

Activity 3.1.2

PP5 - Gozo Regional Committee DESK REVIEW





**SUSTAINABLE NETWORK FOR AGRO FOOD INNOVATION
LEADING IN THE MEDITERRANEAN**

Activity 3.1.2.

Desk review on studies and projects on MedSNAIL topics already carried out in target regions



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1 Introduction

The present document presents the results of the first phase of the mapping will be carried out through desk activities aimed at analysing the target contexts within the territory, with particular reference to needs, demands, policies and programmes available in the fields of agribusiness, sustainable agriculture and food security.

The activity is being carried out in the context of Work Package 3, which aims at building the common cross-border framework needed for coordinating and harmonizing a shared knowledge base on agrobiodiversity, built according to an harmonized procedure combining field surveys and desk analysis.

The desk review follows the methodology prepared and detailed primarily by the activity leader, namely the Slow Food Foundation for Biodiversity. The activity will collate contributions from all the project partners, each working on their respective territories, and will be instrumental in the development and alignment of the project objectives and approach across the entire MedSNAIL partnership, and in the fostering of meaningful cross border exchanges.

1.1 Gozo Regional Committee

The Gozo Regional Committee (GRC) groups together the fourteen municipalities of the island of Gozo. In recent years, regional authorities have been set up in the Maltese Islands to occupy a second tier of government between Local Councils and the central, national institutions. The GRC comprises of a Gozo Development Agency (GDA), whose aim is to support the municipalities to further the development of their territories in ways that enhance the well-being of their constituents, and that are in keeping with the wider vision of Malta as a European Union member state in support of the priorities of the EU and its programmes.

In order to learn from the experiences of other countries, the Gozo Region actively participates in transnational projects, particularly those that can help it overcome the difficulties faced by Gozo that arise from its “double insularity”, as well as those that promote the economic development of its territory, with an emphasis on long-term sustainability and an eye for the island’s contribution to the well-being of the planet. Among these, actions which enhance the island’s rurality and character, as well as environmental sensitivity, are particularly relevant.

In pursuit of its aims and objectives, the Gozo Region works very closely with all the fourteen municipalities. In recent years, the thrust of this cooperation has increasingly focused on topical energy and climate change issues, as well as sustainable development and innovation. This has included support actions in the context of European Union programming. Conscious of the limitations of the Local Councils in terms of resources and expertise, GDA-GRC continues to support the actions of the Councils in the development of effective and appropriately targeted policies and initiatives.

2 The Agricultural Area

The Agricultural Area chosen for the study as part of the MedSNAIL project is the island of Gozo, which is both geologically and politically a part of the Maltese islands.

The very small islands that comprise the Maltese archipelago are situated right in the centre of the Mediterranean Sea. From ancient to relatively modern times, their location have made of the islands a sort of cross-roads for some of the world's greatest civilisations. They have been at once a theatre of endless strife and belligerence between east and west, and between the northern and southern shores of the historic sea; as well as a cultural and linguistic melting pot.

2.1 Geography and Geology

There are two main inhabited islands, Malta and Gozo, having areas of about 246 and 67 square kilometres respectively. Another island, Comino, has an area of just around 3.5 square kilometres. These three islands, together with other small islands and rocks, make up a total area of merely 316 square kilometres. The climate is typically Mediterranean, with cool, wet winters and hot, dry summers. The average annual rainfall stands at about 530 mm, of which some 85% falls during the period October to March. The mean monthly temperature range is 12–26 °C, and the islands are very windy and sunny. Although small, the Maltese Islands have a considerable diversity of landscapes and ecosystems which are representative of the range and variety of those of the Mediterranean region¹.

Geologically, the islands are relatively young. They are composed of layers of sedimentary rocks that were formed in a marine environment. Their soils are also young, and therefore quite similar to the parent rock. The climatic conditions render the soil cover relatively thin and sparse, and the more important natural vegetation and habitats are determined more by the annual distribution of precipitation than the actual quantity of water². Surface fresh water is scarce, and there are no permanent rivers or lakes. Some very minor springs occur in places, and the winter rains form temporary rivulets and water courses along the valleys, with small seasonal lakes being formed where valleys are dammed, which catchments are used for irrigation during drier periods.

