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PAPER FOR TYNWALD MEMBERS

ISLE OF MAN FOOD SECURITY STRATEGY

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Ministers Foreword

Affordable, quality food on our plates is taken for granted by most people. But we face big challenges today and into the future which mean we need to think differently about our relationship with food. We need to produce more food without damaging the natural resources that we all depend on. We need to feed more people globally, many of whom want or need to eat a better diet. And we need to do all these things in light of the increasing challenge of climate change. The term 'Food Security' is increasingly used to describe this challenge.

Being an Island nation presents additional challenges, both in delivering economies of scale in local production and ensuring reliable and affordable transport networks for the import and export of goods. It is vital that these additional challenges are factored in to food policy to ensure that a successful and thriving local food industry can form part of the Islands Food Security strategy.

Currently the agri-food and fisheries industry contributes over £70 million and 1200 jobs to our economy. Looking forward, we will work to help ensure that the local food sector can thrive as an innovative, competitive and resilient sector, and a sustainable source of growth and jobs. This not only supports the economy, but ensures a readily available and sustainable source of locally produced foodstuffs as well as being responsible for shaping the landscape and the culture of the Isle of Man as we know it today.

More than ever before, we live in a globalized, interconnected world. Martin Luther King famously said *'Before you finish eating breakfast in the morning, you've depended on more than half the world'*. Indeed, no matter how hard we might try, it would be impossible to be self-sufficient in the foods that we are accustomed to eating and global considerations must play a part in our Food Security Strategy. These will range from ensuring security of supply routes to the Isle of Man, acknowledging fluctuations of global supply and demand, the ethical sourcing of produce and providing development support to less developed nations.

This Strategy will play an important role in ensuring that Food Security is a consideration in all aspects of Government decision making. However, its success relies on the co-operation of the whole food supply chain from producer to consumer and I am whole-heartedly committed to working with all parties to ensure that the food sector in the Isle of Man has a sustainable, bright and profitable future.

1. Background

Future global requirements to produce more food, water and energy whilst mitigating and adapting to climate change have been identified as one of the biggest challenges facing mankind in the next 20-40 years. The scale of the challenge was best outlined in 2011 in the Foresight, Future of Food and Farming Report (also known as the 'Beddington Report') which has proved a solid information base on which Government policy makers and other influential organisations are developing their future food security strategies.

"The need of a growing world population will need to be satisfied as critical resources such as water, energy and land become increasingly scarce. The food system must become sustainable whilst adapting to climate change and substantially contributing to climate mitigation"

-Professor Sir John Beddington, Chief Scientific Advisor to HM Govt and Head of Govt Office for Science.

With predictions that the global population will rise from seven to nine billion by 2050, attention globally is focused on how to feed people in the future within a context of growing demand and resource scarcity.

In addition to population, other key factors contributing to growing demand for food include changing diets, the impacts of climate change, limits on land availability, water shortages, soil degradation, declines in fish stocks, nitrogen and phosphate pollution, rising costs of inputs, and a need to protect biodiversity.

But there are two main trends that have driven the current food security debate: rising and volatile food prices, particularly in tough economic times, and increasing concerns about the security and sustainability of food supplies at the local, national and international levels, particularly given increasing environmental concerns.

Recognising that these issues have an impact on the Isle of Man, in May 2013, a report by Council of Ministers to the Environment and Infrastructure Committee recommended that Government establish a 'realistic food security strategy, which will meet the varying challenges of both short term and long term food security for the Manx nation'.

1.1 What is 'Food Security'?

Food Security is defined in the following statement:

Food security is...

'When all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.'

World Food Summit, 1996

Food security in a local context is a complex issue involving all aspects of the food chain from primary production, processor, retailer and consumer and import/export markets. However, the subject is further complicated by encompassing a range of global issues such as oil price, global politics, population dynamics, climate change and world commodity markets.

In addition to the definition of 'Food Security', the concept of 'Food Sovereignty' could be considered valid when developing policies that are of particular relevance to an island nation such as the Isle of Man which aspires to retain its ability to determine its own future well-being. In a food security context, determining future wellbeing requires that 'local food' production forms an essential part of an Isle of Man Food Security Strategy.

Food sovereignty is...

'The right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems.'

Declaration of Nyéléni, 2007

1.2 Global view

It can be difficult to understand the relevance of global food issues locally. The following points highlight the effects that global issues can have on the Isle of Man in particular in relation to the two main trends that have driven the current food security debate:

- rising and volatile food prices, particularly in tough economic times; and
- increasing concerns about the security and sustainability of food supplies, with an increasing awareness of environmental concerns.

Food prices

There have been two notable 'shocks' or 'spikes' in global food prices in recent years, peaking in June 2008 and February 2011. These increases in food prices have been passed on to consumers, with the impact being felt more profoundly in a period of economic recession.

Biofuels

The price spikes reflected a number of global changes, including fundamental changes in the supply and demand of key commodities. Currently global demand for food is increasing, in Europe this is being exacerbated by EU targets which will require 10% of transport energy to be drawn from renewable sources (especially biofuels) by 2020, potentially causing dramatic food price increases as competition increases for land to grow food and fuel crops.

Meat

Globally, demand for meat is increasing, leading to a growth in the production of grain fed livestock. This is fundamentally inefficient as crops are used to feed livestock instead of humans. This also increases the demand and price of grain and soya. The Isle of Man is fortunate as its soils and climate lends itself to sustainable agricultural production systems such as pasture-rearing of livestock. This could be of increasing value to the Isle of Man in the future, but the as yet unknown impacts of climate change will strongly influence this outlook.

