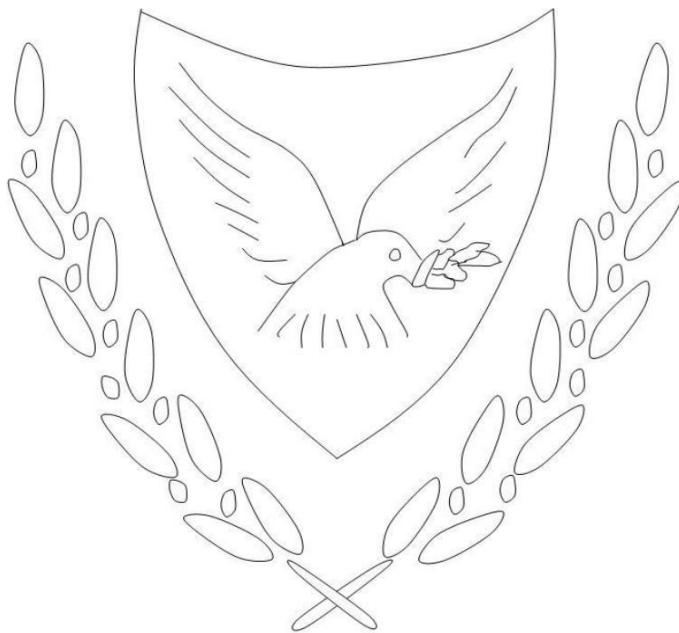


REPUBLIC OF CYPRUS



STRATEGIC PLANNING

MINISTRY OF AGRICULTURE, RURAL DEVELOPMENT AND ENVIRONMENT



Ministry of Agriculture, Rural Development
and Environment

2016 - 2018

<i>INDEX</i>	
1. Ministry of Agriculture, Rural Development and Environment Planning for the years 2015 – 2017	3
2. Central Administration	12
3. Department of Agriculture	18
4. Veterinary Services	24
5. Department of Forests	29
6. Water Development Department	37
7. Geological Survey Department	42
8. Department of Meteorology	47
9. Land Consolidation Department	49
10. Mines Service	52
11. Agricultural Research Institute	55
12. Department of Fisheries and Marine Research	56
13. Department of Environment	66

MINISTRY OF AGRICULTURE, RURAL DEVELOPMENT AND ENVIRONMENT

PLANNING FOR THE YEARS 2015 – 2017

MISSION

Promote green economy, sustainable agricultural and fisheries growth and efficient use of natural resources through value-added programmes and projects, while protecting the environment and natural wealth of Cyprus.

VISION

A greener, blue and resource-efficient economy, as well as a more competitive and sustainable agriculture and fisheries, contributing to the stimulation of the economy with the creation of new employment opportunities and growth in rural and coastal areas, while ensuring the quality of life and the protection of the environment.

VALUES

1. Excellence
2. Honesty and Integrity
3. Professionalism
4. Effectiveness
5. Transparency and Accessibility
6. Reliability
7. Optimal quality service to the citizen

STRATEGIC GOALS

The strategic goals of the Ministry of Agriculture, Rural Development and Environment for the years 2015-2017, are as follows:

1. Agricultural economy reform and enhancement of its competitiveness.
2. Promotion of green and blue growth, contributing to the restructuring of the economy.
3. Protection of the environment and promotion of the efficient use of resources.

4. Reduction of greenhouse gas emissions, adaptation to climate change and prevention of risks.
5. Improvement of services provided in relation to food safety and public health.
6. Strengthening international and regional co operations in order to face common challenges.
7. Enhancement of the effectiveness and improvement of the efficiency of the Ministry's Departments and Services.

LINK BETWEEN STRATEGIC GOALS AND OBJECTIVES

MINISTRY OF AGRICULTURE, RURAL DEVELOPMENT AND ENVIRONMENT	<u>Strategic goal 1:</u> Agricultural economy reform and enhancement of its competitiveness	<u>Strategic goal 2:</u> Promotion of green and blue growth, contributing to the restructuring of the economy.	<u>Strategic goal 3:</u> Protection of the environment and promotion of the efficient use of resources	<u>Strategic goal 4:</u> Reduction of greenhouse gas emissions, adaptation to climate change and prevention of risks	<u>Strategic goal 5:</u> Improvement of services provided in relation to food safety and public health	<u>Strategic goal 6:</u> Strengthening of international and regional co operations in order to face common challenges	<u>Strategic goal 7:</u> Enhancing the effectiveness and improving the efficiency of the Ministry's Departments and Services
CENTRAL ADMINISTRATION							
<u>Objective 1:</u> Policy making and coordination of the Ministry's Departments in the areas of agriculture, rural development and environment							
<u>Objective 2:</u> Strengthening international and regional cooperation							
<u>Objective 3:</u> Enhancing the effectiveness and improving the efficiency of the Ministry							
DEPARTMENT OF AGRICULTURE							
<u>Objective 1:</u> Fostering the competitiveness of agriculture							
<u>Objective 2:</u> Ensuring the sustainable management							

MINISTRY OF AGRICULTURE, RURAL DEVELOPMENT AND ENVIRONMENT	<u>Strategic goal 1:</u> Agricultural economy reform and enhancement of its competitiveness	<u>Strategic goal 2:</u> Promotion of green and blue growth, contributing to the restructuring of the economy.	<u>Strategic goal 3:</u> Protection of the environment and promotion of the efficient use of resources	<u>Strategic goal 4:</u> Reduction of greenhouse gas emissions, adaptation to climate change and prevention of risks	<u>Strategic goal 5:</u> Improvement of services provided in relation to food safety and public health	<u>Strategic goal 6:</u> Strengthening of international and regional co operations in order to face common challenges	<u>Strategic goal 7:</u> Enhancing the effectiveness and improving the efficiency of the Ministry's Departments and Services
of natural resources in the agricultural sector and promoting climate smart agriculture							
<u>Objective 3:</u> Improving the quality and safety of food and feed, and reduction of food losses and food waste							
<u>Objective 4:</u> Improving the efficiency and effectiveness of the Department of Agriculture							
VETERINARY SERVICES							
<u>Objective 1:</u> Ensuring the supply of quality and safe food of animal origin for consumers							
<u>Objective 2:</u> Application of sustainable animal farming practices as regards animal health and animal welfare							

MINISTRY OF AGRICULTURE, RURAL DEVELOPMENT AND ENVIRONMENT	<u>Strategic goal 1:</u> Agricultural economy reform and enhancement of its competitiveness	<u>Strategic goal 2:</u> Promotion of green and blue growth, contributing to the restructuring of the economy.	<u>Strategic goal 3:</u> Protection of the environment and promotion of the efficient use of resources	<u>Strategic goal 4:</u> Reduction of greenhouse gas emissions, adaptation to climate change and prevention of risks	<u>Strategic goal 5:</u> Improvement of services provided in relation to food safety and public health	<u>Strategic goal 6:</u> Strengthening of international and regional co operations in order to face common challenges	<u>Strategic goal 7:</u> Enhancing the effectiveness and improving the efficiency of the Ministry's Departments and Services
DEPARTMENT OF FORESTS							
<u>Objective 1:</u> Protection of Forests against fires and other agents							
<u>Objective 2:</u> Protection of biodiversity and other ecosystem services							
<u>Objective 3:</u> Enhancement of forest recreation and other socio-economic functions							
<u>Objective 4:</u> Improvement of the policy framework, productivity and education							
WATER DEVELOPMENT DEPARTMENT							
<u>Objective 1:</u> Satisfy the water needs of all uses to the maximum extent possible							

MINISTRY OF AGRICULTURE, RURAL DEVELOPMENT AND ENVIRONMENT	<u>Strategic goal 1:</u> Agricultural economy reform and enhancement of its competitiveness	<u>Strategic goal 2:</u> Promotion of green and blue growth, contributing to the restructuring of the economy.	<u>Strategic goal 3:</u> Protection of the environment and promotion of the efficient use of resources	<u>Strategic goal 4:</u> Reduction of greenhouse gas emissions, adaptation to climate change and prevention of risks	<u>Strategic goal 5:</u> Improvement of services provided in relation to food safety and public health	<u>Strategic goal 6:</u> Strengthening of international and regional co operations in order to face common challenges	<u>Strategic goal 7:</u> Enhancing the effectiveness and improving the efficiency of the Ministry's Departments and Services
<u>Objective 2:</u> Promote the efficient use of water resources							
<u>Objective 3:</u> Safeguard the quality and protect the water resources and aquatic environment							
<u>Objective 4:</u> Enhance the efficiency and effectiveness of the services provided by the Department, focusing on better public service							
GEOLOGICAL SURVEY DEPARTMENT							
<u>Objective 1:</u> Development of geological knowledge							
<u>Objective 2:</u> Development of the knowledge for groundwater resources and contribution to their development, monitoring and protection							

MINISTRY OF AGRICULTURE, RURAL DEVELOPMENT AND ENVIRONMENT	<u>Strategic goal 1:</u> Agricultural economy reform and enhancement of its competitiveness	<u>Strategic goal 2:</u> Promotion of green and blue growth, contributing to the restructuring of the economy.	<u>Strategic goal 3:</u> Protection of the environment and promotion of the efficient use of resources	<u>Strategic goal 4:</u> Reduction of greenhouse gas emissions, adaptation to climate change and prevention of risks	<u>Strategic goal 5:</u> Improvement of services provided in relation to food safety and public health	<u>Strategic goal 6:</u> Strengthening of international and regional co operations in order to face common challenges	<u>Strategic goal 7:</u> Enhancing the effectiveness and improving the efficiency of the Ministry's Departments and Services
<u>Objective 3:</u> Development of knowledge for mineral resources and rehabilitation of the environment in mining areas							
<u>Objective 4:</u> Strengthening the safety of citizens and natural environment from geohazards							
DEPARTMENT OF METEOROLOGY							
<u>Objective 1:</u> Provision of certified and harmonised meteorological and climatological services							
LAND CONSOLIDATION DEPARTMENT							
<u>Objective 1:</u> Improving the agricultural utilization conditions and the infrastructure for sustainable rural development							

MINISTRY OF AGRICULTURE, RURAL DEVELOPMENT AND ENVIRONMENT	<u>Strategic goal 1:</u> Agricultural economy reform and enhancement of its competitiveness	<u>Strategic goal 2:</u> Promotion of green and blue growth, contributing to the restructuring of the economy.	<u>Strategic goal 3:</u> Protection of the environment and promotion of the efficient use of resources	<u>Strategic goal 4:</u> Reduction of greenhouse gas emissions, adaptation to climate change and prevention of risks	<u>Strategic goal 5:</u> Improvement of services provided in relation to food safety and public health	<u>Strategic goal 6:</u> Strengthening of international and regional co operations in order to face common challenges	<u>Strategic goal 7:</u> Enhancing the effectiveness and improving the efficiency of the Ministry's Departments and Services
MINES SERVICE							
<u>Objective 1:</u> Ensure the sustainable management of mineral deposits							
AGRICULTURAL RESEARCH INSTITUTE							
<u>Objective 1:</u> Intelligent development of the primary sector, contribution to climate smart agriculture, sustainable management of natural resources and protection of the environment							
DEPARTMENT OF FISHERIES AND MARINE RESEARCH							
<u>Objective 1:</u> Sustainable management of fisheries							
<u>Objective 2:</u> Sustainable development and promotion of aquaculture within the framework of blue growth strategy and							

MINISTRY OF AGRICULTURE, RURAL DEVELOPMENT AND ENVIRONMENT	<u>Strategic goal 1:</u> Agricultural economy reform and enhancement of its competitiveness	<u>Strategic goal 2:</u> Promotion of green and blue growth, contributing to the restructuring of the economy.	<u>Strategic goal 3:</u> Protection of the environment and promotion of the efficient use of resources	<u>Strategic goal 4:</u> Reduction of greenhouse gas emissions, adaptation to climate change and prevention of risks	<u>Strategic goal 5:</u> Improvement of services provided in relation to food safety and public health	<u>Strategic goal 6:</u> Strengthening of international and regional co operations in order to face common challenges	<u>Strategic goal 7:</u> Enhancing the effectiveness and improving the efficiency of the Ministry's Departments and Services
common fisheries policy							
<u>Objective 3:</u> Protection and conservation of the marine environment							
<u>Objective 4:</u> Improvement of coastal areas with local participation							
DEPARTMENT OF ENVIRONMENT							
<u>Objective 1:</u> Climate change mitigation and adaptation							
<u>Objective 2:</u> Environmental protection							
<u>Objective 3:</u> Resource efficiency							
<u>Objective 4:</u> Enhancing the institutional capacity and improving the effectiveness of the department							

CENTRAL ADMINISTRATION

OBJECTIVE 1: POLICY MAKING AND COORDINATION OF THE MINISTRY'S DEPARTMENTS IN THE AREAS OF AGRICULTURE, RURAL DEVELOPMENT AND ENVIRONMENT

STATE OF PLAY

The Ministry of Agriculture, Rural Development and Environment of Cyprus has a dual role, the parts of which appear to be rather conflicting. The Ministry aims towards an advanced agricultural sector and promoting rural development, while at the same time protecting the environment and natural resources. This is a challenge the Central Administration has to overcome via coordination and monitoring of the work of Line Departments, the objectives of which result from the key policies set by the Minister.

Agriculture and Rural Development

The farming sector has traditionally been an important productivity sector of the economy of the country. Through time and due to the changes both in the economic environment (accession to the EU, trade liberalization) and the social structures, the importance of the agricultural economy has diminished. The agricultural economy has failed to follow the rapidly changing conditions. There is, therefore, a need to formulate and coordinate policies that modernize the sector, whilst taking into consideration the needs of the main stakeholders, i.e. farmers, EU institutions and society. Within this framework, the role of the Central Administration focuses on of advocating such policies at high-level political discussions with the Members of the Parliament and the Council of Ministers, who are the final decision makers. Hence, it is imperative to enhance coordination with Line Departments to prepare and present thorough proposals that maximize prosperity and minimize adverse reactions.

The production model needs to be reconsidered, taking into account the current situation of the available production factors. Water resource is under scarcity, given that Cyprus frequently faces drought conditions. On the other hand, the significance of the recycled water in the water balance has increased. The market perspectives of the main agricultural products need also to be taken into consideration. There is a need, therefore, to minimize dependence on scarce resources, such as water and energy, and on imports. Such projects will be executed by Line Departments and/or third parties (public and private). The Central Administration should ensure that cohesive and coherent policies and projects are developed, which eliminate the main economic problem of scarce resources and unlimited needs.

Income fluctuations is one of the main problems farmers have to face. Given that the marketing of profitable prices of the produce is not guaranteed, the planning of the production process is difficult and risky. The state support transferred to farmers / fishermen over time acted as a deterrent to the development of the agricultural economy. The scope of the activities of farmers has not changed substantially to a business basis and the survival of the agricultural sector was heavily dependent on state support. The Common Agricultural Policy (Pillar I (Direct Payments) and Pillar 2 (RDP 2014-2020)) is the basic tool for solving basic structural problems and for improving competitiveness in the agricultural sector. Under the RDP 2014-2020, €240.6 million will be spent for the farming sector, including €108.4 million from national funds. It is noted that, since 2014 the Managing Authority of the RDP has been transferred to the Central Administration, allowing the Central Administration not only to monitor, but also to manage the RDP 2014-2020. Moreover, within the framework of reforming and strengthening the competitiveness of rural economy, the aquaculture sector considers to be very significant, given that it is the third most important sector of the primary production in the value of products exported and it accounts for 75-80% of the total national fisheries production in quantity. The main problem, however, aquaculture sector faces is the absence of infrastructure. The European Maritime and Fisheries Fund 2014-2020 will give the opportunity to the

Ministry to invest in the development of aquaculture, so as to improve competitiveness and promote economically, socially and environmentally viable enterprises. Nevertheless, the Central Administration needs to oversee financing opportunities closely and develop a dynamic mechanism for coordination of inter-departmental and inter-ministerial projects to maximize utilization of EU and other funds. Furthermore, such a mechanism will assist in prioritizing proposals, based on the key policy priorities set by the Government.

One of the major characteristics of Cyprus agriculture is that the largest part of primary production comes from small scale family farms, working under strict European standards. Consequently, supporting the competitiveness of family farms is of high importance. Market perspectives of the main agricultural products need also to be taken into consideration. The Central Administration needs to monitor closely the work of Line Departments and enter into negotiations and agreements that will benefit the sector and increase its competitiveness.

Increased emphasis should be given on ensuring food safety and quality of agricultural products. The main processed agricultural product exported from Cyprus is halloumi, a type of cheese, for which recently an application has been submitted to the European Commission for its registration as a product of Protected Designation of Origin (PDO). There is a need to support its production and secure the availability of raw materials, in order to strengthen its market position. The success in marketing halloumi as a PDO product demonstrates how the agricultural sector can establish a unique identity for its products; nevertheless there is a need to establish more Cypriot high quality products, to enhance competitiveness and attract premium prices for their production. Despite the fact that the technical aspects of such an initiative will be covered by Line Departments, important work should be carried out at a higher level, including public consultations with interested parties, to ensure all stakeholders will benefit, where possible.

The limited available agricultural land acts as a bottleneck to the development of rural economy. Therefore, more emphasis should also be given on enhancing the use of the country's fertile land as a valuable and limited asset of special importance, especially in times of financial crisis, and guarantee the use of unexploited land as a resource in the primary production.

Furthermore, the countryside can provide business activities beyond food production and create alternative sources of employment. Troodos Area has been recognized as a region with special environmental, social and cultural characteristics and as such, has the potential for sustainable development. At the same time, it is noted that significant public property in the area has not been used nor developed for a long time.

Environment and Natural Resources

The protection and enhancement of the environment is an obligation stemming from both legislation and the State's commitment to retaining the non-use value of natural resources. At the same time, the use of the environmental advantages of Cyprus can contribute to the economy by considering the environment from a new perspective and recognizing the potential of the environmental particularities of Cyprus.

The efficient use of natural resources, such as water, forests and mineral resources, is of high priority, emanating from EU environmental legislation and the need to use them sustainably, so as to ensure their long term contribution to the national economy. Of particular importance is the efficient use of all available water resources (conventional and non-conventional) since its scarcity is expected to be worsened by the effects of climate change. Cyprus, being an island, is characterized by a unique natural habitat, which is a valuable heritage that needs to be protected. Simultaneously, important synergies can be found in the protection of the country's habitat and activities that contribute to the economic development. The appropriate management of both domestic and industrial waste, solid and liquid, will protect the environment while contributing to the economic growth. New fields of entrepreneurship in the area of environmental protection, that were previously neglected,

have sprung-up as a result of laws and policies that have been implemented over the last 10 years. A mechanism to identify and benefit from such synergies and new fields of entrepreneurship needs to be developed by the Central Administration in collaboration with the relevant Line Departments.

One of the most important pillars of the policy in environmental protection is climate change and the measures that need to be taken for both mitigation but, probably, even more importantly, for adaptation. The effects of climate change are horizontal, but they are more profound in the activities of this Ministry as they affect agriculture, water and biodiversity. Proper communication of mitigation and adaptation policies to Line Departments has to be in place to ensure horizontal cohesive and coherent tools are used by Line Departments.

In parallel to the protection of the environment and natural resources, sustainable development can be achieved via policies that address all of its three pillars, i.e. social, economic and environment. It is therefore imperative that the policies to be developed under this objective should be targeted to the protection of the environment while at the same time, through synergies with other government policies, achieve a socially inclusive society and economic development. These policies, aiming at supporting green and blue growth, are set by the Central Administration, while relevant initiatives are realized by Line Departments.

ACTIVITIES

1.1. Policy-making, coordination, monitoring, evaluation and supporting the implementation of relevant national strategies

In order to ensure the coherence and cohesiveness of the Ministry's policies the Central Administration is responsible for the policy-making, the coordination of the activities of Line Departments and the coordination with other Ministries. At the same time the Central Administration monitors, evaluates and provides support to the Line Departments in all areas of its competence.

