Summary of MOVING Scottish Research

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MOVING
MOuntain Valorisation through INterconnectedness and Green growth

Contents

1. Executive Summary

1.1. Introduction to MOVING

The MOVING (Mountain Valorisation through Interconnectedness and Green growth) project (https://www.moving-h2020.eu/) was a 4-year European Union Horizon 2020 project covering 23 European mountain regions. Partners aimed to use a participatory approach to build capacity and develop policy frameworks for value chains[1] (VC) that contributed to the resilience and sustainability of Europe's mountain areas.

The Scottish case focused on the Speyside Malt Whisky VC, using Moray, Badenoch and Strathspey as the mountain area of research. Speyside Malt Whisky VC was selected due to its importance for the Scottish economy, close relationship to tourism, and strong connections with the mountain area. Tourism was included in some of the research as an additional VC – the interactions of these two value chains is signalled by the phrase Whisky and tourism VC.

The objectives of the Scottish research were:

- Building connections and networks, both within the Scottish value chain and more broadly across Europe.
- Gaining insights into the transferability of the findings from this geographic area into the wider region (both mountain areas and lowland parts of the Highlands and Moray).
- Learning lessons from this VC in terms of brand recognition for other Scottish land-based VC.
- Improving the understanding and outcomes of mutual benefits from the Whisky VC, including building closer connections between industry and tourism, and extracting more value from the VC for local communities.
- Enabling more attention to be paid to both the role of peat(lands) and the downstream outputs and implications of these decisions.

[1] A Value Chain is the full range of activities required to bring a product of service from conception, through production, and delivery to consumers. More on value chains: www.moving-h2020.eu/library document titled D4.1

- Paying attention to the importance and impacts of place-based data including rural transport within the VC, to develop more climate friendly recommendations for the food and drink economic strategies.

1.2. Findings

Using secondary data, interviews, and workshops we found that the Speyside Malt Whisky and tourism VC were adding economic, socio-cultural, and environmental value to the area. This was through employment, land management, contributions to cultural heritage, and awareness of resource use. When looking forward to 2050 participants wanted a socially conscious society and continued global connectivity. They hoped that this would mean trade and tourism could continue to grow whilst environmental impacts were minimised.

Identified threats to local land and water resources included; changes to precipitation (rainfall and snow melt), temperature (water and air), extreme events, muirburn, land use change, peat soil condition, and overexploitation of water resources. Some parts of the region were found to be more vulnerable than others (see Figure 7) and adaptation may be particularly important in these areas.

Further work on threats to the Whisky and tourism VC found that stakeholders thought the following threats were most important; drought, demographic changes, inflation, legislation changes, and malting barley capacity. Work investigating threats and challenges that might become a problem in the future found that stakeholders expected a business as usual scenario to result in increased variation in rainfall and temperature, outward migration of workforce aged population, continued economic uncertainty, reduced growing capacity for malt barley locally, and increased duty on spirits.

When compared to the other case studies used for MOVING across Europe, our case had a number of similarities – particularly with other alcohol-based VC. Issues relating to employment were particularly prevalent – including workforce scarcity and competition for staff, issues of barriers to entry to the VC, overexploitation of resources and problems with local infrastructure.

1.3. Recommendations

The Speyside Whisky and tourism VCs have international markets and share a northern location, which offer them some increased resiliency to threats of climate change and economic uncertainty. On top of this, several solutions and recommendations have come out during the MOVING research.

These solutions and recommendations include:

- Enhancing living conditions in the area through increases to the national living wage, local planning regulations, and housing targets to attract working age people to the area or keep them.

- Energy efficiency and use of renewables within the Whisky and tourism sectors to mitigate impacts of energy-based inflation.
- Water restoration interventions were suggested to stabilize river temperature and flow. These could include rewetting and habitat restoration, riparian woodland planting, and collaboration between businesses for collective management.
- Development of a Whisky 'competence centre' building on the expertise in the area, increasing demand for local hospitality if done during the low season.
- Initiatives to increase active travel and new public transport in the area.
- Continuation of the existing conservation strategy in the national park.

Some of these solutions and recommendations are already being implemented in the area and provide strong building blocks for future development.

Through the project we have been able to meet many of the objectives set:

- Stakeholders have been able to build connections and networks with each other and more broadly across Europe.
- We have gained insights into the transferability of the findings from this geographic area into the wider region, working with organisations that cover wide areas.
- Lessons can indeed be learnt from this Whisky VC and its Protected Geographical Indication (PGI) in terms of brand recognition for other Scottish land-based VC.
- Building closer connections between the Whisky industry and tourism may have been met to a lesser extent than other objectives, potentially due to the multinational nature of many of the Whisky brands operating in the region compared to the small to medium size enterprise (SME) nature of the tourism sector.
- Work on vulnerability and resilience of the land-water systems recognised the importance of restoring degraded peatland and enabled more attention to be paid to this.
- The project has developed reports that provide up-to-date place-based qualitative data on various aspects of the VCs and their interactions, helping to address the final objective.

Ongoing and future projects continue work in this area.

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2. Glossary

CNPA – Cairngorms National Park Authority

CNP – Cairngorms National Park

EU – European Union

MAP – Multi actor platform

MOVING – Mountain Valorisation through Interconnectedness and Green Growth project

SME – Small to medium size enterprise

SWA – Scotch Whisky Association

VC – Value chain

3. Introduction – what is MOVING, and what was the Scottish case?

The MOVING (Mountain Valorisation through Interconnectedness and Green growth) project (https://www.moving-h2020.eu/) was a 4-year EU Horizon 2020 project running from September 2020 to August 2024, coordinated by the University of Cordoba. Sixteen European and neighbouring countries were partners in the project, covering a total of 23 mountain regions. Each partner developed a participatory approach in their region(s) to build capacity and develop policy frameworks for value chains[2] (VC) that contributed to the resilience and sustainability of Europe's mountain areas. Mountains, such as the Cairngorms, provide huge benefits, locally, nationally and internationally (such as being major tourism destinations, providing freshwater, rare habitats and carbon sinks), but also face constraints on economic development due to their isolation and natural characteristics. MOVING focused on the VC as a mechanism of rural/regional development and the role that different actors play in the governance of mountain regions. The project took a broad perspective on values, including economic, socio-cultural and environmental aspects, and considered how much value was added, and retained, in the mountain regions for the benefit of local people.

