

Item: 4

Policy and Resources Committee: 22 September 2026.

Resilience and Food Security.

Report by Director of Infrastructure and Organisational Development.

1. Overview

1.1. The purpose of this report is:

- to set out the position regarding Resilience and Food Security as an area of emerging importance, value and concern globally and locally.
- to consider this in the context of resilience, communities, climate risk and strategic planning, noting the specific geographic and logistical context so that the extent to which these factors directly or indirectly affect Orkney can be explored objectively and understood.

1.2. The report additionally outlines duties for local authorities in Scotland relevant to this arising from developments in policy and legislation, so that the Council's approach to meeting these duties is established.

1.3. The report also highlights relevant developments at a Scottish and UK level from significant reviews and publication including the UK National Audit Office review of Food Supply Chain Resilience due this year and the National Preparedness Commission's 2025 report Just in Case, co-written by Professor Tim Lang, Emeritus Professor of Food Policy, Centre for Food Policy, City, University of London; Natalie Neumann and Antony So.

2. Recommendations

2.1. It is recommended that members of the Committee:

- i. Establish a Short-life Member/Officer Working Group (MOWG) comprising the undernoted core membership to further explore food resilience and security, to consider the arrangements and provision of supply networks and the strategic, commercial and community resources:
 - Chair, Policy and Resources Committee.
 - Vice Chair, Policy and Resources Committee.
 - Chair, Enterprise and Infrastructure Committee.

- Two other Elected Members.
 - Director of Infrastructure and Organisational Development.
 - Other officers as considered appropriate by the Director of Infrastructure and Organisational Development.
 - External expertise as considered appropriate by the Director of Infrastructure and Organisational Development.
- ii. Agree that a one off food security and resilience revenue budget be established, with funding of up to £50,000, to be sourced from the Council's Crown Estate Fund, to support project officer time, early project initiation, support from external organisations with expertise as considered relevant by the Director of Infrastructure and Organisational Development.
 - iii. Note that work associated with food security and resilience will ultimately assist with, and provide useful detail to feed into, the Good Food Nation Plan, and aid the Council to discharge its duties in terms of the Good Food Nation (Scotland) Act 2022, once Article 10 comes into force.
 - iv. Instruct the Director of Infrastructure and Organisational Development to submit a report, to a meeting of this Committee in 2027, advising of the outcome of the working group, including consideration of policy options for the Council in relation to Orkney's Food Resilience and Security and presenting recommendations for consideration.

3. Background

- 3.1. Food security is increasingly being recognised as a strategic resilience issue. Recent national resilience work has highlighted the vulnerability of food systems to disruption arising from climate change, transport failures, energy interruption, cyber incidents, economic shocks and international events.
- 3.2. This reframing provides a vehicle for embedding these considerations into resilience and adaptation strategies, risk registers and emergency planning.
- 3.3. In practice, resilience and emergency planning already considers a number of risk and impact factors which could affect food availability and distribution.
- 3.4. Severe weather events, transport disruption, infrastructure failure, public health emergencies and wider supply chain pressures can all impact the movement of people, goods and essential supplies to and within communities.
- 3.5. Food resilience considerations are therefore closely aligned with existing emergency planning, business continuity and community resilience activity. Additionally, increasing dependency on technology and globalisation increases the

impact potential. Food supply-chain logistics are becoming increasingly dependent on digital systems, while food production is becoming increasingly globalised.