The main priorities include the following:

- Redefining the agricultural production model taking into account various production factors (water, recycled water, land, labour and capital) and the market perspectives of the main agricultural products
- Climate Smart Agriculture and in particular in the examination of the possibility for the introduction of new technologies in agriculture (hydroponic and aeroponic agriculture), so as to minimize dependence on scarce resources (such as energy and water), to decrease dependency on imports
- The establishment of an efficient Land Banking system
- The promotion of agricultural production based on a contract between the producer and the buyer aiming to address the problem of income fluctuations in farming (Contract farming)
- The development of a strategy for the promotion of family farming
- The development of a strategy, including infrastructure and support measures, for differentiating production towards the goat- sheep milk production, and increasing the overall production of goat-sheep milk to support the production of traditional dairy products and especially halloumi
- The investigation of the possibility to introduce a National Quality Certification mechanism for traditional raw and processed agricultural products. Registration of more products under the European quality schemes, such as PDO, PGI etc
- Design of a system to assist farmers to minimize risk
- The investigation and registration of the public property at Troodos Area, which has been underused for a long time and which can be exploited for sustainable development
- The implementation of schemes to support sustainable productive investments in aquaculture
- Ensuring food safety and quality of agricultural products
- Minimizing food losses and waste
- The operation of the cereals market
- Safeguarding and restoring the environment (soil, surface and groundwater)

- Maintaining, protecting and improving the country's habitat
- Sustainably and efficiently utilizing all natural resources, with special attention to all available water resources
- Identifying and implementing mitigation and adaptation measures in relation to climate change
- Promoting policies and measures that lead to resource efficiency
- Supporting the implementation of the national green economy action plan
- Supporting blue growth
- Promoting and developing synergies between environmental and development government policies.
- Promoting Circular Economy and efficient Waste Management

1.2. Management of the Rural Development Programme and Monitoring and Evaluation of other National and / or EU Co-financed Schemes

The Central Administration is responsible for the management of the Rural Development Programme through the Managing Authority. In addition, it monitors and evaluates the progress of national and/or EU Co-financed schemes implemented by the line Departments, through different tools, and promotes effective and maximum use of EU funds.

OBJECTIVE 2: STRENGTHENING INTERNATIONAL AND REGIONAL COOPERATION

STATE OF PLAY

The Ministry of Agriculture, Natural Resources and Environment advances bilateral relations with the respective Ministries and services of other countries. These are dictated by the priorities of the foreign policy of the Republic of Cyprus, as well as the respective principles of the European Union and the international community rules and practices.

Bilateral relations are based on the needs and challenges of the broader agricultural/rural sector, the environment and the natural resources, which the Ministry believes can be handled within the context of closer relations and cooperation with the respective Ministries of other countries. In general, emphasis is given to the exchange of scientific and technical information and experience, in education and in supporting research programmes on issues of mutual interest.

The Ministry of Agriculture, Natural Resources and Environment has signed a number of Memoranda of Understanding (and / or Programs of Cooperation) for bilateral cooperation with other countries and promotes co-operation agreements at regional level for the protection of the environment, particularly the marine environment in the context of related research activities and the exploitation of hydrocarbons.

The Ministry also coordinates matters related to the cooperation with International Organizations (FAO, IFAD, WFP, UNEP, UNECE), International Treaties, of which Cyprus is a member (the Barcelona Convention, CBD, RAMSAR, UNFCCC, CITES, BERN, UNCCD), as well as to the national positions expressed by the Permanent Delegation of the Republic of Cyprus in New York under the ECOSOC and matters related to cooperation with third countries on the basis of the development principles of the European Union.

Additionally, the Ministry coordinates the Meetings of Intergovernmental Committees between Cyprus and other Countries, for Economic, Industrial and Technological Cooperation relating to the broader agricultural, natural resources and environmental sectors.

ACTIVITIES

2.1. Promotion of the positions of the Ministry of Agriculture, Natural Resources and Environment at the European and International level

The Ministry of Agriculture, Natural Resources and Environment in cooperation with the Ministry of Foreign Affairs engages into bilateral relations with other countries in the areas of its competencies.

The Central Administration sets the policy and coordinates the contribution of line Departments to the agreements with other countries, ensuring policy coherence, while aiming at growth and strengthening of the know-how.

2.2. Strengthening the participation in the EU and International Organizations /International Treaties

The Central Administration sets the policy and coordinates the activities of the line Departments at EU and International Organizations, effectively ensuring the interests of the Republic and further strengthening its position among the partners within and outside the EU.

OBJECTIVE 3: ENHANCING THE EFFECTIVENESS AND IMPROVING THE EFFICIENCY OF THE MINISTRY

STATE OF PLAY

The Economic Adjustment Program has made it imperative for Cyprus to have structural reform in the institutional framework, as well as reform of the services provided to citizens by the Public Sector. The State should be modernized aiming at the effectiveness and the efficiency of the Public Service.

According to the Action Plan for the Reform of the Ministry, the Central Administration personnel has to increase in number so as to achieve a higher productivity in qualitative and quantitative terms. The operational procedures of the Ministry must be reformed so as to face the new socioeconomic conditions, further enhance its role in policy making and modernize and improve the institutional framework and services.

According to the Council of Ministers Decision no.75.481 dated 10.7.2013, the Ministry established an Internal Controls Unit aiming the improvement of the operations and structures of the Ministry. The Unit's responsibility is the preliminary, preventive and at the same time ex-post control towards the line Departments and the Central Administration in order to reinforce effectiveness and improve their efficiency.

It is also envisaged that the current system of communication among the Central Administration, the line Departments and the citizens, will be upgraded through an office automation system and e-governance. This is anticipated to accelerate the implementation of decision making as well as to increase productivity.

Also in the framework of being responsive to citizens' needs, the establishment of Citizens' Service Centers for Rural Affairs (One Stop Shop) is in progress, aiming to provide further support to farmers and easy access to all information related to European Funds as well as information for all issues within the Ministry's competencies. The One Stop Shop is an initiative of the Central Administration implemented by the Department of Agriculture.

ACTIVITIES

3.1. Strategic Plan and Activity-Based Budget

The Central Administration coordinates the line Departments for the preparation of the 3-year strategic plan, the Medium-term Budgetary Framework and the Activity-Based Budget and monitors and evaluates their implementation.

3.2. Restructuring of the Ministry

The Central Administration is in the process of internal restructuring. As a response to the Action Plan for the Reform of the Ministry, the Central Administration is reinforced with the creation of 3 Directorates: the Rural Development Directorate, the Strategy Planning and Horizontal European Affairs Directorate and the Environment Directorate. For this reason, officers from the Ministry's Departments are seconded to the Central Administration. Further, the Central Administration coordinates the line Departments during their restructuring process, in accordance to the Action Plan for the Reform of the Ministry and in an attempt to simplify procedures and reduce administrative burdens.

3.3. Internal Control Unit

The Internal Control Unit will identify the current status as regards the procedures followed by the line Departments, will introduce new procedures or amend existing ones and ensure the harmonization of procedures applied in all line Departments for horizontal issues. The Unit will carry out random or targeted audits of line Departments to ensure compliance.

3.4. Strengthening communication with line Departments and citizens, as well as the participation of citizens in the decision making process

The Central Administration coordinates the activities of line Departments for the participation of citizens in the decision making process through public consultation of new legislation and policies. Further, the Central Administration coordinates the actions of line Departments for the provision of information to citizens, such as the establishment of a One Stop Shop for Farmers, which will be launched by the Department of Agriculture but under the supervision and final decision making of the Central Administration, and the implementation of e-governance.

Moreover, work is in progress for the introduction of an office automation system, that will upgrade the communication between the Central Administration and line Departments, accelerating the implementation of decision making and increasing productivity.

DEPARTMENT OF AGRICULTURE

OBJECTIVE 1: FOSTERING THE COMPETITIVENESS OF AGRICULTURE

STATE OF PLAY

The Cyprus economy particularly from the year 2000 until today, is characterised by the growth of the tertiary (services) sector and the downsizing of the other two sectors of the economy. Indicative of this trend, is that agriculture contributes about 2.1 % to the GDP and employs around 5 % of the workforce (Census of Agriculture, 2010).

Although the agricultural income increased over the period 2000-2002, with the accession of Cyprus to the EU in 2004 and the implementation of the Common Agricultural Policy (CAP), the trend thereafter was reversed. The reduction was quite substantial in recent years, especially for small Agricultural Farms (AFs), which demonstrates the need for redesigning of Cypriot agriculture, with emphasis on improving the competitiveness of Cypriot agriculture and the exploitation of comparative advantages (high quality, early season products, etc.). This outcome emerged mainly from the study "Impacts of the accession of Cyprus to the EU and the future dynamics of the Cypriot agricultural sector" (Ministry of Agriculture, Natural Resources and Environment, 2010).

To exploit the comparative advantages of Cypriot agriculture, high added value agri-food products are promoted, such as quality products (products with Protected Designation of Origin (PDO) and Protected Geographical Indication (PGI)), as well as organic products. In relation to the PGI and PDO, two products have already been registered as PGIs, the Loukoumi Yeroskipou and the Koufetta Amigdalou Yeroskipou. Concerning Halloumi (PDO) and Pafitiko Loukaniko (PGI), the dossiers have been sent to the EC for examination. Dossiers of other products are to be submitted to the EC in the near future.

The sector of Organic Farming has been developed rapidly during the last years. Organic farmers in 2013 reached 746 in number and the cultivated area of organic farming exceeded 4.300 hectares (3.27% of total utilized agricultural area). The competitiveness of the agricultural sector and the productivity of the AFs depend to a large extent on their structural characteristics. In 2010, according to the Census of Agriculture (2010), there were 38.859 AF compared to 45.200 in 2003, while the average size of the AFs remained at three (3) hectares. It is noted that the total utilized agricultural area decreased by 24% compared to 2003. Additionally in 2010, 81% of the AFs had a size of less than 3 hectares which occupied 22% of the utilized agricultural land, while the remaining 19% of the AFs were larger than 3 hectares and occupied 78% of utilized agricultural land. The aforementioned structural trend can be attributed to the change in the operational framework of the agricultural sector after Cyprus accession to the EU, which led to the reduction of protectionism, the abolition of price support, the decoupling of support from production, the decrease of prices and subsidies, the increase of input costs, the opening of markets, which led the agricultural sector to operate in a highly competitive environment. Last but not least, factors such as frequent droughts and climate changes which have adverse effects, have been affecting severely the competitiveness of the agricultural sector.

Concerning the age structure, the average age of farmers in Cyprus is 59 years compared to 54 years in 2003 (Census of Agriculture 2010). Furthermore, 62 % of those employed in agriculture are over 55 years old and only 3 % are under 35 years old. Another aspect that constitutes one of the main structural problems of the Cypriot agriculture is the very low percentage of farmers with vocational education and training. More particularly, the majority of farmers (94%) have only practical experience, 5% have a basic agricultural training, whereas only 0.4% have full agricultural training.

Since 2004, the CAP is the basic tool for improving competitiveness in the agricultural sector in Cyprus. The main objectives of the CAP are to offer to consumers the opportunity to enjoy safe food at affordable prices and to farmers a fair and decent income. To achieve these objectives, the CAP is mostly directed towards strengthening

the competitiveness and sustainability of agriculture and sustainable development of rural areas. The new Rural Development Programme (RDP) 2014-2020 is the tool for implementing measures to strengthen competitiveness, which aim to boost investments, productivity growth and incentives for young farmers, by improving the age structure and vocational education and training (SWOT Analysis of the RDP 2014-2020).

The two Pillars of the CAP, concern:

- (1) the Direct Payments (DP) to farmers (area payments scheme) and the Single Common Markets Organisation (SCMO), through the implementation of various measures (Pillar 1) and
- (2) The implementation of RDP (Pillar 2). For the RDP, the competent national managing authority is the Ministry of Agriculture, Rural Development and Environment and in the implementation process the following departments are involved: the Department of Agriculture (DoA), the Department of Environment and the Department of Forests. Also the Ministry of Energy, Commerce, Industry & Tourism and the Ministry of Interior are involved in the implementation process.

ACTIVITIES

1.1. Implementation of Community and of National Projects / Programmes in the agricultural sector

A. Implementation of Community Programmes - CAP:

- (1) Policy making recommendations and monitoring regarding the DP for farmers as well as participation in the relevant committees at Community level. The DP are fully funded by the EC and the payments are made by the Cyprus Agricultural Payments Organisation (CAPO).
- (2) Coordination, drafting and implementing of various measures of the RDP as well as participation in the relevant committees at Community level. The RDP is co-financed by the EC and the payments are made by the CAPO.
- (3) Coordination, preparation and implementation of various measures of the SCMO such as the National Support Program for Viticulture, the Apiculture Program, etc. as well as participation in the relevant committees at Community level. The SCMO are mainly co-financed and the payments are made by the CAPO.

B. Implementation of National Plans/ Programs:

- (1) Policy making recommendations, coordination and monitoring of state aid, including guidelines for state aid, de minimis aid and agriculture block exemption regulation in agriculture. Implementation of state aid programmes, which are financed by national funds and for which the payments are made by the DoA or other organizations (such as the Agricultural Insurance Organisation, the CAPO, etc.).
- (2) Provision of expertise and advisory support through the implementation of development programs for the agricultural sector (e.g. horticulture, viticulture, cereal production of certified seed and livestock production), to improve the management and productivity of the AFs. These programs are financed by national funds and the payments are made by the DoA.

1.2. Promotion of the Certification of Quality Products (e.g. PDO, PGI, Organic etc)

A. Protected Geographical Indication (PGI) and Protected Designation of Origin (PDO)

- (1) Registration process for a PDO or PGI to the EC: Application submitted by the producers, examination at national and Community level and if the provisions of the relevant legislation are met, the name of the

product is registered.

(2) Promotional measures: Implementation of the various RDP Measures in order to promote quality products as well as the description/ identification of traditional products. In order to encourage the registration of PGO/ PGI, the DoA cooperates with a number of research institutions, such as Agricultural Research Institute and the Cyprus University of Technology.

B) Organic Agriculture

(1) Registration procedure to the Organic Production Business Registry: Interested producers must sign a contract (for control purposes) with an approved Control Body (CB) and then submit an application to the DoA to be registered, provided they comply with the minimum requirements.

(2) Promotional measures - Drafting and implementing Measures through the RDP, among others, for the promotion and development of organic agriculture.

1.3. Education, training and advisory services

- (1) The DoA through the Measure "Vocational training and information actions" of the RDP provides training to farmers.
- (2) As regards to the provision of technical and advisory services, the DoA provides information and advice to farmers, both from its headquarters as well as from its six District Agricultural Offices. This advice is provided through personal contacts, either in the agricultural holdings (on the spot) or in the DoA's offices or via telephone.
- (3) The DoA also conduct seminars, trainings, conferences and evening lectures in community centres. The DoA is also issuing printed material such as the quarterly magazine "Countryman", information booklets, newspaper articles, and announcements.
- (4) Information and advice is also provided on both the DoA's and the National Rural Network websites, via sms, and also through audiovisual material (television and radio).
- (5) Finally, within the technical training framework, the DoA's Agricultural Education Centres (KEGE) organise "apprenticeship schemes".

1.4. Promotion of family farming

Preparation of action plan for the promotion of family farming.

1.5. Creation of One Stop Shop for Farmers

The creation of an One Stop Shop will provide support to farmers and easy access to all involved to information related to European Funds as well as information on all issues within the Ministry's competencies. This initiative of the Central Administration is implemented by the Department of Agriculture.

OBJECTIVE 2: ENSURING THE SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES IN THE AGRICULTURAL SECTOR AND PROMOTING CLIMATE SMART AGRICULTURE

STATE OF PLAY

It is estimated that agriculture alone (excluding forests) utilises some 130.000 hectares (23 % of the total area of Cyprus controlled by the Republic of Cyprus).

Farming practices have generally positive, but also some negative effects on the environment. The farmer is no longer only a food producer, but is also called upon to contribute to preventing the degradation of soil resources, preserving biodiversity, protecting and preserving water resources and limiting the consequences of climate change through agricultural practices.

Regarding natural resources, soil delivers services essential to human needs and ecosystems survival. Soil is a non-renewable resource and is a system which performs functions in a degrading manner that will further deteriorate, if no protective actions are taken. For the protection of soil, the Republic of Cyprus has adopted in 2002 the Law of Use of sludge in agriculture (harmonized with EU Directive 86/278 / EEC), which sets the annual limits of heavy metals to be introduced in the agricultural soils.

Also, for the protection and recovery of aquifers, due to the climate change and the overpumping of groundwater which led to the qualitative and quantitative degradation of aquifers, the European EEC Directive 2000/60 has been adopted.

Furthermore, nitrate pollution of groundwater and surface waters is a complex phenomenon which is mainly caused by the agricultural activities. The obligation to protect waters from nitrate pollution stems from the relevant Directive (91/676/EEC), relating to agricultural activities. For the compliance with this Directive, the Republic of Cyprus has issued the Water Pollution Acts 2002 to 2013 (Nitrates from Agricultural Sources and Action Programme for Protection of Vulnerable Zones from Nitrates), as well as the Decree of 2014 (Κ.Δ.Π. 281/2014) and the Code of Good Agricultural Practice Order of 2007 (Κ.Δ.Π. 263/2007).

The poor function of livestock holdings and the improper management of large volumes of livestock waste have resulted in environmental pollution of groundwater aquifers. Thus pursuant to the Decree for the cow-livestock units (Κ.Δ.Π 433/2006), the farmers have the obligation to build watertight platforms for storage of solid manure. Similarly the pig farmers are obliged to have the Waste Disposal Piggens which process the wastes from swine breeding with mechanical separation (Κ.Δ.Π 737/2003).

The CAP gives particular emphasis on the sustainable management of natural resources and environmental protection by providing incentives for environmentally friendly farm practices. For the first time, the compulsory application of cross-compliance and the greening component of Pillar 1 under DA, and together with the voluntary agri-environmental measures under Pillar 2 of rural development, promote environmentally-friendly practices and actions to tackle climate change. More specifically, these actions include systems of crop rotation, Integrated Production Management and organic farming, which result in improvement of groundwater aquifers, improvement of the structure, chemical composition and soil fertility, preservation of biodiversity etc.

ACTIVITIES

2.1. Promoting Climate Smart Agriculture and Green Growth through planning and applying projects and measures for the protection and conservation of natural resources and the environment, as well as management methods in the production process that are beneficial to the environment

A. Implementation of Community Programmes - CAP:

- (1) Policy making recommendations and monitoring regarding DP for farmers, which is specific to practices beneficial for the climate, the natural resources and the environment. The DP are fully funded by the EC and the payments are made by the CAPO.
- (2) Coordination, drafting and implementing of Agri-environmental Measures of the RDP. The RDP is co-financed and the payments are made by the CAPO.
- (3) Incorporating EU Directives in to the national Law, regarding the provisions of cross-compliance, which is the basis for subsidies in the agricultural sector.

B. Implementation of National Plans/ Programs:

(1) Planning and management of projects and Measures for the protection and conservation of natural resources and the environment (Plan for reactivation of affected farmers and environmental restoration in fire-stricken areas, Demolition / Relocation of Intrusive Livestock Buildings, Rat Project, etc.). These plans are financed by national funds.

OBJECTIVE 3: IMPROVING THE QUALITY AND SAFETY OF FOOD AND FEED, AND REDUCTION OF FOOD LOSSES AND FOOD WASTE

STATE OF PLAY

The DoA carries out checks under National and Community legislation mainly on plants, plant and animal products, fruits and vegetables and food and feedstuffs, giving emphasis to high risk products. Though, to a large extent, legislation is effectively implemented, there is a need for further simplification of the relevant regulatory framework as well as registering of all existing procedures for auditing the relevant legislative measures. Nevertheless, the availability of resources for carrying out these controls still remains an important factor for the successful implementation of this objective.

The DoA, as the Competent Authority for the control of feedingstuffs imported or circulated in the territory of the Republic of Cyprus, takes all appropriate measures to safeguard the public health. The legal framework for the control of feedingstuffs consists of the Feedingstuffs and Feed Additives (Control of Quality, Supply and Use) Laws 13 (I) of 1993 to 2007 and the implementing Feedingstuffs and Feed Additives (Control of Quality, Supply and Use) Regulations and the Community Regulations (EC) No 178/2002 and 882/2004.