The overall EU project objectives were adapted in Scotland after meeting with the Stakeholder Advisory Group in 2021, who wanted our case study to consider:

- Building connections and networks, both within the Scottish value chain and more broadly across Europe.
- Gaining insights into the transferability of the findings from this geographic area into the wider region (both mountain areas and lowland parts of the Highlands and Moray).
- Learning lessons from this VC in terms of brand recognition for other Scottish land-based VC.
- Improving the understanding and outcomes of mutual benefits from the Whisky VC, including building closer connections between industry and tourism, and extracting more value from the VC for local communities.
- Enabling more attention to be paid to both the role of peat(lands) and the downstream outputs and implications of these decisions.
- Paying attention to the importance and impacts of place-based data including rural transport within the VC, to develop more climate friendly recommendations for the food and drink economic strategies.

At the beginning of the project, 25 mountain value chains across the UK were identified (available here[3]). From these, the Hutton research team chose the Speyside Malt Whisky VC for a number of reasons. Scotch Whisky is important for the Scottish economy, making up 75% of

[2] A Value Chain is the full range of activities required to bring a product of service from conception, through production, and delivery to consumers. More on value chains: www.moving-h2020.eu/library document titled D4.1
[3] www.moving-h2020.eu/library document titled D4.1 Inventory of Mountain Value Chains

Scottish food and drink exports, worth £5.6 bn in 2023[4], employing around 10,000 people across Scotland. Scotch Whisky has important links to tourism too; Scotch Whisky visitor centres are the most visited tourism activity in Scotland[5]. Speyside is the most densely populated of five Scotch Whisky regions (and it is claimed, in the world), hosts 14 distillery visitor centres and relies on the clean green mountain image. Further details on the Speyside Malt Whisky VC can be found here[6].

Our research focussed on Upper Speyside, covering Badenoch, Strathspey and West Moray

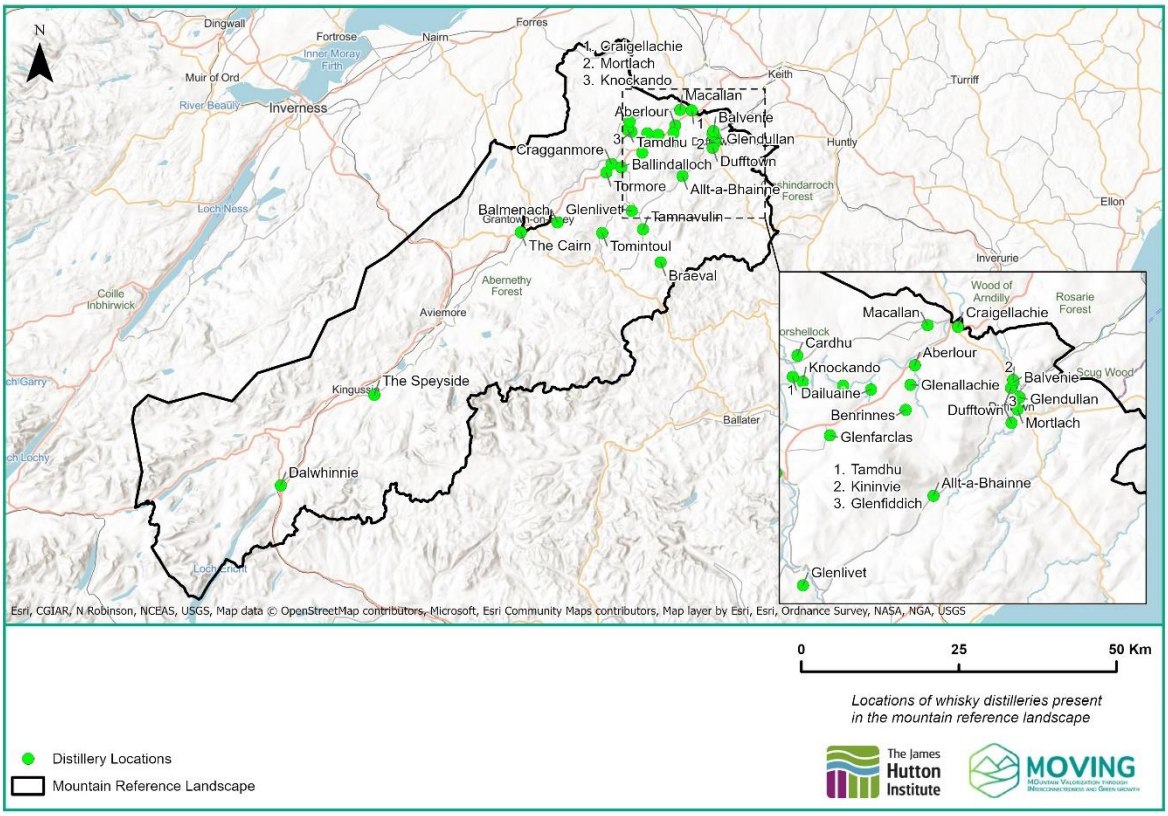

Figure 1 Mountain Reference Region Distillery Map (created by Dave Miller)

(see Figure 1) that are almost exclusively in Cairngorms National Park (CNP). Scotland does not have a specific mountain policy, and the agricultural designation of 'less favoured areas' covers a great deal of upland Scotland. However, the designation of the CNP in 2003, and further environmental protections, such as the Spey designated as a Special Area of Conservation, highlights the national and international importance of our study area. Rather

[4] https://www.scotch-Whisky.org.uk/newsroom/scotch-Whisky-exports-2023/
[5] Scotch Whisky visitor centres become top visitor attraction in Scotland (scotch-Whisky.org.uk)
[6] www.moving-h2020.eu/library document titled D4.2 List of selected vale chains and relationship building

than seeing the study area as constrained, the VC approach aimed to illustrate the range of benefits that the area, and the 29 active distilleries, generate for local residents and beyond.

While the maximum elevation is low for a European mountain region (1,309 m) the higher elevations within the Cairngorms have sub-alpine vegetation communities, and in places, fragile and thin soils and long periods of snow cover. This contrasts over short distances with valley floors (e.g., Aviemore at ~240 m) where it is possible to practice arable agriculture. The area is also transitional in terms of climate from very wet western mountains (mean annual rainfall – 2,934mm) to the much drier north-eastern coastal plains into which the valley opens (731mm). The area has substantial areas of deep peatlands (1,018 km^2 or 30% of the area), 73% of which need some degree of hydrological and/or vegetative restoration.