The main geomorphological features are limestone plateaux with a karst type landscape, hillsides covered with clay taluses, gently rolling limestone plains, valleys which drain runoff during the wet season, steep sea-cliffs on the south-western coasts, and gently sloping rocky shores to the Northeast.

¹ P. J. Schembri, 'The Maltese Islands: climate, vegetation and Landscape', *GeoJournal*, vol.41 no. 2, 1997 (February), pp. 115–125.

² Nature Trust (Malta), *Terrestrial Habitats* [Website], <https://www.naturetrustmalta.org/environmental-education/biodiversity/habitats/terrestrial/>, (accessed 15 February 2020).

2.2 Vegetation and Land Cover

The main vegetation communities are maquis, garigue and steppe. The dominant native species are xerophytes that can survive the hot and dry conditions of the long summer. There are also minor communities, including patches of woodland, coastal wetlands, sand dunes, freshwater, and rock surface communities. The latter are in actual fact of the utmost most ecological importance given that they support a remarkably large number of endemic species³.

Population pressures on the islands are very considerable, with the country having a staggeringly large population of about 494,000 inhabitants⁴. Moreover, the islands have experienced millennia of continued habitation, and they have not been self-sufficient for centuries⁵. The impact of human activity is very significant. According to Eurostat's Land Use/Cover data, 21.3% of the island's area is classified as 'Services and Residential'. Approximately 7% is used by commercial and industrial activities, while just 44.8% is taken up by 'Agriculture'. The rest is countryside⁶.

2.3 Human Impact

The present landscape results from the interplay of geology, climate, and the intense reshaping by humans. The latter has occurred principally through the diversion of vast tracts of land to cultivation, the construction of terraced fields, dam building across seasonal watercourses, and the construction of irrigation channels and drainage ditches. Of particular importance has been the grazing of animals on uncultivated land, and the ongoing and often inconsiderate exploitation of land for buildings and industry. The thin soil, when exposed to persistent human disturbance and the frequent seasonal deluges alternating with extreme droughts, has eroded very considerably. It is now increasingly difficult for the original vegetation to be re-established, with the consequence that much of the native flora has been lost or marginalised. Ruderal species, i.e. those growing on waste ground or among rubbish, as well as introduced species, now abound, although growing awareness has recently given rise to some important initiatives being taken to manage the environment and halt the deterioration of the landscape⁷.

2.4 History

The Mediterranean Sea has been the cradle of the western world's major civilisations, and the Maltese Islands lie right at its centre. The sea has enabled movement of people and encouraged trade and cultural exchanges between its shores for millennia. The islands was first colonised around 5200 BC,

³ P. J. Schembri, 'The Maltese Islands: climate, vegetation and Landscape', pp. 115–125.

⁴ National Statistics Office, 'World Population Day: 2019', *NSO Website*, Malta, National Statistics Office, 2019, p. 1, <https://nso.gov.mt>, (accessed 10 February 2020).

⁵ J. Rix, *Malta and Gozo*, Bucks, England, Bradt Travel Guides Ltd, 2013, p. 310.

⁶ Eurostat, *Land use overview by NUTS 2 regions* [Website], <https://ec.europa.eu/eurostat/data/database>, (accessed 31 January 2020).

⁷ P. J. Schembri, 'The Maltese Islands: climate, vegetation and Landscape', pp. 115–125.

probably by Neolithic people from neighbouring Sicily, and they have since never been far removed from the events that have shaped the civilisations of the region. Archaeological studies have uncovered the establishment of the islands as an important centre for earth-mother worship in the 4th millennium BCE, possibly long before those of Sumer and Egypt. The Phoenicians, and later the Carthaginians, set up ports and trading posts. In 218 BCE, during the second Punic War between Rome and Carthage, Malta became part of the Roman Empire⁸.