- 3.6. The work of Professor Lang and others, including Lt Gen Richard Nugee has highlighted the vulnerability of just-in-time food supply chains and the lack of systematic planning for food disruption in the UK and argues for a shift towards treating food as a strategic infrastructure issue, requiring public bodies to understand supply dependencies, local production capacity, distribution risks and the needs of vulnerable populations during disruption.
- 3.7. Global food systems are dependent on a range of internationally concentrated supply chains. These include phosphate reserves and fertiliser production significantly centred in Morocco, vitamin and nutritional ingredient manufacturing concentrated in China and India, significant agricultural and feed production within countries such as Brazil and the United States, and grain production from highly productive agricultural regions including Ukraine.
- 3.8. The concentration of key food commodities and production inputs within a relatively small number of countries and regions can disproportionately create vulnerabilities where geopolitical events, transport disruption, cyberattack, climate impacts or market instability affect supply.
- 3.9. In many cases these macro-factors impact local production, and the development and evolution of food production technologies, regulation and logistics have embedded dependencies into areas which undermine the independence of localised production to varying degrees.
- 3.10. Food resilience is influenced by a range of factors beyond production capacity and supply chains. Across many rural and island communities, challenges relating to workforce availability, skills retention and succession planning within the agricultural sector are becoming increasingly significant.
- 3.11. The continued viability of food production systems depends upon access to a skilled workforce and the transfer of knowledge between generations, making demographic change and labour availability relevant considerations within any assessment of long-term food resilience.
- 3.12. It is a matter of record that recent years have seen geopolitical instability, cybersecurity incidents and major weather-related disruption all affecting food production, distribution, supply-chain and pricing:

- The conflict in Ukraine highlighted the importance of internationally significant food-producing regions to global supply chains. Often described as the "breadbasket of Europe" because of its highly productive agricultural sector, disruption to Ukrainian grain exports, fertiliser supplies and associated transport networks contributed to food price volatility and supply chain pressures across Europe and beyond.
- Climate-related risks to food systems are no longer theoretical. In recent years, drought, flooding, heatwaves and severe storms have affected agricultural production, transport networks and food distribution systems across parts of Southern Europe, South Asia and other major food-producing regions. These events have demonstrated how weather-related disruption has impacted output, constrained supply chains and contributed to price volatility, with impacts extending well beyond the areas directly affected.
- Recent cyber incidents within the food and agriculture sector have demonstrated that disruption to digital systems can have consequences comparable to physical disruption. Attacks affecting food processors, distributors and retailers have interrupted production, delayed deliveries and disrupted supply chains, highlighting the growing dependence of food systems on digital infrastructure. As food production, logistics and retail operations become increasingly technology enabled, cyber resilience is becoming an increasingly important component of food resilience.

3.13. Therefore, from a global and local perspective, the production, distribution and co-ordination of food do face vulnerability and risk from global factors.

4. Orkney Context

- 4.1. Orkney occupies a distinctive position within food systems. The county is recognised for the production of high-quality food and drink and contributes significantly to regional, national and international supply chains.
- 4.2. At the same time, as an island community, local food production relies upon the continued availability of imported inputs, transport connectivity, energy infrastructure, technology and wider supply networks.
- 4.3. Food resilience is therefore not solely a question of local production capacity, but of understanding the interdependencies that exist across the entire system, from primary production through processing, distribution, retail and consumption.
- 4.4. For Orkney, the relevance is heightened by the geography, weather exposure and reliance on transport links for food supply all require effective structures to ensure continued provision to the population.

- 4.5. There is strong evidence of exceptional capability and resilience already, which was demonstrated strongly in Orkney's response to the Covid-19 pandemic and significant lockdowns that required local wholesalers and suppliers to ensure safe continuity of supply across all of Orkney's communities in exceptional circumstances.
- 4.6. Recognition of these strengths should not however prevent other risks and weaknesses from being explored, so that an objective and detailed assessment of the County's current understanding of risk, exposure to external factors is understood, and from that position, food security planning can be progressed.
- 4.7. Cyberattacks have occurred which have impacted the delivery of food to supermarket shelves. As organisations continue to ensure protections on digital systems are in place and up to date, cyber-threat continues to increase, and recent developments in artificial intelligence have demonstrated new evidence or risk.
- 4.8. This supports closer alignment between food policy and community wealth building, particularly where local procurement, crofting, fisheries and small producers can strengthen shorter supply chains and support local diversification
- 4.9. Like many island communities, the food supply position in Orkney is dominated by 'imports' and local production reflects high quality and, in some cases, high-capacity production across specific tenures of food consumption and production.
- 4.10. Agronomy expertise has highlighted that grain and cereal production is chiefly used in feed for livestock and to support whisky and spirits, with limited capability to produce protein-rich plant-based foods other than clovers and silage. While there is some opportunity to produce oats, there are limitations on the viability of long-term storage.
- 4.11. It is therefore near impossible to develop a completely independent food - production environment, therefore the development of local resilience must centre on a hybrid approach, improving supply chain buffers and identifying what local production can deliver, recognising that local production may still have supply chain dependencies outwith the County.
- 4.12. It is also of key importance to recognise the need for those concerned in the sector to remain viable, which in both the current economic-climate and physical-climate is challenging.