The area had a total population of 37,941 in 2020 with Badenoch and Strathspey having 13,948 and West Moray 23,966. Aviemore is the only settlement large enough to be defined as a remote small town[7] with 5% of area accessible rural, 36% remote rural and 59% very remote rural. More detailed information on the characteristics of our area can be found here[8].

Figure 2 Loch An Eilean. Image credit: Kirsty Blackstock

Malt Whisky requires several inputs. Environmental, or natural, capital with human, financial and built capitals combine to generate the barley, peat for malting, water for production and cooling, and the barrels for the 3-year aging process. Whilst most of the barley, peat and barrels come from elsewhere, the water originates within the mountains. The VC also creates locally built

[7] Small town - population 3-10,000, with a 30–60-minute drive to a settlement of >10,000; accessible rural/remote/very remote defined by being<30, 30-60 or >60-minute drive times to a >10,000 settlement.
[8] https://www.hutton.ac.uk/wp-content/uploads/2024/06/MOVING_T3.3-report-full-for-Hutton-website.pdf

capital - distilleries, each with their unique stills, warehouses, and pipes; financial capital, as many distilleries are expanding and refining production processes for net zero objectives; and human capital (as the specific blending and maturation processes are closely guarded secrets). Finally, the single malts command a premium price due to their brand which is entirely place-based; and marketing of the distillery and products use symbolic and cultural references to remote and romantic mountain areas (see Figure 3).

Figure 3 Scotch Malt Whisky Infographic (created by Chloe Thompson)

The main mountain practices associated with the single malt VC are:

- **Production** of the inputs – primarily water, whose quality, temperature and quantity reflects the local land use and efforts to protect or restore ecosystem function.
- **Processing** has several steps (mash, fermentation, distillation, and maturation for at least 3 years). The majority of the processing takes place within the area.
- **Distribution and marketing** is generally carried out by the head offices of the parent companies and includes exports globally; but there are also interactions involving wider Cairngorm National Park (CNP) and Speyside tourism marketing.

- **Consumption** takes place all over the world, domestically and in hospitality venues, but we also considered how consumers visit the area for Whisky tours, Whisky hotels and Whisky festivals.

Further information about the VC can be found in a report here[9], or on our website here[10].

[9] www.moving-h2020.eu/library document titled D4.3 Report on participatory value chain analysis
[10] www.hutton.ac.uk/research-projects project titled MOVING

4. Why take a value chain lens on mountain development?

The value chain concept can be quite abstract, however it can help local people see how they play a role in economic and other processes that may extend beyond Upper Speyside, to the lowlands and even overseas. The structured analysis of the value chain and its interactions as shown in Figure 4 provides a way to analyse what can be a complex system. By capturing the whole chain, it became easier to see where local problems may arise and where potential solutions can focus. Ideally, it connects the large multi-national companies with local people who sustain the assets underpinning the VC, or could benefit from the interactions with other VC, through a focus on sustainable livelihoods. It also shows the roles for people, and organisations, outside the Upper Speyside area, who can play important roles in supporting sustainability in Upper Speyside.

