

STATUS OF
**NATURE
BASED
HEALTH**
INTERVENTIONS
IN THE
NORDIC-BALTIC
REGION

REPORT

Executive summary

This report maps **nature-based health interventions (NBHIs)** status in the Nordic-Baltic region as well as identifies challenges and provides policy recommendations. Complementing this report is a practitioner-oriented booklet detailing business models, profiles, and practical insights. The booklet provides concrete examples and inspiration for implementing diverse NBHIs. Together, the report and booklet form a comprehensive resource material to encourage the development and adoption of NBHIs across the region. The key findings of this report include the following:

■ **NBHIs harness significant potential:** NBHIs empower communities by promoting social inclusion, addressing mental health issues, and tap into the benefits of natural environments. NBHIs offer rural businesses an avenue for income diversification, particularly for small farms.

■ **Practitioners are driven by passion and interest:** NBHI practitioners are predominantly women from rural backgrounds with strong connections to animals and nature. Many have professional experience in caregiving fields such as nursing and education, with motivations rooted mainly in a desire to help others and a passion for nature. This description is however, only based on the interviewees in this study.

■ **NBHIs are unevenly developed across the region:** While the Nordic countries showcase well-developed NBHI frameworks supported by national network organisations, the Baltic region gathers fewer examples, reflecting both cultural and systemic differences.

■ **There are several barriers for NBHI success:** Financial sustainability is the major challenge for NBHI practitioners. Stable funding structures are mostly lacking and practitioners struggle with inconsistent patient flows, a lack of long-term contracts with and systemic integration into healthcare and social services. Other barriers include insufficient legislative support, limited public awareness, logistical difficulties, and scepticism from healthcare professionals about NBHI efficacy.

To unlock the full potential of NBHIs, the report presents the following recommendations:

Develop evidence-based studies into NBHI

- Setting up Nordic-Baltic NBHI taskforce to manage a regional research project
- Financing of evidence-based studies on:
 - The economic potential of NBHIs for public institutions and rural areas
 - Areas of public services where the inclusion of NBHIs could alleviate overload

Promote national strategies for facilitating and encouraging NBHI

- Setting up of national definitions and regulations for all NBHI activities to ensure consistency and efficacy in NBHI implementation
- Setting up of national strategic plans of inclusion of NBHIs into public services

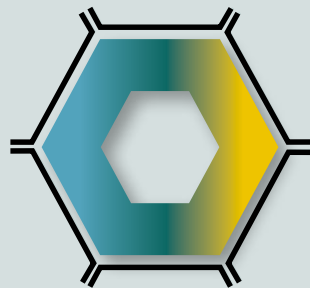
Communicate and promote the benefits of NBHI

- Elaboration of targeted information material from NBHI task force studies
- Writing of strategic communication material to key decision makers in social services, health care systems and education systems



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Alnarp 2025



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1 Introduction and scope

1.1 Background

This report is part of the Bioeconomy Programme funded by the Nordic Council of Ministers. The Programme is a strategic priority with the long-term goals of fostering economic growth and enabling sustainable development in the rural areas of the Nordic and Baltic region.

The consultancy company, Analysys Mason, was commissioned to produce a report focusing on nature-based health interventions (NBHIs), with the goal of mapping the status and scope of NBHIs in the Nordic and Baltic countries and generating high-level insights into how landowners and small businesses in rural areas can use NBHIs as an alternative source of income.

The report presents findings on the current role of NBHIs, details on practitioners' challenges, and offers policy recommendations designed to enhance the accessibility, sustainability, and economic viability of these interventions.

As a complementation, a digital booklet detailing business models and profiles of practitioners working with NBHIs has been produced.

The booklet features concrete examples and experiences with practitioners specialised in a wide range of nature-based health interventions and related activities, and is aimed towards current and aspiring practitioners.

1.2 Scope of this report

1.2.1 Defining nature-based health interventions

At present, there is no generally accepted definition of nature-based health interventions and there is a plethora of terms for describing the use of nature as a healing method. Other terms often used to describe the use of nature to improve human optimal functioning

are nature-assisted interventions, nature based-therapeutic interventions, wilderness therapy or green care. In the context of this report the term NBHI (nature-based health interventions) is used as an umbrella term for all the above.

Nature-based health interventions involve deliberately designed activities aimed at enhancing individuals' overall functioning, health, and well-being, or aiding in their recovery and restoration by engaging with or being exposed to nature.¹In this context, the term "nature" includes natural environments shaped by humans.

As a result, small scale farms, private and public gardens and parks, small scale horticultural production sites and forests, as well as the interaction or exposure to domesticated animals can be used for nature-based health interventions.

Nature-based health interventions require a guide, therapist, or educator to lead and implement the psychosocial, health, or educational activities. The practitioner can manage both the intervention and the nature-based aspects, or they can work together with specialists complementing the offering through expertise in animal or plant handling and therapeutic approaches.²

1.2.2 Nature-based health intervention methods

Nature-based interventions can be provided through various methods, all centred around the aim of improving patients' overall functioning, health and well-being by engaging them with or exposing them to nature^{3 4 5 6}.

Below we provide a non-exhaustive list of examples:

Figure 17: Various methods of NBHIs

Method	Description
Care farming	Uses commercial agriculture to enhance mental and physical health, as well as social and educational skills, through involvement of individuals in regular farming activities.
Animal assisted intervention	Uses animals that meet certain criteria as part of a treatment process for individuals. Professional practitioners or therapists collaborate with animals such as horses, donkeys, sheep, or dogs as part of the goal-directed intervention.
Garden therapy	Uses active participation in gardening or passive interactions with plants and is typically guided by a professional therapist or practitioner.
Nature assisted therapy	Uses nature to gain access to people's lives that may be hidden from them in more conventional surroundings and situations. Can be divided into activity-based and parasympathetic nature-assisted therapy.



2 A multi-method approach for data collection and analysis

2.1 Desktop research for the mapping of nature-based health interventions

This report's initial phase of data collection involved a systematic desktop research effort aimed at mapping nature-based health interventions (NBHIs).