Food waste

Around 30% of food produced globally is wasted. In developed countries such as the Isle of Man, a large amount of food is wasted by consumers and by the food industry. Reduction in food waste through sustainable consumption and more efficient supply chains can reduce the burden on world food production requirements.

Population

Rising world population, expected to increase from 7.1 billion today to 9.3 billion by

2050, will also add significantly to demand. Where food and essential commodities are not available locally, the Isle of Man will be competing with the rest of the world and may be at a disadvantage compared to those countries in proximity to the resource, or with more purchasing power.

2. Scope of the Strategy

The Isle of Man Food Security Strategy will look at both the present situation in 2013 and a long-term time horizon of the next 20-40 years - in line with the 'Beddington Report' in the UK which looked at the future of food and farming to 2030.

Local

This is an Isle of Man Government strategy applicable to food produced, processed, imported to and exported from the Isle of Man. The Strategy cannot work without the full engagement of producers, processors, wholesalers, retailers, consumers and others involved in all aspects of the food chain. It covers seafood as well as food produced from agriculture.

Regional

Although not a member of the European Union, the Isle of Man food sector benefits from free trade, particularly with neighbouring jurisdictions. It also means much of our food policy is influenced by EU legislation which must be considered in the formulation of the Strategy.

Global

As a developed, prosperous democracy we also have global obligations and a responsibility to ensure that the food security of developing countries is part of our strategy when considering imports. The impact of the Isle of Mans' overseas aid programme in respect of this is also within the scope of this document.

3. Vision

The suggested **overall vision** of the Food Security Strategy is:

"The Isle of Man will have a sustainable and profitable agri-food and fisheries industry; capable of providing the population with a range of high quality, nutritious food products that are safe and affordable, contributing significantly to the local economy and profitably exporting into the global marketplace where possible"

The **specific aims** of the strategy are as follows:

- Consumers are informed of the importance of good food and have the opportunity to buy from a range of affordable, healthy and sustainable food choices. This demand is met by profitable, competitive, highly skilled and resilient farming, fishing and food businesses.
- Food is produced, processed and distributed to feed a growing population by:
 - using global natural resources sustainably,
 - ensuring the continued provision of the services provided by a healthy environment,
 - promoting high standards of animal health and welfare,
 - protecting food safety,
 - making a significant contribution to rural communities, and
 - allowing the Isle of Man to show global leadership on food sustainability
- Our food security is ensured through strong agriculture, fisheries and food sectors and trade links with EU and global partners, which support developing economies.
- The Isle of Man has a low carbon food system which is efficient with resources – waste is reused, recycled or used for energy generation.

Compatibility with Agriculture

This vision is inherently compatible with the DAFF 2008 Vision for Agriculture:

- 1. A reliable, sustainable and self-reliant industry capable of feeding the Manx nation with a diverse range of food products including our staple foods.*
- 2. An efficient production system combined with a tailored market focus and a strong, clean Manx brand image so that reliable profits can be obtained from the marketplace.*
- 3. Responsible custodians of our countryside, natural heritage and food larder, whose contribution is trusted and valued by the Manx people.*

Compatibility with Fisheries

In conjunction with the industry, the Fisheries Directorate will work on a 5 year strategy (2014 to 2019), in part driven by the EU Common Fisheries Policy (CFP) Reform which comes into effect this year but for which guidance on compliance, for example, fish discards, is currently lacking. The CFP Reform is designed to achieve a more sustainable approach to fisheries, a path that DEFA has been pursuing in respect of its fisheries in its Territorial Sea for a number of years. The Manx fishery sector differs from agriculture in that the majority of its produce is exported but it also meets the demands of a local market for King and Queen scallops, crabs and lobsters. Although these products may not be considered to be "staple foods" seafood has a role to play in a varied, nutritious and healthy diet and is therefore to be valued in the context of food security. There is no on-Island commercial freshwater fishery contributing significantly to the Island's food supply. Instead, a contribution to GNP is made through the export of high quality rainbow trout eggs for breeding programmes elsewhere.

Compatibility with Economic Development

The vision also reflects the DED Vision2020 for Distinctive local food and drink where:

"Flourishing businesses reliably supply locally-produced staple and artisanal products, profitably exporting and contributing to a local food culture celebrated and valued by residents, visitors, retailers and the hospitality sector."

In addition to food production, generations of farmers and fishermen have shaped the Manx landscape and strongly influenced local culture and they will also play a pivotal role in delivering the DED Vision 2020 'Destination Island' theme.

Compatibility with Agenda for Change

The **overarching aims** of the strategy mirror those of Agenda for Change:

- Stimulating economic growth
- Rebalancing Government finances
- Protecting the vulnerable

4. Food security policies

The following policies are intended to apply to the whole food chain- producer, processor, retailer and consumer. This chain, like any other, is only as strong as its weakest link and efforts have been made to identify the important areas in each link in the chain that can be strengthened with respect to providing 'Food Security' for the Isle of Man, as well as recognising our contribution to tackling some of the global issues of food security.

