**Semi-Structured Interview Guide**

**Introduction from the interviewer**

We are seeking to understand how beef cattle and sheep farmers and food processing/ retailing businesses in upland areas of Northern England and Scotland can improve their resilience to environmental, economic, and social change, and what impact their actions to improve resilience will have on food supplies, local natural resources and society.

The project is funded by UK Research Councils, led by the University of Edinburgh (Dr. Ann Bruce) and carried out in collaboration with SRUC (the Scottish Rural College) and RAFT Solutions veterinarians.

We’d like you to be part of this research project and would value your views and perspectives on the subject.

All responses will be treated in confidence. We will keep all your answers **anonymous** (e.g. “farmer from the Orkney islands said”). I ask permission for recording the interview (reasons) …to facilitate our analysis and comparison of what a large number interviewees have said to us, to be sure that we have captured the meaning of your answers correctly.

[Introduce the consent form].

We appreciate that it might be a complex topic to discuss, So, we have prepared some information cards to use as a starting point for our conversation during the interview. These cards are only for indicative purposes, and not an exhaustive list of issues. Please bear in mind that these are just examples from literature, and may not be relevant or significant to your business. Please feel free to provide feedback and modify the content, if you wish, to reflect better the reality.

There are **no right or wrong answers, you are the expert** of the reality you are facing and we seek to capture your experiences, views and valuable insights.

In answering these questions we would request you to:

(i) identify **trade-offs** (e.g. in terms of the essential resources/assets required to implement a mitigation /adaptation solution/strategy, and trade-offs in the impacts of the adopted solutions i.e. positive effects versus unexpected negative externalities/side effects)

(ii) provide specific **examples** where is possible

(ii) **explain ‘why’ and ‘how’** things happen in the way they do, i.e. **go beyond the “symptoms”** (e.g. Upland livestock farming is less resilient) and try to **explore the underling cause,**

(iii) try to give us a **historical account of events** if it is deemed appropriate, and

(iv) try to focus at the level of **your organisation first** and **then gradually move to a higher level and aggregate level** e.g. supply/value chain or regional level

First of all, just to explain what we mean by the food system.

[Introduce Informative card 1: The upland food system actors diagram.]

*This a pilot interview, so by the end of the interview we kindly ask for your feedback on the questionnaire and the interviewing process.*

We appreciate your kind cooperation in making this research a success. So now, we start with the actual questions.

**Preliminary step**: **Knowing the** **interviewee**

Q: Just to start off, can you tell me a bit about your involvement in the uplands or in the beef and sheep sector?

Probe:

* The nature of the organisation (nature of business, size, major funding sources; diversification in sources of income)
* What is your position in the organisation?

Q: Are there special features, particular to this upland area, that should be maintained in your view?

**Step 1: Defining resilience**

Q: What does resilience mean for you? [Open question, we expect answers such as finance, family continuity, reasonable workload, respect of the community)

[Introduce Informative Card 2 – Definition of resilience]

Q: How is your organisation doing in terms of resilience?

Probe: struggling, surviving, making a reasonable living, booming

Q: How has the resilience of your business changed during the last 5 years? What is your prediction for the next 3 years and the next 15 years?

**Step 2: Identifying resilience goals, and their priority**

Q: What sort of functions do you think it is important to maintain?

Probe: for your business, you personally, the wider society, future generations?

[Introduce Informative Card 3 - The goals/functions card]

If these functions/roles are satisfactorily fulfilled by businesses in the supply chain, this leads to positive outcomes/impacts. If not, then it leads to negative ones.

Any feedback? Are there any functions that you think are missing?

Q: How do you prioritise them? Please rank the 5 most important/critical functions for your own business? And the 5 most important/critical functions for the other businesses along the meat supply chain?

Q: Is the full potential of adding value to Orkney beef and lamp products currently reached? If not, please elaborate on what more can be achieved?

**Step 3: Identifying disturbances/long-term pressures, and their priority [to what]**

[Introduce Informative Card 4- Drivers of change card]

Most of them might be threats (to maintaining these functions) for your business, while some drivers might represent opportunities.

Any feedback? Any missing important drivers?

Q: Which are opportunities?

Q: How do you prioritise them? Please rank the 5 most important threats for your own business? And the 5 most threats for the other businesses along the meat supply chain?

Q: What would be the impact on your organisation if upland sheep /beef cattle farming is dramatically reduced or ceased altogether?

Q: Briefly explain what might be the impact of the top 5 threats on food security (availability, access (cost, distribution), utilisation)? On the environment and landscape? On local communities (income, employment, health, culture)?

**Step 4: Identifying alternative solutions [potential responses]**

Now we are moving your actions to improve resilience of your business.

Thinking about the pressures that you identified as high priority to respond to

[Introduce Informative Card 5- Mitigation/Adaptation solutions/response strategies]

Any feedback? Any missing solutions?

Q: What sort of solutions are you applying to respond to these pressures?

* Give examples. Briefly, what was your experience of implementing it?
* Is it working at a satisfactory level? What sort of constraints limit your efforts?

Q: Do you know of any interesting things people in the food sector are doing in order to increase resilience of upland sheep and beef cattle food systems?

**Step 5: Identifying trade-offs that determine the choice of mitigation/adaptation solutions**

Q: What was your reason for choosing that particular option? Any trade-offs related to/affecting your choice?

[Introduce Informative Card 6 – Triplet Choice]

Q: What sort of trade-offs have you come across in trying to implement each mitigation/adaptation solution (or thinking about implementing it)?