This search was primarily conducted through Google Scholar and focused on the Nordic and Baltic countries, specifically targeting rural areas and small business owners. The delimitation of the scope of the literature research ensured the precise examination of unique aspects and challenges related to NBHI in the Nordic and Baltic region.

The effectiveness of the literature search was assessed based on the identification of relevant academic articles authored by recognized researchers in the field. To enhance the robustness of the findings, a complementary snowball search was implemented.

This approach involved examining the reference lists of the identified literature to uncover additional relevant sources that may not have been captured in the initial search. By systematically mapping the existing academic landscape, a comprehensive overview of the current state of NBHIs was established, serving as a foundational element for subsequent phases of the data collection and analysis.

2.2 Semi-structured interviews with experts and practitioners

Following the completion of the literature search, a total of 21 semi-structured interviews were conducted with network organisations, researchers and practitioners to enhance the understanding of NBHIs. These interviews aimed to provide qualitative detailed insights complementing the data gathered from the literature review. The primary focus was on engaging



with researchers specializing in NBHIs within the Nordic-Baltic countries, alongside network representatives involved in the implementation and promotion of these interventions. The interview process included twelve practitioner interviews, three researcher interviews and six network organisation interviews ensuring a diverse range of perspectives. A carefully curated set of questions guided these discussions, focusing on key themes such as national organisation, regulation and support systems for NBHIs, perceived benefits of NBHIs, challenges faced by practitioners and patients, and types of business models linked to NBHIs. The data collected from interviews was systematically organized in an Excel spreadsheet, facilitating a consistent and thorough analysis of the findings. This structured approach enabled the identification of trends, challenges, and opportunities around NBHIs, ultimately contributing to a high-level overview informing policy recommendations and future research directions.

3 Results

3.1 A brief overview of the academic literature

3.1.1 The potential role of NBHI in rural dynamization

Rural areas play an important role in enhancing the resilience of the Nordic countries, particularly in the face of global challenges such as climate change, biodiversity loss and unsustainable food systems⁸. They can act as arenas for the development of the bioeconomy sector, promoting the sustainable use of available bioresources, and increasing economic growth^{9 10 11}.

Throughout the Nordic-Baltic region, rural areas are however experiencing significant challenges related to social sustainability

such as population decline¹², higher school dropout rates¹³, lower economic opportunities and lesser service offer in comparison to urban areas^{14 15 16}. Alongside these trends specific to rural areas, a general increase in mental health diagnoses among the youth as well as dementia diagnoses among the elderly are observed in the Nordic countries, both posing a challenge to public health and social care systems^{17 18}. Service provision is therefore critical to simultaneously answering these challenging trends and maintaining attractiveness and viability of rural areas¹⁹. NBHIs have the potential to supplement the service offering in rural areas by combining the natural resources associated with agri-



cultural production with activities like occupational therapy, education support, and interaction with farm animals or nature^{20 21 22 23 24}.

3.1.2 Empowering communities through NBHIs

Practitioners of NBHI focus on social inclusion, empowering vulnerable groups, and ensuring access to nature and green environments²⁵. They address the urban and rural areas disconnect which consists in diminished interaction, knowledge, and appreciation of nature's value and the need for its protection. This human-nature disconnect can contribute to issues such as food illiteracy and a lack of recognition for the mutual benefits of urban and rural areas²⁶. NBHIs practitioners' work includes community building, outreach, education, biodiversity regeneration, and appreciation of local traditions.²⁷ In a bioeconomy context, they promote sustainable practices by fostering a deep connection between people and nature, crucial for biodiversity conservation and regeneration. In a rural context, practitioners support community resilience, by benefiting all societal groups through their work and focus on social inclusion, thereby contributing to a more sustainable rural community^{28 29 30}.

3.1.3 Economic viability of nature-based health interventions

Numerous studies and systematic reviews have documented the positive effects of spending time in nature on human well-being^{31 32 33}. The economic viability of NBHIs on farms highlights a complex balance between social motivations and economic sustainability^{34 35 36}.

NBHI practitioners tend to be driven more by the social impact of their work and their personal fulfilment than by their activities'



financial gain. For these farmers, the value of NBHIs lies in enhancing the quality and meaning of their lives through contributing to the community well-being and environmental preservation^{37 38}. NBHIs can however create valuable economic gains for farms through the mechanism of income diversification. This is particularly the case for small or part-time farms in rural areas which economic viability is often jeopardised by market pressures³⁹. For many farms, cooperation with other entities – such as schools, local municipalities, or care providers – has emerged as a practical strategy to integrate NBHIs into their business models and improving their economic resilience⁴⁰.

Establishing and maintaining NBHIs on a farm requires substantial investments, from adapting infrastructure for accessibility, hiring specialized personnel, to raising animals and acquiring resources tailored to clients' needs. Initial costs, coupled with ma-

intenance costs can incur substantial additional strain on already limited farm budgets⁴¹⁴². Studies are however reporting an observed lack of stable funding structures for NBHIs and adequate funding structures supporting NBHIs integration within existing welfare frameworks. This creates in turn financial unpredictability for practitioners and inhibiting long-term sustainability for NBHIs business models⁴³⁴⁴. The initial financial struggles are coupled with a lack of legislative and cultural support, which complicates gaining legitimacy, navigating complex regulations, and accessing funding channels typically reserved for established services⁴⁵⁴⁶.

3.1.4 Recommendations to promote NBHIs

To enhance the economic viability of NBHIs, establishing structured support and funding frameworks is essential. Lessons from well-developed examples, like in the Netherlands, show the importance of embedding nationally and regionally NBHI services within both the healthcare and social care systems. This structural integration represents the opportunity to stabilise funding and enhances the legitimacy and sustainability of NBHI initiatives⁴⁷. Reviewing and adapting national legislation to remove obstacles for wider NBHI adoption is a critical step, as is fostering new business models that encourage public-private partnerships and cross-sector financing. Such structural changes would allow more diverse funding sources for NBHIs, which could stabilize their financial footing, enabling them to deliver long-term social and health benefits effectively⁴⁸.