The key headline topics are summarised below:

4.1 Supply chain

Maintaining reliable and efficient operation of 'lifeline' freight routes

4.2 Increased resilience of local agri-food and fisheries businesses

Helping local businesses fulfil their potential

4.3 Support for Agriculture

Supporting producers of agricultural produce through a period of change

4.4 Support for Fisheries

Supporting the sustainable management and development of Manx sea fisheries

4.5 Water and Energy Security

Securing supply of key inputs of food production

4.6 Climate change and low carbon future

Adapting to future challenges

4.7 Planning for the future

Agriculture, fisheries and sustainable growth

4.8 Food safety and food waste

Promoting a safe and sustainable food chain

4.9 Biodiversity and food production

The role of biodiversity in Food Security

4.10 Global considerations

The Isle of Man's role as a responsible global citizen

The following pages contain suggested government policies with detailed context supporting their inclusion with respect to 'Food Security' issues. There is a mix of new policies and complementary existing policies that support the aims of 'Food Security'. Where existing policies and legislation are supported, a reference to the relevant source is provided.

4.1 Supply chain

Maintaining reliable and efficient operation of 'lifeline' freight routes

The Isle of Man Government will ensure that essential supply chain infrastructure is fit for purpose through:

1: protecting and enhancing Ronaldsway Airport and Douglas Harbour as principal gateways to the Island (Spatial Policy 6 of the Isle of Man Strategic Plan 2007), together with the smaller harbours such as Ramsey, Peel and Port St Mary which are vital to local fisheries operations.

2: continued liaison with transport providers to ensure that 'lifeline' sea and air services are maintained.

3: the planning system, i.e. Development Control and Development Plan processes (including the Isle of Man Marine Plan), to ensure that the requirements of shipping routes and fishery areas are taken into account in relation to future marine developments in the Irish Sea.

Context

An efficiently operating food chain depends on the smooth running of reliable transport and utilities systems. Being an island nation, there is an overwhelming reliance on our ports (sea and air) and shipping routes- more so than our larger Island neighbours who by virtue of their size are more self-sustaining in certain commodities and have more alternative import and export routes.

4.1.1 Infrastructure

Island 'Gateways'

Almost all of our food imports arrive by ship, as well as much of the chemicals, fuel and machinery needed for food production and processing. Ports are also the main gateway for food exports. Ports are potentially vulnerable to coastal surges and storm damage and having only one main port capable of dealing with Ro-Ro freight puts increased emphasis on its protection and continued maintenance. Maintaining alternative ports can allow substitution of some (non Ro-Ro) shipping traffic and help spread the risk.

Whilst not currently a major port for the import and export of foodstuffs, a small but significant export trade in high quality seafood is freighted by air. The airport also has a strategic role in providing an alternative to the seaport when inclement weather or other logistical reasons result in cancellations to the ferry service.

The importance of Douglas Harbour and Ronaldsway as 'principal gateways' is recognised in (Spatial Policy 5) of the Isle of Man Strategic Plan 2007.

Shipping routes

Given the importance of our seaports as a social and economic lifeline to the Island, anything that could adversely impact on shipping routes serving the Isle of Man are of utmost concern to the Isle of Man Government.

The Manx economy and the quality of life of its residents, particularly with respect to food and fuel supplies, are very dependant on a regular and frequent ferry service. In many instances the shipment of freight is undertaken on a 'just in time' basis built around

scheduled timetabled sailings. Offshore developments in the Irish Sea, particularly windfarms, can cause displacement of essential shipping routes and reduce the options for using alternative adverse weather routes.

Periods of cancellation are currently rare, but when they do occur, severe disruption and economic losses result and it can take many days, with significant additional cost, to deal with the backlog. An inability to ensure safe navigation, particularly in periods of adverse weather, due to increased restrictions at sea would likely increase the instances of cancellations to shipping.

4.1.2 Marine Plan

The Isle of Man Marine Plan is an overarching Government project which will put into place a number of measures to improve management of the marine environment. As part of the Marine Plan project a Marine Strategic Plan will be developed to identify planning policies for the marine area over the next twenty years. The Marine Strategic Plan will cover the territorial seas out to 12 nautical miles and will take into consideration current and future uses of the marine environment.

These policies support

The Isle of Man Marine Plan project

Isle of Man Strategic Plan 2007 (Chapter 5)

Harbours Act, 2010

Airports and Civil Aviation Act, 1987

The Emergency Powers Act 1936

4.2 Increased resilience of local agri-food and fisheries businesses

Helping local businesses fulfil their potential

Government will support local processors of staple and value added products to optimise their commercial potential to: a) compete in local markets, and b) develop profitable export markets, thus ensuring a reliable and affordable supply of quality local products. This will be facilitated through:

- 1: provision of marketing/business development support to allow processors to develop added value products and access new markets in both the home and export markets.
- 2: development of a sustainable food procurement policy for Government that leads by example and ensures that social and environmental considerations form a proportion of the tender process that will not discriminate against the provision of quality local produce or fall foul of anti-competition legislation/agreements.
- 3: the creation of a 'Food Business Development Strategy' to identify areas for growth and investment in the food sector.
- 4: facilitating dialogue with local retailers/supermarkets to ensure that consumers are given a choice in purchasing local produce.
- 5: the creation of a 5 year strategy for the Manx sea fishery sector.

Context

4.2.1 Import Substitution

An import substitution policy is an attempt to reduce foreign dependency of a country's economy through local production of food by advocating replacement of imports with domestic production.

Successful import substitution can increase domestic employment, maximise the local multiplier effect and improve resilience in the face of global economic shocks, including the price of globally traded foodstuffs.

However, where intervention is used to prevent imports this can create inefficient industries and obsolete products as the industry is not exposed to international competition. Arguably, the red meat derogation created this situation in the Isle of Man resulting in an industry that became disadvantaged as it did not have to continuously evolve to meet market demands and is now working hard to catch up.

