questions. For example, the issue of the nature of human is essential: are humans merely physical creatures reducible to biology, physics and chemistry determined to play out the roles evolution has thrust on them, or is there a quality called free will that genuinely enables humans to change their complex societal systems through reflection? To what extent does *Homo Economicus*, the model of human onto which the economic systems are mapped, exist?

Understanding future possibilities depends on understanding the historical paths that have led to the contemporary situation. Making informed suggestions for political decision-makers depends on understanding the future possibilities – including how a given proposition could be perceived. Politics is, after all, a game of perceptions: whether any ruling has an impact depends on how it is received and implemented.



Senior Researcher Matti Salo at Jyväskylä Camp workshop. Photo: Hanna Oksanen

The way the biological facts of environmental crisis have thus far been considered is proof enough – it's not that we actually need more evidence of the environmentally destructive facts; It's that the evidence alone is clearly not enough to promote behaviour that could stop the destruction. Understanding human nature and worldview-related root causes is, therefore, the first step towards engaging societal decision-makers in essential value discussions and making biodiversity-respectful action suggestions that have any chance of succeeding in making a difference.

During the first year, the research aimed at these impact goals has been digging deeply into these invisible and intangible but highly impactful realms of social organising. Additionally, to motivate action and foster hope, work package 2 has set out to translate technical biodiversity targets to concrete situated and visualised images of possible futures in everyday landscapes where biodiversity decline should be reversed. Building the theoretical basis for these landscapes has been underway during 2022.

Societal interaction

One of the areas where the mismatch between scientifically evidenced facts and political decision-making has recently been evident, is the current debate regarding Finnish forestry and the EU restoration act. The Finnish opposition is based on deliberately promoted myths about the special forest relationship of Finns, grounded on the demands of the forest industry in turn grounded on the values of the current economic system. Untangling the facts from values and values from perceptions is tricky. Still, BIODIFUL researchers have been attempting to participate in the discussion through opinion pieces, blog posts and keynote speeches (for example, at Metsätieteen päivät).



BIODIFUL researchers visited Vihreä Härkä farm in autumn 2022. Juha-Pekka Aikola explaining how they transform the field for ecological farming.

So far, the societal interaction in this impact goal has been limited to participating in ongoing debates. Still, with the coming election year, BIODIFUL researchers will take more direct measures to engage politicians directly. In addition to participating in forums and events organised by other parties, BIODIFUL will engage politicians in the BIODIFUL Round Table discussions and at the BIODIFUL Leadership Forum to create bridges between research, business and societal decision-making.



BIODIFUL Movement

Societal challenge

Frankly, it is not more information we need to conquer the environmental crises. There are plenty of facts, but acting on them is the genuine Achilles heel of society. At least from the 1960s onwards, it has been known that how our economy and societies function is utterly unsustainable. Despite having produced volumes of research-based knowledge, we still do not seem to be wise enough to understand that crossing the planetary boundaries leads to a critically inhospitable environment for all life forms – including us humans.

At its core, the issue is the same regardless of whether we're dealing with an individual or the whole of the humankind. We know how to live healthy lives: one should eat healthy food, exercise regularly, sleep enough, and avoid alcohol and nicotine. However, despite our knowledge, few of us are walking paragons of health. We know how to moderate climate change and biodiversity loss: let nature have its ways in big enough areas, leave natural resources into their natural forms and forget the fiction of financial value being more precious than other types of value.

The answers are fundamentally simple – but they are far from easy. The crux of the problem is that it is not even enough to change the societal and economic systems: we need to change ourselves. Just as it is impossible to decouple humans from the ecosystems of the rest of nature, it is impossible to decouple us as individuals from the social systems we together constitute. Each of us is a part of the social and ecological whole.

However, therein lies also the power BIODIFUL seeks to tap into. As each human is a part of the whole, changing the whole can begin with the individuals. This idea underlies the impact aim of starting a BIODIFUL movement. It is grounded on the notions of chain reaction and exponentiality: if each one of us can change our own lives to become biodiversity-respectful and then inspire the same change in two other people, who in turn inspire each two more, it is possible to reach such a mass of individuals that together we might reach the tipping point and push our societies onto a new, biodiversity respectful trajectory.

Multidisciplinary research and collaboration

As stated, the change begins with each one of us. During the first year, BIODIFUL has put a lot of effort into face-to-face meetings between the whole consortia and smaller teams. In addition to engaging in direct research-related discussions, a notable amount of time has been deliberately reserved for more informal discussions vital for creating shared understandings. In its first year, BIODIFUL has created a safe space for its researchers to share questions and uncertainties and explore difficult themes genuinely. This has borne fruit: empowered by the support of colleagues, BIODIFUL researchers are braver in their research and interaction.

The chain reaction begins with the BIODIFUL researchers. Still, during the first year, it has already been spreading out to diverse pockets of colleagues and other people within the sphere of influence of BIODIFUL researchers. This impact is difficult, nigh impossible to measure,



Project coordinator Pauliina Ojansivu explaining how the intervention study was executed in practise. Photo: Hanna Oksanen

as it evidences itself gradually, through slowly emerging thoughts carried out into everyday lives. However, one of the visible effects is the interest BIODIFUL has garnered in researchers – as stated in the first impact story, many of the researchers originally affiliated only loosely with BIODIFUL have since become a part of its core. It is not only about the funding but about the feeling of being able to make a genuine difference.

Societal interaction

During the first year, the focus has been on creating the heart of the chain reaction BIODIFUL aims to unleash. The researchers have ventured out in several ways to engage people elsewhere from the academia and outside. However, few explicit efforts have been made to create a broader movement so far. This is planned to start in 2023 with the concrete events and ventures scheduled. One of the most notable launch sites is the upcoming BIODIFUL Leadership Forum in March.

In addition to the traditional research-based presentations, the April event will also include room and inspiration for thoughtful discussion. BIODIFUL hopes that the first outsiders begin their journey towards biodiversity-respectful leadership – both in their personal lives and spheres of influence and in their professional capacity.



BIODIFUL and University of Turku collected ideas for greener campus at the Opening Fair in September 2022.
Photo: Hanna Oksanen



Professor Ilari Sääksjärvi was handing out BIODIFUL batches to students at the Opening Fair. Photo: Hanna Oksanen



BIODIFUL meeting at Turku autumn 2022. Photo: Hanna Oksanen