Addressing funding difficulties at the policy level is another crucial element highlighted in the literature. Legislative reforms at the national level, paired with regional funds dedicated to promoting collaboration between



NBHIs and healthcare, could significantly alleviate the administrative and financial burdens faced by practitioners⁴⁹. More systematic robust socio-economic data are however necessary to conduct comprehensive cost-benefit analyses and support access to both public and private investment⁵⁰.

3.2 Insights from interviews: mapping of national actors and stakeholders

NBHIs are heterogeneously organised through the Nordic-Baltic region. In the context of this report, a majority of NBHIs have been observed in the Nordic countries, with very few to no examples found in the Baltic countries. When discussing differences observed between Nordic and Baltic countries, interviewees suggested a less developed social acceptance of mental healthcare in the Baltic countries as a potential explanation.

One commonality throughout the Nordic-Baltic region is that most Nordic

countries foster national network organisations supporting the development of NBHIs. Initiated by governmental institutions or by NBHI practitioners, they offer various type of support to their members, including negotiations with national institutions, marketing and communication, contract negotiation or cooperative agreements. Interviewees throughout the region presented however the lack of systematised national guidelines, regulations and support system as their main source of challenges, followed by the lack of consideration and knowledge about NBHIs from health care services and health practitioners.

This chapter gives an overview of different national systems and network organisations presented by interviewees.

3.2.1 Norway: Inn på TUNET^{51 52}

Inn på TUNET (IPT) is the Norwegian term for welfare services where the farm serves as an arena for services within education, upbringing, work, health, and care. Today, there are just over 400 farms across Norway providing IPT-services to all age groups adapted to their needs. To be allowed to use the IPT quality standard, farms need to go through a quality assurance process that is administered by The Norwegian Food Foundation.

Originating from local initiatives that explored the benefits of nature-based care, IPT as a concept was officially integrated into Norwegian national agricultural policy around 2007, with the establishment of a formal approval system. It later gained a comprehensive national strategy in 2012 to ensure quality and establish research standards. Norwegian authorities will launch a new national strategy in 2026. There are many stakeholders involved in the IPT area. The municipalities are primarily the purchaser of IPT services, but in some cases, the county authorities and the

Norwegian Labour and Welfare Administration also procure these services.

Farms that offer IPT-services may choose to join one of the interest organizations for IPT. There are several such organisations, that support and advocate for farmers working with NBHIs. The largest is named Inn på TUNET Norge Cooperative⁴. Now gathering about 190 member farms, it offers its members essential resources including training, marketing advice, and mentorship. The cooperatives also actively represents green care farming interests in policy dis-

4 Inn på TUNET Norge SA



cussions at local and national levels and organizes networking events and conferences.

3.2.2 Sweden: Grön Arena⁵³

Modelled after the example of Norway's Inn på TUNET, Grön Arena ("Green Arena") is a Swedish quality assurance system for farms offering NBHIs. The organisation started as a project in 2006, initially financed by the European Agricultural Fund for Rural Development and regional support, later transitioning to Leader project funds (European Network for Rural Development), and ultimately becoming an association in 2023. Today, Grön Arena is financed by the Rural Economy and Agricultural Societies⁵ and membership and certification fees. Grön Arena has certified around 80 farms across Sweden providing a range of services, from social care day programs to therapeutic and educational activities for schools and health services.

The initiative collaborates with municipalities, educational institutions, and non-governmental organizations to enhance its impact and reach. Additionally, in Sweden, municipalities are required by Sweden's Act concerning Support and Service for Persons with Certain Functional Impairments⁶ to provide daily activities for persons with intellectual disabilities and autism⁵⁴. This often results in agreements between municipalities and Grön Arena-certified farms.

3.2.3 Finland: Green Care Finland⁵⁵

Green Care Finland is a Finnish national association established in 2010 to promote and develop NBHIs. With around 500 members, the association encompasses a wide range of professionals, including practitioners, organisations, educational institutions, and research entities. Its primary mission is to increase the recognition of NBHIs, enhance operational

standards, and advance the required expertise. Funding comes from membership fees, project-based grants, and collaborations with other organisations, including support from the European Agricultural Fund for Rural Development and Finland's Ministry of Agriculture and Forestry⁷. Green Care Finland provide members with quality certifications such as Nature Care⁸ for health and social services, and Nature Power⁹ for wellness and educational services. The organisation provides a quality workbook to guide practitioners and organises events as well as plans meetings and project collaborations. The organisations' members offer different types of NBHIs from animal-assisted therapies and vegetable gardening to forest-based interventions.

3.2.4 Denmark: Green Care Network Denmark

Green Care Network Denmark¹⁰ is a Danish non-profit organisation dedicated to NBHIs and was established in 2017 with a mission to promote and develop green care practices in Denmark. Its membership includes a wide range of individuals, such as practitioners, researchers, educators, and students. The organization's activities are centred on creating a platform for collaboration and knowledge-sharing among green care professionals. Key initiatives include organizing networking events and establishing guidelines and standards for the field. The organization also advocates for the integration of green care into Denmark's welfare system and funds research projects to advance green care methodologies and evidence-based practices.

Financed primarily through membership fees and project-based grants, the organization has also received support from sources

5 Hushållningssällskapet

6 (Lagen om stöd och service till vissa funktionshindrade, LSS)

7 Maa- ja metsätalousministeriö/Jord- och skogsbruksministeriet

8 LuontoHoiva

9 LuontoVoima

10 Green Care Netværk Danmark



like the Rural District Fund. Collaborations with government agencies, educational institutions, international networks, and NGOs bolster its reach and impact. Service providers within the network include small and large farms, social gardens, and even prisons with organic farm programs designed to aid prisoner rehabilitation. Though Denmark has rich traditions in green care, formalization remains limited; however, programs like Quality in Green Care¹¹ aim to build a certification scheme, while increased educational opportunities, including diplomas in areas such as horse therapy and outdoor pedagogy, contribute to the sector's growth.