In this context, Government do not wish to intervene in the import of goods, not least as it is counter to the Islands trading relationship with Europe under Protocol 3, instead relying on targeting the efficient production of new and existing high quality locally produced foods that can successfully compete with imports. Identifying areas of the food sector that can be developed to substitute imports and add value to the local economy will be addressed through the creation of the 'Food Business Development Strategy'.

4.2.2 Profitable export

Profitable export of primary and value-added products, whilst not explicitly key to the Island's food security, provides a sustainable platform for the continued operation of Island businesses. This is important in delivering the economy of scale required to compete effectively with imports and to optimise the operation of businesses that might not function at full efficiency if only serving the local market. A focus on profitable export will be addressed through the proposed 'Food Business Development Strategy'.

4.2.3 Agricultural products

As a consequence of the measures adopted under the Department of Agriculture, Fisheries, and Forestry's (DAFF) 2008 Vision for Agriculture the marketplace has increasingly become the driver of Manx agricultural production. In this document the Department concluded that its future agricultural support policy should aim to achieve the following important outcomes for the Manx food chain:

1. A reliable, sustainable and self-reliant industry capable of feeding the Manx nation with a diverse range of food products including our staple foods.
2. An efficient production system combined with a tailored market focus and a strong, clean Manx brand image so that reliable profits can be obtained from the marketplace.
3. Responsible custodians of our countryside, natural heritage and food larder, whose contribution is trusted and valued by the Manx people.

The first phase of implementing this new agricultural policy began in 2009 in the form of the Countryside Care Scheme. This wholesale change in policy occupied, and indeed continues to occupy, much of the resource of the Department and the minds of the agri-food industry. However, now that the purpose of the Scheme has become relatively accepted and understood, it is timely to initiate the second phase of the support policy by ensuring that the industry understands the needs of, and can access the markets on which the successful future of food and farming in the Isle of Man depends.

4.2.4 Fisheries

With regard to the Manx sea fishery sector, work to date has focussed on obtaining and retaining the MSC accreditation of the Queen Scallop net fishery, improving the Isle of Man Food Park and other measures in respect of seafood processing. Whilst continuing this work, the Department will consider the future challenges facing the Manx fishing vessel fleet in comparison to those of neighbouring jurisdictions, developing an appropriate strategy for the next 5 years. This will include stock assessments and the sustainable management of the currently fished species, potential new fisheries and product development related to the fisheries, for example, bait production. It will also encompass measures to support the local processors and local fishermen to safeguard the Manx fleet.

These policies support

DEFA Vision for Agriculture 2008
Countryside Care Scheme, 2008
Tynwald Food Motion (January 2014)

Agricultural Marketing Act 1934
DED Vision 2020 (Food and Drink)
OECD, WTO and EU State Aid rules.

4.3 Support for Agriculture

Supporting producers of agricultural produce through a period of change

Government will continue to encourage an optimistic, forward-looking and market focused agriculture sector through:

- 1: continuing to provide a support scheme in line with that provided in the EU.
- 2: supporting farm diversification through the provision of grant and loan schemes and advisory services.
- 3: creating an Industry Advisory Committee to review agricultural policy to ensure that targeted objectives are being met.
- 4: the development of an Agri-Food Strategy to identify areas for growth and investment in the food sector.

Context

4.3.1 Changing face of Agricultural Support

As the industry quickly moves to become market focused, DEFA's role has become one of facilitating change, rather than specifying subsidy criteria. Current agricultural support is intended to allow farmers to embrace the market and provide a 'safety-net' during a period of transition.

Acknowledging that Manx farming is competing in the same market as the EU, and more specifically the UK and Ireland, the 2008 Vision document committed to provide a level of support similar to our EU neighbours. European agricultural policy is changing considerably in the next few years and the Isle of Man must evolve its own policies to retain a comparable level of support. The EU has recently set its agricultural budget for 2014-2020, which will represent a real-term reduction of 13% on the current budget by 2020. Changes to the proportioning of the budget in Europe are also going to occur from 2015 which will see more focus on active farming, greening measures and Rural Development indicating the future trends of European agricultural policy which must be considered in a local context.

Food Security is an overarching aim of current and future agricultural support. However, there are other key areas that must also be considered and are each an integral part of delivering on food security:

- **Marketing** – all parties must focus on improving returns from the market
- **New Entrants** - it is important that we find ways to bring a new generation into agriculture and build solid career opportunities.
- **Greening/ Public Value** - public value remains key to continued support for farming. The contribution from the public purse to the Manx landscape, economy and wildlife must be demonstrable.

4.3.2 Current Agricultural Support

Countryside Care Scheme

The Countryside Care Scheme (CCS) budget is around £6.8 million and is the primary means of providing financial support for farmers in the transition to a market focussed industry. The Scheme is administered by paying farmers on the area of land that they farm (the payment is currently transitioning from historic 'headage' payments to full areas payments in the 2014-2018 period). Scheme participants are required to comply with their statutory requirement to receive payments in addition to keeping the land in 'Good Agricultural and Environmental Condition'. In addition, this budget can be 'modulated', or top-sliced to provide additional targeted support to the industry.

Agricultural Development Fund

The Agricultural Development Fund (ADF), was created in 2007 with a one-off budget of £5 million. This fund is intended for use on measures and activities designed to re-shape and re-structure the agricultural industry. The Farm and Horticulture Improvement Scheme budget resides in the ADF and is a good example of how the ADF operates. This scheme provides farm businesses with grant aid to support changes to farm infrastructure that will facilitate improved efficiencies or profitable changes to the farm business. Modulated funds from the CCS can be used to 'top-up' the ADF.