In the context of food and feed safety from the use of plant protection products and biocides, the DoA implements the Plant Protections Products Law of 2011, the Rational Use of Pesticides Regulations of 2012, the Pesticides (Selling, Producing and Storing) Regulations of 2003, the Biocides Law of 2014 and the Biocides (Professional Use of Biocides) Regulations of 2011. Standard operation procedures to carry out official controls are well documented with respect to the legislation on plant protection products, whereas this is not the case with respect to the official controls regarding the legislation on biocides products. **It should be noted that the number of inspections at farmers' level is very low.**

Furthermore, the DoA organizes on-side phytosanitary inspections according to annual programs, based on the plant health legislation (The Protection Measures against the Introduction and Spread of Organisms Harmful to plants and plant products Laws of 2003 to 2012) and plant propagating material legislation (through two national legislations: the Production and Marketing of Plant Propagating Material Laws of 2007 and 2011 and Seed Laws of 1998 to 2012), which are harmonized with the relevant EU acquis.

With respect to livestock subsectors, the DoA implements the classification of beef, pig and sheep carcasses, Law 276(I) of 2004 on the implementing specifications for the production, classification, labeling and marketing of edible eggs and Law 281(I) of 2004 on the production and use of eggs for hatching and poultry chicks.

As the Competent Authority on organic production and labeling of organic products, the DoA carries out controls and implements national and Community legislation (Regulation (EC) 834/2007, Regulation (EC) 889/2008, Regulation (EC) 1235/2008 and Law 227 (I) / 2004). Also the DoA, based on the Control System of Surveillance for Organic Production, adopts and implements the multiannual national control plan.

Despite the fact that the DoA has accredited laboratories which carry out the analytical work related to the safety and quality of food and feed, their field of accreditation must be broadened. On the basis of new Community legislation, accreditation of laboratories carrying out analyses for plant health control purposes is also required. Thus the main objective is to maintain the accreditation and ensure the effective implementation of the

procedures of the Quality System according to Standard EN ISO 17025, for the DoA laboratories for Quality Control Feed, Fertilizer and Leaf, Control Pesticide Residues, Wine and Spirits. At this time the DoA promotes the continuous expansion of the Laboratories' accreditation in other fields (phytosanitary) and/ or additional methods.

To reduce food losses and food waste, which is an important issue for the Food and Agriculture Organisation of the United Nations, the basic principles have been recently introduced and further actions are planned towards this objective.

ACTIVITIES

3.1. Application of national and community legislation, improvement of the regulatory framework and upgrading of laboratories

The DoA drafts, monitors and participates in the elaboration of legislation at Community level, applies Community and National legislation and carries out controls in the following topics:

(1) Feed Controls: The DoA regulates all issues relating to the import, preparation, packaging, labeling, marketing and use of all feed additives and premixes (except medicated feed), as well as the approval and registration of the establishments. It is noted that all necessary controls are implemented (aflatoxin B1 and salmonella), especially regarding the commitment for all high-risk materials (maize, maize gluten, cottonseed, etc.) coming either from third countries or from other EU Member States.

(2) Agrochemicals Controls: Controls in plant protection products and biocides, both in placing on the market and in terms of their use. Furthermore, the DoA sets the conditions and procedures for granting license to the plant protection products' retailer shops, salespersons, warehouses, factories, workshops and professional users of biocides.

(3) Phytosanitary and Quality Controls: Controls are carried out to consignments coming from third countries or other Member States or exported to third countries and in agricultural products transported from the occupied to the free areas of the Republic of Cyprus. Controls are also conducted on suppliers of plant propagating material. Moreover, post control of plant reproductive material including seeds of sowing is carried out. The DoA carries out surveys to confirm the absence of harmful organisms and implements Action Plans in case of detection of harmful organisms. Finally, controls are carried out in accordance with the provisions of Annex I of the EU Regulation 852/2004.

(4) Animal Products Inspections: Inspections are carried out in slaughterhouses, hatcheries and packaging units, as well as in supermarkets, butcheries, etc, for ensuring the quality of products and food security.

(5) Quality Product Controls (PGI, PDO, Organic): (a) The DoA carries out controls at producer processor and market level for all quality products. (b) Examination of applications and appeals on applications submitted for certification of products as a PDO/ PGI. (c) Finally, the DoA approves, monitors and supervises organic farming Control Bodies (CB).

Finally, the accredited laboratories carry out all the necessary analyses related to safety and quality of food and feed and aim at expanding their scope of accreditation. Their tasks are based on the implementation of the Community and national legislation, on the overall advisory role the DoA has towards Cypriot farmers and its contribution to research programs.

3.2. Measures to reduce food losses

The DoA promotes mainly information and training actions aiming at reducing food loss at the production, harvesting, transportation from the field, post-harvesting treatment and storage as well as at the consumption of agricultural and livestock products and foodstuffs.

VETERINARY SERVICES

OBJECTIVE 1: ENSURING THE SUPPLY OF SAFE AND HIGH QUALITY FOOD OF ANIMAL ORIGIN TO CONSUMERS

STATE OF PLAY

The Veterinary Services (VS) within the framework of ensuring a high level of protection of public health ensure the placing on the market of safe, high-quality food of animal origin and perform controls in all stages of the food chain from farm to fork.

To achieve this objective, the VS carry out on spot inspections to verify the compliance to the requirements of the relevant legislation. For the verification of the continuous compliance of the 496 approved establishments and the 4,766 registered establishments the VS carry out inspections and sampling for laboratory testing. An annual programme for inspection and sampling of approved and registered establishments is implemented. The frequency of inspection and sampling is determined after risk analysis for each establishment. In addition, inspections are carried out in premises where there is a suspicion or complain for illegal production, processing or distribution of food of animal origin.

VS is the competent authority for the approval and registration of new establishments for the production, processing and distribution of food of animal origin. The approval and registration is granted to an establishment following the application from the Food Business Operator and after on-spot inspections to verify the compliance to the requirements of the relevant legislation. In 2014, 67 applications were submitted for approval, of which 45 have already been examined and approved.

Moreover, the VS implement a programme for the monitoring and control of residues of veterinary medicinal products in products of animal origin. According to this programme 2,488 samples have been collected and tested in laboratories in 2013.

Controls of imported food of animal origin from third countries are carried out by VS in the two Border Inspection Posts and controls of intracommunity trade of food of animal origin are carried out on 10% of consignments.

For the achievement of the objective there is close cooperation internally between central level and regional level of VS and externally between the VS and Public Health Services of the Ministry of Health, which is the competent authority for the controls in retail level. The VS participate in the Food Safety Council with other Services relevant with the food safety like the Public Health Services, the State General Laboratory, the Department of Agriculture, Competition and Consumer Protection Services under the Ministry of Commerce, Industry and Tourism and Cyprus Consumers' Association

ACTIVITIES

1.1. Approval and registration of new establishments

Upon receipt of an application for approval from a food business operator, the VS make an on-site visit; The VS shall approve an establishment for the activities concerned only if the food business operator has demonstrated that it complies with the relevant requirements of food law; The competent authority may grant conditional approval if it appears that the establishment meets all the infrastructure and equipment requirements. It shall grant full approval only if it appears from a new official control of the establishment, carried out within three months of granting conditional approval, that the establishment meets the other relevant requirements of food law. If clear progress has been made but the establishment still does not meet all the relevant requirements, the VS may prolong conditional approval. However, conditional approval shall not exceed a total of six months

1.2. Control of approved and registered establishments

In order to verify continuous compliance with the provisions of food law legislation in approved and registered facilities and to improve services provided in the area of food safety, the VS is engaged in a number of activities, such as:

- Preparation and implementation of annual programmes, such as the on-site inspections and sampling of approved and registered establishments, the national programme for the monitoring and control of residues of veterinary drugs, the monitoring programme for antimicrobial resistance (AMR) and the national control programme for Salmonella.
- Laboratory testing, maintenance of the quality system of the Laboratory for the Control of Food of Animal Origin (LCFAO) and extension of its accreditation scope.
- More effective implementation of veterinary audits and inspections.

Preparation of Action Plan on better coordination of Divisions/Sectors/Veterinary District Offices for carrying out inspections, with a view to better use staff and official vehicles and targeted inspections and controls on the basis of risk analysis.

- Extension of use of technology through a) The use of e-mail as a means of handling documents, the use of electronic signature, the development of computer programs and the use of the internet for easier and faster public information, b) The upgrade of the level and type of the IT support which is availed at the Services in such a way so as to efficiently and holistically address our professional daily needs at office level as well as at farm/food establishment level which derive from the National European and international obligations.

1.3. Control of imports

Controls are carried out on imported food of animal origin from Third Countries and on the health certificates accompanying the consignments at the two Border Inspection Posts, operated by the VS in Larnaca airport and Lemesos port.

1.4. Identification and control of any illegal activities

The VS carry out inspections in premises where there is a suspicion or complains for illegal production, processing or distribution of food of animal origin.

1.5. Cooperation with other Competent Authorities in the area of food safety

The VS are subordinate to the Ministry of Agriculture, Rural Development and Environment and have close cooperation with the Department of Agriculture and the Ministry of Health and its associated control bodies, the Department of Public Health Services and the State General Laboratory .

The VS participate in the Food Safety Council together with the Public Health Services, the State General Laboratory, the Department of Agriculture, the Competition and Consumer Protection Services under the Ministry of Commerce, the Industry and Tourism and Cyprus Consumers' Association.

The Food Safety Council is responsible for the planning and coordination of the Multiannual National Control Plans for Food and Feed, which are implemented by the Competent Authorities of the Ministry of Health and the Ministry of Agriculture, Rural Development and Environment, for the risk assessment and the risk management, the data collection and evaluation related to the presence of risks (chemical, microbiological, biological) in

foodstuffs and the collection of food consumption data that arise from the applied controls, research projects and studies, and the introduction of scientific groups for dealing with specific issues related to food safety.

OBJECTIVE 2: APPLICATION OF SUSTAINABLE ANIMAL FARMING PRACTICES AS REGARDS ANIMAL HEALTH AND ANIMAL WELFARE

STATE OF PLAY

The application of sustainable, prudent and proper animal farming practices which are in conformity with the EU as well as the OIE standards and requirements is a timeless goal of the Veterinary Services in the framework of ensuring the animal health and welfare and in extent the quality and safety of the locally produced products of animal origin. This contributes to the strategic goal of the Ministry as regards the “Reform and reinforcement of the competitiveness of the rural economy” by increasing the competitiveness of the farming industry in combination with the concurrent decreasing of the production cost.

In reaching this objective, the Veterinary Services act in such manner so as to achieve and maintain a high level of animal health status, through the planning and implementation of programmes targeting a) the control/and or elimination of the animal diseases and zoonoses which are present in the island, as well as b) the prevention the entry and occurrence of new diseases, through the checks and inspections which are performed, at Border Inspection Posts level, on consignments of animals originating from third countries. The animal welfare provisions are also taken into consideration whenever such action is taken by the Veterinary Services.

The core programmes applied by the Veterinary Services are the ones for the Transmissible Spongiform Encephalopathies (BSE in bovines and Scrapie in sheep and goats), Brucellosis (in bovines, sheep and goats), Tuberculosis (in bovine animals) and Salmonellosis (in laying and breeding hens, broilers and turkeys).

Among the diseases included in the programmes and which have not been eliminated so far, are Scrapie and Salmonella. 736 sheep and goat holdings are currently under restriction due to Scrapie. As regards 2013, salmonella prevalence was 8.33 % and 7.5 % in breeding and laying hens flocks respectively, whereas for broilers and turkeys it was 0 %.

Concerning brucellosis, the disease has been practically eradicated in the sheep and goats population and the European Commission has assigned the Brucellosis Officially Free Status for the Sheep and Goats population to Cyprus through the Commission Implementing Decision 2015/129/EC. The Veterinary Services will continue working towards achieving the same (the declaration of Cyprus as Officially Free) for both brucellosis and tuberculosis in the bovine population.

In addition to the animal disease control programmes, disease surveillance programmes are applied, on a risk basis level, in the framework of either maintaining the officially free country status (e.g. Enzootic bovine leucosis in bovine animals) or confirming/monitoring the current situation (e.g. Aujeszky’s disease in pigs, foot and mouth disease in sheep and goats, bluetongue in sheep and goats). As regards the above the Veterinary Services cooperate, further to the European Commission, with the Animal Health and Welfare Action, European Research Group (ANIHWA ERA-Net) and the European Food Safety Authority (EFSA).

Further to the confirmed Scrapie resistant genotype for sheep, the Veterinary Services do carry out a study, ever since 2009, for confirming the presence of Scrapie resistant genotypes in goats; in the framework of the action plan for combating Scrapie in ovine and caprine animals. This study is financially supported by the European Commission and is carried out in collaboration with the Community Reference Laboratory for Transmissible

Spongiform Encephalopathies (CRL TSEs). On the same subject, the Veterinary Services cooperate with the Emerging and Major Infectious Diseases of Livestock Action (EMIDA), the European Research Group (EMIDA ERA-Net) and with the European Food Safety Authority (EFSA).

Due to the difficult financial situation and the consequent imposed constraints, the VS have focused on performing those laboratory checks which are considered as the minimum requirements for fulfilling legal obligations towards the EU and the OIE.

Furthermore, the procedures applied by the VS are not all standardized, nor are based on international quality standards.

IT support is available in the Service, but does not fully cover the needs of the Service. This is due to the fact that the existing equipment is obsolete to cover the current needs and the staff handling it is not fully trained on this subject.

ACTIVITIES

2.1. Implementation of programmes for monitoring, control and eradication of animal diseases and zoonoses

In the frame of ensuring animal health, the VS undertake a number of activities in relation to the implementation of programmes for monitoring, control and eradication of animal diseases and zoonoses, as indicated below:

- Animal identification, electronic registration of animals and holdings.
- Design and coordination of the implemented programmes, inspections and sampling in farms.
- Laboratory analyses, maintenance of the quality system of the Laboratory for Animal Health (LAH) and extension of its accreditation scope.
- Safe handling of animal by-products.
- Application of the prudent use and responsible management of the Veterinary Medicinal Veterinary products (VMPs) and medicated feeding stuffs (MF). This is achieved through a) Registration of VMPs b) Registration of Manufacturers/Wholesalers of VMPs and Manufacturers /Distributors of MF c) Official controls and inspections of Manufacturers/Wholesalers/Retailers and Manufacturers /Distributors of MF d) Implementation of Pharmacovigilance through their authorization/control of manufacture and marketing.
- Promotion of quality system in the whole range of the VS activities..

Preparation of Action Plan on better coordination of Divisions/Sectors/Veterinary District Offices for carrying out inspections, with a view to better use of staff and official vehicles and targeted inspections and controls on the basis of risk analysis.

- Extension of use of technology through a) The use of e-mail as a means of handling documents, the use of electronic signature, the development of computer programs and the use of the internet for easier and faster public information, b) The upgrade of the level and type of the IT support which is available at the Services in such a way so as to efficiently and holistically address our professional daily needs at office level as well as at farm/food establishment level which derive from the National European and international obligations.

2.2. Ensuring animal welfare

Implementing the relevant farm's and zoo's inspections programme in combination with reviewing and investigating of complaints as regards the violation of the existing legislation's provisions.

2.3. The dissemination of reports to the EU, the OIE, EFSA as well as national authorities and stakeholders, thus strengthening the cooperation at international and national level

Communication to the Ministry, the EU, the OIE and EFSA (Brucellosis, Tuberculosis, Salmonella, Scrapie) and other National or international organizations of the results and progress achieved as regards the implementation of related programmes. This is carried out on a systematic basis in accordance with corresponding legal obligations.

2.4 Cooperation with other Governmental Departments

Collaboration with other government departments, which are either directly or indirectly involved, as regards the proper implementation of the legal obligations for which shared competencies and responsibilities exist.

2.5. Dissemination of research results

Publication of results of the studies on TSE resistance in goats in Cyprus in scientific journals and reporting to the EC.

OBJECTIVE 1: EFFICIENT PROTECTION OF FORESTS AGAINST FIRES AND OTHER AGENTS

STATE OF PLAY

Forest and other wooded land (OWL) in the area under the effective control of the Republic of Cyprus cover an area of 318.830 ha or 54%, of which 123.197 ha or 21% is state forest and state OWL (the respective figures for the total area of Cyprus are 386.166 ha or 42% of which 157.768 ha or 17% is state forest and state OWL). They are an important national resource contributing significantly to the national economy and particularly to the rural and green economy by providing a series of economic, environmental and social benefits. The contribution to the GDP might be insignificant but the total annual economic value of all the benefits i.e. including the non-marketed ones is estimated to be about € 42.000.000 (based on the average value of € 133/ha for the benefits of Mediterranean forests as estimated in 2005). The annual revenue of the DoF is about € 5.000.000. Thus, the need for the preservation and protection of these areas is obvious.

Forests and OWL are threatened by various risks and pressures exerted from several directions and are constantly facing new challenges as a result of changing needs and demands of society and changes at local, regional and global level. The main risks, the forests of Cyprus are facing, are forest fires, biotic and abiotic factors, illegal logging and grazing, infrastructure building, the various kinds of development, etc.

The area of state forests is kept constant while the area of private forests was reduced during the last years due to fires and the pressure from development.

Fire is by far the most destructive single agent threatening forests and OWL. The fire hazard in Cyprus is extremely high especially during the summer period as a result of the prevailing climatic conditions (mainly the long, hot and dry summers), the nature of Cyprus forests (thousands of hectares of resinous pine trees), and the topographic conditions (the steep slopes). The fire hazard is further increased by the abandonment of rural areas.

For the reduction of the fire risk and the prevention of a fire outbreak, the Department of Forests (DoF) employs a series of separated but integrated programs. These are a prevention program, a fuel management program and a complex of activities that culminate in and support suppression. It has to be noted that the DoF is responsible for the suppression of fires that outbreak in state forests or at a distance of two kilometers from their boundaries. This is approximately equal to 52% of the total area of the island.

Forest fire statistics showed that, 9 out of 10 forest fires are human-caused mainly of negligence and to a lesser extend malicious. The main causes are agricultural activities like burning grass-gorse or stubble, throwing of burning cigarette ends or matches, lighting of fires in restricted areas, burning of wastes and garbage at non-authorized landfill sites, military exercises, hunting activities, residential activities like the use of electrical tools that cause sparks and burn of wastes, short-circuit of power lines. Lightnings is the main natural cause but insignificant.

The statistics also showed that in the last five years, the average annual number of forest fires (any outbreak or spreading of fire that burns forest or OWL) is 104 and the average annual total burned area is equal to 1450 ha (182 ha of forests and 1268 ha of OWL). The estimated annual average damage caused by these fires is approximately € 16.269.764. The comparatively small number of fires is largely the result of systematic patrolling and law enforcement by forest staff.

The importance of forest fire fighting is reflected on the budget (33% of the total annual budget) and by the number of permanent and seasonal staff involved in fire fighting. The Department has 309 forest officers, a fire squad of 466 (78 permanent and 388 seasonal) and 406 other laborers (69 permanent and 337 seasonal) ready to

get involved in firefighting. In addition, the Department has 43 large fire engines, 39 small fire engines and 2 light, single engine planes used in fire fighting.

Besides forest fires, a serious threat to forests is also posed by pests (insects and diseases), since they can cause extensive damage in case of epidemics. Besides the practical measures taken for the control of insects and diseases, the DoF implements the relevant EU Aquis Communautaire. The main abiotic factors stressing forests are drought and air pollution that cause necrosis or make forests vulnerable to other risks.

Illegal logging is another problem not only at national but also at EU and International level. Recently, and in the effort to implement the relevant EU Regulation, the Department has been designated as the competent authority for regulating the marketing of timber and timber products either domestically produced or imported from third countries.

The Statement of Forest Policy issued in 2013 and the new forest legislation adopted in 2012, provide the framework not only for the protection of state and private forests in Cyprus but also for the sustainable management of forests in Cyprus.

ACTIVITIES

1.1. Protection of forests against forest fires

Forest fire is the most destructive agent threatening Cyprus forest and OWL. Fires have important consequences on forest ecosystems like loss of vitality and productivity, timber value reduction, loss of biological diversity, desertification, soil erosion and degradation, loss of water quality and quantity, severe economic effects, damage to wildlife habitats, even loss of human life. The protection of forests against fires, especially during the prolonged dry and hot summers is the principal concern of the DoF.