3.2.5 Iceland: VIRK^{56 57}

No networks or reimbursement schemes proper to NBHIs were identified in Iceland. The Icelandic Vocational Rehabilitation Fund (VIRK) can nonetheless be mentioned here

as some NBHIs are included in the fund's rehabilitation programme.

VIRK was funded in 2008 with the goal to decrease unemployment linked to incapacity and sickness through the provision of activities, vocational rehabilitation. Working on a case-by-case basis, VIRK provides tailored rehabilitation programmes to individuals facing difficulties to return to work. The fund works closely with employers and health care centres, unions and other parties of interest. VIRK is financed through mandatory contributions from employers and other governmental contribution from amongst others, the Pension Fund.^{58 59}

3.2.6 Latvia: Adventure Therapy Latvia

In Latvia, a small group of farmers control about 80% of agricultural land, making it difficult for small-scale farmers who lack access to affordable infrastructure. This has

led to growing interest in social farming, a type of NBHI, as a way for smaller farms to diversify their incomes and support their rural communities. The idea of social farming is relatively new in Latvia, though it was introduced in the 1990s by the British NGO Camphill, which ran programs for individuals with disabilities.^{60 12}

Adventure Therapy Latvia, founded in 2019, exemplifies the growing interest in NBHI. It was created through a collaboration of seven organizations, including tourism and occupational therapy centres. The group comprises healthcare professionals, educators, and therapists working together to promote mental well-being through activities like hiking, climbing, and kayaking. Funding comes from program fees, grants, and partnerships with local governments and NGOs.⁶¹

The initiative's funding is mostly project-based, with some support from municipalities and participant fees. In certain cases, government or municipal programs cover the costs of therapeutic activities. Many practitioners engage in adventure therapy as a side project alongside their primary jobs, leveraging the network to gain knowledge and expand their practice. This network plays a crucial role in advancing the field of NBHI in Latvia.^{13 62}

3.3 Insights from interviews: Backgrounds, business models and challenges

3.3.1 Practitioner backgrounds

Our interviewees were mostly women with a background in care and connections to animals and nature from their rural upbringing

Twelve practitioners were interviewed, most of whom are women with strong connections to animals and the natural environment due to their rural upbringing. Most interviewees grew up in the countryside. They considered

their upbringing as having significantly influenced their relationship with the natural environment and career choices. They have educational backgrounds in social sciences and caregiving, specifically in fields such as nursing and pedagogy. Their professional focus is on supporting people, particularly children, through teaching and healthcare.

Motivation arises from passion and interest in animals and nature, combined with a desire to help others

Interviewees' motivations are rooted in their passion for animals and nature. Their professional backgrounds in caregiving reflect a desire to assist others, linking their motivation to their career choices. Practitioners with a background in healthcare named a need for change, or their experience with burnout as a motivation to start working with NBHIs, others with a background in education named their desire to have a bigger impact on children with need as a motivator.

12 Camphill Rožkalni is featured in the booklet complementing this report

13 Adventure Therapy Latvia is featured in the booklet complementing this report



Recognizing the positive effects of nature and animals on youth, they focus on maximizing the use of space and resources on their farms, drawing inspiration from successful models within their community.

All practitioners pursued further Greencare education to boost their knowledge and credibility

To enhance their knowledge and credibility, all practitioners engaged in further education. Common course choices include horticulture therapy, animal-related certifications, nature instructor certification, and social pedagogical activities involving horses and dogs. This additional training is considered by interviewees as necessary to practice effectively in their field. These courses are offered by diverse institutions, with a notable pattern of practitioners attending programs at the Swedish University of Agricultural Sciences¹⁴ (SLU). This education was identified as crucial to allow integrating interviewees' skills with their passion for nature and animals, ensuring they are well-equipped to provide high-quality care.

3.3.2 Business models

Most of the interviewees' farms are of small size, guiding the offer of activities

The interviewed practitioners are all located in the Nordic and Baltic countries, typically owning five to ten animals. A majority of interviewees grew up or owned their farms prior to their engagement in NBHIs. They mentioned the size of their farms and their animals as decisive factors impacting the type of NBHI business model they were working with, rather than their NBHI activities guiding their choice of farm. Activities for patients are designed to align with the farm's resources and the specific needs of the patients. These include

daily animal care (brushing, feeding, walking), cooking, mindfulness walks, and horticulture. These integrate patients into the farms' daily activities, promoting responsibility taking and social inclusion, as well as fostering creativity, and giving a sense of community.

A smaller share of interviewees however did not include a farm in their business model. These practitioners worked with either public parks and forest or gardens.

Patients are typically referred by schools and social services and are suffering from various diagnoses requiring varying care regimes

Agreements with schools, local social services and authorities were identified by interviewees as crucial to maintaining patient flows and income inflows. Many identified network organisations as actors playing a key role in finding clients and enhancing the quality of the NBHI services. Indeed, patient referrals are primarily made by schools and social services, followed by municipalities, and more rarely healthcare practitioners. Patient groups include children and teenagers diagnosed with conditions such as autism, anorexia, and ADHD, as well as adults of all ages experiencing burnout, anxiety, depression and dementia.

Most patients tend to visit NBHI farms 1-3 times a week, typically in groups of 4-5. Frequency of visits and group sizes are influenced by diagnoses and the requirements they incur, i.e. patients suffering from anxiety tend to fare better in smaller groups and patients with diagnoses impacting their energy levels tend to visit NBHI farms at a lower frequency than others.

Exceptions include patients living on NBHI farms full-time.

14 Sveriges Lantbruksuniversitet (SLU)



Most practitioners have part-time jobs financially complementing their care business model

The sustainability of NBHI activities tends to be a source of concerns to practitioners. Most interviewees reported engaging in these activities as a source of partial income, some also generated income from traditional farm activities while others had part-time employments outside of their farms. Various interviewees identified this situation as lacking stability both at an economic and emotional level.

Moreover, some mentioned that their multiple activities prevented them from securing consistent patient flows. When reflecting over their business models and the need to generate multiple sources of income to make ends meet, interviewees stressed the importance of their initial altruistic goals in generating motivation and pursuing their activities despite their instability.