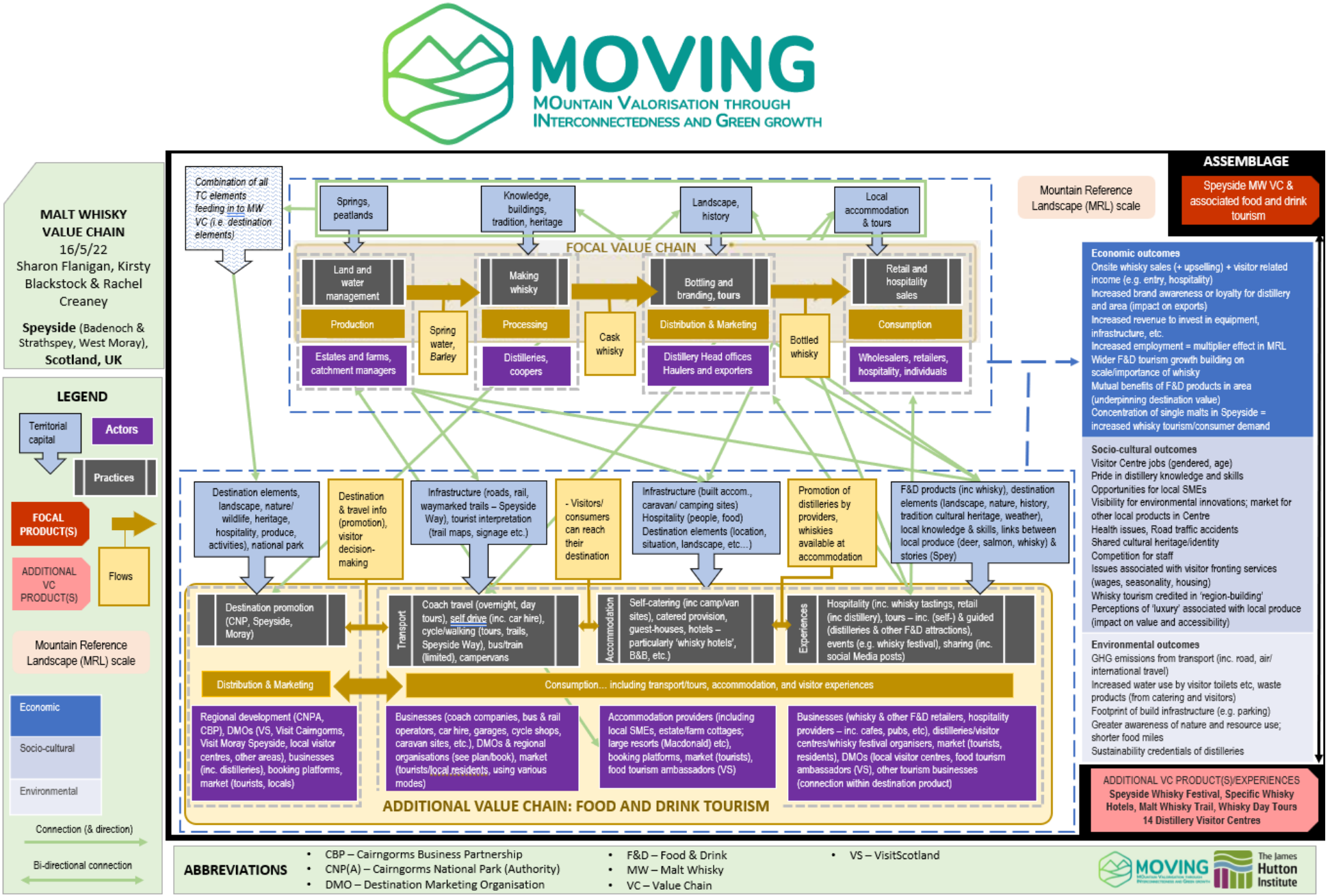

Figure 4 Speyside Malt Whisky and tourism Value Chain Interaction Diagram (created by Sharon Flanigan)

4.1. Value chain interactions in Speyside

The Speyside Malt Whisky VC is globally important, but it is not the only VC in Upper Speyside. Through the distillery tourism it also contributes to the local food and drink tourism value chain. There is effort in the area to increase the connection between tourism and the Whisky VC; visiting distilleries is increasing and has become part of the National Park's and Visit Moray's strategies for promoting local food and drink tourism (i.e. Malt Whisky Trail). This is important as it brings consumers to the area, who can spend their money on other experiences, accommodation, and local products rather than exporting products to urban centres and other countries (see Figure 4**Error! Reference source not found.** for more detailed information on the interactions between the Speyside Malt Whisky VC and the tourism VC).

Figure 5 A Whisky tasting session at Dalwhinnie Distillery. Image credit: Kirsty Blackstock

The Whisky brands, and the tourism marketing, highlight the landscapes and cultural heritage of the area which are produced through other land-based value chains, such as livestock farming,

salmon and trout fisheries, moorlands and woodlands managed for hunting or conservation, and forestry. The byproducts from distilling (pot-ale, draff) were traditionally used by farmers and now are the main inputs to the local bio-fuel industry. There are other interactions with these VC that were not explored in detail during the project but could be useful to explore in further research (see Section 0).

5. How are the interacting VC performing?

We used a combination of secondary data, interviews and workshop information to discuss how the VC were performing in terms of adding value whilst protecting local assets.

Economically, the Speyside Malt Whisky and tourism VC were adding value at all stages, from production to processing, distribution and marketing, and consumption. This included the provision of local employment in land management, distilleries and visitor centres, local hospitality, and tax revenue.

Socio-culturally the Whisky and tourism VC were adding value through jobs for local people, contribution to cultural heritage through distillery knowledge and skills, and providing a market for other local products through the increased numbers of people visiting the area.

Environmentally the Whisky and tourism VC were adding value through a greater awareness of nature and resource use – particularly with focus on shorter food miles, the sustainability credentials and stewardship of distilleries, who rely on high quality natural environments for the water needed during use in production of Whisky and for the natural environment during marketing of the finished product.

It also highlighted the importance of digital and physical infrastructure, in particular energy and transport links for the processing, distribution but also the tourism aspects of the Whisky and tourism VC. There were a myriad of relevant policies and strategies covering a wide range of policy domains such as health and safety, climate mitigation and fiscal tax arrangements.

The analysis suggested that most people felt that the Whisky VC performs well in terms of sustainability, and also contributes well to local rural development.

In terms of governance issues, the Whisky VC scored highly for levels of cooperation in the area, with good trust between actors and sharing of information. The VC had relatively sustainable use of local assets, though this was limited slightly by high water demands. When looking at inclusiveness, the Scottish VC had only medium levels of accessibility of the resource system to local entrepreneurs, with high entrance costs to setting up new distilleries in particular – but skills and training were accessible. The Scottish VC had high levels of adaptive capacity, with a large number of sectoral specific strategies and territorial plans.

Complementary themes came up when we considered the future, and what kind of development was desirable for 2050. Participants were seeking both a socially conscious society, and trade operating within highly globalised markets. This could be characterised by Whisky production that is both environmentally sustainable and socially responsible, while still being globally connected. Tourism could continue to grow whilst successful implementation of environmental awareness and outreach campaigns could minimise the environmental impacts. Investment in

affordable housing, local facilities, and wages could see the local working population grow. Results looking at possible futures for the region can be found here[11].

Our engagement with young people from the area, and those likely to visit the area, also highlighted what was working and what wasn't (see Figure 6).

Spotlight on young people

Three in-person youth engagement activities were undertaken, reaching over 140 young people in total. The first activity comprised of a fieldtrip and workshop at a Whisky distillery with seven young people. The second event was a presentation to, and discussion with, 57 urban primary school children. The third event was a presentation at a rural careers fair to approximately 80 secondary school pupils living within or close to the study area.

In terms of the future vision, the young people highlighted many challenges present in the area including difficult land tenure practices, poor transport, lack of housing and long-term jobs. Tourism was also thought to be increasing which brought some opportunities but also some challenges. Sustainability could be improved through greater use of renewable energy, shorter supply chains, a tourist tax and more funding for community groups to develop the local area. In strengthening the role of young people in the area, better input into policy was suggested, along with more extensive opportunities for rural work experience. In fact, the careers fair which the Scottish partners attended was also well received by the young people as a means to strengthen their (or their potential) role in the area. Very few students had contacts with the distilling industry and did not seem to know what the industry could offer them, despite the efforts of the SWA and others to promote skills and training. The discussions with the primary school children took a different form (given their level of knowledge of the VC and the area) but they were very interested in learning about mountains. Many had not previously considered the mountains as places where people lived/worked - thinking that they were simply beautiful landscapes.

Further details on the youth engagement activities held trough MOVING can be found here (www.moving-h2020.eu/library document titled D1.5 Youth Engagement Report).