With the final division of the Roman Empire into its East and West branches in 395 CE, the islands fell under Byzantine domination. There is some argument over whether Malta was occupied by the Vandals in 454 CE, and by the Goths in 464 CE.. In any case, between 400 and 600 CE a Western Roman church was built over the remains of megalithic temples. According to some historians, the Islands were restored to the Byzantine Empire in 533 CE. In 870 CE Malta was conquered by Aghlabid (Tunisian) Arabs. The new rulers fortified an ancient Roman settlement called Melita, strategically situated on high ground in the centre of Malta, and renamed Medina, which later became the Medieval city of Mdina. The Arabs improved agriculture and introduced irrigation systems, including the 'noria' or waterwheel. For the first time, cotton and citrus fruits were grown in Malta⁹.

The Arab occupation had a profound influence on Maltese way of life, which influence would endure to the present day, particularly on the language. There has been considerable debate among scholars regarding the linguistic basis that existed on the islands at the time of the Arabs conquest in 870 CE. The debate revolves around a simple hypothesis which explains the ease with which the inhabitants of Malta and Gozo learned Arabic because they already talked a Semitic language, namely Punic. The issue was used as an attempt to give the Maltese language a kind of added prestige by ascribe non-existent Phoenicio-punic rather than Arabic origins, as this was considered more appropriate to the teaching of English. This idea has thankfully been abandoned, and the Arabo-Maghribite origin of Maltese as the ultimate source of the language is not subject to debate¹⁰.

In 1091, the islands were invaded by the Normans, and in 1127 Norman control was consolidated under Roger II of Sicily. A Norman governor was installed, and Norman soldiers were garrisoned in Malta's three main castles; namely Mdina, Castrum Maris, Cittadella Gozo¹¹. Christianity was thus re-established as the Islands' dominant religion, and Malta became an appendage of Sicily for 440 years, during which

⁸ International Business Publications USA, *Malta Country Study Guide Volume 1: Strategic Information and Developments*, Washington, International Business Publications USA, 2013, p. 22.

⁹ Maltese History & Heritage, *Maltese History Dates* [Website], <https://vassallohistory.wordpress.com/a-maltese-history-2/>, (accessed 31 January 2020).

¹⁰ Maltese History & Heritage, *Origins of the Maltese Language* [Website], <https://vassallohistory.wordpress.com/2013/10/29/origins-of-the-maltese-language/>, (accessed 5 February 2020).

¹¹ Maltese History & Heritage, *Maltese History Dates* [Website], <https://vassallohistory.wordpress.com/a-maltese-history-2/>, (accessed 31 January 2020).

period Malta was sold and resold to various feudal lords and barons and was dominated successively by the rulers of Swabia, Aquitaine, Aragon, Castile, and Spain¹².

In 1530, Malta was under the Crown of Aragon (Kingdom of Sicily), having been incorporated into the kingdom a century earlier by King Alfonso of Spain, who had also promised never to grant Malta as a fief to any third party. Nevertheless, in October 1530, in an effort to protect Rome from Islamic invasion, Emperor Charles V granted the Maltese Islands to the Knights of St. John of Jerusalem in perpetual fief. The population around that time was some 15,000 people in Malta and 4,659 in Gozo¹³. The knights had been driven out of Rhodes in 1522 by Suleiman II. The Order made Malta its home for the next 268 years, transforming the islands by building towns, palaces, churches, gardens, and fortifications; and they also embellished the island with numerous works of art and priceless cultural heritage. In 1565, a great army was sent by Suleiman the Magnificent to conquer the islands, in what became known as the great siege of Malta. The expedition was unsuccessful, and after months of bloody fighting the Turkish army and navy left Malta never to return. The power of the Knights reached its zenith in the 17th century, with the completion of their new city Valletta and its magnificent fortifications. The Order gradually declined until its rule of Malta ended with its peaceful surrender to Napoleon in 1798. French rule was destined to be short-lived, with the people of Malta rising against the new rulers, and with the help of the British evicted them in 1800.¹⁴