3.3.3 Challenges

Practitioners of NBHIs encounter a variety of challenges that can impact the sustainability and effectiveness of their services. These challenges have all been raised in interviews with practitioners and researchers, and can broadly be grouped into the following thematic areas:

Financial and payment issues

Securing reliable and consistent inflow of payments remains a significant hurdle for NBHI practitioners. While there is growing demand for these services, especially from institutions like schools, many private clients lack the capacity to pay for them, leading both to a lack of actual demand and financial uncertainty for providers. The general economic downturn and rising costs exacerbate these difficulties, particularly for micro-entrepreneurs in rural areas. Additio-

nally, the absence of long-term contracts creates uncertainty and financial stress, making it challenging for practitioners to plan and invest in their services.

Logistics and operational challenges

Logistics and transportation are significant barriers, particularly given the remote locations at which many NBHIs are conducted. This can sometimes make retention of clients difficult, especially since their personal situations – for example exhaustion and stress syndromes – can themselves make travel a challenge. Long distances can make it difficult to provide consistent and accessible services. Furthermore, for interventions involving animals, maintaining their health can be an unpredictable and resource-intensive task, adding another layer of complexity to service delivery.

Workload stress and relationship building

Balancing NBHI activities with other professional and personal obligations is a common challenge for practitioners. Many juggle multiple roles or jobs, which can lead to stress and burnout. The administrative burden of complying with health, safety, and other regulatory requirements adds to this strain. NBHI practitioners are however expected to maintain calm client interactions, active networking and community outreach, and demonstrate interpersonal skills of high quality which can be challenging when experiencing high levels of stress. Indeed, building networks and relationships is essential for the success of NBHI services, but finding the time and mindset for these activities can be difficult.

Lack of knowledge and trust

Healthcare providers' limited knowledge and awareness about NBHIs represents a sig-



nificant barrier to wider adoption of these practices. Many doctors and medical professionals are not aware of the availability and effects of NBHIs. Practitioners are often faced with scepticism about the efficacy of their activities.

Additionally, social stigmas around mental health and therapy can make it harder for potential clients to seek out or accept these services. Doubt from key community figures, such as social service providers, nurses, and hospital staff, can further hinder acceptance and integration of NBHIs into the healthcare system.

Lack of legislative and structural support

In tandem with the social or mental barriers of knowledge and trust, interviewees reported a lack of institutional support and inclusion of NBHIs. Healthcare and social services sectors rarely involve and include NBHI practices and practitioners in a systematic way. Practitioners however emphasized the importance of gaining administrative and legislative support to strengthen the stability of their business models. A majority of interviewees expressed an urgent need to implement more research, including evidence-based studies focusing on health and economic benefits of NBHIs to support their work.

4 Recommendations

To support the development of NBHIs and fully realize their potential in improving public health and supporting the diversification of rural economies in the Nordic-Baltic region, this report has resulted in the recommendations outlined below.

The three proposed sets of recommendations have been developed to complement each other and are aimed at both facilitating

the development of more NBHIs and providing a better foundation of support for existing practices throughout the region. One can note here that the national healthcare systems of the region are organised heterogeneously, some nationally, some regionally. It is therefore crucial to adapt the national recommendations to the structural organisation of each healthcare system.



Recommendation 1: Development of evidence-based studies

Health providers' and social workers' scepticism or lack of knowledge of NBHIs has been identified as a hurdle for the development and systemic adoption of the services. Practitioners therefore expressed an urgent need to increase public awareness of NBHIs and their benefits. This regards the economic potential of the practice and its potential to complement various health treatments and education programs. A research-oriented recommendation can include the following activities:

- Setting up a Nordic-Baltic NBHI taskforce to manage a regional research project
- Financing of evidence-based studies on
- the economic potential of NBHIs for public institution and rural areas
- areas of public services where the inclusion of NBHIs could alleviate overload

Key actions:

- Investigate physiological and psychological pathways through which exposure to natural environments improves health.
- Evaluate interventions such as forest bathing, therapeutic horticulture, green exercise, and nature-based mindfulness.
- Assess long-term impacts on chronic conditions, such as cardiovascular disease, depression, and anxiety.
- Explore the differential impacts of NBHIs on children, the elderly, and individuals with chronic illnesses or disabilities. Consider cultural and geographic variations within Nordic countries.
- Synthesise and disseminate the research outcomes through policy briefs and guidelines to decision-makers, healthcare system and practitioners.