5. The Climate Change Risk Assessment

- 5.1. In addition to identifying direct (food related) climate risks to both agricultural production and the natural environment, chapter 15 of the UK's fourth Climate Change Risk Assessment (UKCCRA4-IA) focuses on food security and identifies that climate change is disrupting the global food system with growing impacts to food production and supply chains.
- 5.2. This is expected to impact UK food security through higher and more volatile prices, and increased risk of supply variability or temporary shortages.
- 5.3. The report states that Government needs to understand what could go catastrophically wrong in the food system and also that this requires systemic stress-testing in the medium to long term.
- 5.4. UKCCRA4 also raises the complexity of 'cascade' risks and how climate change is acting in combination with other events (for example cyber security or global conflicts). It states that connections between risks amplify climate impacts.
- 5.5. UKCCRA4-IA Technical Report identifies several connections within the infrastructure sector. For example, there is high reliance on supply from the energy system across other parts of the sector, including transport, water supply, and digital and telecoms.
- 5.6. The land, nature, and food sector is also highly connected. Agriculture, forestry, fisheries, and aquaculture industries rely on healthy and functioning ecosystems. Climate-related impacts on ecosystems cascade into these industries, affecting the wider economy.

6. Case Study: Vertical Farming

- 6.1. CCRA4 states that the most acute UK food risks sit with fresh produce supply due to their shorter shelf life and more complex logistics; in the island's context, this is a risk that is well understood and experienced.
- 6.2. As one example of local innovation, systems that grow plants without soil, using hydroponics or aeroponics can be installed within existing structures such as polytunnels and polycrubs.
- 6.3. This approach is already being trialled by some communities and with support from UHI Orkney's Agronomy Institute is known as hybrid vertical farming, which combines vertical growing with natural daylight, significantly reducing energy demand compared to fully indoor systems.

- 6.4. Hybrid vertical farming offers a practical, energy-efficient pathway to improved food self-sufficiency, for Orkney through smaller-scale, decentralised production.
- 6.5. In 2025, UHI Orkney installed a much smaller scale hybrid vertical farm within a polycrub at its Kirkwall campus, with funding from Highlands and Islands Enterprise (HIE).
- 6.6. The system is powered by solar panels with battery storage, funded by the Mains of Loirston Charitable Trust, and can achieve up to a tenfold increase in crop production. Automated irrigation has reduced labour requirements, no pesticides are needed, and a wide range of crops has been grown successfully, including pollination-dependent crops such as tomatoes, which are not viable in sealed indoor farms.
- 6.7. The facility operates as a research and teaching resource to support commercial growers across Orkney, and while vertical farming is a small component, it does provide one example of the types of measures that can be considered to broaden resilience.