In 1814, Malta voluntarily became part of the British Empire, once again reverting to its traditional role of military and naval fortress. The population of the island of Malta in 1807 was only 93,054, a drop of 18.4% over the previous decade, while in Gozo it was 12,829, a drop of 19.8%. This population drop was due to famine and disease, and exacerbated by a proportion of the population emigrating abroad with the departure of the Knights¹⁵. Throughout the 19th and 20th centuries, the British built numerous examples of military architecture in the British Colonial style, as well as military hospitals and other buildings in the British Neoclassical style. During World War II, Malta survived air-raids from German and Italian air forces, often several raids per day. Malta obtained independence on September 21, 1964, became a Republic on December 13, 1974, and a member of the European Union on May 1, 2004.

2.5 Economy

In the post-war years, the British military presence in Malta started to wind down. Consequently, the country had to move away from an economy largely based on the military, and in particular the naval

¹² International Business Publications USA, *Malta Country Study Guide Volume 1: Strategic Information and Developments*, p. 22.

¹³ Maltese History & Heritage, *Maltese History Dates* [Website], <https://vassallohistory.wordpress.com/a-maltese-history-2/>, (accessed 31 January 2020).

¹⁴ International Business Publications USA, *Malta Country Study Guide Volume 1: Strategic Information and Developments*, p. 22.

¹⁵ Maltese History & Heritage, *Maltese History Dates* [Website], <https://vassallohistory.wordpress.com/a-maltese-history-2/>, (accessed 31 January 2020).

dockyard and associated industries, so a more diverse economy. The islands initially embarked on low-added-value, labour intensive manufacturing, as well as mass tourism starting from the early 1960s.

Malta's small internal market and lack of natural resources preclude local enterprise from producing all the products and services that the Maltese would like to consume. This means that Malta is highly dependent on imports to acquire raw materials and many primary commodities, while local enterprise cannot rely solely on the domestic market, making it inevitable for Malta to export goods and services. This has resulted in a very open economy, with imports and exports both hovering around 100% of GDP¹⁶.

The major source of advantage is perceived as being the island's flexible and bilingual workforce. Over the past three decades, the price competitiveness has been swiftly disappearing because of brisk collective wage bargaining, and local enterprises are also finding it increasingly difficult to compete on costs because of the emergence of lower cost economies in the region. These countries are no longer being seen as high risk by foreign direct investors, and they boast of mobile capital and can offer a significant pool of labour at much cheaper rates. Moreover, changes in process technology have led to the fragmentation and standardisation of specific tasks which can use semi-skilled labour, making it possible to produce highly technological products in economically less advanced societies.

As a small Island EU Member State in the Mediterranean, Malta is faced with specific disadvantages when compared to other Member States within the Union, varying from a lack of accessibility and isolation from mainland European infrastructure to the lack of natural resources and high population density, amongst others. In this regard, these factors continue to impinge on the socio-economic growth of the Maltese Islands. The Maltese economy has of late been relatively resilient to the global economic crisis and the sovereign debt crisis in the euro area. Between 2009 and 2012, Malta's real Gross Domestic Product (GDP) grew by an annual average of 0.9%. The performance of the Maltese economy is also reflected by gains in the export market share in services. On the other hand, Malta's export market share in goods was on the decline, particularly in machinery and electrical equipment as well as textiles.¹⁷

2.6 Gozo

The geology, climate and ecology of Gozo are similar to those for the entire Maltese islands. The same can be said of their history and customs. The most significant difference is that the island is more rural than Malta, and therefore the population pressure is much less, albeit still very significant. Being an island of just 67 square kilometres and having a population of approximately 31,000, Gozo is heavily dependent on the sea transport link with Malta. A consequence of this is the concept of double insularity, and a strong feeling of disadvantage coupled with a keen sense of regional and cultural

¹⁶ Farrugia, N. (2002) 'Constructing an index of international competitiveness for Malta', *Bank of Valletta Review*, Malta, Bank of Valletta, 2002, No. 26, p. 3

¹⁷ Ministry for European Affairs (Malta), *Operational Programme I: Fostering a competitive and sustainable economy to meet our challenges*, Malta, Office of the Deputy Prime Minister, 2015, p. 2.

identity. Gozo has also developed less rapidly than Malta, and owing to more limited infrastructure, it has focused its marketing strategy by promoting itself as an eco-island that depends more on tourism, agriculture and fishing sectors when compared to Malta. In fact, Gozo accounts for 23% of the total organic land in the Maltese Islands¹⁸.