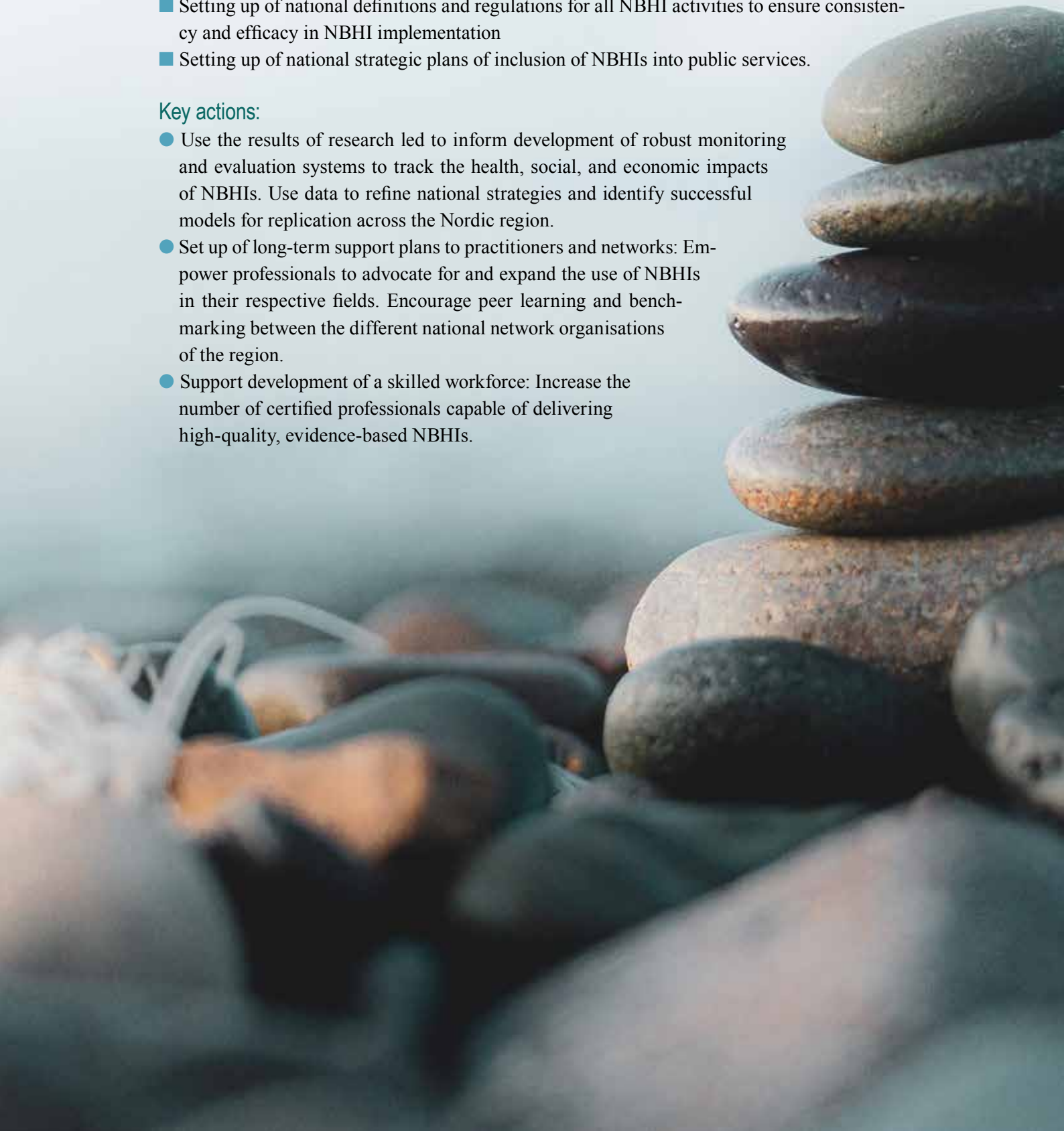
Recommendation 2: Promotion of national strategies

Practitioners voiced the lack of national strategies for NBHIs as a structural challenge to their activities. Well-developed regulations and integration with public services are solutions to support NBHIs. Moreover, by providing support to national networks and partnerships, policymakers can promote the professionalization of practitioners. A legislative-oriented recommendation can include the following activities:

- Setting up of national definitions and regulations for all NBHI activities to ensure consistency and efficacy in NBHI implementation
- Setting up of national strategic plans of inclusion of NBHIs into public services.

Key actions:

- Use the results of research led to inform development of robust monitoring and evaluation systems to track the health, social, and economic impacts of NBHIs. Use data to refine national strategies and identify successful models for replication across the Nordic region.
- Set up of long-term support plans to practitioners and networks: Empower professionals to advocate for and expand the use of NBHIs in their respective fields. Encourage peer learning and benchmarking between the different national network organisations of the region.
- Support development of a skilled workforce: Increase the number of certified professionals capable of delivering high-quality, evidence-based NBHIs.



Recommendation 3: Communication and promotion of the benefits of NBHI

Combining evidence-based studies with communication and promotion activities could support more widespread adoption of NBHIs. Communication is crucial to both raise awareness about the existence of NBHIs and disseminate results of studies demonstrating the economic potential of NBHIs to involved institutions. A campaign of promotion for NBHIs could therefore include the following activities:

- Elaboration of targeted information material from NBHI task force studies
- Writing of strategic communication material to key decision makers in
- Social services
- Health care systems
- education systems

Key actions

- Develop workshops and training programs to disseminate results of evidence-based benefits of NBHIs for mental health, and physical rehabilitation.
- Develop toolkits including practical guides on implementing NBHIs with testimonials and case studies from other social services utilising NBHIs.
- Use targeted campaigns highlighting NBHIs' role in reducing isolation and promoting mental health (e.g., posters in community centres, social media stories of successful interventions).
- Set up “Green Prescription” campaigns to create awareness among healthcare professionals about prescribing nature-based activities for stress, anxiety, or chronic illnesses. Develop easy-to-use templates and guides for green prescriptions as well as apps or portals to connect healthcare professionals with nearby NBHI opportunities.