The protection of forests against fires can be achieved through a number of activities, such as:

- preparation and implementation of fire protection plans,
- development and maintenance of infrastructure (forest roads, fire breaks, water tanks and hydrants etc.),
- purchase of firefighting equipment and materials,
- recruitment and management of personnel (fire fighting squads, implementation of fire duty roster, training etc.),
- patrolling,
- ground and aerial suppression of forest fires, etc.

1.2. Protection of forests against other agents

Forests and OWL are also threatened by biotic and abiotic factors, illegal logging and grazing, infrastructure building, by various kinds of development, etc. Pests (insects and diseases) can cause extensive damage in case of epidemics. Other abiotic factors stressing Cyprus forests are drought and air pollution that cause necrosis or make forests vulnerable to other risks. The protection of Cyprus forests against these agents can be achieved through a number of activities, such as:

- implementation and enforcement of Forest Legislation in order to protect forests from illegal logging, grazing, trespassing,
- monitoring of organisms harmful to forests including quarantine pests in Cyprus forests,
- aerial and ground spraying against insect attacks, etc.

1.3. Regulation of trade of timber and timber products

Trade of timber and timber products plays an important role in providing renewable resources to people at competitive prices and helps in achieving sustainable economic development of the forestry sector. Illegal logging and associated trade is a pervasive problem, causing enormous damage to forests, local communities and to the economies of producer countries.

The DoF as the competent authority in Cyprus for Timber Regulation is taking a number of important steps, as these described below, to tackle illegal logging and regulate the trade of timber and timber products:

- implementation of EU Regulations regarding the control of illegal logging and trade,
- granting of licenses for the trade of timber and timber products including fuelwood,
- granting of licenses for the operation of sawmills, etc.

OBJECTIVE 2: EFFECTIVE PROTECTION OF BIODIVERSITY AND OTHER ECOSYSTEM SERVICES

STATE OF PLAY

The forests of Cyprus are mainly natural and exhibit considerable diversity. The high biodiversity of Cyprus forests is to a large extent the result of the environmentally friendly practices used in the past and continue to be used today. Thus, the DoF takes every effort to keep this balance and protect biodiversity.

However, forest biodiversity is threatened mainly by fires, excessive development, climate change, overgrazing and the introduction of alien plant species in areas with natural vegetation.

The NATURA 2000 network constitutes a fundamental pillar for the conservation of nature and biodiversity in Cyprus. The DoF is responsible for the management and monitoring of NATURA 2000 areas within state forests. 75% of the NATURA 2000 (SCI and SPA) area is situated within the state forests of Cyprus.

The declaration of state forests (according to the Forest Law of 2012) into Nature Reserves (4.788,5 ha) and National Forest Parks (15.739,8 ha) also contributes to the conservation and protection of biodiversity.

Climate change is expected to affect the Mediterranean region and to have significant impacts on Cyprus forests, both with increasing temperature and with decreasing rainfall and increasing frequency and intensity of droughts. Despite the high resilience of Cyprus forests resulting from the fact that they are natural, the rapid rate at which climate change progresses may not give the chance to them to react and adapt to change. Therefore measures should be taken for their adaptation.

At the same time, forests, forest products and forest soils are sinks in which atmospheric carbon is stored and inactivated through the process of photosynthesis, alleviating in this way the problem. Also the use of wood as a renewable energy source is more environmentally friendly than using hydrocarbons, while the use of wood products in construction reduces the use of energy intensive materials such as iron, aluminum, concrete, reducing drastically the emission of carbon to the atmosphere. The positive balance between the net annual increment and annual fellings in state forests, besides being an indicator of long run sustainability of timber production, contributes significantly to increased storage of carbon in forest biomass.

In some forest areas, the vegetation is not in a desired state in terms of density, regeneration and composition. Also, some forest ecosystems have been degraded for different reasons. Large areas of private forests are burned annually, and in some cases more than once, before the ecosystem reaches the stage of maturity. In this context, the DoF takes every effort for the protection of forest, state and private, and for their regeneration and reforestation.

The DoF is running its own forest nurseries to produce the appropriate propagating material for implementing programs concerning the expansion of forests and greenery.

The protective role of forests is also crucial for the protection of soil and water. This is partly due to the mountainous nature of forests and because of the fact that most forests are located in the major water catchment areas. Along with the protection of soil and water, forests help to prevent floods affecting agricultural lands, infrastructure and settlements located downstream.

The DoF, promotes public awareness at all levels in order to strengthen the contribution of forests to humanity and the need for their conservation, expansion and protection from forest fires and other threats for the benefit of current and future generations. Through the operation of 2 Environmental Information and Educational Centers, 3 Botanical Gardens and 2 Visitor Centers, the DoF also aims to the promotion of environmental information and education.

ACTIVITIES

2.1 Protection of biodiversity and other ecosystem services

Cyprus is rich in biodiversity and this is due to the influence of climatic, geological and soil conditions, topography and morphology, the proximity to the three continents (Europe, Asia, Africa), the isolation as an island and the influence of humans. Biodiversity is the basis of human existence since it provides essential services for mankind. The DoF takes every effort to protect biodiversity against threats such as fire, excessive development, climate change, overgrazing and the introduction of alien plant species in areas with natural vegetation. These activities include among others:

- the conservation of forest biodiversity (habitats, plants, birds, bats, reptiles, insects and fungi) such as the restoration of habitats and of wild flora and fauna species, and monitoring of their state,
- the preservation of forest reproductive material,
- the declaration and protection of protected areas (nature reserves, national forest parks, protective forests, micro-reserves etc.),
- the declaration and conservation of tree monuments,
- the protection of soils from erosion, etc.

A noticeable number of these activities will be carried out through EU co-financed projects.

2.2 Improvement and expansion of forests and greenery

Forests, parks and greenery in general, play an important role in human livelihood in many ways; they filter air and water, moderate climate and act as carbon sinks, provide shelter to wildlife, recreational area for people and other goods and services. The DoF takes every effort, not only to protect, but also to expand and tend forests so these can continue providing goods and services on a sustainable basis to society. The expansion and improvement of forests and greenery can be achieved through a number of activities, such as:

- production and marketing of forest reproductive material,
- declaration of hali land as state forest,
- silvicultural tending of forest stands,
- afforestation,
- reforestation,
- restoration of degraded lands,
- expansion of forests,
- establishment and maintenance of road-side plantations,
- embellishment of public buildings and maintenance of green in industrial and other open areas, etc.

2.3 Adaptation of forests to climate change and contribution of forests to mitigating climate change

Climate changes, directly and indirectly, affect the growth and productivity of forests; directly due to changes in atmospheric carbon dioxide and climate and indirectly through complex interactions in forest ecosystems. Climate also affects the frequency and severity of many forest disturbances like forest fires. On the other hand, forests mitigate climate change through carbon sequestration. For the protection of forests against climate change, a number of activities are undertaken by the DoF, such as:

- monitoring of the effects of climate change on forests,

- preparation of a strategic plan as well as an action plan for the adaptation of forests to climate change, etc.

2.4 Raising of public awareness

Raising public awareness and development of environmental consciousness are directly related to the development and protection of forest ecosystems and biodiversity. The DoF promotes public awareness through activities, such as:

- operation of Botanical Gardens, Environmental Information and Education Centers, Visitor Centers,
- preparation of posters, booklets, leaflets and other informative material,
- organization of events,
- participation in events, exhibitions, etc.

OBJECTIVE 3: ENHANCEMENT OF FOREST RECREATION AND OTHER SOCIO- ECONOMIC FUNCTIONS

STATE OF PLAY

While state forests are managed by the DoF, private forests are not managed, since most of them are self established on abandoned agricultural land.

The contribution of forestry to the Gross Domestic Production, as mentioned above, is insignificant and far below 1%. This value refers only to State forestry since private forestry is almost non-existent. Even though the significance of forestry as driver of the economic growth is negligible, the social benefits and particularly forest recreation and ecotourism are highly valued by the public. Other important services include the provision of employment, the improvement of the quality of life of the mountainous communities and the protection and conservation of soil and watersheds. Nevertheless, many of these social benefits are not marketed and therefore the forest owner does not have any interest in providing them.

The list of recreational opportunities include picnicking, camping, hiking, biking, climbing, hunting, fishing, skiing, bird-watching, sightseeing and observing wildlife. Public ownership of the majority of Cyprus forests that are managed for multiple uses, allows free and unrestricted access for forest recreation opportunities. The DoF is responsible for the creation, improvement and expansion of picnic sites, camping places, nature trails, biking trails, visitor centers as well as for the establishment, development and maintenance of National Forests Parks in the State forests.

During the last decade, the opportunities for employment in rural areas have been shrunk leading to urbanization. The level of employment in the forest sector was reduced, due to the gradual reduction to the volume of timber extracted from the state forests, the ban on grazing and the increased protection of state forests. Nevertheless, the DoF continues to provide significant employment opportunities in the countryside and along with its infrastructure and equipment, it contributes substantially to the livelihood of people living in the countryside.

Apart from the management of state forests, the DoF is responsible for the management of state forest land i.e. register and plan keeping, disposal and management of annual leases and long-term lease contracts, etc.

The forests of Cyprus produce various wood and non-wood products. However, the productivity of Cyprus forests as regards timber is low, mainly due to the adverse climatic conditions. Nevertheless, timber production plays an important role in supporting communities within and adjacent to forests, through labor supply and the supply of fuel-wood and raw material to small local sawmills. Besides timber, forests produce many other products, of which the most important are game, mushrooms, herbs, Christmas trees and honey.

For the effective management and protection of state forests, the DoF maintains a network of forest stations, offices and other premises, with appropriate geographical distribution. Some forestry buildings and premises are old and need to be renovated or demolished and rebuilt. The forest road network is in good condition with good density and adequately serves forest protection, forest management and public access to forests.

ACTIVITIES

3.1. Improving Forest Recreation and Tourism and other services

Cyprus forests provide recreational opportunities because of the variety of flora and fauna, the geomorphology, the climate and water conditions in combination with the accessibility, the short distances from towns as well as the existence of historical, archeological and other places of interest inside or near the forests. Forest recreation contributes to human health and welfare. Another important socio-economic function of Cyprus forest is the provision of employment to resident of villages in rural area. Forest recreation, tourism and other services can be improved through a number of activities such as:

- formulation of policy and guidelines,
- elaboration of studies and plans for recreational sites,
- construction, maintenance and improvement of recreational sites,
- preparation of standards and technical prescriptions,
- preservation of elements of cultural heritage,
- provision of employment and contributing to the quality of life to the inhabitants of rural areas, etc.

3.2. Deposition of State forest land

State forest land can be granted, leased or exchanged for different reasons and purposes including agricultural, stock breeding, local administration authorities' purposes, public corporation needs, for the erection of churches or the creation or burial areas etc. The DoF is engaged in an number of activities in relation to deposition of State forest land, such as:

- maintaining the register of the state forest land,
- leasing of state forest land and management of agreements (annual and long term),
- granting other licenses, etc.

3.3. Building of infrastructure and acquisition of equipment for the management of state forests

Creation, administration, and maintenance of infrastructure are the most fundamental organizational requirements for any institution or organization. Forest infrastructure and its effective management are important components of sustainable forest management. The most important activities carried out by the DoF in relation to the above are the following:

- preparation of architectural and construction plans and studies, for all projects of the Department,
- erection of new and maintenance of existing buildings,
- construction of new and maintenance of existing forest roads,
- construction of other facilities and structures,
- purchase of equipment, etc.

3.4. Production and sale of forest products

Wood is the most important material good which is extracted from Cyprus forests. Even though the annual volume of timber extracted is low in relation to the annual market needs, this activity plays an important role in local economy through labor supply and supply of fuelwood and raw material to small local sawmills.

The production of non wood forest products have become increasingly important in the last years and is expected to affect the way that Cyprus forests are managed.

Provision of wood and non-wood forest products to the society on a sustainable basis can be achieved through activities such as:

- development of felling plans,
- marking and extraction of timber and fuel wood,
- management of forests for the production of non-timber forest products, etc.

OBJECTIVE 4: IMPROVEMENT OF THE POLICY FRAMEWORK, PRODUCTIVITY AND EDUCATION

STATE OF PLAY

The management of forests is guided by the Statement of Forest Policy, the national forest programme, the forest legislation, forest management plans etc.

According to the recently approved (2013) Forest Policy Statement, the vision for the forests of Cyprus is the preservation, protection, expansion, improvement and sustainable management of forest resources.

Taking into account the multiple functions of forest ecosystems, the needs and expectations of society and international trends, forests must be maintained in the best possible condition to ensure balanced maximum economic, environmental and social benefits for present and future generations.

The National Forest Programme of Cyprus (mid-term policy document) is currently in the process of revision to reflect the new vision and objectives of the new forest policy.

New Forest Legislation was also voted in 2012. This legislation refers mainly to the State forests but it relates also, though to a far less degree, to private forests and forest and timber industries. Also in 2013, a new law was passed regulating the control of timber products trade.

The DoF uses Criteria and Indicators for SFM (Sustainable Forest Management) as an evaluation tool to assess the forest condition and to track the Department's progress towards the conservation and sustainable management of Cyprus forests.

Based on the Forest Law of 2012, the management of state forests must be based on management plans. Today 63% of state forests are covered by such plans.

The DoF follows closely the international dialogue on forests through its participation in meetings at EU and International level, fulfills the obligations arising, aligns accordingly its policy (i.e. EU Habitats and Birds Directives - NATURA 2000, forestry measures of the Rural Development Plan) and transposes the relevant EU Aquis Communautaire (FLEGT and EUTR Regulations etc.).

The current staffing of the Department of Forests (248 filled posts out of 303 posts of Forest Officers) has been affected by the austerity measures taken to reduce the budget deficit. The loss of jobs and the promotion and hiring freezing, affect the proper functioning of the Department of Forests. A reorganization will be carried out to consider this situation, having also in mind the improvement of the productivity and the quality of services.

The proper education of the forest staff and the continuous training are vital to the fulfillment of the mission of the Department and the effective protection and management of forests. The absence of a course program in forestry at university level is a disadvantage. The Forestry College, which serves as a regional center of higher education, is the only institution in Cyprus that offer courses in the subject of forestry. It is noted that a process for the reorganization of its program is under way. The continuous training of forest employees is supported through the Learning Unit of the Department.

The hourly staff is adequately trained in fire fighting, proper use of equipment and issues of safety and health at workplace.

The organizational structure and functioning of the DoF require modernization in order to meet and respond to the requirements of the new conditions, social, and economic. Also, through computerization and e-government tools, the performance of the Department will be accelerated leading to increased productivity.

ACTIVITIES

4.1. Planning, implementation and evaluation of forest management

The management of Cyprus forests is carried out following the principles of sustainability, multi-purpose forestry, holistic and integrated management and wide participation in decision taking. The management of forests is guided by the Statement of Forest Policy, the national forest programme, the forest legislation, forest management plans etc. In the context of planning, implementations and evaluation of forest management, a number of activities are implemented, such as:

- preparation, implementation and monitoring of Forest Policy, National Forest Programme, Strategic Plan, Budget and annual programme of work,
- evaluation of them through the Criteria and Indicators report, the annual departmental report and other reports,
- development and implementation of management plans,
- execution of forest inventories, etc.

4.2. Alignment with EU and international forest policy

Even though the Treaty of European Union does not include a common forest policy, various kinds of provisions concerning forests are issued under different policies like the environmental, agricultural (CAP) and trade policies. The DoF among others, in relation to the above, carries out the following activities:

- participation in EU and International meetings
- following of European and International forest dialogue,
- harmonization with and implementation of Acquis Communautaire,
- preparation of reports and filling up of questionnaires requested by international bodies and fora etc.

4.3. Improving the productivity and quality of services

In order to meet and respond to the requirements of the new social and economic conditions, the DoF is engaged in a number of activities in relation to the modernization of the organization structure and functioning of the Department, aiming at improving the productivity and the quality of services, such as:

- preparation and implementation of a study for the restructuring of the DoF,
- simplification of procedures,
- introduction of new technology and development of new software,
- preparation and maintenance of the departmental website,
- establishment of a call center for servicing the public,
- investigation of possibilities for improving the cooperation with other Ministries, Departments and Services, etc.

4.4. Improvement of education, human resources development and research

Forest education and research are crucial to achieving sustainable management and national sustainable development goals. Changes in approaches to forestry education are needed as forest policies evolve in response to growing demand for forest goods and services. Development can be achieved through the following activities:

- provision of forest education through the operation of the Cyprus Forestry College,
- restructuring of its programs and mode of work,
- provision of in-service, public and private training services,
- execution of small research projects, etc.

WATER DEVELOPMENT DEPARTMENT

OBJECTIVE 1: SATISFY THE WATER NEEDS OF ALL USES TO THE MAXIMUM EXTENT POSSIBLE

STATE OF PLAY

Water scarcity is one of the most serious problems faced by Cyprus through the centuries. Droughts are very common and it is anticipated that climate change in the Mediterranean basin will lead to further reductions in annual and seasonal water availability.

In view of these challenges, the need to develop and implement measures that aim at increasing water availability and water security is a priority. The objective is to satisfy the water demand for domestic, agricultural, industrial, environmental and other uses, to the maximum extent possible.

In this context, in the past decades major construction water projects implemented for irrigation, water supply, environmental protection and other uses, such as dams, water treatment plants, pipelines, etc. The operation and preventive maintenance of these projects as well as the continuous upgrading and construction of new water development projects are essential.

Despite the implementation of these projects, the problem of water scarcity remains. In order to address this problem and improve the reliability of water sources for domestic and irrigation uses, the Water Development Department (WDD) promotes the optimum use of non-conventional water resources, such as desalination and recycling. The use of non-conventional water resources reduces the dependency of the water supply on the weather conditions, contributes to climate change adaptation and risk prevention and enhances the water balance. Desalination has augmented the domestic water supply and eliminated the dependency of the large urban, suburban and tourist centers on rainfall. The use of recycled water is expected to increase the supply of irrigation water and provides significant protection against droughts. Recycled water is a constant source of water since the quantities produced are based on water consumption while quantities of water, which would have otherwise been lost, are reclaimed.

Finally, it is necessary to evaluate the water balance and the optimum allocation of available water resources for all uses. The estimated annual water demand for the Government controlled areas is 252 million m³ (irrigation 152, domestic 73,5, livestock 8,5, industrial 8 and green areas 10). The estimated 2011 water balance indicated a water deficit of 43 million m³, which was covered by desalinated (32 million m³) and recycled water (11 million m³).

ACTIVITIES

1.1. Monitoring of available water resources, preparing annual water allocation scenarios and maintaining security of water reserves

The water deficit raises the need to continuously evaluate the water balance and prepare annual water allocation scenarios for the optimum allocation of available water resources for all uses.

- Identification and monitoring of the available water resources
- Data evaluation, preparation of annual water allocation scenarios for all uses and reporting

1.2. Augmentation of water supply for domestic, irrigation, environmental and other water uses

In view of climate change, water scarcity and droughts, population and tourism growth, etc., the planning and design of new development projects is vital. The construction of new infrastructure projects for domestic and

irrigation purposes as well as for the protection of surface and underground water bodies is also essential.

- Planning and design of new development projects
- Construction of new infrastructure projects

1.3. Production, purchase and sale of water

The desalination plants are operated on a built, operate and transfer basis and desalinated water is sold to the WDD at source. Water for domestic purposes is mainly supplied through the Government water works and is sold on a volumetric bulk basis to Water Boards, Municipalities and Community Councils, which, in their turn, undertake its supply to the consumers. Contrary to the supply of water for domestic use, water for irrigation is distributed to farmers, on a volumetric retail basis, while tertiary treated recycled water is purchased from sewerage boards and sold on a volumetric basis to end users.

- Monitor the operation of desalination plants
- Purchase the necessary quantities of desalinated water
- Sell potable water in bulk quantities
- Sell irrigation water to farmers
- Purchase and sell recycled water to end users

1.4. Operation / maintenance / improvement of existing water infrastructure projects

The operation and preventive maintenance of the projects that have been implemented over the past decades, as well as the continuous upgrading and construction of new water infrastructure projects are essential.