3 Agriculture

Agriculture in Malta can be traced back to Neolithic times, as evidenced by tools and agricultural equipment discovered in archaeological sites. Even in documented history we have evidence of the agricultural skills of the inhabitants, such as references by Roman historians to their abilities in producing cotton and honey. Indeed, sails manufactured in Malta were very highly considered in the ancient world, as was honey. Nevertheless, following a reconnaissance mission sent out by the Knights of Malta to assess the offer of the island offered to them by Charles V, the assessors reported on the bareness of the land, the sparsity of vegetation, lack of water and climatic and topographic features being particularly averse to crop production¹⁹.

3.1 Overview of Farming Practices

Land farming in Malta and Gozo generally falls within two main types, namely

- 1) dry (arable) farming that depends exclusively on rainfall, with crops being mostly fodder, onions, garlic, broad beans, potatoes, vines, olive trees and fruit trees; and
- 2) irrigated farmland in greenhouses and open fields, growing a wider range of vegetables.

Except for the spring potato crop for export, most farmers engage in mixed farming practices rather than single cash crops. Livestock breeders do not own pastures and largely keep their livestock indoors, feeding with imported feed concentrate and fodder, as well as local fodder²⁰.

In 2018, agriculture, forestry and fishing sector represented 1.03% of the total Gross Value Added generated by the Maltese economy²¹, and accounted for 0.8% of all persons in full-time employment²². In 2013, 19,066 persons were actively engaged in agricultural activity, an increase of 2.8 per cent when compared to the 2010 census. Of these, only 1,372 persons were in full-time employment, while 17,693 persons were part-timers. Full-time and part-time employment during 2013 increased by 5.5 and 2.6

¹⁸ Ministry for European Affairs (Malta), *Operational Programme I: Fostering a competitive and sustainable economy to meet our challenges*, Malta, Office of the Deputy Prime Minister, 2015, p. 2.

¹⁹ Maltese History & Heritage, *Agriculture in Malta* [Website], <https://vassallohistory.wordpress.com/agriculture-in-malta>, (accessed 15 February 2020)

²⁰ Parliamentary Secretariat for Agriculture, Fisheries and Animal Rights (Malta), *National Agricultural Policy for the Maltese Islands 2018 – 2028*, Malta, Parliamentary Secretariat for Agriculture, Fisheries and Animal Rights, 2017, p. 24.

²¹ National Statistics Office, *Gross Domestic Product: 2018*, Malta, National Statistics Office, 2018, p. 3.

²² National Statistics Office, *Labour Force Survey: Q4/2018*, Malta, National Statistics Office, 2018, p. 5.

per cent respectively over 2010²³. Table 1 shows the total employment in agriculture for Gozo and Comino only.

These figures show that the sector's contribution to the Maltese economy is relatively very low, but agriculture and fishing do have an important economic role ranging from food production, culinary tradition, land stewardship, and environmental conservation. They are also important for the tourism industry, and so their significance taken holistically may go farther than their nominal quantitative economic significance.

Table 1 Total employment (number of persons) in agriculture by type of employment in Gozo and Comino

Type	Year			
	2005	2007	2010	2013
Full-time	276	316	185	272
Part-time	3,291	3,209	3,792	3,799
Total	3,567	3,525	3,977	4,071

Source: National Statistics Office

Holdings and farms are, almost in their entirety, exceedingly small. The National Agricultural Policy for the Maltese Islands 2018 – 2028 lists the following main challenges for the Maltese and Gozitan farming undertaking.

