The Problem: Food and Nutrition Insecurity

Food is produced in a system with various people and places involved in production, distribution and consumption, as well as activities related to these. The main outcome of this system is food and nutrition security. However, as the food system currently works, there is widespread food and nutrition insecurity with an 11% of people in the EU living in food insecurity, 50% of people in the EU are overweight, 20% are obese, and one in three eleven year-olds are overweight or obese and many of these suffer from related health complications (Loopstra et al, 2015).

In addition, around 88 million tonnes of food are wasted annually in the EU with associated monetary costs of approximately €143 billion (European Commission, 2016). This, as well as other deficiencies of the food system, have led to other costs for in the form of land degradation, water pollution, energy inefficiencies and natural resource depletion, and poor labour conditions and difficulties in maintaining livelihoods.

There is also evidence that food systems are vulnerable to future political, technical and environmental changes, endangering food and nutrition security even further.
Some Causes: Policy Incoherence and Deficiencies

Current levels of food and nutrition insecurity are caused by a myriad of issues within the prevailing food system, some of which are created by and some of which are exacerbated by policy approaches or actions, or policy deficiencies or neglect. Examples from the EU of the ineffectiveness of, or the unintended consequences arising from existing policies include:

- FEAD (Fund for European Aid for the Most Deprived) and other social schemes not providing a high enough level of support (contributing to a lack of affordability and access to high nutrient dense food);
- Increases in food taxation affecting the ability of the poor to access healthy foods (contributing to a lack of affordability and access to high nutrient dense food);
- CAP direct payments favouring arable and livestock production over horticultural production (contributing to an obesogenic food environment);
- Food advertising regulated only by voluntary codes allowing for the marketing of unhealthy foods to continue (contributing to an obesogenic food environment);
- Non-flexible food safety and quality standards (contributing to food waste);
- Trade liberalisation disconnects consumers from the site of their food’s production and the conditions therein (contributing to natural resource degradation, as well as unfair, unsafe or unhealthy producer conditions).

Importance: The relevance of this problem for Northern Ireland

Despite the presence of some promising initiatives focusing on food poverty and some strategies for tackling obesity, Northern Ireland is similar to other European jurisdictions in that it lacks an integrated food policy. It could be argued that this deficiency has contributed to poor food and nutrition outcomes in the region. As of 2009/2010, 23% of all people and 28% of children were living in food poverty (Belfast Trust, no date). Five percent of the population suffer from effects of malnourishment and this proportion is higher for some vulnerable groups such as those over 65 (14%) (Department of Health, 2015). Almost two-thirds of adults in Northern Ireland are either overweight (37%) or obese (25%) (Bates et al, 2014).

This topic has garnered some attention from leadership with former Health Minister Simon Hamilton (DUP) speaking in 2015 on the vulnerability of low income individuals to food poverty and its attendant health issues, as well as on the complicated nature of food poverty how those in power can work to address these problems.

A number of issues which have been identified as ‘hot topics’ for the Northern Irish Assembly’s business are connected to food and nutrition insecurity. These include the impact of budget cuts on well-being; the effectiveness of social/community clauses for public procuremen; public sector reform (models which promote sustainability, health, social care, the environment); sustainability of farm incomes; pollution, climate change and waste management; welfare reform; and health inequalities, mental health and obesity.

"My ministerial colleagues also have a contribution to make to help address food poverty for example: adequate housing, transport roads, community infrastructure local community etc.’ (Minister Simon Hamilton, DUP, 2015, reported by Department of Health)
TRANSMANGO: research which aims to address the various problems of food and nutrition insecurity

**AIM:** TRANSMANGO is a study which aims to investigate the current problems the European food system faces. It looks at where there may be vulnerabilities for even worse problems in the future, and conversely, where future improvements for the food system might be found. TRANSMANGO understands that food is produced and consumed in a complicated system and therefore considers the problems and potential solutions from a range of perspectives including social issues, economics, human behaviour, technology, institutions, agriculture and the environment.