- Operation and maintenance of existing water infrastructure projects
- Improvement of existing water infrastructure projects

OBJECTIVE 2: PROMOTE THE EFFICIENT USE OF WATER RESOURCES

STATE OF PLAY

The efficient use of water resources is a basic principle for the implementation of a sustainable water policy aiming at further improving the good practices for water consumption and reuse, in order to reduce the risk of depletion of the scarce water resources in Cyprus and to preserve their quality. The efficient use of water resources also contributes to the general policies for environmental protection and efficient use of resources as well as to the adaptation to climate change and risk prevention.

Climate change, drought conditions prevailing in recent years, the improvement of the standard of living, the increase in the resident population (native and immigrant), the increasing number of tourists and the high seasonal water demand, are significant pressures on the limited water resources of Cyprus. The implementation of effective measures for strengthening the efficient use of water resources is therefore of utmost importance and supplements water demand management plans.

The most important measures promoted are: water metering, education and awareness campaigns for water saving and proper use of water, reduction of water consumption in both agriculture and households, promotion of water reuse, abstraction restrictions, efficient management of water supply and distribution networks, as well as promotion of a water pricing policy providing incentives for the efficient use of water resources.

ACTIVITIES

2.1. Promotion of measures for more efficient water use

The following measures are promoted in the context of a sustainable water policy aiming at improving the good practices of water consumption and reuse and strengthen the efficient use of water resources.

- Water metering, recording and monitoring of water storage and supply
- Efficient irrigation allocation scenarios
- Water saving culture measures
- Promotion of cropping pattern change
- Promotion of water reuse

2.2. Monitoring of water abstraction from boreholes, dams and other water sources

The following activities aim at enforcing the provisions of the Integrated Water Management Law (79 (I)/2010) regarding water abstraction. The Law, which entered into force on 15 November 2010, is an important milestone for water management in Cyprus. According to this Law, the integrated management of water is assigned to the WDD, opening up new horizons but at the same time, presenting new challenges for the Department. The Law introduces an integrated water code, addresses the problem of fragmented responsibilities, simplifies complex procedures to enable the promotion of effective water governance and introduces tools for the protection and development of the water resources of the island

- Monitor and record water abstraction
- Impose conditions on each abstraction license
- Implement intelligent metering systems

2.3. Implementation of water pricing policy

The following activities aim at implementing Article 9 of the Water Framework Directive (WFD) 2000/60/EC and relevant national water pricing regulations (K.Δ.Π. 128/2014).

- Implementation of pricing and cost recovery of water services
- Action Plan for the phased implementation of the water pricing regulations
- Systematic monitoring and control of the pricing policy applied by all Local Authorities

OBJECTIVE 3: SAFEGUARD THE QUALITY AND PROTECT THE WATER RESOURCES AND AQUATIC ENVIRONMENT

STATE OF PLAY

An important aspect of sustainable water management is to ensure the good quality of water and its protection against pollution. Clean water is a prerequisite for human health and wellbeing, but is also necessary to protect and preserve the environment.

In this context, the intention is to protect, improve and ensure the good status of all water resources in Cyprus (good ecological and chemical status for surface waters and good chemical and quantitative status for groundwater), the protection of aquatic environment and public health from the adverse effects of untreated waste water discharges, the strengthening of disaster resilience and adaptation to climate change.

The EU has developed a comprehensive water policy, which has gradually developed to deal not only with the challenges regarding health but also the environmental impacts from the main sectors of water use.

The aim is the country's full conformity with the European Union acquis in the water sector.

One of the priorities is the implementation of the Water Framework Directive (WFD) 2000/60/EC, which aims at protecting and improving the status of waters in the European Union, having as a basis the principle of integrated water management at river basin level. The main tool for achieving the objectives is the River Basin Management Plan, which includes a Programme of Measures (PoM) with specific timeframe and actions to achieve the environmental objectives of the Directive. Particular importance is given to the implementation of relevant Directives such as the Directive on Priority Substances 2008/105/EC and 2013/39/EU, the Directive on Groundwater 2006/118/EC and 2014/80/EU, the Directive on the Quality of Water intended for Human Consumption 98/83/EC, etc., as well as relevant national legislation for the protection, monitoring and management of water resources.

At the same time, it is important to strengthen the resilience of the aquatic ecosystem, in order to adapt to climate change and to take intensive and targeted measures for disaster management and response to the impact of extreme events, such as droughts and floods. In this context, the aim is the implementation of the Drought Management Plan which was prepared in accordance with the Water Framework Directive 2000/60/EC and the preparation and implementation of the Flood Risk Management Plans, in accordance with the Floods Directive 2007/60/EC.

In the field of waste water, the priority is the full implementation of the Urban Waste Water Treatment Directive 91/271/EEC. The implementation of sewerage systems for the management of waste water in the context of the Directive, addresses sewage problems that occur due to spills of absorbent pits, which cause pollution and contamination of the subsoil and groundwater due to infiltration of wastewater into the subsurface. Additionally, significant benefits arise from the operation of central collecting systems, such as the production of recycled water and sludge; the latter can be used as a soil improvement agent. It is noted that there are delays in the Implementation Programme of Cyprus that was prepared in accordance with the Directive, mainly due to limited State Budget, procedural problems related to the expropriation procedures and tender appeals, as well as non-acceptance of the location of infrastructure projects by the Communities.

ACTIVITIES

The following activities aim at implementing the European Union acquis in the water sector as described in detail in the state of play.

3.1. Implementation of the Water Framework Directive 2000/60/EC

- Implement the River Basin Management Plan (RBMP), the Drought Management Plan (DMP) and the associated Programme of Measures (PoM)
- Review and update the RBMP, the DMP and the associated PoM

3.2. Implementation of the Floods Directive 2007/60/EC

- Prepare and publish the Flood Risk Management Plan and the associated PoM

3.3. Implementation of other relevant Directives

- Implement other relevant Directives such as: The Directive on Priority Substances 2008/105/EC and 2013/39/EU, the Directive on Groundwater 2006/118/EC and 2014/80/EU, the Directive on the quality of water intended for human consumption 98/83/EC, etc.

- Implement relevant national legislation for the protection, monitoring and management of water resources

3.4. Implementation of the Urban Waste Water Treatment Directive 91/271/EEC and relevant national legislation on urban waste water

Prepare and implement the new National Implementation Programme (NIP) of the Urban Wastewater Directive 91/271/EEC, including the following:

- Design and construct sewerage works in rural agglomerations with a population of over 2.000 p.e.
- Design and construct sewerage works in rural settlements with a population of less than 2.000 p.e.
- Design and construct sewage treatment plants for domestic sewage, industrial effluents, excess sludge and leachate
- Monitor and supervise the operation of tertiary treatment facilities within urban sewage treatment plants
- Monitor, supervise the operation and maintain sewerage works in rural settlements
- Monitor recycled water quality in accordance with the terms of the Discharge Licenses
- Design and construct sewerage works for communities in urban areas

OBJECTIVE 4: ENHANCE THE EFFICIENCY AND EFFECTIVENESS OF THE SERVICES PROVIDED BY THE DEPARTMENT, FOCUSING ON BETTER PUBLIC SERVICE

STATE OF PLAY

The activities of the Water Development Department cover a wide and diverse range of issues. With the enactment of the Integrated Water Management Law (79 (I)/2010), all powers relating to or associated with water management were transferred to the WDD. Thus new horizons and new challenges were presented for the WDD. The implementation of integrated water management, according to the Law, the implementation of the European acquis and the rational operation of WDD, require adequate qualified personnel.

This Objective focuses on strengthening the administrative capacity of the Department in order to perform its tasks with increased competence and professionalism and to serve the country and the public in the most effective way. The need for strengthening the administrative capacity of the Department as well as its restructuring, where necessary, is dictated by the Action Plan for the Reform of the Ministry of Agriculture, Rural Development and Environment. Furthermore, it is envisaged to strengthen the financial resources of the Department by utilizing the funds allocated to Cyprus from the European Structural and Investment Funds. An equally important perspective for the efficient management of water resources as well as for the reduction of operating costs is to improve the access and use of information and communication technologies as well as to reduce energy consumption through the use of renewable energy sources in the Department. The introduction of office automation, the use of Geographic Information Systems, database application, etc., will make the department more productive, while the use of energy efficient equipment and technologies will significantly reduce the operating costs. Finally, this Objective focuses on strengthening national, regional and international cooperation to address common challenges in the field of water management and the enhancement of knowledge in research and development of innovative technologies by promoting partnerships.

ACTIVITIES

4.1. Implementation of the WDD Reform Action Plan

The strengthening of the administrative capacity of the Department is promoted on the basis of the Reform Plan

for its restructuring, based on the Action Plan of the Ministry of Agriculture, Rural Development and Environment

4.2. Strengthening of national, regional and international cooperation

Sharing of experiences and best practices, enhancement of knowledge in research and development through the promotion and implementation of Memoranda of Understanding with other states / organizations / institutions and other forms of cooperation, could facilitate the development of good management practices and enhance the efficiency and effectiveness of the Department.

4.3. Strengthening of resources and administrative capacity of the Department

The following measures aim at increasing WDD productivity and at strengthening its financial resources, contributing to enhanced efficiency and performance.

- Implement training programmes
- Further implementation of the Geographic Information System (GIS) across divisions and district offices of WDD
- Upgrade Telemetry System, link it with GIS and expand it to cover all WDD basic infrastructure
- Introduce manuals and systems for standardization/automation of the procedures
- Encourage preventive maintenance culture
- Create an Integrated Energy Management System and exploit renewable energy potential
- Utilize EU funds

GEOLOGICAL SURVEY DEPARTMENT

OBJECTIVE 1: DEVELOPMENT OF GEOLOGICAL KNOWLEDGE

STATE OF PLAY

Good knowledge of the geological setting is a key tool for the planning of development projects, policy making in regards of sustainable development and efficient use of mineral and water resources and hydrocarbons and generally for the protection of the natural and built environment. Particular attention is given to the development of geological knowledge, within the Exclusive Economic Zone of Cyprus.

The geological knowledge is mainly utilized in urban planning, design and construction of infrastructure projects, the exploration and protection of natural resources and in the protection against geohazards.

The Geological Survey Department has covered with detailed geological mapping and compilation of digital and printed geological maps, 54% of Cyprus' territory. Nevertheless, there are areas with insufficient geological information, while there is a lack of knowledge when it comes to the geology and tectonics of the area of the Exclusive Economic Zone of Cyprus. Within this context, the effort is to extent the geological mapping and expand the geological knowledge of Cyprus with emphasis on the EEZ and the Eastern Mediterranean region. This will be achieved both through national programs as well as co-research programs and partnerships with international, regional and local universities and research institutes

The Law for the Geological Surveys of 2013 (N.140 (I) / 2014) provides for the study and protection of geosites and fossils. Therefore, the documentation, promotion and protection of the island's important geosites will be endorsed in addition to the protection and promotion of geological and mining heritage, in general. Through this objective, the thematic tourist product of Cyprus will be enriched.

ACTIVITIES

1.1. Geological mapping of Cyprus and the development of geological knowledge

Continuation of geological mapping in order to gradually cover the entire island with detailed geological maps. Simultaneously, by participating in programs and partnerships mainly with European geological services, the geological knowledge of Cyprus especially in the area of the Exclusive Economic Zone, will be gradually completed. It will also strengthen international and regional cooperation for comprehensive tackling of common challenges in geoenvironmental issues. Moreover, expertise in geology issues will be provided.

1.2. Protecting sites of geological and mining heritage

Through this action, major geotopes (sites of exceptional geological interest) will be studied, documented and protection measures will be enforced. Particularly for the Troodos region, which is of global geological uniqueness, all necessary steps are taken in internationally promoting the region through its accession to the European Geoparks Network. In addition the Department will take over the management of this Geopark, in cooperation with local authorities. Finally, the effort for paleontological excavations will continue, such as the excavation for pigmy hippopotamus fossils in Ayia Napa.

OBJECTIVE 2: DEVELOPMENT OF THE KNOWLEDGE FOR GROUNDWATER RESOURCES AND CONTRIBUTION TO THEIR DEVELOPMENT, MONITORING AND PROTECTION

STATE OF PLAY

Under this objective, actions related to research, development, monitoring, evaluation and protection of groundwater resources are promoted, especially in relation to the enforcement of Community and national

legislation on groundwater resources. In addition, the water supply of communities that are not affiliated with government water supply projects is enhanced.

Monitoring and assessment of the status of waters is done particularly in relation to the Nitrates Directive and the Directive on the protection of groundwater against pollution and deterioration. There is also contribution towards the implementation of provisions of the Water Framework Directive.

There issues related to the qualitative and quantitative status of groundwater. Coastal aquifers have been sea intruded and almost all aquifers are over-pumped. Further, nitrate problems, notably due to agriculture activities are present. Regarding pollution from nitrates, six vulnerable areas to nitrates have been delineated, where detailed monitoring is undertaken.

Specialized hydrogeological studies are being carried out for assigning protection zones for water supply boreholes. Of the 400 operating water supply wells, studies have been done for the 260. It is noted that by 2015, protection zones for all the water supply boreholes, should be established; something that is not feasible.

Studies are conducted and water supply boreholes are drilled to meet water supply needs in mountainous communities that are not covered by major state water supply schemes. Due to the prolonged drought, overpumping and pollution of parts of the aquifers, increased needs are presented for drilling of new water supply boreholes. New boreholes are also drilled for the purpose of groundwater monitoring. However, problems occur, due to the outdated drilling equipment.

In addition to the above, the Department manages all governmental boreholes thought permits, issued on the basis of the Law for Geological Surveys (N.140 (I) / 2013).

ACTIVITIES

2.1. Research, monitoring, evaluation and protection of groundwater resources

Continuation of the study, monitoring and protection of groundwater resources, especially in the context of the obligations arising from the Nitrates Directive and the Groundwater Directive, as well as in relation to provisions of the Framework Directive on Water. In this context, the monitoring networks of quality status of groundwater (220 stations) and the telemetric monitoring network mainly of quantitative status of groundwater (80 stations) will continue to be operated as well as executing analyzes in the chemical laboratory of the Department. Furthermore, the execution of studies for the delineation of protection zones of water supply boreholes, will continue. Moreover, expertise will be provided in water resources issues.

2.2. Carrying out studies and drilling boreholes to meet the water supply needs of communities

Continuing carrying out studies and drilling boreholes to meet the water supply needs of the mountainous communities, not covered by major state water supply schemes. Drilling will be done for the expansion of the groundwater monitoring network, as well. Furthermore, the Department will continue managing all governmental boreholes on the basis of the Law for Geological Surveys (N.140 (I) / 2013).

OBJECTIVE 3: DEVELOPMENT OF KNOWLEDGE FOR MINERAL RESOURCES AND REHABILITATION OF THE ENVIRONMENT IN MINING AREAS

STATE OF PLAY

Under this objective, actions related to research and evaluation of mineral resources and remediation of mining areas are promoted.

There is a defined policy regarding the sustainable development of mineral resources, which is adjusted according

to the existing needs and scheduled plans for infrastructure. On this basis, specialized research programs for identification and characterization of new mineral resources are carried out. Furthermore, it is estimated that there is shortage of licensed areas / reserves of rock suitable for marine construction projects and licensed reserves of raw material for production of aggregates in the Paphos Region. Therefore, finding and evaluating of the necessary reserves is required.

Most of the rehabilitation works of the Asbestos mine area are completed. However, there are still twenty-five abandoned mines of mixed sulphide copper, requiring assessment and rehabilitation. This action derives also as an obligation under the program of measures for implementation of obligations of the Water Framework Directive and is in a preliminary stage.

In addition, the Department is involved in the surveillance of the aggregates market. This contribution can be enhanced in order to utilize to a greater degree the Department's expertise in an effort to continuously improve the quality of aggregates.

It is noted that based on the Action Plan for the Reform of the Ministry, merging of the Mines Department with the Director of the Department of Geological Survey is proposed, for better utilization of resources.

ACTIVITIES

3.1. Research and evaluation of mineral resources and surveillance of the aggregates market

Continue research on identification and evaluation of mineral resources and characterization of new reserves to meet the needs of industry in aggregates, rock blocks and industrial minerals. The effort will focus on meeting the needs in rock blocks to build coastal infrastructure, which will serve, among others, the construction of hydrocarbons exploitation projects. Furthermore, the surveillance of the aggregates market through sampling at production and construction sites will be continued. Moreover, expertise will be provided in mineral resources issues.

3.2. Study and rehabilitation of sites of abandoned mines

The effort to restore the area of the Asbestos mine will continue and in addition the rehabilitation of abandoned mines of massive sulphide / copper will begin according to the suggestions of the relevant studies carried out by the Department. Moreover, a program will be promoted for the evaluation of the potential of mining wastes for economic exploitation, with parallel restoration of their locations. Furthermore, the coordination of operation for the burial of asbestos containing materials, at the Asbestos mine, will continue.

OBJECTIVE 4: STRENGTHENING THE SAFETY OF CITIZENS AND NATURAL ENVIRONMENT FROM GEOHAZARDS

STATE OF PLAY

Geohazards, such as earthquakes, landslides, subsidence, etc., are a serious threat to the safety of citizens and the built and natural environment. Cyprus is situated in a seismic active region and has many areas covered by unstable soils, therefore the study of geohazards is a necessity.

The seismicity of the broader area of Cyprus is monitored through a modern seismological network of eleven digital seismic stations, ten accelerometers and two seismic acquisition and processing centers. Recordings are evaluated with the main objective to assess the seismic hazard. It is recommended that these data are further processed and analyzed in order to study the geodynamic regime of the region.

The highest seismicity occurs offshore, mainly southwest of Paphos, and onshore where active faults exist. The areas of greatest vulnerability are situated in Paphos, where the seismicity is associated with adverse geological conditions.

The phenomenon of landslides is studied through actions taken or underway, mainly in Paphos, where geological conditions favor the occurrence of landslides. Furthermore, microzonation studies were performed in all cities except the area of Famagusta, for which a study is being promoted.

In this context, geological suitability maps were prepared, especially in urban areas and in areas with problematic soils. These maps can be utilized in proper urban planning and in designing of safe infrastructure and development projects in general. However, there is need for a more systematic study of geohazards in order to cover all the problematic areas with geological suitability maps.

Furthermore, geotechnical studies are executed on infrastructure projects such as roads and water works and studies for premises, cemeteries, etc. and there is a need to reassess the status of the main road system in order to take appropriate precautionary stabilization measures.

ACTIVITIES

4.1. Monitoring and evaluation of the seismicity of the broader area of Cyprus

Continue to monitor the seismicity of the broader area of Cyprus, through the operation of seismological center and network of the Department. Seismicity is recorded on a continuous basis and all earthquakes are analyzed and evaluated as well as recorded in order to study the geodynamic regime of the wider area. In addition, there is cooperation and data exchange with international and regional seismological centers.

4.2. Evaluation of geohazards and assessment of geological suitability

The study for evaluation of landslides and other geohazards will continue. Compilation of microzonation study in the area of free Famagusta and construct a geological suitability maps, which can be used, inter alia, for urban planning and development projects. Furthermore, the carrying out of geotechnical studies for State construction projects will continue as well as the reassess of the status of the main road system in order to take appropriate precautionary stabilization measures. Moreover, expertise will be provided on geohazards and foundations issues.

DEPARTMENT OF METEOROLOGY

OBJECTIVE 1: PROVISION OF CERTIFIED AND HARMONISED METEOROLOGICAL AND CLIMATOLOGICAL SERVICES

STATE OF PLAY

The Department of Meteorology provides weather and climate services in all areas of the economic and social activities in Cyprus, to serve the public welfare and the protection of life and property.

The strategic objective of the Department of Meteorology is to contribute to strengthening the competitiveness of the rural economy and to promote green and blue growth. Specifically, through the analysis of the measurements of various meteorological parameters available from the network of climatological and synoptic stations of the Department and the database maintained centrally, the usable agricultural land is highlighted and at the same time, the species that can thrive in crops and livestock and fisheries farming are identified. In addition, the mapping of wind and solar natural resources and the provided counseling in terms of renewable energy contributes to the promotion of green growth.

Furthermore, the strategic objective contributes to the protection of public health, life and property against risks, such as extreme weather events. In particular, through specialized forecasts from our certified forecasting office for aviation, shipping, seafarers and fishermen, the safety level of operations is increased. Additionally, the timely and accurate weather forecasting provides the appropriate guidance for protection of the agriculture and livestock farms in cases of extreme weather events.