5 List of references

- 1 Grityka, K., et al. (2020) 'The Effects of Workplace Nature-Based Interventions on the Mental Health and Well-Being of Employees: A Systematic Review', *Frontiers in Psychiatry*.
- 2 Green Care Netværket (n.d.) Green Care – Report scope animal-assisted methods [translated from Danish, Google p. 9-12].
- 3 Green Care Netværket (n.d.) Green Care – Report scope animal-assisted methods [translated from Danish, Google p. 9-12].
- 4 Steigen, A. M., Kogstad, R. E., & Hummelvoll, J. K. (2016) 'Green care services in the Nordic countries: an integrative literature review', *European Journal of Social Work*, 19(5), pp. 692–715.
- 5 Green Care Netværket (n.d.) Green Care - Report scope animal-assisted methods [translated from Danish, Google p. 9-12].
- 6 Steigen, A. M., Kogstad, R. E., & Hummelvoll, J. K. (2016) 'Green care services in the Nordic countries: an integrative literature review', *European Journal of Social Work*, 19(5), pp. 692–715.
- 7 Green Care Netværket (n.d.) Green Care – Report scope animal-assisted methods [translated from Danish, Google p. 9-12].
- 8 Shanahan, D. F., Astell-Burt, T., Barber, E. A., Brymer, E., Cox, D. T., Dean, J., et al. (2019) 'Nature-based interventions for improving health and wellbeing: The purpose, the people and the outcomes', *Sports*, 7(6), p. 141.
- 9 Moriggi, A., Soini, K., Bock, B. B., & Roep, D. (2020) 'Caring in, for, and with nature: An integrative framework to understand green care practices', *Sustainability*, 12(8), p. 3361.
- 10 Sandin, L., Seifert-Dähnn, I., Skumlien Furuseth, I., Baattrup-Pedersen, A., Zak, D., Alkan Olsson, J., et al. (2023) 'Working with Nature-Based Solutions: Synthesis and mapping of status in the Nordics', Nordic Council of Ministers.
- 11 Hassink, J., Agricola, H., Veen, E. J., Pijpker, R., de Bruin, S. R., Meulen, H. A. V. D., & Plug, L. B. (2020) 'The care farming sector in the Netherlands: A reflection on its developments and promising innovations', *Sustainability*, 12(9), p. 3811.
- 12 Heggem, R. (2014) 'Diversification and Re-feminisation of Norwegian Farm Properties', *Sociologia Ruralis*, 54(4), pp. 439–459.
- 13 Hassink, J., Agricola, H., Veen, E. J., Pijpker, R., de Bruin, S. R., Meulen, H. A. V. D., & Plug, L. B. (2020) 'The care farming sector in the Netherlands: A reflection on its developments and promising innovations', *Sustainability*, 12(9), p. 3811.
- 14 (2021) Natural population change in the Nordic region 2021. Available at: <https://nordregio.org/maps/natural-population-change-in-the-nordic-region-2021/> (Accessed: 22 November 2024).
- 15 (2023) Rooting for the Rural: Education and Training. Available at: <https://pub.nordregio.org/pb-2023-5-Rooting-for-the-Rural/education-and-training.html> (Accessed: 22 November 2024).
- 16 (2023) Service provision in Nordic rural areas: What did we find? Available at: <https://pub.nordregio.org/pb-2023-1-service-provision-in-nordic-rural-areas/what-did-we-find-.html> (Accessed: 22 November 2024).
- 17 (2023) Working with Nature-Based Solutions: Summary. Available at: <https://pub.norden.org/temanord2023-549/summary.html> (Accessed: 22 November 2024).
- 18 (n.d.) Prevent dementia. Available at: <https://nordicwelfare.org/en/projekt/preventdementia/> (Accessed: 22 November 2024).

- 19 (2023) Service provision and access to services in Nordic rural areas. Available at: <https://pub.nord-regio.org/r-2023-2-service-provision-and-access-to-services-in-nordic-rural-areas/> (Accessed: 22 November 2024).
- 20 Hassink (2003) Combining agricultural production and care for persons with disabilities: a new role of agriculture and farm animals. In A. Cristovao, & L. O. Zorini (Eds.), *Farming and rural systems research and extension. Local identities and globalisation*, Fifth IFSA European Symposium, Florence, Italy, 8-11 April 2002 (pp. 332-341). Arsia. <https://edepot.wur.nl/367565>
- 21 Lund, I. E., Granerud, A., & Eriksson, B. G. (2015). Green care from the provider's perspective: An insecure position facing different social worlds. *SAGE Open*, 5(1), 2158244014568422.
- 18
- 22 Vik, J., & McElwee, G. (2011). Diversification and the entrepreneurial motivations of farmers in Norway. *Journal of small business management*, 49(3), 390-410.
- 23 Hassink, J., Agricola, H., Veen, E. J., Pijpker, R., de Bruin, S. R., Meulen, H. A. V. D., & Plug, L. B. (2020). The care farming sector in the Netherlands: A reflection on its developments and promising innovations. *Sustainability*, 12(9), 3811.
- 24 Joschko, L., Palsdottir, A. M., Grahn, P., & Hinse, M. (2023). Nature-based therapy in individuals with mental health disorders, with a focus on mental well-being and connectedness to nature—a pilot study. *International journal of environmental research and public health*, 20(3), 2167.
- 25 Moriggi, A., Soini, K., Bock, B. B., & Roep, D. (2020). Caring in, for, and with nature: An integrative framework to understand green care practices. *Sustainability*, 12(8), 3361.
- 26 Moriggi et al. (2020). Caring in, for, and with Nature: An Integrative Framework to Understand Green Care Practices.
- 27 Moriggi et al. (2020) Caring in, for, and with Nature: An Integrative Framework to Understand Green Care Practices. *Sustainability*.
- 28 Leck, C., Evans, N., & Upton, D. (2014). Agriculture—Who cares? An investigation of 'care farming' in the UK. *Journal of Rural Studies*, 34, 313-325.
- 29 Risku-Norja, H., & Yli-Viikari, A. (2008). School Goes to the Farm—action model for rural-based sustainability education. *Innovation Systems and Rural Development*, (27-2008), 90.
- 30 Ylilauri, M., & Voutilainen, O. (2021). Review of Nordic Nature-based Service Models: Study on the opportunities and challenges of the nature-based services in Finland, Sweden and Norway.
- 31 Gritzka, S., MacIntyre, T. E., Dörfel, D., Baker-Blanc, J. L., & Calogiuri, G. (2020). The effects of workplace nature-based interventions on the mental health and well-being of employees: a systematic review. *Frontiers in psychiatry*, 11, 323.
- 32 Steigen, A. M., Kogstad, R. E., & Hummelvoll, J. K. (2016) 'Green care services in the Nordic countries: An integrative literature review', *European Journal of Social Work*, 19(5), pp. 692–715.
- 33 Green Care Netværket (n.d.) Green Care - Report scope animal-assisted methods [translated from Danish, Google p. 9–12].
- 34 Vik, J. and McElwee, G. (2011) 'Diversification and the entrepreneurial motivations of farmers in Norway', *Journal of Small Business Management*, 49(3), pp. 390–410
- 35 Mettepenningen, E., Dessein, J., Calus, M. and Van Huylenbroeck, G. (2010) 'Green care in the framework of multifunctional agriculture', in *The Economics of Green Care in Agriculture*, pp. 46.