Probe:

* In terms of necessary pre-requirements in resources/asset to make a solution feasible – trade-offs associated with scarcity and competition of resources
* In terms of impacts, whether a solution fails to deliver the target positive effect or generates unanticipated unacceptable changes elsewhere in the system (e.g. over-usage of a resource a resource can lead to its deterioration (habitat degradation, water contamination, atmosphere pollution or labour exploitation)

Q: Briefly elaborate more on what might be the impacts of the top 5 most common mitigation/adaptation solutions applied by other businesses in the meat supply chain here in Orkney? On:

* food security [availability, access (cost, distribution), utilisation]?
* the environment and landscape?
* local communities (income, employment, health, culture)?

Q: How important is time with your family, friends, fellow/peer businesses for maintaining the resilience of your enterprise?

Q: If you apply multiple mitigation/adaptation solutions, are there any trade-offs among them?

**Step 6: Identifying vulnerabilities & Assessing the whole system [aggregate level]**

Thinking about your own business and also the whole livestock value chain

[Introduce Informative card 7 - Characteristics Indicating Vulnerability]

Q: Is there anything in this list that particularly resonates with you? Please give examples.

Q: All things considered, **how confident** are you about the resilience of the Upland food system as a whole, these days?

Q: What would be **an ideal,** resilient upland sheep/beef cattle system look like?

Q: To what extent is there **agreement or sufficient discussion** in the community on what should be done?

Q: In your view, what factors are **mostly neglected** in discussions and policies on resilience of Upland food systems? What are the reasons for neglecting these factors?

**Step 7: Identifying barriers, enablers and missing resources**

In order to achieve this ideal level of resilience in Orkney sheep/beef cattle value chain…

Let’s now think a bit about important missing resources and how it would be possible to obtain them.

[Introduce informative card 8: Barriers or facilitators for resilience]

Any missing Barriers or Facilitators for resilience**?**

**Infrastructures -**

Q: How supportive do you think the existing infrastructures are for improving resilience of livestock farmers, meat processors and retailers in the Orkney islands?

Probe: ferry connections, power interconnector, abattoir, road & broadband networks etc.

Q: What changes needed in infrastructures to help increase resilience? Who is needed to be involved to bringing about change locally?

**Interactions –**

Q: Where are the main places/groups where people meet each other? And learn about threats, opportunities, mitigation/adaptation solutions and their effectiveness?

Q:How strong are the linkages/interactions between individuals/organisations here? Are these too strong or too weak? *[non-existent, very weak, weak, strong, very strong]*

Probe: Near in mind that too strong means heavy focus on a particular partner may hinder resilience and innovation. Too weak may also hinder bargaining power, resilience and innovation.

Q: To what extent do people around here help each other individually? Through voluntary groups (e.g., volunteer firemen)? Please give examples

Q: What changes needed in interactions to help increase resilience? Q: Who is needed to be involved to bringing about change locally?

**Hard Institutions –**

Q: How supportive do you think the existing hard institutions (e.g. policies, regulations, contracts, standards) are for improving resilience of livestock farmers, meat processors and retailers in the Orkney islands?

Q: What changes needed in infrastructures to help increase resilience? Q: Who is needed to be involved to bringing about change locally?

**Soft Institutions –**

Q: How do you describe a healthy resilience culture?

Q: How well do people around here trust each other?

Q**:** How supportive is the existing culture in Orkney to help increase resilience? What changes needed?

**Competencies –**

Q: What are the necessary skills of farming and food businesses and of companies/organisations supporting the food sector in the Orkney islands for enhaching resilience of the livestock value chain?

Q: How strong are the existing resilience-related competencies?

**Market structure –**

Q**:** In your opinion, how does the market structure/conditions affect resilience of businesses in the livestock supply chain?

Q: How strong are the incentives for the Orkney livestock supply chain, provided by (private and public) funding bodies, customers e.g. supermarkets, and the public for ensuring food security, environment protection and social welfare?

**Overall…**

Q. Do you face any situations as a business that you feel trapped?

Q. In the provision of critical resources/assets for resilience, where the other actors in the Upland food system should play a stronger role but currently they underperform? Briefly, please explain why you think this happens?

Q. What might your business be able to do to help upland sheep and beef sector to flourish?

Q: Who are the most influential people/organisations in bringing about change locally?

**Step 8 [if time]: Mapping key actors, and their overall influence on resilience [who]**

Q: We wanted to find out who you think are the most significant people involved in the upland sheep and beef food system.

We have prepared a sort of dart board and post-it notes with various stakeholders indicated. We’d like you to place the post-it note with the stakeholder indicated, onto the dartboard depending on how significant you think that stakeholder is. The closer the person is to the centre of the dartboard, the more significant they are.

If possible probe

* What makes this person/group so significant?
* What sort of interactions do you have with that person/group (probe: information, money other resources, legal contracts, authority/power, contacts)
* How is the relationship with the most significant people/groups changing? Is it becoming stronger or weaker?

Q: Are there stakeholders missing that you would like to add? [if so, write out a new post it and let them place it on the dartboard]

**Step 7: Assessing interest to follow-up**

Q. Is there anything else you wanted to say, but haven’t had a chance to?

Q: Are there other key people I should speak with?

Q: Would you be willing to take part in workshops where we present the findigs of these interviews and build future plausible scenarios later on in the project?

Q. Has this interview met your expectations? Please provide feedback on how to improve it. Thank you in advance [only for pilot interviews]

Thank you for your participation!