The Department also contributes to climate change adaptation and risk prevention. For example, by identifying and mapping of vulnerable to desertification areas, as well as the scientific analysis of time series of meteorological data, the Department offers valuable tools for the development of adaptation strategies and rapid response in case of disaster. Additionally, with the active participation of the Department in GFCS (Global Framework for Climatic Services), innovative services addressing risks due to climate change are provided to the scientific community and public.

The strategic objective of the Department of Meteorology focuses on the upgrading of the offered services, in order to perform efficiently and professionally its operations and to be able to serve in the most effective way (timely and reliably) the country and its citizens.

In this context, the Department seeks to upgrade and maintain the quality of the stations network at the highest possible condition and to introduce new and innovative services.

The Department of Meteorology is a member of the World Meteorological Organization (WMO) and it has been also designated by the Cyprus Government as the Meteorological Service Provider to the Civil Aviation

So the service level provided is in accordance to the standards, set by the World Meteorological Organization (WMO), the International Civil Aviation Organization (ICAO) and other European Directives and Regulations. These services are constantly evaluated and upgraded accordingly, mainly due to the climate change, seeking full and continuous harmonization of services with the latest International and European standards.

ACTIVITIES

1.1 Operation and maintenance of network station, instrument and information system

The Department of Meteorology operates a wide network of meteorological stations, systems and equipment for the collection and usage of meteorological and climatological information in Cyprus. The upgrading of the various stations/systems is achieved with the procurement procedure according to "The Coordination of Procedures for

the Award of Public Works Contracts, Public Supply Contracts and Public Service Contracts and for Related Matters Law, 2006-2012, (N 12(I) 2006-2012)".

1.2 Upgrading and continuous harmonisation of services with International and European standards

The provided services must be monitored and harmonized with the standards set by the World Meteorological Organization (WMO), the International Civil Aviation Organization (ICAO) and the European Directives and Regulations (European Public Sector Information Directive costing for service). For the provided services the Department is audited by the National Supervisor Authority of Cyprus, the European Aviation Safety Agency and the International Civil Aviation Organization.

1.3 Provision of traditional and innovative services to users

The Department publishes reports and studies on weather and climate, and provides meteorological information and advisory services for the needs of different sectors of the economy and especially for applications in agriculture, development and management of water resources, tourism, industry, construction and renewable energy plants. It also issues scheduled weather bulletins and warnings for Civil Aviation Authorities, Maritime Operations, Fisheries, Research Institutes, Companies and individuals. It also plans to introduce new and innovative services such as weather applications on mobile phones, shopping meteorological services via Department's webpage.

The provided services are offered through the Department's webpage, automated phone systems, emails and custom – build webpages.

LAND CONSOLIDATION DEPARTMENT

OBJECTIVE 1: IMPROVING THE AGRICULTURAL UTILIZATION CONDITIONS AND THE INFRASTRUCTURE FOR SUSTAINABLE RURAL DEVELOPMENT

STATE OF PLAY

The agricultural holding in Cyprus is characterized by small size, land fragmentation, mixed land tenures (i.e. land held in undivided form and dual or multiple ownerships), lack of access and land plots of an irregular shape. According to the 2010 Census of Agriculture, the average area per holding is 30 decares, while the average number of parcels per holding, in accordance with the Census of Agriculture of 2003, is five (5) parcels. Additionally, Eurostat quotes Cyprus, together with Greece, Italy, Malta and Slovenia, as having on average, the smallest size of agricultural holdings (Eurostat, Agricultural Statistics — Main Results — 2007-08, 2009 edition).

Land consolidation is a multi-dimensional tool that can be used by the State for rational, sustainable rural development, as it creates the prerequisites and the infrastructure for competitive crop – livestock farming and it remedies land tenure problems, which constitute an obstacle to the rational and efficient development of agriculture. At the same time, it protects / upgrades the environment and improves the rural landscape within a land consolidation area (e.g. safeguarding of the wild flora and fauna, protection of biotopes, protection of the cultural and physical features of the rural landscape).

In Cyprus, the implementation of land consolidation measures began in 1970, after the enactment of the Consolidation and Reallocation of Agricultural Land Laws, 24 of 1969 to 24(I) of 2012. Under the provisions of this legislation, the various land tenure problems already mentioned are solved through the implementation of land consolidation and reallocation measures, thus setting the right infrastructure for the rational development of agriculture and preventing the abandonment of agricultural land.

Moreover the continuous pressure on fertile agricultural land from other land uses (e.g. touristic, urban, industrial) hinder the agricultural development, while at the same time a large extent of agricultural and urban land remains in inertia due to land tenure problems and lack of access.

Through land consolidation and reallocation measures, the following are achieved: better organization of agricultural units, restructuring of cultivations, mechanization of farm work, agricultural utilization of distant, inaccessible small holdings or plots, increased agricultural activity, more efficiency, reduced costs of construction for irrigation works or other infrastructure projects, as well as the protection / enhancement of the environment. Specifically, land consolidation measures (in 78 completed land consolidation schemes, based on studies data) led to substantial structural changes, such as an increase, on average, in the size of ownerships by 32%, elimination of land fragmentation by 54%, enlargement of the land plot size by 103%, abolition / elimination of mixed land tenures by 89% and the return to cultivation of abandoned agricultural land.

The aforementioned structural changes resulted in an increase in the number of economically viable holdings by 16%, increase in production by 100%, increase in productivity of capital by 45% and of labour by 100% and rise of the agricultural income up to 300%.

Long - term plans of the Land Consolidation Department entail that the land consolidation scheme can be applied in many other domains, apart from the agricultural sector, offering solutions to the various land tenure problems and creating the prerequisites for the development and accomplishment of the, at the time, economic, social and environmental targets, as well as the avoidance of land expropriation measures by the State, for infrastructure projects. To this respect, land consolidation and reallocation measures can be implemented instead of expropriation measures, in other development zones / areas, which face similar land tenure problems with the agricultural areas. The implementation of land consolidation in development zones / areas of a non-agricultural nature, which similarly to agricultural areas face land tenure problems and cannot be rationally developed and

managed, is planned. Furthermore, in areas where big projects such as highways, dams and airports are to be constructed, in designated environmentally protected areas, in areas where private ownerships are enclaved in state or forest land and in industrial zones, that lack adequate infrastructure, land consolidation and reallocation measures can be implemented successfully.

As from July 2013 land consolidation works have been suspended, due to liabilities assumed by the State in implementing the loan contract, as the majority of the Land Consolidation Department staff is working for the Department of Lands and Surveys. In September 2014, it has been decided that the functions and responsibilities of the Land Consolidation Department are transferred to the Ministry of Interior. To be noted that the amendment of the land consolidation legislation is in progress.

ACTIVITIES

1.1. The implementation of the legally – binding land consolidation schemes for agricultural purposes

This activity, based on the legislation, involves the following procedure / main stages of land consolidation implementation, for 12 land consolidation schemes covering a total area of 41711 decares to the benefit of 5986 landowners:

Election of elected members of the Land Consolidation and Valuation Committees (articles 11, 12 and 14), preparation and publication of the Valuation List (article 15), preparation and publication of the new road network plan (article 20), preparation of Preliminary Environmental Impact Assessment Studies, invitation and awarding of tenders and construction of the new road network by private construction companies, holding of “preference sessions” (each owner is invited to submit to the Land Consolidation Committee his preference regarding the plots to be allotted to him (article 21, FIST SCHEDULE), preparation and publication of land consolidation and reallocation plan (articles 21, 26), demarcation of consolidated holdings, registration of holdings, assumption of possession of the new plots by their owners (article 28), preparation and publication of the list of the incurred expenses to the owners and collection of the expenses as well as any other debt (article 34).

1.2. The carrying out of land consolidation schemes for agricultural, environmental, regional and urban planning purposes

The enlightenment of landowners for the application of land consolidation measures to their properties is of prime concern for the Land Consolidation Department, as according to the legislation, land consolidation in Cyprus is applied by majority of vote. The enlightenment campaign involves planned meetings with landowners and Local Authorities, presentations, visit of landowners to land consolidation areas, publication of informative leaflets, seminars for landowners and preparation / publication of reports for land consolidation accomplishments.

In addition, based to the legislation, this activity involves the following procedure / main stages of land consolidation implementation for 36 land consolidation schemes covering a total area of 40075 decares approximately:

Submission of request form on behalf of the owners for the application of land consolidation measures, preparation of feasibility studies, preparation of Environmental Impact Assessment Studies, preliminary meeting of the owners and establishment of the Provisional Committee (article 6), delineation of the area to be consolidated, preparation and publication of the list of owners (article 7), first meeting of the owners (if during this or subsequent meetings the majority of the entitled owners who also owns at least half of the assessed value of land, vote in favour of land consolidation measures, then a land consolidation area is established and this resolution is binding on all owners in the scheme) (articles 8 and 9).

1.3. The implementation of the landscape renovation plan and of the plan for the protection of the environment

This activity involves the preparation, publication and application of landscape renovation and protection of the environment plans for every land consolidation area, according to the legislation (article 26). These plans cover the protection of biotopes, perennial trees, wild fauna habitat, areas of natural beauty and ecological significance, geological formations, cultural / historical heritage areas, church monuments and the creation of parks.

MINES SERVICE

OBJECTIVE 1: ENSURE THE SUSTAINABLE MANAGEMENT OF MINERAL DEPOSITS

STATE OF PLAY

The strategic objective is to ensure the sustainable management of mineral deposits interpreted as the ensuring of the self-sufficiency of the country with available (licensed) reserves of mineral deposits to meet its needs over time. At the same time, the satisfaction of these needs has to be achieved with the minimum impact on the environment.

The Cyprus mining industry has been traditionally active in the production of ores and concentrates of copper, pyrite, gold, chromite and asbestos fibers. Since 1970, however, the mining industry is in decline mainly due to the depletion of large and rich deposits in Cyprus and the ongoing increase of production cost without the proportionate increase of metal's international sale prices. The intensive mining activity in the past has led today to having 27 abandoned mines of sulfide ore, chromite and asbestos and only one active copper mine. The active mine is located at Skouriotissa in the Nicosia district, and restarted operation in mid 1996 producing metal copper cathodes (99.999%), applying the method of Leaching - Solvent Extraction - Electrowinning (Leaching - SX - EW). This activity has increased the perspectives for the exploitation of Cyprus' poor copper deposits. Such a case is the abandoned mine of Apliki and the nearby deposit of West Apliki which are both located near Kalopanagiotis in the Nicosia district. Moreover, there are significant perspectives for restarting of operations of the abandoned mine of Alestos near Xyliatos in the Nicosia district.

It is important to note that in the recent years there is great interest from Cypriot and foreign investors to explore for copper and gold and to reevaluate old ore deposits discovered in the past.

Contrary to the mining industry, the quarrying industry is still highly active. Currently, there are 104 active quarries and the country is considered self-sufficient in available reserves of raw materials which are used for the construction of roads, dams, marinas, ports, and other construction projects. The Table below shows the average annual consumption, in tones, of the various types of quarry products in the local market:

Type of quarry product	Average annual consumption in tones
Aggregates	5.500.000
Building stone	8.000
Limestone for cement	2.000.00
Clay for cement	500.00
Gypsum for cement	100.000
Umber for cement	40.000
Clay for bricks and tiles	100.000
Armourstones	50.000

It is noted that Cyprus exports copper, bentonite and umber to European countries and gypsum to the Middle Eastern countries. The Table below shows the average annual exports in tones:

Type of product	Average annual exports in tones
Copper	4.000
Umber	4.000
Bentonite	160.000
Gypsum	250.000

The mines and quarries require frequent inspections to check the compliance of the operators to the Mines and Quarries legislation, in particular to the safety and health of employees, to the minimizing of nuisance caused by their operations and the restoration of the areas.

Further inspections are required to check that the mine and quarry operators make the proper payments of royalties to the State. The annual revenue of Mines Service is about 5 million Euros of which 2.5 millions are allocated to communities affected by the mining and quarrying operations.

Part of the inspections is also the control of the abandoned sulfide ore mines in order to identify potential sources of nuisance and take the necessary preventive or remedial measures.

Blasting explosive substances are used during mining and quarrying. The relevant legislation covers the trade, use and storage of explosive substances. This legislation covers the blasting explosives, the gunpowder and ammunition as well as the pyrotechnic articles (fireworks). In the frame of the implementation of this legislation the relevant licenses are issued and the proper inspections are conducted. Concerning explosive substances, it is noted that the actions related to gunpowder, ammunition and pyrotechnic articles (fireworks), do not contribute to any strategic intention of the Ministry. As part of the restructuring of the Ministry it was proposed to include the aforementioned explosive substances under the competent Ministry.

Mines Service cooperates and exchange information with the following Departments:

- Townplanning, for the establishment of Mining and Quarrying Zones.
- Geological Survey, for the exploration of mineral deposits and the rehabilitation of the abandon mines.
- Labor Inspection, for safety and health conditions at the minerals processing plants.
- Environment, for the environmental impact assessment of mines and quarries operation, especially the management of mining wastes.

It is noted that the Action Plan for the Reform of the Ministry, claiming reasons of economy of resources, proposes the merging of Mines Service with the Geological Survey Department.

ACTIVITIES

1.1. Licensing of explorations, mines and quarries and review of regulatory framework

The licensing of exploration to discover and evaluate mineral deposits and the licensing of mines and quarries are significant parameters for the sustainable management of the aforesaid deposits because they ensure the continuous sufficiency of the raw materials reserves in order to satisfy the needs of the country. They also ensure the necessary quantities of mine and quarry products for export purposes. It is noted that the number of licensed mines and quarries is directly connected to the quantity of available reserves of mineral deposits.

Sub activities:

- Renew the existing licenses, which is the largest volume of the work.
- Issue new licenses, which is the most important and the most interesting part of this activity.
- Carry out contacts with the businesses of the sector to identify and correct dysfunctions of the regulatory framework in order to keep the sector attractive to the investors.
- Urge the businesses to implement innovative and efficient methods of exploration and research in order to achieve lower cost of production and to discover new markets for their products.

It is noted that, approximately 20% of the Mines Service resources are needed for carrying out this activity.

1.2. Inspections of mines and quarries

Another significant parameter for the sustainable management of mineral deposits is the rational and proper operation of mines and quarries. The compliance by the sector businesses to the relevant legislation, the implementation of the most appropriate methods for the minimization of the nuisance caused by the operation of mines and quarries, the rehabilitation and reuse of land in the areas disturbed by the mining and quarrying operations, are objectives which must be achieved for the real benefit of the employees, the local communities and the country.

Sub activities:

- Carry out inspections at least 4 times a year per site, in order to ensure that the sector businesses implement rational and proper operation of the mines and the quarries.
- Inspect the abandoned sulfide ore mines and if needed, act to correct any identified nuisance or to prevent any other which is predicted to occur.
- Check the accounts of the sector businesses, in order to verify the proper payment of mining and quarrying royalties and to ensure the economic interest of the State and the communities which are affected by mining and quarrying operations.

It is noted that, approximately the 80% of the Mines Service resources are needed for carrying out this activity.

AGRICULTURAL RESEARCH INSTITUTE

OBJECTIVE 1: INTELLIGENT DEVELOPMENT OF THE PRIMARY SECTOR, CONTRIBUTION TO CLIMATE SMART AGRICULTURE, SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES AND PROTECTION OF THE ENVIRONMENT

STATE OF PLAY

Cyprus is seriously affected by climate change, threatening both the safety and security of food and livestock production, mainly due to the lack of feed. High temperatures, reduced rainfall and extreme weather events are the main threats affecting the crop and livestock farming in Cyprus. The lack of irrigation water and the presence of new pests and diseases impose destructive pressures on agricultural development.

The irrational use of natural resources and the intensive cultivation lead to substantial deterioration of agricultural land and threat biodiversity. At the same time, the energy requirements of agriculture are based on conventional, imported energy sources that increase CO₂-emissions and have a negative impact on the economy by exporting foreign currency.

Due to the economic crisis, unemployment rate particularly among young people has been increased. This fact can be regarded as an opportunity for generational renewal of the rural population. The increased competition on the local market and the need for compliance with quality systems has created severe issues in the agro-food industry.

ARI is the prime carrier for the evaluation, consolidation, improvement and conservation of the genetic resources of crop and livestock production in Cyprus. Through its research contributes to the protection and sustainable management of natural resources, and transfers the knowledge and methods to other Departments of the Ministry. ARI's target group includes, apart from the various public entities, individual farmers and the local industry.

The leading drivers for ARI research besides the stakeholders, are the "Regulation for the Common Agricultural Policy 2014-2020", "Europe 2020 strategy for smart, sustainable and inclusive growth", the "European Innovation Partnership (EIP) on Agricultural productivity and sustainability" and the "Horizon 2020 strategy".

The research projects / results of ARI promote smart growth in the agricultural and livestock sector and contribute to the reformation and strengthening of the competitiveness of the rural economy. In the field of environment protection, research projects seek innovative solutions such as decontamination technologies from pesticides, recycling of plastic packaging, etc. At the same time, research results contribute to the improvement of services for the protection of public health from animal diseases and other hazards, through the provision of improved animal races by tackling animal diseases and by determining and identifying best practices in nutrition, breeding and management of ruminant animals.

Through its major activities, ARI aims to increase the level of successfully materialized research and development projects, promote further research results and innovative solutions to end users and raise the amount of external funds.

ACTIVITIES

1.1. Research, Development and Innovation Programmes

The development of new varieties of cereals and legumes that are adapted to the soil and climatic conditions of Cyprus ensures the continuation of production under adverse weather conditions in Cyprus and contributes substantially to addressing the negative impacts of climate change.

The Gene Bank and the National Herbarium, where grains from endangered wild endemic and native plants, including local traditional varieties, are maintained and preserved, strengthen the effort to find species adapted to the climatic conditions of the country and facilitate the creation of “new innovative products” contributing to the preservation of biodiversity and sustainable development.

The production and maintenance of healthy propagating material is available to the Department of Agriculture, producers and nurseries, ensuring the production of quality products at the lowest possible cost of production.

Research on animal production contributes to the protection of public health and to the enhancement of sheep and goat farming. These are achieved through the provision of improved animal races, by tackling animal diseases and by identifying best practices in nutrition, breeding and management of ruminant animals.

The implementation of integrated and innovative methods in plant protection helps to reduce the use of pesticides and to improve the quality of food reaching the end-user.

ARI focuses on increasing production and enhancing quality with low inputs, improving competitiveness, reducing production cost and increasing production value of vines, fruit and vegetables varieties and aromatic plants, both pre-harvest and post-harvest.

In the context of the sustainable use of resources and the reduction of greenhouse gas emissions, research focuses on the rational and sustainable management of irrigation water, potential use of renewable energy sources in agriculture, composting of plant residues, use of sludge from wastewater treatment plants, safe and efficient use of treated water in order to meet the problem of water shortage, soil fertility and combat desertification.

Dissemination of results and transfer of knowledge through educational programs, lectures, conferences and workshops, by using the infrastructure of ARI and the Internet and by linking with industry for the implementation of research results, will be strengthened.

Innovation transfer to stakeholders (agronomists, agricultural extension officers, students, industry and farmers) will be enhanced by establishing a two-way communication between researchers with stakeholders and through the establishment of public-private partnership (PPP).

ARI will be further engaged in the training of young farmers through specialized and targeted training programs, in order to provide them with the necessary knowledge, skills and capabilities for efficient work in agriculture.

By capitalizing its accumulated knowledge and expertise and its interconnections through existing agreements and protocols of cooperation, ARI will continue strengthening the international and regional cooperation with national and international research organizations in order to comprehensively address common challenges.

OBJECTIVE 1: SUSTAINABLE MANAGEMENT OF FISHERIES

STATE OF PLAY

The Government’s policy in the marine fisheries sector, which is in line with the principles of the common fisheries policy (CFP), focuses on the sustainable management of fishery resources based on fisheries data collection, on ensuring compliance with the rules of the common fisheries policy and fighting against illegal and unregulated fishing, on the improvement of working conditions, income and training of fishermen and on the improvement of the quality and the promotion of fisheries products.