- 36 Ylilauri, M. and Voutilainen, O. (2021) Review of Nordic Nature-based Service Models: Study on the opportunities and challenges of the nature-based services in Finland, Sweden and Norway.
- 37 Vik, J. & McElwee, G. (2011) 'Diversification and the entrepreneurial motivations of farmers in Norway', *Journal of Small Business Management*, 49(3), pp. 390–410. DOI: 10.1111/j.1540-627X.2011.00329.x.
- 38 Mettepenningen et al., 2010
- 39 Zobena, A., & Lāce, A. (2021) 'Title not provided', Publication Information Missing. Placeholder reference for Zobena & Lāce's work.
- 40 Risku-Norja, H., & Yli-Viikari, A. (2008) 'School goes to the farm—action model for rural-based sustainability education', *Innovation Systems and Rural Development*, (27-2008), pp. 90.
- 41 Hassink, J., Zwartbol, C., Agricola, H.J., Elings, M. and Thissen, J.T. (2007) 'Current status and potential of care farms in the Netherlands', *NJAS-Wageningen Journal of Life Sciences*, 55(1), pp. 21–36.
- 42 Oltmer & Venema, 2008
- 43 Steigen, A. M., Kogstad, R. E., & Hummelvoll, J. K. (2016) 'Green care services in the Nordic countries: an integrative literature review', *European Journal of Social Work*, 19(5), pp. 692–715.
- 44 Lund, I. E., Granerud, A., & Eriksson, B. G. (2015) 'Green care from the provider's perspective: An insecure position facing different social worlds', *SAGE Open*, 5(1), 2158244014568422. DOI: 10.1177/2158244014568422.
- 45 Hassink, J., Agricola, H., Veen, E. J., Pijpker, R., de Bruin, S. R., Meulen, H. A. V. D., & Plug, L. B. (2020) 'The care farming sector in the Netherlands: A reflection on its developments and promising innovations', *Sustainability*, 12(9), p. 3811. DOI: 10.3390/su12093811.
- 46 Lund, I. E., Granerud, A., & Eriksson, B. G. (2015) 'Green care from the provider's perspective: An insecure position facing different social worlds', *SAGE Open*, 5(1), 2158244014568422. DOI: 10.1177/2158244014568422.
- 47 Hassink, J., Agricola, H., Veen, E. J., Pijpker, R., de Bruin, S. R., Meulen, H. A. V. D., & Plug, L. B. (2020) 'The care farming sector in the Netherlands: A reflection on its developments and promising innovations', *Sustainability*, 12(9), p. 3811. DOI: 10.3390/su12093811.
- 48 Sandin, L., Seifert-Dähnn, I., Skumlien Furuset, I., Baattrup-Pedersen, A., Zak, D., Alkan Olsson, J., et al. (2023) 'Working with Nature-Based Solutions: Synthesis and mapping of status in the Nordics', Nordic Council of Ministers.
- 49 Hassink, J. (2003) 'Combining agricultural production and care for persons with disabilities: A new role of agriculture and farm animals', in Cristovao, A. and Zorini, L. O. (eds.) *Farming and rural systems research and extension: Local identities and globalisation. Fifth IFSA European Symposium, Florence, Italy, 8–11 April 2002*, Arsia, pp. 332–341. Available at: <https://edepot.wur.nl/367565> (Accessed: 22 November 2024).
- 50 Sandin, L., Seifert-Dähnn, I., Skumlien Furuset, I., Baattrup-Pedersen, A., Zak, D., Alkan Olsson, J., et al. (2023) 'Working with Nature-Based Solutions: Synthesis and mapping of status in the Nordics', Nordic Council of Ministers.
- 51 Inn på tunet (n.d.) Om Inn på tunet. Available at: <https://inn-pa-tunet.no/om-inn-pa-tunet/> (Accessed: 4 February 2026).
- 52 Norges Bondelag (n.d.) Inn på tunet – næringsutvikling. Available at: <https://www.bondelaget.no/bondelaget-mener/naeringsutvikling/inn-pa-tunet/> (Accessed: 22 November 2024).

- 53 Hushållningssällskapet (n.d.) Grön Arena. Available at: <https://hushallningssallskapet.se/tjanster/landsbygd/gron-arena/> (Accessed: 22 November 2024).
- 54 Ulricehamns Kommun (2019) Om LSS på Engelska. Available at: <https://www.ulricehamn.se/innehall/2019/10/Om-LSS-p%C3%A5-Engelska.pdf> (Accessed: 22 November 2024).
- 55 Green Care Finland (n.d.) Green Care Finland. Available at: <https://www.gcf Finland.fi/> (Accessed: 22 November 2024).
- 56 VIRK (n.d.) VIRK vocational rehabilitation fund. Available at: <https://www.virk.is/is> (Accessed: 22 November 2024).
- 57 ASI Icelandic Labour Law (n.d.) VIRK vocational rehabilitation fund. Available at: <https://asi.is/vinnurettarvefur/vinnurettur/icelandic-labour-law/sickness-and-accidents/virk-vocational-rehabilitation-fund/> (Accessed: 22 November 2024).
- 58 ASI Icelandic Labour Law (n.d.) VIRK vocational rehabilitation fund. Available at: <https://asi.is/vinnurettarvefur/vinnurettur/icelandic-labour-law/sickness-and-accidents/virk-vocational-rehabilitation-fund/> (Accessed: 22 November 2024).
- 59 VIRK (2011) Annual Report 2011. Available at: <https://www.virk.is/static/files/enska/annual-report-2011-in-english-with-comments-til-lestrar.pdf> (Accessed: 22 November 2024).
- 60 Camphill Rozkalni (n.d.) Home. Available at: <http://www.camphillrozkalni.lv/en/home/> (Accessed: 22 November 2024).
- 61 Adventure Therapy Latvia (n.d.) About. Available at: <https://adventuretherapylatvia.lv/en/about/> (Accessed: 22 November 2024).
- 62 Adventure Therapy Latvia (n.d.) ALT apraksts. Available at: <https://drive.google.com/file/d/1wXc-gai7OI8m4eWy6nlvOJai64uY21MVb/view> (Accessed: 22 November 2024).