7. Legislative position

- 7.1. Food systems are also influenced by an increasingly complex policy and regulatory environment. Achieving a balance between food production, environmental objectives, climate adaptation, biodiversity, public health and economic growth requires careful consideration of potential interactions, trade-offs and unintended consequences. Understanding these interdependencies is an important aspect of developing resilient and sustainable food systems.
- 7.2. Under the Community Empowerment (Scotland) Act 2015, every local authority in Scotland is required to prepare a food-growing strategy. Food is explicitly recognised as relevant to community planning guidance and to addressing household food insecurity.
- 7.3. Under the Climate Change (Scotland) Act 2009, public bodies must act to help deliver the Scottish National Adaptation Plan (which in turn has identified food security risks and actions).
- 7.4. Publication of the First National Good Food Nation Plan, in December 2025 brought into effect legislation under the Good Food Nation (Scotland) Act 2022, including statutory “have regard” duties in relation to food security and food resilience across food policy more widely.

- The Act places duties on “relevant authorities”, defined in legislation as territorial NHS boards and local authorities, to prepare and publish their own Food Plans.
 - The Good Food Nation statutory framework represents a shift in how food is treated in public policy, from a narrow regulatory concern to a whole-system issue linked to health, inequality, resilience and place.
 - When Article 10 of the Act is triggered, Local authorities and NHS boards will be required within 12 months to prepare, publish and periodically review plans setting out how their functions will contribute to national good food outcomes. NHS boards are expected to consider food in relation to health and prevention, while local authorities are expected to address food through planning, education, economic development, procurement, community support and local resilience.
 - The Act and associated regulations implicitly recognise food as a component of national and local resilience.
- 7.5. The triggering of Article 10 of the Act, the work to develop a Good Food Nation Plan will be significant and overarching, with a 12-month timescale. This is expected to occur by the end of March 2027.
- 7.6. It is vital to underline that while areas of crossover, the work on food security and resilience and any resources allocated are distinct and separate from the resources that will be required by the Council to develop the Good Food Nation Plan, which is likely to also require funding, support and resourcing given the breadth of the work.
- 7.7. Food Security is noted in the National Scottish Risk Assessment (R64) and is part of the work programme across resilience structures in Scotland, which is monitored at Regional Resource Partnership (RRP) level. The risk of ‘food insecurity and inflation’ has been identified as one of 8 priority climate risks facing the UK, within the fourth Independent Assessment of UK Climate Risk (CCRA4-IA) published May 2026. The issue is also addressed in Scotland’s National Climate Change Adaptation Plan (2024-2029).

8. Roles and Remits

- 8.1. Food security and food resilience are inherently cross-sector matters and cannot be addressed by any single organisation acting in isolation. The expertise, knowledge and practical experience within the research, policy, agricultural, fisheries, food production, retail, cybersecurity and supply logistics, and communities will be essential to informing this work.

- 8.2. Any future programme of activity should therefore be developed collaboratively, drawing on the experience of industry representatives, producers, processors, distributors, community organisations and relevant other local and national bodies (e.g. Universities).
- 8.3. While the Council and Community Planning Partners have statutory responsibilities relating to the preparation of a Good Food Nation Plan, it should be highlighted that while the development of Food Security and Resilience work will support progress, the overall development of the Good Food Nation Plan is much more significant and overarching.

9. Short Life Working Group

- 9.1. Therefore, given the cross-cutting nature of food security over many service areas, currently there is a lack of a core strategy or dedicated work programme to lead, coordinate and direct Council activity in this area. It is therefore recommended that the Council establishes a Short Life Member/Officer Working Group to explore these issues further and to support Officers in forming further recommendations to the Council. The remit for the Short Life Working Group would include:
- Understanding and evaluating food vulnerabilities for Orkney, including learning about and mapping current activity across the Community including potential collaboration opportunities which can contribute to enhanced resilience and food security and identifying any weaknesses and opportunities.
 - Receiving updates on key vulnerabilities, drivers, barriers and enablers, and where relevant contributing to steering project development activities.
 - Identifying areas for potential Council interventions either directly (short term) or indirectly to support community responses and resilience activities.
 - Facilitating knowledge gathering and communication of Food resilience matters, including opportunities to engage with specialists and expert advisors on these matters.
 - Contributing to the development of policy options for the Council relating to Food Resilience.
- 9.2. It is expected that parts of the remit (e.g. mapping weaknesses and opportunities), will require the engagement of specialist advisors and information resources. At the same time, there is an appetite for early action and project development that can be supported and trialled.