The fishery in Cyprus is characterized by a large diversity of species caught and fishing methods, which focuses on coastal zone. Most of the fishing fleet (approximately 96 % of a total of 894 vessels) is composed of small-scale inshore fishing vessels (length < 12 m) which mainly use static nets and bottom longlines. Problems faced by fishermen in Cyprus are the low productivity of the region, which, in combination with intense fishing pressure lead to overfishing, low yields and low income of fishermen. Figure 1 presents a clear negative trend in landings of coastal species during the period 1985-2013, as well as the relevant values of Landings per Unit Effort (LPUE), where effort is provided in fishing days. The most recent analysis of the relation between the fishing fleets and the exploited fisheries resources¹ suggests that the Cyprus fishing fleets are economically not sustainable, and that especially for the small scale inshore fleet an action plan is required for adjusting the fleet in balance with the resources.

Further to the structural problems of the fishing fleet, the training of fishermen in fisheries, navigation, safety, health and environment is not considered sufficient. There is also a need for improving the working conditions of the fishermen, as well as the hygienic and the quality of fisheries products.

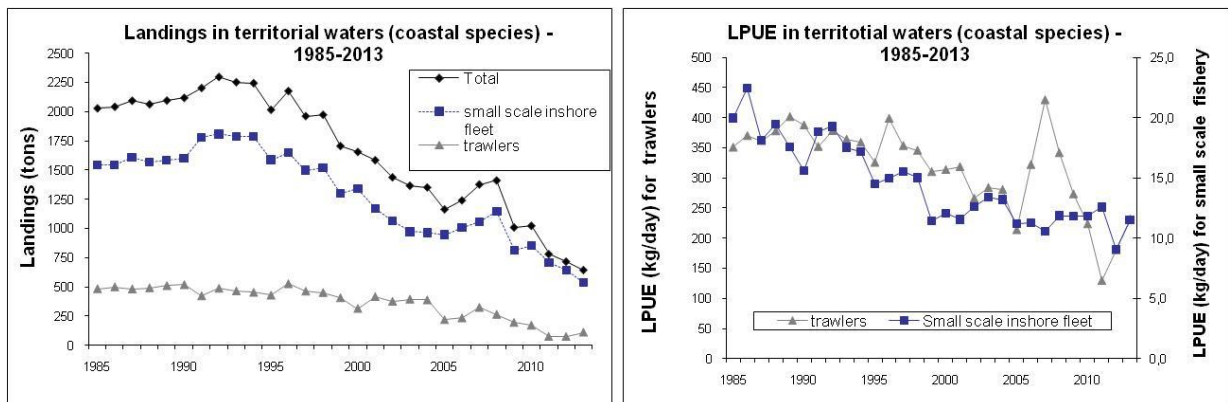


Fig.1: Landings and LPUE of coastal species in territorial waters for the period 1985-2013

¹ Cyprus Annual Report on Efforts during 2013 to achieve a Sustainable Balance between Fishing Capacity and Fishing Opportunities, prepared in accordance with Commission Regulation (EU) 1013/2010

Another problem faced is the increased presence of non-indigenous species, with negative effects on the ecosystem and fisheries. From a total of 36 non-indigenous species that have been recorded in Cyprus until now, at least 4 are considered invasive species, threatening the biodiversity, the abundance of indigenous species, the ecologic balance, economic sustainability and/or human health. One of these invasive species, the poisonous *Lagocephalus sceleratus*, has been present in Cyprus waters at least from 2000 and had a rapid population increase and expansion in 2006; landings of this species during 2009-2010 reached about 4% of the total landings from the small scale inshore fishery.

As regards fishing infrastructure, there are sixteen (16) fishing shelters in the accessible areas of the Republic of Cyprus. Many of them were roughly constructed after the invasion to directly serve the displaced fishermen, and require significant improvement and modernization. The existing shelters should be modernized to serve fishermen, with actions to improve safety conditions of fishing vessels, introduce new technology for safety of fishermen and improve the hygiene and quality of fish. These infrastructures require continuous maintenance (cleaning, electro lighting, dredging etc.)

The collection, management and use of data for the fisheries sector, which serve as the basis for providing scientific advice on management issues, is carried out under the national programmes which are based on a Community legislative framework; this framework provides for the collection and availability of reliable data, as well as the harmonization and coordination among Member States. The financial support of the national data collection programmes under Regulation (EU) No 508/2014 of the European Maritime and Fisheries Fund (EMFF) 2014-2020 is an opportunity to cover needs in resources and improve the quality of data and scientific knowledge.

The Department monitors the fishing activities by applying the provisions of national and Community law, with a problematic structure due to understaffing and the functioning of units which do not cover the entire duration of 24 hours.

ACTIVITIES

1.1. Provision of scientific advice for the management of fisheries resources

This activity includes the collection of fisheries data through the implementation of national programmes, and their use for the assessment of the status of the fishery stocks, the impact of fishing on the marine environment, the economic viability of the fishing fleets, and the relation between the fishing fleets and the exploited fisheries resources. Based on these assessments, the best available scientific advice is provided for achieving the objective of sustainable management of fishery resources. The national data collection programmes are based on an EU legislative framework and are EU co-financed; from 2014 these national programmes are financially supported by the European Maritime and Fisheries Fund (EMFF) 2014-2020.

1.2. Implementation of adjustment management measures, including restructuring of fishing fleets, for the sustainable exploitation of the resources in accordance with the EU common fisheries policy

This activity addresses the current structural problems of the fishing fleet, and includes the implementation of measures that aim to adjust the capacity of the fleets to the availability of the fisheries resources, to adjust the fishing activities in levels that allow the rebuilding/ preservation of the exploited fish stocks, and to minimize impact of fishing on the marine environment. The measures taken are in accordance with the EU common fisheries policy. The measures are implemented through amendments of the national legislation, and adoption of management adjustment plans based on EU legislation. Measures that require financing, with main measure the permanent withdrawal of fishing vessels through scrapping, are financially supported by the EMFF.

1.3. Implementation of measures for modernization of fishing fleets and support to the fisheries sector

The activity includes measures which aim to address several of the needs identified in the marine fisheries sector and involve mainly investments on fishing vessels for modernization (improving safety, hygienic conditions and energy efficiency), investments contributing to the diversification of the income of fishermen, training of fishermen, promotion of collaboration between scientists and fishermen and support to the fishermen through de minimis state aids. These measures are expected to increase competitiveness and economic performance of fishing activities, leading to the sustainability of the fisheries. The measures (except de minimis state aids) are financially supported by the EMFF.

1.4. Upgrade and ensure adequate fisheries infrastructure (cross - sectoral: Department of Public Works — coordinator DFMR)

Under this activity the existing fishing shelters are maintained and upgraded, for improving safety conditions of fishing vessels, introducing new technology for safety of fishermen, and for improving the hygiene and quality of fish products. Measures under this activity are financially supported by the EMFF.

1.5. Development and implementation of an effective control system in compliance with the rules of the common fisheries policy.

The success of the measures adopted under the common fisheries policy, for achieving the sustainable management of the fisheries resources, depends on an effective system of control, inspection and enforcement. This activity addresses the current problems of the Department in monitoring fishing activities, and includes:

- the development of an effective control system can be achieved through the use of new technologies and development of systems for recording and monitoring fishing activities, through the purchase of new more flexible vessels (rigid boats) or the modernization of existing vessels for inspection, the implementation of pilot projects for improving the monitoring of fishing activities, new innovative control systems, training of personnel. Furthermore, the DFMR will examine how a 24hr patrol and surveillance service scheme can be achieved in order to improve the effectiveness of the Control system as well as pursue the establishment of a strong collaboration with other related services.
- the implementation of an effective control system which will be based on an annual special control and inspection programme (harmonization of control and inspection procedures, use of cost-effective tools and means for control and inspection, development of risk assessment management plans), actions relating to the implementation of the National and Community Fisheries Control Programmes and public awareness campaigns on the obligations of the common fisheries policy and the necessity to eliminate illegal fishing.

The control system is based on National and EU legislation for fisheries control, and while operational costs are financed through National funds, the development of the control system is financed through the EMFF 2014-2020. Furthermore it is noted that operational cost for intensifying patrols and surveillance for the specific control and inspection program for Bluefin tuna and swordfish is financed through the EMFF 2014-2020 as well.

OBJECTIVE 2: SUSTAINABLE DEVELOPMENT AND PROMOTION OF AQUACULTURE WITHIN THE FRAMEWORK OF BLUE GROWTH STRATEGY AND COMMON FISHERIES POLICY

STATE OF PLAY

The Government's policy in the aquaculture sector, aims at the sustainable and environmentally balanced, development of aquaculture for maximizing the national production of fisheries products, in accordance with the needs of the Cypriot and the international market. Aquaculture constitutes about 75-80 % of the total national fisheries production in quantity (volume), while it exceeds 70 % in terms of value.

In Cyprus, in 2013, there were authorized (licensed) three marine land based hatcheries , a marine shrimp combined hatchery- grow out unit, nine offshore marine cage grow out units and seven small land based freshwater aquaculture units operating in the Troodos mountain region. In addition to the above in Cyprus there are in operation two Government research stations, one for marine and one for fresh water aquaculture.

The most important species of marine fish cultured in Cyprus is the gilthead sea bream (*Sparus aurata*) and sea bass (*Dicentrarchus labrax*), which represent 66 % and 33 % of the total production respectively.

The table size fish production from aquaculture in 2012, reached approximately 4.261 tons and its value is estimated at EUR 23.02 million. Out of this production around 2.542 tonnes were exported with a value of about EUR 13.6 million. In 2012, the marine hatchery production reached 18.9 million fry /juveniles, with a value around EUR 3.1 million. Overall, the national total value of aquaculture production in Cyprus for 2012 reached about EUR 26 million.

It has to be noted that aquaculture provides direct employment to approximately 250 persons, while a much larger number of people are employed in related/similar professions.

The general objective is the economically, socially and environmentally viable/sustainable development of aquaculture, so that the industry/sector can meet and cope with the new conditions of competition and challenges of the market.

- Analysis of the existing situation

Different research studies that were conducted from different institutions and organizations including the UN, have shown that aquaculture activity will continue to grow as the capture fisheries are in decline and unable to meet the demand of the market. As the global demand increases aquaculture will be called to fill in the gap. Already 50% of the fisheries products consumed worldwide come from aquaculture.

Aquaculture is major pillar of the new Common Fisheries Policy as well as of the Blue Growth Strategy. This activity can have positive socioeconomic impacts by providing employment opportunities, creating new jobs as well as contributing to the food security with high quality products. Aquaculture will also provide with the opportunity to cover jobs lost from the declining capture fisheries sector.

For the further development of this activity a Multiannual National Aquaculture Strategic Plan 2014 - 2020 has been produced. The Strategic Plan includes an analysis of the existing situation, the strengths, the weaknesses, the opportunities and the threats. Based on the analysis specific measures and actions have been identified in order to enhance the sustainable development of this activity.

The Strategic Plan for the sustainable development of aquaculture is based on the Guidelines issued from the European Commission and it covers the following general chapters:

- Simplification of administrative procedures
- Securing a sustainable development and growth of aquaculture through coordinated spatial planning

- Enhancing the competitiveness of EU aquaculture
- Promoting a level playing field for EU operators by exploiting their competitive advantages

ACTIVITIES

2.1. Schemes and subsidies for the aquaculture sector

Aquaculture is an integral part of the national fisheries sector. Within the framework of the new EMFF 2014 – 2020 several measures for the support of aquaculture have been included in the Operational Program (OP) in order to ensure the long term viability and to improve the competitiveness of the sector. The main measures included in the OP relate to productive investments, modernization, innovation and increasing the potential of aquaculture sites. The implementation of the schemes will contribute towards achieving the objectives of the Multiannual National Aquaculture Strategic Plan 2014 -2020 and blue growth.

2.2. Construction of new collaborative infrastructure

In Cyprus 7 out of 9 Marine aquaculture units are operating in the same area. Their production represents about 60% of the total aquaculture production which corresponds to about 50% of the total national fisheries production. Due to new developments in that area the existing infrastructure that was used by the aquaculture units will not be available in the near future. In order to overcome this emerging problem a new collaborative infrastructure, designed to cover the specific needs of aquaculture activities, will be constructed in the area. This innovative project, which will be financed under EMFF, will largely contribute in the improvement of the operation of the units, as well as, in increasing the potential of aquaculture sites.

2.3. Management of aquaculture activities for promoting Blue Growth

Management is an important aspect for the sustainable development of aquaculture. Within this activity studies related to spatial planning and the establishment of aquaculture zones will be conducted. Additionally, the improvement of the existing national aquaculture data base and the use of new technology are foreseen in order to improve the monitoring and inspection of aquaculture activity and the environment. Furthermore in order to ensure long term sustainability and the further development and growth of the sector, the legal framework will have to be revised in order to allow for the reduction of the red tape issues related to aquaculture licensing and the establishment and operation of aquaculture zones. These activities are crucial for the implementation of Blue Growth objectives.

2.4. Promotion of aquaculture research

Aquaculture is an activity whose development has depended on research and innovation. For this reason research will focus in the diversification of aquaculture by assessing new potential candidate species as well as in the diversification of the final products. Additionally, since in Cyprus there is lack of fresh water and the energy cost for conventional re-circulation systems is very high, the efficiency of new re-circulation systems with the use of alternative renewable energy sources will be examined and assessed. Furthermore research will be conducted for the improvement of the reproduction and larval rearing of some new species. Research financed projects will also be promoted in cooperation with other institutes.

The above mentioned research activities aim to promote the sustainable development of the aquaculture sector in Cyprus and enhance its competitiveness.

OBJECTIVE 3: PROTECTION AND CONSERVATION OF THE MARINE ENVIRONMENT

STATE OF PLAY

The marine environment of Cyprus is subject to various different pressures which result in degradation and/or loss of biodiversity. The core of these is the tourism/housing development, overfishing, pollution, coastal works, colonization by alien species through the Suez Canal and climate change. Moreover, new challenges will emerge through the prospect of hydrocarbon exploitation in the Exclusive Economic Zone (EEZ) of Cyprus and neighboring countries and the associated infrastructure. The protection of the marine environment constitutes the basis for the sustainable management of marine living resources and for the promotion of blue growth and is a priority for both Cyprus and the EU. Both the EU and the International Conventions place high on their agenda the protection of marine biodiversity and the maintenance of healthy and productive seas by the end of 2020. Conservation and protection of the environment constitutes one of the Thematic Objectives of the Common Strategic Framework in the context of the EU priorities in promoting environmentally sustainable, resource efficient, innovative, competitive and knowledge-based fisheries. The protection and restoration of aquatic biodiversity and ecosystems is one of the Specific Goals of the EU and relevant actions are eligible for funding by the European Maritime and Fisheries Fund (EMFF).

In Cyprus, the protection of the sea is promoted through the implementation of the provisions of national and Community legislation, culminating with the Marine Strategy Framework Directive-MSFD (2008/56/EC), which aims at achieving and/or maintaining Good Environmental Status (GES) by 2020. The first actions of the MSFD have already been implemented and the next steps require the preparation and implementation of monitoring programs and the preparation and implementation of a program of measures to maintain and/or reach GES for the marine waters. Furthermore, for the protection and conservation of biodiversity 6 Coastal/marine protected areas of the Natura 2000 network have been established in Cyprus, which include important habitat types and species of flora and fauna of the Directive 92/43/EEC. In order to protect and develop aquatic fauna and flora and contribute to the promotion of blue growth an artificial reef was created in the Amathounta marine area. Currently, 4 more artificial reefs are being developed which will also serve as a diving tourism pole of attraction.

Based on the existing information derived from the ongoing monitoring program under Article 8 of the Water-Framework Directive (2000/60/EC), the ecological status of the Cyprus coastal waters varies from “High” to “Good”, whereas the chemical status is also “Good”. The habitats of the Directive 92/43/EC encountered in Cyprus (habitat types 8330, 1120, 1170 and 1110) as well as the loggerhead turtle are found to be in Favorable Conservation Status, whereas the status of three species (green turtle, Mediterranean monk seal and the cetacean *Tursiops truncatus*) is considered unfavorable. The recent Initial Assessment of the marine environment of Cyprus (Article 8 of the MSFD), showed that Good Environmental Status (GES) is achieved for 5 out of the 11 descriptors, GES is not achieved for two descriptors (D2: Non-Indigenous Species and D3: Commercially Exploited Fish Stocks), whereas the status for the remaining 3 (D4: Food Webs, D10: Marine Litter and D11: Underwater Noise) cannot be assessed for the time being due to the lack of relevant scientific data.

The main challenges-weaknesses for our marine environment are: (1) the limited scientific knowledge especially for deep water/high seas and specific topics (e.g. marine food webs, non-indigenous species); (2) the implementation of monitoring programs in the wider maritime area of Cyprus to achieve GES; (3) hydrocarbon activities in the region which increase the future risk of oil-pollution, in conjunction with our currently inadequate operational ability to address such serious pollution incidents due to the limited and anachronistic available means and the understaffing of the Department of Fisheries and Marine Research; (4) difficulties-obstacles in the effective management of marine N 2000 sites and other marine protected areas e.g. inadequate monitoring of the implementation of management measures; (5) lack of an integrated data base for the marine environment of Cyprus. On the other hand, some significant opportunities are: (1) Funding opportunities from the EU; (2) Strong legislative framework (MSFD, WFD- 2000/60/EC, Habitats Directive, Barcelona Convention and related Protocols

and relevant national harmonization or and punitive legislation); (3) Possibilities for cooperation with other Member States within the EU, as well as with other non-EU Mediterranean States within regional conventions and committees; (4) Possibilities for cooperation with associations, NGOs, local communities and local government for the protection of the marine environment.

ACTIVITIES

3.1. Studies and monitoring of the marine waters up to the EEZ, under the relevant European legislation and International Conventions

In order to comply with the European and international obligations and reach the objective of protection and conservation of the marine environment, the following programs and studies are implemented:

- programs of monitoring and assessment of the environmental status of the marine environment up to the EEZ under the EU Marine Strategy-Framework Directive (2008/56/EC);
- programs of monitoring and assessment of the ecological and chemical status of the coastal waters and salt lakes under the EU Water-Framework Directive (2000/60/EC) and the Directives (2008/105/EC & 2013/39/EC) for Priority Substances;
- marine water quality control for the prevention of pollution under the MEDPOL program UNEP/MAP;
- programs for monitoring and assessment of the status of species (e.g. marine turtles, Mediterranean monk seal) and habitats (e.g. Posidonia oceanica meadows) under the EU Habitats Directive (92/43/EC);
- programs for the assessment of the impacts of anthropogenic activities on the marine environment;
- development and upgrade of an integrated data base and data management system for marine environment monitoring information;
- study and monitoring of non-indigenous species in marine protected areas;
- recording and assessment study of cetacean populations in the coastal and EEZ areas of Cyprus.

The implementation of some of the above-mentioned actions requires coordination-collaboration with other public authorities. It is noted that most actions will be financed by EMFF.

3.2. Management and Monitoring of Marine Protected Areas

This activity addresses the problems in the effective management of the marine Natura 2000 areas through the compilation and implementation of Management Plans, as well as the monitoring of their implementation. The effective management of marine protected areas is a powerful tool for reaching the objective of protection and conservation of the marine environment. Most actions will be financed by EMFF.

3.3. Establishment of Artificial Reefs contributing *inter alia* to the Blue Growth Strategy

This activity includes:

- Establishment of marine protected areas with Artificial Reefs in 4 selected coastal areas of Cyprus;
- Upgrade, management and monitoring of the established Artificial Reefs. Actions will be financed by EMFF.

The development of Artificial Reefs is an essential tool for the enhancement of marine biodiversity and the recovery of fish stocks, contributing *inter alia* to the development of coastal ecotourism (e.g. diving and snorkeling), an important sector of Blue Growth.

3.4. Inspection and combat of oil pollution (combat teams)

The effective inspection and combat of pollution is crucial for the protection of the marine environment. This ongoing cross-sectoral activity coordinated by DFMR and the Department of Merchant Shipping includes:

- patrolling activities for the inspection and prevention of oil pollution in the marine areas of Cyprus;
- emergency response activities for combat of oil pollution incidents;
- activities in connection with the search and rescue in cooperation with the Rescue Coordination Centre.