Subvention to the Meat Plant

The 2008 Vision document recognised the significant challenges faced by IoM Meats in restructuring its business as a result of the changes in the local market place through the loss of the red meat derogation and changes to support policy (implementation of the CCS). A commitment to assist the Meatplant through this period of transition is ongoing, with a 4 year subvention deal, including a plant refurbishment grant currently pending.

"High Health" Island

The Animal Health Directorate provides testing and certification programmes for a range of livestock diseases. Official Freedom status has been obtained in Bovine Brucellosis and Enzootic Bovine Leukosis; applications for Officially Free status in Bovine Tuberculosis and Varroa mite in Bees are pending.

A testing programme to control, and subsequently eradicate, Bovine Virus Diarrhoea was made compulsory in 2014. This and other measures improve the health and welfare of our animals and hence the profitability of livestock farming.

In addition, import controls and general surveillance activities serve to protect the island's livestock from the major epidemic diseases, which in turn increases the resilience of the local food chain.

These policies support

DEFA 2008 Vision for Agriculture
Countryside Care Scheme 2008

Farm and Horticulture Improvement
Scheme 2006
Tynwald Food Motion (Jan 2014)

4.4 Support for Fisheries

Supporting the sustainable management and development of Manx sea fisheries

In respect of the fishery sector, Government will continue to encourage measures to achieve sustainable and profitable fisheries in its King and Queen Scallop, whelk, crab and lobster fisheries through:

1: working with the Isle of Man Queen Scallop Management Board, to continue to achieve a sustainably managed fishery in the Territorial Sea.

2: working with neighbouring UK jurisdictions to develop a successful Pan Irish Sea approach to sustainable King and Queen Scallop fishing and other species as appropriate.

3: in conjunction with the industry, developing a 5 year Strategy for the growth of the Manx sea fishery sector, including proposals for support to enable the Manx fishing fleet to remain viable and competitive.

4: working with the Sea Fish Advisory Committee to review fishery policy to ensure that targeted objectives are met.

5: maintaining access to independent scientific advice, to underpin fisheries management initiatives.

Context

4.4.1 Changing face of Fishery Support

“Production” related support for the industry largely ceased in 2007.

The Manx seafishing sector is already focussed on achieving returns from the market, choosing to sell into retail markets within the EU but with a smaller on Island trade as well. Through measures such as MSC accreditation, the Government has assisted in the move away from a “boom and bust” approach to fisheries, in favour of a sustainable approach which achieves better returns through concentrating on product quality and smoothing supply to meet demand.

The Isle of Man Queen Scallop Management Board, with membership from all sectors of the fishing sector and from neighbouring jurisdictions, advises the Department on measures required for a profitable but sustainable fishery. It has access to scientific advice from Bangor University to aid its decision making.

Investment in the Isle of Man Food Park is enabling processors and their facilities to meet the quality control measures required by supermarkets.

4.4.2 Current Fishery Support

The Fishing Vessels (Financial Assistance) Scheme 2003 has a budget to support limited Modernisation and Safety Provision. It is currently being reviewed to achieve greater flexibility in the support which can be offered to the industry.

Various training courses for crew are also supported.

The processing sector has been able to access support from DED schemes and, provided that scheme criteria are met, it is assumed that this can continue.

Public and private investment in the Isle of Man Food Park will continue over the next few years, creating between 60 and 80 new jobs.

A programme of shellfish toxin testing is conducted with the Government Analyst and Environmental Health, allowing timely warnings to be issued to consumers should there be a problem. Maintaining public and commercial confidence in our shellfish product is important, given that it is a competitive market.

It is recognised that other jurisdictions offer a greater range of support to facilitate the maintenance and updating of their fleets. This matter will be addressed in the Fishery Strategy which is in preparation.

These policies support

Fisheries Act 2012

Fisheries Management Agreement

EU Shellfish Waters Directive

EU Shellfish Hygiene Directive

4.5 Water and Energy Security

Securing supply of key inputs of food production (water and energy)

Government recognises the inextricable link between food security and water and energy security and will ensure that the agri-food industry is not compromised in these areas by:

- 1: ensuring the continued provision of a safe, secure and reliable water supply.
- 2: ensuring the continued provision of a reliable energy supply from increasingly diverse and low carbon sources.
- 3: promoting the efficient and sustainable use of water and energy by all users.

Context

4.5.1 The Food Security Nexus

Water security, energy security and food security are inextricably linked. Actions in one area more often than not have impacts in one or both of the others. These linkages have always been present, but as a growing world population continues to create increasing demands for basic services and a desire for higher living standards, the need for more conscious stewardship of the vital resources required to achieve those services and desires has become both more obvious and urgent.

Food production is water and energy-intensive, accounting for 70% of global water use and 6% of global energy use. Energy policies and subsidies influence water use for food or energy. In other cases, food policies, subsidies and consumption patterns drive water use.

4.5.2 Water

Water is key to food security. Crops and livestock need water to grow. Agriculture requires large quantities of water for irrigation and livestock and a supply of good quality water is important for various production processes. Feeding the worlds growing populations and producing a diverse range of non-food crops has cemented agricultures status as the biggest user of water on the globe. Irrigation is now estimated to claim close to 70 percent of all freshwater appropriated for human use.

In the Isle of Man, we are blessed with an abundant supply of fresh water that is all too easy to take for granted. However, a productive and efficient agri-food industry depends on a reliable and safe supply of such water. Access to such a supply of water puts the Isle of Man at a competitive advantage globally, where absolute water scarcity affects billions of people. Closer to home too, water abstraction for agriculture in England is becoming an increasing environmental and strategic concern.