- 1) scarcity of land related to the small size of the islands and dense population;
- 2) lack of natural resources, in particular, water scarcity;
- 3) urbanization, land use pressures and opportunity cost of land;
- 4) dependence on imported fodder and other inputs that are costly in view of a limited bargaining power;
- 5) fragmentation of human and physical resources, and
- 6) individualism and general inability to exploit economies of scale²⁴.

Agriculture holdings in both Malta and Gozo are predominantly small, with 75.6% having a utilised agricultural area (UAA) of less than one hectare each; 22% that are between one and five hectares; and 2.4% that have an area exceeding five hectares²⁵. Table 2 shows the total number of land holdings in Gozo and Comino for the years 2005 to 2013 in terms of UAA (ha).

²³ National Statistics Office, *Agriculture and Fisheries 2014*, Malta, National Statistics Office, 2016, Malta, p. 13.

²⁴ Parliamentary Secretariat for Agriculture, Fisheries and Animal Rights (Malta), *National Agricultural Policy for the Maltese Islands 2018 – 2028*, p. 24.

²⁵ National Statistics Office, *Agriculture and Fisheries 2014*, Malta, National Statistics Office, 2016, Malta, p. 3.

Table 2 Agricultural holdings by size class in Gozo and Comino

Year	Total	Size class: Utilised Agricultural Area (ha)						
		0	>0 - <0.5	0.5 - <1	1 - <2	2 - <5	5 - <10	≥10
2005	2,411	24	1,206	632	362	133	37	17
2007	2,399	59	1,229	462	447	107	79	16
2010	2,792	45	1,506	527	412	224	60	18
2013	2,782	14	1,484	590	286	322	64	20

Source: National Statistics Office

Table 3 gives the utilised area per crop type in Gozo and Comino. The proportion of the types on any one holding will depend on the agricultural landscape of the holding, as this may vary considerably even on such a small island as Gozo.

Table 3 Utilised agricultural area (hectares) by type in Gozo and Comino

Year	Total	Type of crop							
		Forage	Potatoes	Permanent cropping excluding vineyards	Vineyards	Market gardening	Kitchen gardens	Other areas	Fallow land
2005	2,135	1,336	41	76	61	305	191	26	99
2007	2,292	1,368	24	73	60	290	279	23	176
2010	2,613	1,671	51	124	74	298	236	24	134
2013	2,888	1,950	30	109	62	256	316	24	142

Note: Other areas include area under greenhouses and flowers and ornamental plants grown in the open.

Source: National Statistics Office

3.2 Agricultural Landscape

The Maltese Islands, and Gozo especially, exhibit characteristic heterogeneity of the topography that make for a relatively large variety of landscapes, each of which is associated with a specific agricultural region.

3.2.1 *Rdum and Ġnien Areas*

The *rdum* and *ġnien* (garden-type) areas are those who render the highest incomes in the farming community, and this is because here fruit is grown intensively and yields high profits. There are various examples of scarpland on both Malta and Gozo, including fault scarps, that are ideal for vine and fruit cultivation, often among a number of other agricultural produce. In Gozo, *ġnien* farming occurs in the Zebbuġ area of the Northern Region, and specialized fruit growing is centred to the east of Għajnsielem²⁶.

²⁶ Maltese History & Heritage, *Agriculture in Malta* [Website]

3.2.2 Xagħra Areas

The xagħra (barren meadows) lands can only be used in parts and for the hardiest fodders and legumes. The crops are relatively humble and do not afford very important incomes. The soil on xagħra comes in very small patches, in which vetches and poor barley are cultivated. In Gozo, this landscape includes the coast-fringing wastelands in the Western uplands.

3.2.3 Dry-Farming Areas

Dry-farming areas constitute the greater part of the arable land of the Islands. The majority of the examples of these areas rely on rainfall only, with no provision for other irrigation, and will vary in crop-quality according to various exposures, slope and water supply. Medium-quality crops are grown in the more favourable conditions, with potatoes being preferred. Vegetables are grown quite profusely, and where irrigation is available, the higher-value vegetable crops (including melons, tomatoes and artichokes) are widespread²⁷.