**METHOD:** Because where food comes from is complicated, it’s difficult to study using only one method. TRANSMANGO has used a range of methods of investigation from analysing previous research, to assessing policy documents, to conducting interviews and surveys with experts and other relevant people, to conducting case studies with eight promising food initiatives across Europe. The aim of the case studies in particular was to investigate how inspiration could be drawn from these ‘bright spot’ initiatives and how the food system could be best re-designed to overcome its current problems. One key research method in the TRANSMANGO case study approach was scenarios-guided transition pathways workshops, which involved three key steps:

1. **Visualising ideal futures:** In TRANSMANGO, workshop participants first brainstormed what the key elements of an ideal future food system would look like.
2. **Develop step-by-step plans to achieve this ideal future using back-casting:** Back-casting involves working backwards from the desirable future vision, rather than forward, from the present (forecasting). We all use back-casting, often unconsciously, for example in planning our morning to get to work on time. In each local workshop, TRANSMANGO team members guided participants to develop a step-by-step plan for each of the ideal future elements which had been identified.
3. **Testing the back-casted plan in the context of various different possible future scenarios:** We have assumptions about the future, which we not be aware of. When we make plans, we them with these assumptions in mind. However, circumstances change and scenarios used in research to help us overcome our own assumptions when planning. Scenarios are ‘what if’ stories, told in words or images, used to explore the uncertainties of the future. In the local TRANSMANGO workshops, four future context scenarios were developed and available for testing of the back-casted plans (example on page 4 of one Irish scenario ‘Grey Autarky’). The final step was for participants to ask themselves whether each step in their plans would work in the world presented in each scenario and if it was decided they would not, necessary changes were made resulting in robust plans for transitioning towards the ideal futures.

"If we don’t know where we want to go, it makes little difference that we make great progress.’
(Donella Meadows, Envisioning a Sustainable Future, 1994)
RESULTS: Bringing together results from all eight case studies—including, but not limited to, the robust transition plans derived from the scenarios workshops—three guiding principles for practice-led (i.e., led by the organisations, on the ground) re-design of the food system have been identified.

1. Ensure vulnerable groups of people are not living in food poverty
2. Work to re-connect the notions of health and sustainability in the food system
3. Re-establish links between consumers and producers in the urban and rural domains

GREY AUTARKY: EU systems have either gone or become disempowered, and because the Common Agricultural Policy is no longer in place and subsidies have been cut, there have been some job losses in this area. This has precipitated a drastic shift in how agriculture in Ireland works, for example with a reduction in the amount of livestock farming. There is more self-sufficiency and self-provisioning in the food system and food chains become more localised. The food system is considered to be more resilient as a result and the environmental impact of Irish agriculture has decreased dramatically, specifically because of a move away from animal-based monocultures to smaller-scale diversified operations. Much land is being left fallow, in particular marginal lands such as flood plains. This has resulted in an increase in biodiversity. There has been a reversion to diets which are largely based on local food production. The economic flux in this sees many young people emigrating and the loss of young people in rural areas hinders rural social innovation.

Implications and Recommendations
The scenarios-guided transition workshops, in addition to being a forum for knowledge creation for TRANSMANGO, also constituted a planning activity for the initiatives providing them with detailed robust action plans to assist them in achieving their particular food system goals. However, the achievement of these goals can and should be supported by appropriate policy actions. Synthesis of policy recommendations from all case studies is currently underway but those derived from TRANSMANGO’s Irish case study in Cork are available and a selection of these are listed in the table below. The research methods detailed in this brief could certainly be deployed in the Northern Irish context in order to develop context-specific policy recommendations to support food and nutrition security in the region.

<table>
<thead>
<tr>
<th>Relating to policy de-siloing (connecting vertical and horizontal policy levels, or policy themes)</th>
<th>Relating to cross-sectoral and/or chain based cooperation</th>
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<tbody>
<tr>
<td>• Demonstrate concrete commitment to a diversification of agri-food production</td>
<td>• Facilitate the creation of networks to assist in sustainable food system advocacy work</td>
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<td>Policy recommendations for Ireland (ROI)</td>
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<td>• Introduce educational reforms to greater embed the topics of healthy diets, cooking skills and sustainable food systems into curricula</td>
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<td>• Facilitate alternative means for food to reach consumers by short-circuiting existing conventional food chains for greater economic and environmental sustainability e.g. introduce legislation to support public procurement for sustainable food</td>
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<td>• Facilitate the development of private procurement policies which emphasise the use of food derived from a more sustainable system</td>
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<td>• Work to reduce the production of ‘surplus’ food, as well as facilitating the repurposing of said surplus food, thus reducing food waste</td>
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