Major changes in policy and management, across the entire agricultural production chain, are needed to ensure best use of available water resources in meeting growing demands for food and other agricultural products.

4.5.3 Energy

Energy policy is a key concern of Government. The Council of Minister's Environment and Infrastructure Committee (EIC) was created to ensure the Isle of Man's policy on energy is sustainable for future generations. The three key aims are to:

- maintain the security of energy supply;
- secure the efficient use of affordable energy and
- minimise the impact of our energy use on the Environment.

These policies support

Electricity Act 1996

Water Act 1991

Isle of Man Strategic Plan 2007 (Chapter 12)

Environment and Infrastructure Committee

Water Pollution Act

4.6 Climate change and low carbon future

Adapting to future challenges

Government will help the agri-food industry adapt to the challenges of climate change and a low carbon future through:

- 1: Development of a Climate Change bill to enable actions to be taken to meet the challenges of climate change.
- 2: Providing grants and advice to allow the agri-food industry to adapt to climate change and a low carbon future.
- 3: Support for production and marketing of efficient, forage-based agriculture as a sustainable future for farming.
- 4: Providing scientific advice on the impacts of climate change on the species targeted by Manx fishermen, in order to permit timely adjustments to changes, both negative (decline/loss of species) and positive (opportunities to target different species).

Context

4.6.1 Climate change

Climate change presents a significant threat to the agriculture and fishery industries across the globe and the Isle of Man is no exception. Both directly depend on climatic conditions for a profitable business..

Agriculture is also directly linked to climate change through a significant release of greenhouse gases to the atmosphere. However, unlike other industries, agriculture can also help to provide solutions to the overall climate change problem through increasingly sustainable production methods and the growing of crops as biofuels.

4.6.2 Low carbon future

Adapting to a low carbon future presents significant challenges to current farming practices. 9% of EU carbon emissions currently come from agriculture. This figure is much higher in less industrialised nations (e.g. 30% in Ireland). Increasing costs of fossil fuels will facilitate much of the adaptation of businesses to ensure that fixed costs are minimised. However, global food policies and a demand for low carbon food from the market may drive these changes more quickly.

However, the low carbon agenda also provides an opportunity for agriculture to 'farm' carbon and offset emissions from industry. Healthy peatlands and woodlands are obvious carbon sinks. However, properly managed pasture is a surprisingly large carbon store. The Isle of Man, with its predominantly grass-based grazing systems can take advantage of the recognised sustainability of this practice- something which can only be replicated in certain temperate parts of the globe.

4.6.3 Efficient, forage-based agriculture

Only about 9% of global meat production comes from grazing systems based almost exclusively on pasture with little or no integration with crops. Mixed farming systems (which have a high proportion of grass based feed) account for 54% of meat production and 90% of milk production.

In temperate regions such as the Isle of Man, grass-based systems predominate.

Even though the level of supplementary feeding may be relatively high, particularly in dairy systems, grazed or conserved grass still accounts for 50–70 percent of the nutrient requirements of the cows, and 75–100 percent of requirements in most beef and sheep systems can be met from grazed or conserved grass.

With an increasing global demand for meat and milk, environmental concerns about the sustainability of intensive production systems are coming to the fore. In the developed world at least, issues of food quality, traceability, safety and animal welfare are increasingly having an impact on the buying patterns of consumers. These factors, coupled with the fact that grass is a relatively cheap source of feed for ruminants and that grassland-based systems are seen as being environmentally sustainable and 'welfare friendly', suggest that there is a viable future for the continuing production of meat and milk from grass-based systems which should be recognised and supported in agricultural policy.

These policies support

Environment and Infrastructure Committee

4.7 Planning for the future

Agriculture, fisheries and sustainable growth

Government will plan for a sustainable future for the Isle of Man by:

- 1: monitoring current and predicted changes to the population of the Isle of Man;
- 2: continuing to apply the principles of sustainable growth through the policies set out in the Isle of Man Strategic Plan. The following policies currently apply to Food Security:
 - a: protection from development of the most fertile and versatile agricultural soils (Environment Policy 14)
 - b: consideration for new dwellings in the countryside where there is an identified farming or horticultural need (Environment Policy 15, Spatial Policy 5 & General Policy 3, Housing Policies 7, 8 and 9)
- 3: ensuring that the importance of commercial fisheries is taken fully into account in the development of the Isle of Man Marine Strategic Plan.

Context

4.7.1 Population growth

The level of activity required to deliver food security on the Isle of Man will change in line with the size of the population. An increasing population will increase the demand for food, which should improve the viability of the agri-food sector. However a growing population will also add to competing pressures on food production such as the requirement for housing, natural resources and national infrastructure.

For that reason it is important to accurately predict future population trends and plan for likely future scenarios.

Resident population from the 2011 Census recorded a resident population of 84,497 (a 5.5% increase on the 80,058 recorded in 2006).

Population projections for the Isle of Man prepared by Economic Affairs Division of Government using the Isle of Man Population Projection Model 2011 forecast an increase from 80,058 in 2006 to 93,526 in 2026. This would represent an increase of 16.8% or 0.8% per annum, amounting to around 673 persons per annum.

4.7.2 Isle of Man Strategic Plan and Sustainability

The Isle of Man Strategic Plan 2007 was prepared in accordance with Section 2 of, and Schedule 1 to, the Town and Country Planning Act 1999. This is a written statement formulating the Department's general policies in respect of the development and other use of land in the Island.