3.3 Production

Table 4 shows the total production of fruit and vegetables in Gozo and Comino between 2010 and 2014. Fresh vegetables that passed through organised markets in 2014 in Gozo amounted to 3,254 tonnes, yielding a wholesale value of €1.664 million. This resulted in a substantial decrease when compared to 2013. The volume of fresh fruit increased by 26.9 per cent, from 420 tonnes in 2013 to 533 tonnes in 2014. The wholesale value of fresh fruit went up by 7.9 per cent when compared to 2013.

Table 4 Annual volume (tonnes) and wholesale value (€000) of fruit and vegetables sold through official markets (Gozo and Comino)

	Vegetables		Fruit	
	Weight	Value	Weight	Value
2010	3,438	1,984	593	458
2011	3,607	1,755	696	390
2012	3,521	1,789	490	352
2013	3,828	1,919	420	329
2014	3,254	1,664	533	355
	Percentage change in comparison to previous year:			
2012	-2.4	1.9	-29.6	-9.7
2013	8.7	7.3	-14.3	-6.7
2014	-15.0	-13.3	26.9	7.9

Source: National Statistics Office

²⁷ Maltese History & Heritage, *Agriculture in Malta* [Website]

3.4 Main Species

The volume of individual species produced are not readily available for Gozo and Comino alone. National statistics, however, give an indication of the relative importance of the various species. Table 5 shows the annual total estimated volume of vegetables by species for Malta, Gozo and Comino combined.

Table 5 Annual total estimated volume (tonnes) of vegetables by species

	Year				
	2010	2011	2012	2013	2014
Bellpepper	1,007	901	781	866	857
Broad beans	2,529	2,568	2,533	3,008	3,008
Cabbages	3,334	3,760	3,833	4,429	4,374
Carrots	1,365	1,327	981	1,307	1,233
Cauliflowers	6,253	6,180	5,000	5,782	5,867
Celery	416	441	432	444	418
Cucumber	807	725	743	743	838
Dry onions	8,478	7,981	6,483	7,369	7,666
Eggplant	755	753	701	754	785
Globe artichokes	1,566	1,485	1,596	1,309	1,540
Green onions	759	643	614	804	540
Kohlrabi	1,127	1,038	953	942	895
Lettuce	4,008	4,199	4,111	4,611	4,230
Potatoes	15,541	18,920	12,691	12,644	10,808
Pumpkins	1,455	1,328	1,348	1,304	1,331
Sugar melons	2,513	3,473	3,095	2,808	2,901
Tomatoes	14,572	13,953	11,142	12,287	12,925
Vegetable marrows	3,419	3,393	3,079	3,177	3,451
Watermelons	3,248	3,572	3,837	3,426	3,668
Other vegetables	6,096	5,907	6,218	6,697	7,074
Total	79,248	82,548	70,170	73,933	74,410

Source: National Statistics Office

The estimated total fruit and vegetable production figures take into consideration direct sales, own consumption and sales to processors. Similar statistics are compiled for the annual total estimated volume of fruit by species on a national level (Table 6).

Table 6 Annual total estimated volume (tonnes) of fruit by species

	Year				
	2010	2011	2012	2013	2014
Bambinella	186	145	215	172	110
Cherry plums	26	74	132	15	31
Dry figs	9	16	11	15	5
Early figs	143	122	152	120	75
Grapes	4,082	3,919	5,516	5,256	5,363
Lemons	586	551	420	513	552
Nectarines	88	167	67	59	62
Oranges	544	567	393	334	444
Peaches	814	1,441	663	547	602
Pomegranates	138	166	151	148	141
Strawberries	690	762	932	720	855
Sweet oranges	737	900	639	482	671
Other fruit	586	602	512	511	447
Total	8,631	9,432	9,804	8,891	9,359