Funding

- 9.3. To enable this work, it is recommended that a Food Security and Resilience Revenue budget is established, with a fund of £50,000, to be sourced from the Council's Crown Estate Fund.
- 9.4. An essential aspect will be the co-ordination and programming of funding into supporting positive outcomes that maximise impact in the local authority area.
- 9.5. In addition to this, Officers have been working on potential additional funding bids, investigating sources such as the National Lottery Community (Climate Action Food fund). All this work has the opportunity to contribute to improving Orkney's overall resilience. Council and local NHS Orkney representatives have continued discussions and preparations with supportive experts and organisations and experts such as Professor Lang and also Nourish Scotland and Heriot Watt University (including the format for a seminar in Orkney earlier this month).

For Further Information please contact:

Kenny MacPherson, Head of Property and Asset Management, extension 3007, Email: kenny.macpherson@orkney.gov.uk.

Implications of Report

1. **Financial:** The £50,000 funding request would be in addition to member and officer time, most notably the cost of consultancy, as highlighted in section 9.2 of the report. Prioritising this piece of work may result in other tasks not being achieved. Section 9.5 references potential funding bids. Sharing information with/from other Island authorities, which will have broadly similar issues, in regard to Food Security, may also be worth exploring.

The Crown Estates Revenue Guiding Principles includes "support and empower coastal communities across all of Orkney to deliver projects to realise sustainable social, economic and environmental benefits," which would include funding for the purpose outlined in the report. There are sufficient unallocated funds within the Crown Estate Fund at present to fund the budget request outlined in the report. This funding would be a one off allocation.

Although seen as disparate work streams throughout this report, there are synergies between this Resilience and Food Security workstream, and the anticipated Good Food Nation Plan workstream. These should be explored by the MOWG when setting its outcomes to avoid duplication of effort and limit spend corporately.

2. **Legal:** Approving the recommendations in this report will assist the Council to discharge its responsibility under the Community Empowerment (Scotland) Act 2015, to prepare a food-growing strategy. In terms of the Good Food Nation (Scotland) Act 2022, the Council is required to prepare and publish its own Good

Food Nation Plan and the work outlined in this report will ultimately assist the Council to discharge its duties under that legislation. Ultimately the Council is required to have regard to its Good Food Nation Plan when exercising its functions.

3. **Corporate Governance:** None.
4. **Human Resources:** None.
5. **Equalities:** None.
6. **Island Communities Impact:** None.
7. **Links to Council Plan:** The proposals in this report support and contribute to improved outcomes for communities as outlined in the following Council Plan strategic priorities:
 - ☒ Growing our economy.
 - ☒ Strengthening our Communities.
 - ☒ Developing our Infrastructure.
 - ☐ Transforming our Council.
8. **Links to Local Outcomes Improvement Plan:** The proposals in this report support and contribute to improved outcomes for communities as outlined in the following Local Outcomes Improvement Plan priorities:
 - ☒ Cost of Living.
 - ☒ Sustainable Development.
 - ☒ Local Equality.
 - ☐ Improving Population Health.
9. **Environmental and Climate Risk:** There are areas where Food Security is Impacted by Environmental and Climate Risk.
10. **Risk:** Food Security is referred to in two risks on the Corporate Risk Register and the focus of this work is broadening understanding of food security risk further.
11. **Procurement:** The recommendation seeks to engage specialist advisors and information resources.
12. **Health and Safety:** None.
13. **Property and Assets:** At present there are no immediate implications.
14. **Information Technology:** The recommendation seeks to engage specialist advisors and information resources.
15. **Cost of Living:** Food insecurity can be a direct driver for cost increases and impacts on the Cost of Living for Orkney communities and abroad. Therefore, work in this area can mitigate the circumstances leading to such increases.

List of Background Papers

None.