An over-arching Strategic Aim of the Plan is the concept of Sustainable Development which, put simply is the idea of ensuring a better quality of life both now and in the future. A widely used definition is:

“development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

The Strategic Plan forms an important component of developing a Food Security Strategy as policies relating to future land use, including agricultural land and associated buildings are incorporated and applied daily in decisions relating to planning applications made under the Town and Country Planning Act 1999.

4.7.2 Agricultural land

Agriculture is an integral and vital part of the rural economy and rural society and to a great degree is responsible for the appearance and stewardship of the countryside. The Island's farms not only provide the community with a significant proportion of meat and vegetable produce but also provide employment opportunities. It is important to sustain agricultural industry by safeguarding its prime resources, by allowing appropriately designed and sited new buildings (where need is established). However, this must not be at the expense of the appearance and character or openness of the landscape, or the loss of limited areas of good quality agricultural land.

The Isle of Man Strategic Plan 2007 includes a general presumption against the release of Class 1 and 2 agricultural land for development except where there is an overriding need for the development, and land of a lower quality is not available and other policies in this plan are complied with.

4.7.3 Marine areas

When completed, the Isle of Man Marine Strategic Plan will have similar functions in the marine environment as the Isle of Man Strategic Plan has on land. Similar to those that already exist for agriculture on land, policies may be put in place to ensure that adequate consideration is given to the effects on known commercial fisheries and nursery areas that potential developments may have. Unless areas used for spawning and feeding are protected, the commercial fishery sector and its contribution to food security could be lost.

These policies support

Isle of Man Strategic Plan 2007 (Chapters, 5 & 7)
Isle of Man Marine Plan

4.8 Food safety and food waste

Promoting a safe and sustainable food chain

Government recognises the importance of ensuring a safe and healthy food supply for the nation and will:

- 1: continue to inspect food establishments for compliance with food hygiene regulations.
- 2: Encourage the adoption of food quality assurance standards by stipulating relevant standards as a minimum in its food procurement policy.

Government acknowledges the problems associated with excess food waste and will play its part in reducing waste by:

- 3: incorporating sustainability into its food procurement policy.
- 4: ensuring it purchases the freshest produce possible to get maximum shelf life.
- 5: considering transport and packaging in food tenders.
- 6: opening dialogue with retailers to identify ways of reducing food waste.
- 7: investigating the development of cold storage facilities and other improvements to the supply chain to reduce risk of food spoilage.
- 8: providing information to the public on the significance of food waste and measures that can be taken to reduce it.

Context

4.8.1 Food safety

The European Communities (Food Hygiene Laws) (Application) Order 2007 applies provisions of 15 European Community (EC) Regulations to the Island which was approved at the July 2007 sitting of Tynwald.

All of the EC Regulations applied by the Order concern the hygiene of food and feedstuffs including original production, packaging, transport, presentation at the table and import or export. This legislation has been prepared not only to meet the Island's Protocol 3 requirements in terms of imports and exports, but also to ensure that the standards expected of Manx products are the same whether the product is intended for export or for the Manx consumer.

The EC legislation, by its very nature, is lengthy, highly technical and specifies to the smallest detail procedures to be followed and information obtained. However, in summary, 6 important changes to Manx law affecting anyone involved in the food business or related industry have been introduced:

1. the requirement to train food handlers - Food Hygiene Training
2. the requirement to have in place a food safety management system

3. the requirement to register food premises - More information
4. a change to temperature requirements
5. a prohibition on the sale of raw milk and cream
6. bringing those engaged in the farming or fishing industry within the scope of hygiene regulations for the first time (known as primary producers)

A further set of regulations provide the Department with powers to enforce the EC Regulations.

4.8.2 Food Waste

Around 30% of food produced globally is wasted. In developed countries such as the Isle of Man, a large amount of food is wasted by consumers and by the food industry. It is mostly food that could have been consumed if it had been better stored or managed, or had not been left uneaten on a plate.

Reduction in food waste through sustainable consumption and more efficient supply chains can reduce the burden on world food production requirements.

There is also a significant cost to such waste, costing the average household around £60 a month. The foods types wasted the most are fresh vegetables and salad, fresh fruit, and bakery items such as bread and cakes.

Meat and fish make up a large proportion (18%) of the total money wasted on food.

These policies support

The European Communities (Food Hygiene Laws) (Application) Order 2007
Isle of Man Strategic Plan 2007 (Chapter 12)

4.9 Biodiversity and food production

The role of biodiversity in Food Security

Government acknowledges the important role biodiversity plays in food production and supports:

1. The extension to the Isle of Man to the UK's multilateral environmental agreements (MEA) including the Convention on Biological Diversity.
2. The implementation of a Biodiversity Strategy
3. The designation of protected areas on both land and at sea.

Context

Biological diversity comprises countless plants that feed and heal people, many crop varieties and aquatic species with specific nutritional characteristics, livestock species adapted to harsh environments, insects that pollinate fields and micro-organisms that regenerate agricultural soils.

Biodiversity, essential for agriculture and food production, is threatened by urbanization, deforestation, pollution and the conversion of wetlands.

Reduction of biodiversity and genetics entails a reduction of options for ensuring more diverse nutrition, enhancing food production, raising incomes, coping with environmental constraints and managing ecosystems. Recognising, safeguarding and using the potential and diversity of nature is critical for food security and sustainable agriculture.