Figure 6 Spotlight on young people

5.1. What are the threats to the area?

During workshops held in 2021 scientists, conservationists, and land-based businesses discussed threats to the local land and water resources. The following threats were identified; changes to precipitation (rainfall and snow melt), temperature (water and air), extreme events, muirburn, land use change, peat soil condition, and over exploitation of water resources. Of these, results suggested that the most important for water quantity in Speyside were

[11] www.moving-h2020.eu/library document titled D6.3 Synthesis report including a Repertoire of Strategic Options

overexploitation of water resources, changes in rainfall, and changes in water temperature. Further details on these results are available here[12]. Some parts of the region were found to be more vulnerable than others, as shown in Figure 7, where a screening vulnerability matrix illustrates how the combination of increasing Whisky production, water availability in small catchments and a concentration of distilleries may require some adaptation. Further details can be found on the Storymap here[13].

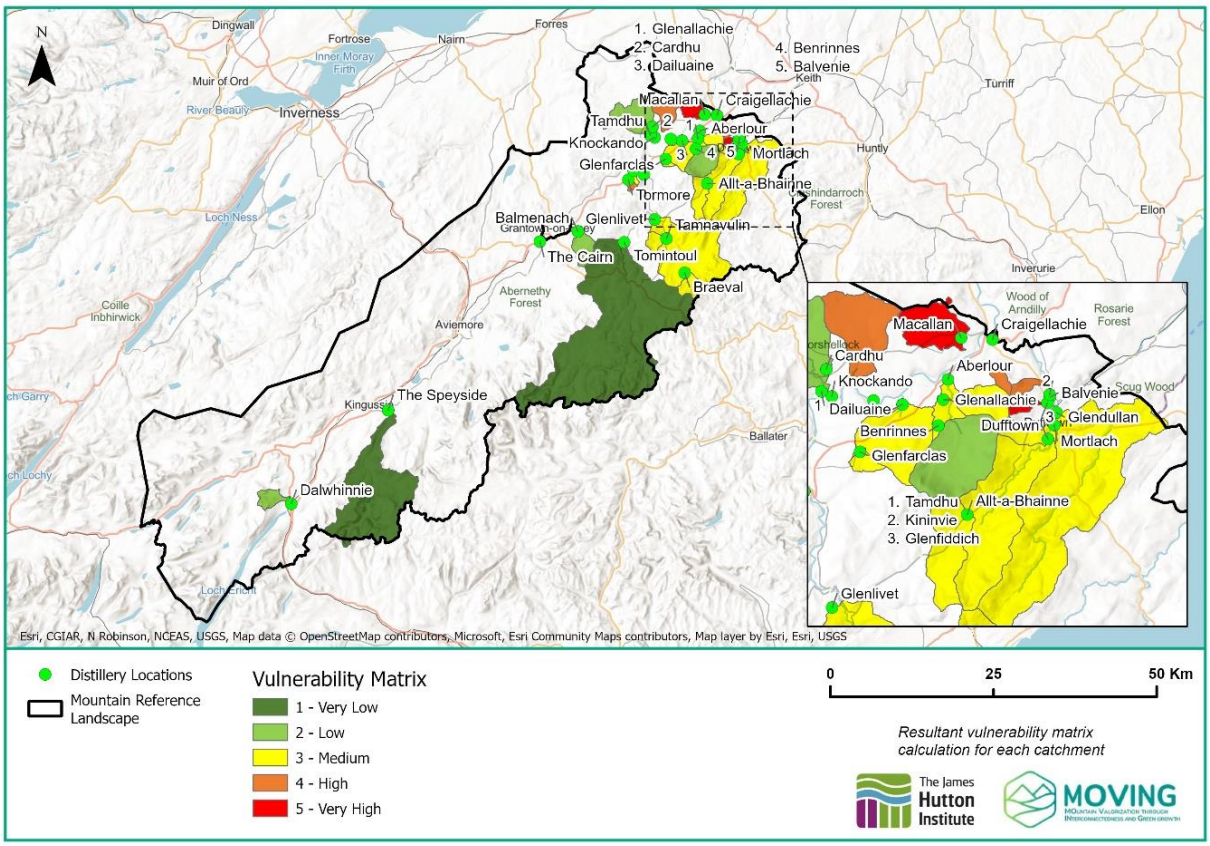

Figure 7 Vulnerability Matrix Map – combining estimated demand for cooling water with estimated water supply (created by David Miller, see the full Storymap here)

During workshops held in 2022 stakeholders from the Speyside Whisky and food and drink tourism Value Chains discussed threats to their industries. The following threats were felt to be most important:

- Drought, influencing the amount of surface water necessary for year-round abstraction for the processing and cooling in Whisky distilling.
- Demographic changes, impacting employment and housing availability.

[12] www.hutton.ac.uk/projects project titled MOVING, Repot on MOVING Task 3.3 Activities
[13] https://storymaps.arcgis.com/stories/d86794b562d34c91a29afac87fb65260

- Inflation, particularly rising energy prices.
- Legislation changes, particularly the duty on Whisky.
- Malting barley capacity, and infrastructure constrains for local processing.

More details can be found here[14]. A digital story produced to highlight the vulnerability and resilience of Speyside Malt Whisky can be watched here[15]. Due to its international market and northern location, the Speyside Whisky and tourism VCs have some increased resiliency to threats of climate change and economic uncertainty. However, the area still faces some negative impacts, which are in part already being felt. Stakeholders were confident about the potential for mitigation, but less confident about implementing these solutions. They require significant funding, which is currently insufficient.

In workshops that took place in 2023, threats and challenges that might become a problem in the future were identified. Different scenarios were presented. Business as usual identified future threats of increased variation in rainfall and temperature, outward migration of workforce