4.9.1. Genetics

Due to agricultural modernization, changes in diets and population density, humankind increasingly depends on a reduced amount of agricultural biological diversity for its food supplies. The FAO estimate that only a dozen species of animals provide 90% of the animal protein consumed globally and just four crop species provide half of plant-based calories in the human diet.

It is estimated that around three-quarters of the genetic diversity found in agricultural crops have been lost over the last century. Of 6 300 animal breeds, 1 350 are endangered or already extinct.

4.9.2 Ecosystem services

A significant amount of food derived from the sea comes from wild stocks which if managed correctly can be self-sustaining.

Many agricultural crops, such as strawberries and raspberries and sunflowers, have their flowers almost entirely pollinated by bees. Other crops, including broad beans and tomatoes in glasshouses, are exclusively pollinated by bees; losing bee pollinators could have a devastating effect on agricultural systems and have major impacts on rural economies, trade, and global food security.

Other species, such as ladybirds and many bird species are important predators of agricultural pests and can significantly reduce pre-harvest crop losses.

These policies support

Convention of Biological Diversity

Wildlife Act (1990)

'Managing our natural wealth to 2020' The Isle of Man's first Biodiversity Strategy

4.10 Global considerations

The Isle of Man's role as a responsible global citizen

Government will maintain the Isle of Man's status as a role model for small jurisdictions on the global stage by:

- 1: Continuing to promote the Isle of Man as a 'Fairtrade Island'.
- 2: Develop a food procurement policy to ensure that Government food procurement considers the social, environmental and economic impacts of the food that it purchases.
- 3: Continuing to deliver International Development funding in a targeted package that delivers high impact and demonstrable results for local communities, in relation to food security and sustainable food production.

Context

4.10.1. 'Fairtrade'

Fairtrade ensures that:

A motion was carried at Tynwald in February 2007 to support efforts to enable the Isle of Man to be recognised by the Fairtrade Foundation as a Fairtrade Island. The following points were agreed:

- (i) Fairtrade coffee and tea should be made available at all meetings of Government and Tynwald;
- (ii) Government should promote awareness of Fairtrade on a regular basis on its website and in publications produced, or sponsored, by Government, where appropriate;
- (iii) the Council of Ministers be requested, in partnership with the Fairtrade Island Committee, to ensure continued commitment to the Fairtrade initiative;
- (iv) street signs should be erected declaring the Isle of Man as a Fairtrade Island if this status is obtained; and
- (v) all Departments, Boards, Agencies and Committees of Government and Tynwald take all appropriate steps to support Fairtrade products in their purchasing policies.

4.10.2 International Development

The International Development Committee (previously the Overseas Aid Committee) is responsible for determining how the Isle of Man supports the world's less developed nations.

In July 2008, the Council of Ministers adopted the following policy on overseas aid -

The Council of Ministers is committed to the Isle of Man being a responsible jurisdiction, which is able to contribute to the global fight against poverty in the developing world. The Council of Ministers recognises the longstanding commitment of organisations and individuals in the Isle of Man and elsewhere to international development, building on both the historical and contemporary relationships that exist between the Island and many developing countries.

The International Development Committee currently supports a number of projects relating to sustainable fishing, farming and food security, the most notable of which was the donation of a Fisheries Patrol vessel and £250k of associated funding to the Sierra Leone Government to effectively police the sustainable management of their fishery. It is the intention of this policy document to ensure that continued consideration is given to such projects.

A table of other recent projects is included below.

Charity	Project name and description	Country	Amount allocated
British Red Cross	Zimbabwe food security and livelihoods programme	Zimbabwe	£45,972
Self Help Africa	Plant clinics - research and advisory services on crop diseases and pests	Uganda	£30,000
Send A Cow	Sustainable livelihoods from integrated livestock farming in Cameroon Far North	Cameroon	£65,953
Traidcraft Exchange	Sustainable livelihoods through small-scale agriculture	Bangladesh	£30,000
Trocaire	Food security and income generation project in Chikwaw Diocese, Malawi	Malawi	£30,000
SOS Children	Food security for most vulnerable farmers and fishers, especially households headed by women, in eight communities within Freetown, Bo and Makeni	Sierra Leone	£189,471
Christian Aid	Supporting small-scale fisheries to build thriving and resilient livelihoods in the Sherbro basin, Bonthe district	Sierra Leone	£300,000

5. Next Steps

Actions required to achieve policy objectives:

DEFA

- Produce a Food Business Development Strategy that identifies realistic options for future growth and development of the Manx agri-food sector, including fisheries.
- Improve the visibility of local produce through dialogue with retailers.
- Identify mechanisms for delivering a high impact package of marketing/business development support for the agri-food sector.
- Develop a Government Food Procurement policy that identifies sustainability and food security issues.
- Maintain levels of Agricultural Support in line with that of the EU and periodically review impacts on contribution to Food Security.
- Develop a Climate Change Bill.
- Investigate cold storage requirements to improve resilience of the food chain and reduce food waste.
- Develop a Fisheries Strategy to secure long term, sustainable and profitable fisheries in the Territorial Sea.

CSO

- Maintain Overseas Aid support for Food Security projects.

DOI

- Maintain Harbour and Airport infrastructure.
- Maintain policies relating to development of agricultural land and plan for sustainable growth of the Island's population and associated infrastructure and use of resources.
- Develop a Marine Strategic Plan for the Territorial waters of the Isle of Man.

DED

- Implement Vision 2020 'Distinctive Local Food and Drink'.
- Continue to explore low energy alternatives and future sustainable energy sources for the Isle of Man.

Utilities

- Continue to provide a resilient and dependable source of water and power.