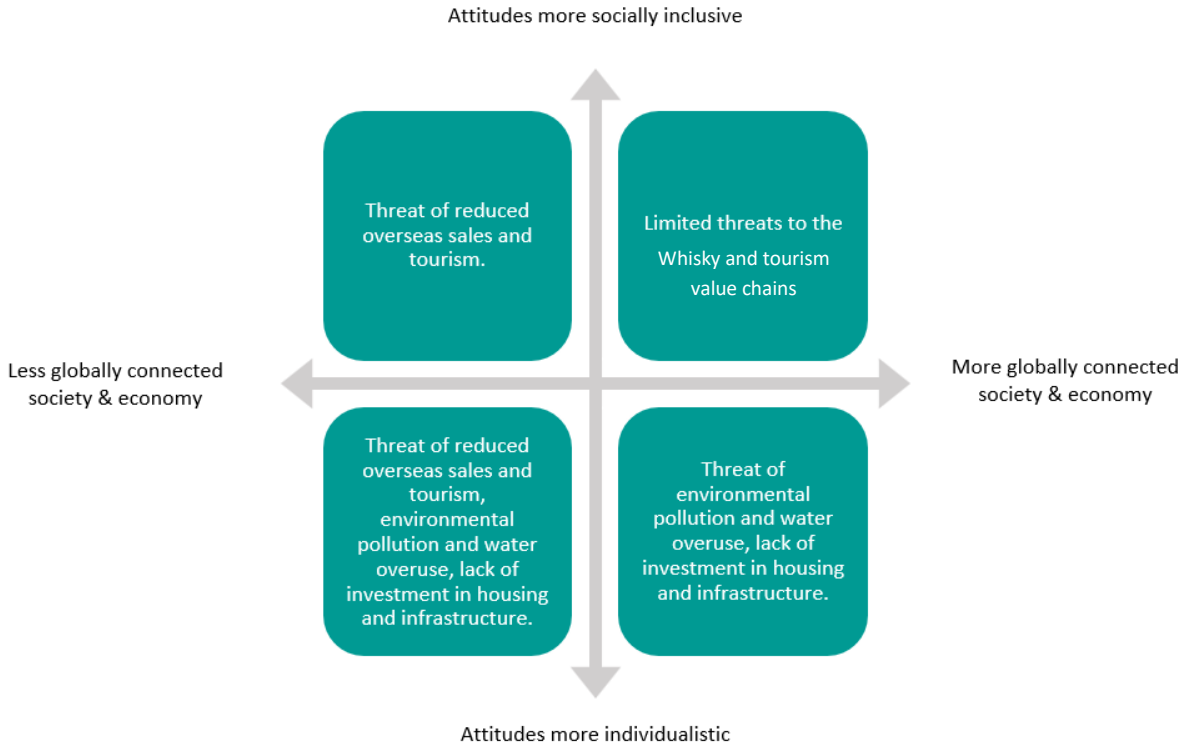

Figure 8 Scenarios and future threats

aged population, continued economic uncertainty, reduced growing capacity for malt barley

[14] www.moving-h2020.eu/library document titled D4.5
[15] https://www.youtube.com/ video titled: 23. Vulnerability and resilience of the Speyside Malt Whisky | Highlands and Islands (UK-Scotland)

locally, and increased duty on spirits. Four further scenarios were developed, along two axes of either socially inclusive or individualistic societies, that were either more or less globally connected. These scenarios led to different possible future threats, as detailed in Figure 8**Error! R eference source not found.**. Further information on the scenarios developed can be found here[16].

5.2. What are the potential solutions?

Stakeholders suggested a number of solutions to ensure the desired future scenario was reached. Promotion of the Whisky industry to young people and more favourable living conditions were suggested to encourage people of working age into the area. This could be achieved through increases to the national living wage, local planning regulations, and housing targets.

Energy efficiency and use of renewables within the Whisky and tourism sectors was suggested to mitigate impacts of energy-based inflation. This change is already being implemented using solar and biofuels to generate electricity. Continued expansion of this could help to provide lower cost energy and heat to local businesses, whilst reusing waste products.

Water saving interventions were suggested to stabilize river temperature and flow. Expansion of heat reduction technologies already in use for the wastewater released by distilleries would continue to reduce impact on water temperature. Similarly, the planting of riparian woodlands would help to shade and cool rivers. Re-wetting and restoring of habitats on wet and peat lands and instream restoration through things like woody structures and instream leaky barriers could aid ground water recharge and year-round flows, to help buffer against water shortages, and an increase of on-site reservoirs at distilleries may further help with water management. Collaboration between different businesses to collectively manage flows and levels was also suggested, through the sharing of data and use of ‘digital dashboards’. Infrastructure could be carefully managed, with a reduction in the building of new housing on private water supplies. See this report[17] for the estimates of efficacy of adaptive capacity mechanisms, and this report[18] for more examples.

Food and drink tourism could be strengthened with local cafes and restaurants offering pairing menus with local Whisky, gins and beers; and more effort put in to help those using active travel (walking, cycling) or public transport identify suitable distilleries and associated accommodation, including making more of the existing Speyside Way and Cairngorms walking routes.

Building on the availability of extremely skilled and innovative distillers in a small area, a Whisky ‘competence centre’ offering professional development field trips could be developed, bringing international professionals and/or students from the central belt-based university courses to

[16] www.moving-h2020.eu/llibrary document titled D6.3 Synthesis report including a Repertoire of Strategic Options
[17] https://www.hutton.ac.uk/wp-content/uploads/2024/06/MOVING_T3.3-report-full-for-Hutton-website.pdf
[18] https://www.hutton.ac.uk/wp-content/uploads/2024/05/MOVING_T3_3-report-for-stakeholders.pdf

increase demand for accommodation and local hospitality if done during the tourism low season. This may also help attract skilled workers to return to live in the area.

Many distillery visitor centres already sell other local products, and this should be encouraged to provide an authentic and high value visitor experience. The trend to have distillery only seasonal or special bottling is an effective way to encourage repeat visits from connoisseurs.

Participants suggested a range of local and national policies that may help this be achieved. These included policies addressing:

- Housing: Expand and build on the Badenoch and Strathspey control zone requiring short term lets to have both a licence and planning permission
- Transport: Initiatives to increase active travel, new public transport infrastructure
- Tourism: Increased number of park rangers, increased wildlife awareness campaigns
- Young people and education: Further engagement, for example through continuations of the youth manifesto
- Agriculture: Promotion of sustainable and regenerative farming methods
- Ecosystems and wildlife conservation: Continuation of existing CNPA conservation strategy
- Role of private sector: Outreach exercises between distilleries and other sectors.

Policy recommendations were discussed by participants at a workshop in Budapest, November 2023, where different MOVING VC cases from across Europe exchanged ideas. Here, several themes emerged. Specific policy recommendations for enhancing the governance of mountain regions and their linked VC were identified by comparing six different VC cases. The policy recommendations, some of which may already be in place in Scotland, include:

- Decentralization of national policies
- Reducing bureaucracy around spatial planning policy
- Adopting a more participatory approach in developing local markets through VC
- Strengthening cooperation between local governments and rural/mountain tourism VC
- Supporting local actors to take decisions at local level
- Strengthening public/private partnerships

More about these policy recommendations can be read in the main report here[19] or the policy brief here[20].

[19] www.moving-h2020.eu/library D5.1
[20] www.moving-h2020.eu/library D5.2

Figure 9 The Budapest Workshop group. Image credit: AEIDL

5.3. Our case compared to others

Overall, our case was similar to most other cases; the VCs were seen to be providing positive economic and socio-cultural outcomes. The Speyside Whisky tourism VC differed in that it was one of the few where there are concerns that the natural capital was being depleted by the VC. VCs were put into one of four groups based on their levels of susceptibility to threats and their adaptive capacity index. In terms of threats, the comparative analysis put our case in Group 4, which consisted of the regions whose VCs had relatively lower risk from their threats – seen by their stakeholders as less vulnerable to change but having relatively lower capacity to mobilize resources to create adaptation strategies when needed. The group was therefore considered potentially vulnerable. More details can be found here[21].

Three of the other MOVING regions looked at alcohol value chains, specifically wine. Work conducted as part of the wider MOVING project showed that these shared concerns with Speyside Whisky; issues relating to employment were particularly prevalent – including workforce scarcity and competition for staff resulting from negative demographic trends (Trento - Italian Prosecco, Spanish Pyrenees wines, Speyside Whisky), and seasonality and quality of employment (Alto Douro Portuguese wines, Speyside Whisky). Barriers to entry to the sector were also identified across all value chains of this type, including issues such as access to land and concentration of land ownership, and sectoral domination by large businesses (often outside the mountain area). Over exploitation of resources was also identified as a concern (Alto Douro, Speyside), as were issues relating to infrastructure and services necessary to support thriving communities in the case study areas (Huesca, Speyside). More on this can be found here[22].

Several other MOVING regions included tourism as one of their value chains. Tourism did at times present challenges for these areas. For example, both Maleschevski and Brasov VCs

[21] www.moving-h2020.eu /library report titled D4.5 Report on Vulnerability and Resilience Performance of 23 Reference Region Value Chains
[22] www.moving-h2020.eu/library/ document titles D4.6 Upgrading strategies

faced impacts on employment and infrastructure that are felt in parts of the Scottish study area too. As above, more information can be found here[23].

[23] www.moving-h2020.eu/library/ document titled D4.6 Upgrading strategies

6. Recommendations

At our final Scottish event in July 2024, we presented some overall recommendations and discussed them with the attendees. This is the final set of recommendations, which are offered to all those involved in the Scottish Multi-Actor Platform and Scottish Government Food and Drink policy advisors, as well as those working on related research and practical projects (see section 0).

Recommendations from our final event

Place-based regional economic development

Share sustainability insights across sectors and geographies
Make the interactions between distilling & other sectors more visible (e.g. in CNPA Park Plan)
Maintain Whisky's global success story whilst being inclusive of local producers
Address barriers to entry for new businesses
Promote more Whisky & local food pairing menus
Increase the selling of local produce in distillery shops and cafes

Infrastructure

Network and enable innovation in renewables shared with local settlements
Mitigate water scarcity through planning, mitigation and adaptation
Increase Public and Active Transport for workers and tourists
Use the planning system for affordable housing, Short term let licences
Potential visitor levy hypothecated for infrastructure development

Local Forums define and address local problems

Continue the Youth Manifesto
Connecting CNP forums to those beyond the Park

Catchment & Land Management

Regenerative farming including peatlands, wetlands and river restoration
Ensure that Rangers enforce sustainable recreation/tourism campaigns

Skills and Capacity Building

Promote the Living Wages and VC career pathways
Create a Whisky Competence Centre

Figure 10 Recommendations from final event

7. Role of the Multi-Actor Platform (MAP)

The purpose of the Multi-Actor Platform (MAP) in MOVING has been to foster meaningful engagement between the research team and stakeholders. MAP members have included those from the Whisky industry in Scotland (including both distilleries and the Scotch Whisky Association), representatives of the Cairngorms National Park Authority, farmers, students, researchers, and others working in and around the region. Invitations to participate in the research activities have gone out to the MAP throughout the project, and MAP members have taken part in numerous workshops, focus groups, interviews, and given feedback throughout.

The total number of participants in our Scottish MOVING research was 53, with 10 'core' participants, 26 active, and 17 occasional. The total number of young people (under 40) who took part was 23, and total number of women 22.

7.1. How far we got with our MAP objectives

Many of the objectives set out by the MAP early on in the project have been met. Through the project, some members of the MAP have been able to build connections and networks, both within the Scottish value chains and more broadly across Europe; MAP members have engaged in events outside of MOVING, two attended a workshop with stakeholders from other regions in Budapest, and towards the end of the project MAP members met with the Romanian research team and stakeholders when they visited Scotland. The European MAP[24] online webinars covering quality certification, nature designations, and EU policy developments provided platforms to learn about wider issues of relevance to our Scottish MAP members.

Gaining insights into the transferability of the findings from this geographic area into the wider region (both mountain areas and lowland parts of the Highlands and Moray): Representatives in the MAP come from organisations with mandates beyond the immediate Upper Speyside, such as the CNPA that covers the mountain regions of five local authorities (Aberdeenshire, Angus, Highland, Moray and Perth and Kinross) or Visit Moray that covers the area and beyond. The youth work and scenario work were focussed on rural development and therefore linked with wider programmes and policies, such as work on skills development with Countryside Learning Scotland. Many of the distilleries are owned by companies that also operate in other mountain and lowland regions in Scotland and could offer solutions from these other settings.

Lessons can be learnt from this VC in terms of brand recognition for other Scottish land-based VC. Speyside Malt Whisky markets itself in part on the landscape upon which it relies and in which it is produced, appealing to both national and international markets. Furthermore, there are very few other products that bear the name of the specific location where they are made e.g. Glenlivet (other examples are Harris Tweed or Stornoway Black Pudding). Other Scottish land-based VC, for example Highland Cattle meat, could build upon this in their own marketing. Certification and brand recognition was a major finding across the project cases, and the

[24] www.moving-h2020.eu/eu-multi-actor-platform/

strongly defended Protected Geographical Indication (PGI) requirements help maintain a unique product in the world of premium alcohol.

Figure 11 Whisky on display at an airport. Image credit: Kirsty Blackstock

Another objective was to improve the understanding and outcomes of mutual benefits from the Whisky VC, including building closer connections between the Whisky industry and tourism, and extracting more value from the VC for local communities. The extent to which this has been met may be less than with other objectives. Whilst Whisky and tourism do interact, it is still not clear to us how closely the larger Whisky brands, often owned by multinationals, engage with smaller, local tourism providers. It may be that both sectors are thriving and have not needed to exploit the interactions more than they are doing already.

We also aimed to enable more attention to be paid to both the role of peat(land) and the downstream outputs and implications of these decisions. The work on vulnerability and resilience of the land-water systems (see section 5.1) recognised the importance of restoring degraded peatland. Restoration of heather moorland and peatlands was also highlighted as a response already being implemented through the work of Cairngorms 2030 and Spey Catchment Initiative as well as on individual distillery catchments, for example through the work

of both Jessica Fennell[25] and Martyn Roberts[26] at the Glenlivet Nature Based Solutions site. However, we did not manage to generate a direct discussion between land managers doing peatland restoration and the distilleries as part of the MAP, beyond specific instances such as upstream restoration from Glenlivet (see Figure 12). These discussions may happen already, invisible to us.

Figure 12 Leaky dams in the headwaters of Glenlivet distillery, developed in collaboration with the University of Aberdeen and the James Hutton Institute for managing low flows. Further information on the work conducted can be found here[27]. Image credit: Martyn Roberts.

[25] https://abdn.primo.exlibrisgroup.com/discovery/delivery/44ABE_INST:44ABE_VU1/12211352010005941
[26] https://www.hydronationscholars.scot/scholars/martyn-roberts
[27] https://www.hydronationscholars.scot/scholars/martyn-roberts

The final objective was to place greater attention on the importance and impacts of place-based data including rural transport within the VC, to develop more climate friendly strategies for the food and drink economic strategies. Reports developed throughout the project provide up-to-date place-based qualitative data on various aspects of the VC and their interactions. Through discussions of these data with stakeholders, recommendations for developing more climate friendly strategies for Whisky and tourism in Speyside have been produced, which can then in turn be looked at in the context of food and drink strategies specifically. However, it proved beyond our resources to produce granular place-based statistics on economic value-added or a quantitative impact assessment.

Figure 13 Bottle of Creag Dhu, with the sale of this edition funding peat restoration. Image credit: Chloe Thompson

8. Future MOVING related projects

Whilst MOVING is drawing to a close, other projects at the James Hutton Institute are continuing work in this area.

The Land Use Transformations[28] project is looking at wider land use change and changes to the agricultural support programme, as well as wider issues of land use and adaptation to climate change.

The multi-purpose nature-based solutions[29] project addresses water quality and quantity; whilst the enabling inclusivity project[30] is working in the Cairngorms to consider local engagement in managing biodiversity for community benefit.

Working with natural capital is addressed by the Galvanising Change project, including a specific focus on Whisky[31].

The Scotland's Rural and Island Futures project is exploring how rural and island residents and businesses are responding to a time of unprecedented change, and how they can be supported to realise a just, sustainable, and resilient future. Scotland's Land Reform Futures project aims to develop a transdisciplinary, deliberative, knowledge exchange process to build consensus within Scotland's landownership and land use sector.'

Another project is exploring future predictions of water scarcity in Scotland, specifically in relation to the impacts to distilleries and agricultural abstractors. This project provided summaries of the future predictions of water scarcity in Scotland and the impacts this may have for three groups of abstractors: crop producers, livestock producers, and distilleries. For further information, click here[32].

Ongoing exchanges on mountain development will occur through an ongoing network called Margistar[33] and on rural social innovation through projects like Ruractive[34]. We would be happy to help connect you to relevant researchers.

Many water management interests come together through the Spey Catchment Initiative[35], whilst the SWA continues to encourage environmental stewardship[36] and corporate social responsibility in the Whisky industry. Tourism within the CNP is accredited to the Europarc

[28] https://landusetransformations.hutton.ac.uk/
[29]https://www.hutton.ac.uk/project/achieving-multi-purpose-nature-based-solutions/
[30]https://www.hutton.ac.uk/project/enabling-inclusivity-in-biodiversity-narratives/
[31] https://www.hutton.ac.uk/sites/default/files/files/JHI-D5-3_WP4_M4_1_WhiskyPlan.pdf
[32] www.crew.ac.uk/project with project name CRW2023_05: Future predictions of water scarcity in Scotland: impacts to distilleries and agricultural abstractors
[33] https://margistar.eu/ - Transforming marginalised mountainous areas towards their green, digital, and healthy futures
[34] https://www.ruractive.eu/ - Empowering Rural Communities to Act for Change.
[35] https://speycatchment.org/
[36]https://www.scotch-Whisky.org.uk/media/2118/water-stewardship-framework-july-2023.pdf

Sustainability standard and has its own strategy[37]. Finally, the Scotland Food and Drink Strategy[38] promotes increasing food and drink tourism in a sustainable way.

There is still a lot of potential to help the different industries in Upper Speyside come together with local communities to address common challenges and find joint solutions, potentially through mechanisms like community led local development or through stakeholder forums associated with the Park Partnership Plan[39].

There are ongoing initiatives to form networks between businesses in the Speyside area, including the Landscape Enterprise Networks (LENS) approach or the potential 'Living Lab' being explored by the University of Highlands and Islands.

9. Further reading

The full list of project reports can be found at www.moving-h2020.eu. These tend to be the synthesis of all the cases but there are Scottish specific practice abstracts, policy briefings, digital stories and films on this page: https://www.moving-h2020.eu/reference_regions/highlands-and-islands-uk-scotland/.

Our Hutton website https://www.hutton.ac.uk/project/moving-mountain-valorisation-through-interconnectedness-and-green-growth/ highlights the specific results for our case, and here Scottish stakeholder meeting reports can be found.

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[37]https://cairngorms.co.uk/wp-content/uploads/2023/04/221208STAP23-28.pdf
[38] https://foodanddrink.scot/media/llvhwwge/sustaining-scotland-supplying-the-world-strategy-2023.pdf
[39]https://cairngorms.co.uk/working-together/partnershipplan/

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