OBJECTIVE 4: IMPROVEMENT OF COASTAL AREAS WITH LOCAL PARTICIPATION

STATE OF PLAY

In the context of the implementation of priority axis 4 of the Operational Programme for Fisheries 2007-2013, specific areas were identified through a study, which could be classified as fisheries areas, in accordance with Regulation (EU) No 1198/2006 of the European Fisheries Fund 2007-2013. Through the Operational Programme for Fisheries 2007-2013, given the low availability of resources and the absence of any experience in implementing similar local projects, it was decided to select only one fisheries local action group (FLAG) in order to make better use of resources for the development of specific fishing areas.

In accordance with Regulation (EU) No 508/2014 of the European Maritime and Fisheries Fund 2014-2020, under the Union Priority 4 of the OP "Thalassa" 2014-2020, the CLLD approach (Community-led local development) will be implemented, which is expected to specify more precisely the development needs of fisheries and aquaculture areas of Cyprus, and be better addressed through specialized area-based local development strategies.

The objective is to maintain the economic and social prosperity of fisheries and aquaculture areas, the exploitation of fisheries and aquaculture products and to maintain and develop jobs in fisheries and aquaculture areas. This requires the promotion of an integrated design for improvement and further development of the areas through the more efficient and sustainable exploitation of marine and fisheries resources, sustainable job creation and improvement of the sector's competitiveness through the adoption of new or innovative technologies to promote high value-added products and services.

CLLD will lay down the objectives and more precisely any measures, which will be included in the local development strategies of Fisheries Local Action Groups (FLAGs). The implementation of integrated local development strategies and the establishment of fisheries local action groups, based in particular on experience from the implementation of priority axis 4 of the Operational Programme for Fisheries 2007-2013, will boost the development of fisheries and aquaculture areas, while special emphasis will be made to the restructuring of the economy, the creation of employment opportunities, cooperation and innovation.

ACTIVITIES

4.1. Preparatory Support for the development of Fisheries Local Action Groups (FLAGs)

The implementation of the above action is in accordance with Regulation (EU) No 508/2014 of the European Maritime and Fisheries Fund 2014-2020, under Union Priority 4. The aim is to support the Local Fisheries Action Groups for capacity building, training, and networking and also for preparing their local development strategies, taking into consideration the opportunities of Blue Growth Strategy.

4.2. Implementation of local development strategies of FLAGs

The implementation of the above action is in accordance with Regulation (EU) No 508/2014 of the European Maritime and Fisheries Fund 2014-2020, under Union Priority 4. The aim is to co-finance projects and actions for the development and improvement of the quality of life of fisheries and aquaculture areas, for which there is evidence of strong dependence of the local economy from fishing activities.

DEPARTMENT OF ENVIRONMENT

OBJECTIVE 1: CLIMATE CHANGE MITIGATION AND ADAPTATION

STATE OF PLAY

Today the majority of scientists agree over the increasing influence of the economy and society over the Earth's climate, as a result of activities such as the burning of fossil fuels, the deforestation of tropical forests and the rearing of livestock. Acknowledging the impacts of human activities on the climate, the international community concluded in 1992 at the Rio Conference on Environment and Development, the United Nations Framework Convention on Climate Change. Cyprus ratified the Convention in 1997. The key objective of the Convention is the stabilization of greenhouse gas concentrations in the atmosphere at such levels, as to prevent dangerous anthropogenic interference with the climate system.

In 1997 the Kyoto Protocol was adopted under the Convention, which defines legally binding target limits for greenhouse gas emissions for the period 2008-2012. Cyprus ratified the Kyoto Protocol without any commitments for the limitation or reduction of emissions. In 2012, at the Climate Change Conference held in Doha, Qatar, the second commitment period was agreed under the Protocol (2013-2020). In the context of EU commitments (reduction in greenhouse gas emissions by 20% by 2020 compared to 1990 levels), Cyprus has undertaken its own national targets for a reduction in greenhouse gas emissions by 21% by 2020 for electricity generation and the production of cement and ceramics, and by 5% in other sectors, including agriculture, transport, waste, etc., compared to the 2005 levels.

With a view to prepare for the international negotiations for the period following 2020, EU leaders agreed in October 2014 on the reduction of greenhouse gas emissions by at least 40% by 2030, compared to the 1990 levels. For Cyprus, this corresponds to a reduction in greenhouse gas emissions by 42% for electricity generation, and the production of cement and ceramics, and 22% in other sectors, including agriculture, transport, waste, etc., by 2030 compared to the 2005 levels.

It must be noted that according to the greenhouse gas emissions inventory reports, the total emissions in Cyprus have increased by 52% during the period 1990-2012, while since 2008 an average annual reduction of 3% has been observed.

Furthermore, the impacts of climate change are increasingly felt both in Europe and internationally. They are expected to be particularly severe for Cyprus, where climate change is already evident, given the rising average temperatures and decreasing average annual rainfall observed over the last 100 years. The impacts of climate change will not only persist, but will intensify over the coming decades.

As a result of the above, Cyprus faces the challenge of developing its economy in a way as to minimize the emissions of greenhouse gases, and at the same time adopt and implement those measures and actions appropriate to enable adaptation to climate change. Moreover, given that a substantial share of the greenhouse gas emissions in Cyprus comprises fluorinated greenhouse gases, emphasizes the need for the full and proper implementation of the legal framework for their reduction and / or recovery.

Finally, climate change is a horizontal, interdisciplinary field that requires the active involvement of nearly all the Ministries in Cyprus, including the Ministry of Agriculture, Natural Resources and Environment, the Ministry of Energy, Commerce, Industry and Tourism, the Ministry of Foreign Affairs, the Ministry of Interior, the Ministry of Communications and Works, the Ministry of Labour, Welfare and Social Security, the Cyprus Energy Regulatory Authority and the local authorities. Therefore, the role of the Department of Environment as the national coordinator needs to be enhanced and strengthened. Finally, an important factor in facilitating efforts is the continuous improvement of the institutional framework, including the establishment of a system of inspections.

1.1. Reduction in greenhouse gas emissions and adaptation to climate change

The EU greenhouse gas Emissions Trading System (ETS) is the basic tool for the cost-effective reduction of greenhouse gas emissions. Accomplishing the ETS targets requires the licensing, control and monitoring of the stationary installations participating in the System and aviation, the maintenance of the National Greenhouse Gas Emissions Trading Register and the auctioning of emission allowances.

For sectors not included in the ETS, Member States have committed as part of the European climate and energy package of 2009, to specific national emission reduction targets. To accomplish its national target of a 5% reduction by 2020 compared to 2005, Cyprus requires the implementation of a strategic plan for the reduction of greenhouse gases in accordance with the provisions of Decision 406/2009/EC. Adaptation to climate change also requires the implementation of a strategic plan and appropriate sectoral action plans, integration of measures in all relevant sector policies and the ex-ante risk assessment of climate change impacts.

1.2. Implementation of international and EU commitments on climate change, protection of the ozone layer and regulation and monitoring of fluorinated greenhouse gases

Commitments imposed by international and community legislation include the submission of inventory reports, projections on greenhouse gas emissions and reports on funding, the policies and measures for adaptation to climate change and the reduction of greenhouse gas emissions. Additionally, under the Framework Convention on Climate Change, the preparation of a national and a biannual report is required. Participation in the various international conferences and EU-level preparatory meetings, where participation is necessitated by the need to safeguard national interests and objectives, also places additional demands.

The regulation and monitoring of fluorinated greenhouse gases requires the implementation of funding schemes for the withdrawal and destruction of banned refrigerants and the preparation of plans for the recovery and destruction of gases, as provided for by the relevant legislation, which seeks to provide the necessary incentives for equipment handlers.

1.3. Coordination of climate change policy issues

Implementation of the policies and measures for the reduction of greenhouse gases presents a significant challenge. Climate change is an interdisciplinary issue, the implementation of which requires the involvement of a number of Ministries and competent bodies.

The Technical Committee for the ETS and the ad-hoc committee on climate change facilitate coordination and discussion on policy issues and measures for the reduction of greenhouse gas emissions, the collection of data for the inventory and the projections of greenhouse gas emissions. Communication is reinforced through regular correspondence with the competent bodies. Coordination is also required with the Customs Department with respect to inspections for the control and monitoring of fluorinated greenhouse gases.

1.4. Project Implementation – Funding of projects / actions on climate change

Achieving the emission reduction targets requires the utilization of available financial and other tools, and more specifically a) the possibility to conclude intergovernmental agreements on greenhouse gas emissions trading, b) implementation of the relevant Commission Decisions on the funding of projects in Cyprus from the NER300 Funding Programme, c) the allocation of at least 50% of the proceeds from the auctioning of emission allocation rights to particular actions mainly relating to climate change, and d) assessing the possibility of classifying the geology of Cyprus with respect to its appropriateness for implementing the technology for the geological storage of carbon dioxide. Equally important is the need to exploit funding schemes towards action plans and measures

for abatement and adaptation to the impacts of climate change, as well as for the withdrawal or destruction of banned refrigerants.

1.5. Dissemination of information on climate change

Raising environmental awareness is of vital importance in enabling the transition to a low-carbon economy by facilitating the integration of relevant policies in all economic sectors and promoting changes in production and consumption patterns.

The dissemination of information on climate change is accomplished through meetings with the competent bodies and stakeholders, public presentations and consultations, the distribution of information material and participation in seminars and exhibitions. An important tool towards the effective dissemination of information is offered through the various EU funded projects, such as LIFE.

OBJECTIVE 2: ENVIRONMENTAL PROTECTION

STATE OF PLAY

The operation of industrial and livestock installations has the potential to pollute the environment. The control of water and soil pollution and appropriate waste management are two of the main priorities of the Department of Environment. Implementation is primarily achieved through a system of permits and inspections, as well as the designation of protected areas (nitrate vulnerable zones, zones vulnerable to urban wastewater disposal and bathing water sites). All potentially polluting installations (approximately 800) and all waste management operators (approximately 400) need to acquire a permit. From them, only half have so far been licensed. Three types of permits are issued for Waste Disposal, Waste Management and Industrial Emissions, while for the evaluation of applications three separate legally established committees exist, comprising representatives of the various competent Ministries, bodies and NGOs. Non-compliance is dealt with through regular controls and inspections, for which the pressing needs in human resources have led, since 2012, to the purchase of services. Meeting obligations requires coordination with all the competent departments of the Ministry (Departments of Agriculture, Water Development, Geological Survey, Fisheries and Marine Resources, the Mines Service and the Veterinary Services), as well as with other Ministries (Ministry of Interior, Ministry of Labour, Welfare and Social Insurance, Ministry of Energy, Commerce, Industry and Tourism and Ministry of Health). The competency for the implementation of the Industrial Emissions Law is shared with the Ministry of Labour, Welfare and Social Insurance.

Protection of the natural capital is another key priority of the Department of Environment. Efforts concentrate on the protection of sites designated under the Natura 2000 Network, for which the Department is the coordinating authority, having at the same time the administrative responsibility for sites designated in accordance with the Habitats Directive outside forest areas. The Natura 2000 Network comprises 40 Sites of Community Interest (SCI) (for the protection of species and habitats except bird species) and 30 Special Protection Areas (SPA) (for the protection of birds), which together constitute 29% of the total area under the control of the Republic of Cyprus. The management plans for the SCI have been completed, but the relevant protection measures have not yet been implemented and the observation and monitoring network is not fully operative. A Scientific Committee has been established for consultation purposes, while three other authorities are involved in the management of the Network, namely the Game and Fauna Service for the SPA for birds, the Department of Forests for the SCI within forest areas, and the Department of Fisheries and Marine Resources for the marine SCIs. The need to coordinate work between the different competent departments for the management of designated sites, including for the assessment of impacts from projects not directly connected with their management (Appropriate Impact Assessments) and for the functioning of the Scientific Committee is

significant. Moreover, the need to inform the public and raise community awareness is particularly important to ensure acceptance.

One of the basic tools for the protection of the natural and urban environment is the assessment of the impacts on the environment from proposed plans, programmes and projects and their avoidance or reduction through appropriate mitigation measures and actions. The relevant legislation has been in force for over 10 years and the Department of Environment has the responsibility to assess impacts and issue environmental opinions, which constitute an integral part of development planning consents and other required permits. The assessment process is complex, multifaceted and interdisciplinary and requires coordination both within the Department and with other Departments and Ministries, so as to take into consideration all the parameters and opinions and ensure that all aspects of a proposed project have been addressed. The assessment process involves an examination by a legally established Committee, which functions as an advisor to the Department of Environment. Aside the plans and programmes falling under the relevant legislation, the Department of Environment also advises other public authorities on development activities, which may potentially have environmental effects, proposing terms and conditions for their reduction. The coordination requirements for the assessment, the functioning of the Committee and the need to ensure that applications include all necessary information, require a large team of officers with specialized expert knowledge, who devote a considerable part of their time on these activities.

ACTIVITIES

2.1. Protection of the environment from the activities of industrial and livestock installations, waste management operators and waste producers

The main goal of this activity is to improve compliance with the environmental legislation on matters of pollution control and waste management, which is primarily achieved through the implementation of a system of permits and inspections, the designation of protected areas and the preparation of management plans and action programmes, as required by the European Directives and International Conventions.

In addition, there is an ongoing effort to improve and modernize the legal framework for a more effective implementation, reduction of the administrative burden and a more efficient provision of services to economic operators and businesses with respect to environmental permitting. Furthermore, the institutional framework will be appropriately restructured with respect to the management of the environmental aspects of energy and hydrocarbons.

2.2. Managing species and habitats with the objective of halting the degradation of the conservation status

The main aim of this activity is the implementation of the Habitats Directive, through the protection and management of the Natura 2000 network, including the mapping of species and habitats, preparation of management plans for the Natura 2000 sites, monitoring and supervision of the designated sites and the implementation of protection measures. Aside the Natura Network, other important ongoing actions include measures on the movement of species and genetic resources, the reduction or elimination of invasive species and the control of the introduction of genetically modified organisms in the market.

Another aim of this activity is the preparation and implementation of a broader strategy on biodiversity and the conservation and improvement of ecosystem services and the rehabilitation of degraded ecosystems through the promotion of green infrastructure.

2.3. Assessment of the impacts on the environment from plans / programmes / projects and other actions

The activity covers the overall process for the assessment of the impacts on the environment from proposed plans and projects, which includes the assessment of the environmental aspects of each proposal, coordination

and cooperation with other Departments, etc. For coastal areas, the preparation of a strategy for their integrated management and the designation of a terrestrial coastal zone area are promoted. Finally, with respect to environmental noise, the strategic noise maps are under preparation and action plans are promoted covering roads, airports and industrial areas, with the aim to protect citizens from the impacts of noise.

New legislation is drafted, that will provide the necessary tools for more effective implementation (one-stop shop, decree for the contents of the assessment studies, decree for the qualifications of consultants, obligatory monitoring).

2.4. Dissemination of information

Raising environmental awareness is an important tool for pollution abatement, to which end information on pollution prevention and the correct management of waste is regularly disseminated via various communication channels. At the same time, public consultation is required for new permits and legislative acts.

Raising awareness and informing communities on the Natura 2000 Network is an important factor in securing its acceptance and effective management. Through the relevant LIFE programme, awareness and information campaigns are carried out to this purpose and educational packages have been prepared.

With respect to environmental impact assessments, the provision of information on a proposed plan or project and public participation prior to development consent are obligatory. Furthermore, information is provided through various awareness actions regarding the general approach of the Department on the environmental impact assessment of plans and projects, noise, environmental management tools and coastal management.

2.5. Project implementation

For the effective control of pollution and management of waste, significant financial resources are required, as well as skilled and adequately trained personnel. Part of the necessary financial resources is raised from community funds through the LIFE programme. Nature protection also requires considerable human and financial resources. Therefore, raising financial resources from community funds is a priority. It is noted that LIFE programme has already funded the preparation of nine management plans for the Natura 2000 Network.

The funding of actions for the Natura 2000 Network from the Cohesion Funds and the European Regional Development Fund has been approved for the period 2014-2020, while the uptake of the funding will begin in 2015. Furthermore, given that the training of personnel for the environmental impact assessment of plans and projects is of particular importance, an action plan financed by the Cohesion Funds will be implemented for the training of officers, members of the Technical Committees, local authorities and NGOs.

2.6. Coordination

The implementation of the laws on the control of water and soil pollution and the management of waste, including the functioning of the Technical Committees and the preparation of compliance reports, entails increased needs for coordination, due to the large number of stakeholders and competent bodies involved. The same applies for the implementation of the legislation on nature protection, due to the large number of stakeholders involved in the management of the Natura 2000 Network and the implementation of the relevant laws and policies.

The environmental impact assessment of plans, programmes and projects also requires considerable coordination efforts, given that the assessment often covers several environmental aspects, including for the efficient functioning of the Technical EIA / SEA (Environmental Impact Assessment / Strategic Environmental Assessment) Committee and the exchange of information between the consenting authorities and the applicants.

OBJECTIVE 3: RESOURCE EFFICIENCY

STATE OF PLAY

One of the difficult challenges to be addressed is the need to promote development, so as to improve welfare and secure employment, while at the same time ensuring environmental protection and enhancing resource efficiency. Responding to this challenge requires the restructuring of all economic sectors on the basis of a policy framework that will facilitate innovation, efficiency and change, and create economic opportunities through the redesign of products, the sustainable management and use of resources and the wider reuse and material substitution. One of the key priorities of the Department of Environment is the decoupling of economic development from resource use and environmental degradation and the transition to a green, competitive, resource efficient, low-carbon economy. To this end, it supports the transition to a green economy by contributing to the development of the overall policy framework on green growth and through the promotion of the circular economy, resource efficiency and sustainable consumption and production, on the basis of relevant European decisions and action maps.

At the same time, promoting the green economy requires the creation of an enabling environment and the provision of incentives to business, industry and the public at large, to support increases in the efficiency of resource use, promote a life-cycle approach for products, reduce waste and change consumption patterns. Actions include the promotion of voluntary systems of sustainable production and consumption through the implementation of the European ECOLABEL and the Eco-Management and Audit Scheme (EMAS), as well as the Green Public Procurement Action Plan, which aim to minimize the environmental impacts from business activities, the production and consumption of products and the provision of services.

The new government policy on waste has also been shaped in view of the above. The waste management field, particularly with respect to municipal waste which is the second largest waste stream in Cyprus, is not characterized by an integrated and coherent approach, although the EU policy and legal framework is generally implemented and the necessary infrastructure has been created (network of licensed collectors and waste treatment operators). For certain types of waste, including packaging, WEEE (Waste of Electrical and Electronic Equipment), batteries and tires, the extended producer responsibility is under implementation both in terms of legislation and through the operation of individual and collective systems. However, the lack of an integrated and coherent approach means that only 20% of municipal waste is prepared for recycling, while the rest is disposed of in landfills. The fact that Cyprus has one of the highest per capita production of municipal waste in Europe, emphasizes the need to restructure policy, so as to reduce the overall impact of resource use and improve its efficiency.

Given the aforementioned situation and European obligations, the National Waste Prevention Programme and the Municipal Waste Management Plan have been prepared. The National Waste Prevention Programme includes a package of measures that focus on the reduction of certain waste streams (food waste, paper, plastic, electrical and electronic equipment, clothing and construction and demolition waste) and the adverse impacts of the hazardous waste stream of municipal waste. The ultimate aim is the decoupling of economic development from the production of waste and the reduction of the per capita production of municipal waste in Cyprus. Similarly, the Municipal Waste Management Plan defines the basic principles governing the management of municipal waste, sets national quantitative and qualitative targets for separate collection at source and adopts measures for meeting these targets. The basic goal is for the management of waste to constitute part of sustainable development through the implementation of the waste hierarchy

3.1. Efficient management of waste, use of waste as a resource and actions towards the transition to a green economy

Supporting the transition to a green economy is accomplished through the Department's contribution in the preparation and implementation of the National Action Plan for a Green Economy.

The implementation of Waste Management Strategy will be achieved through a review of the institutional framework, the strengthening of local authorities, improvements in infrastructure, the provision of incentives, the implementation of the extended producer responsibility and the full exploitation of mechanisms for raising public awareness and educating stakeholders.

The National Waste Prevention Programme and the Municipal Waste Management Plan promote a series of actions, including legislative measures for the appropriate management of waste, the implementation of waste prevention and separate collection systems in cooperation with local authorities, the conclusion of voluntary agreements with businesses for the implementation of waste prevention programmes and the establishment of a funding scheme to support improvements in waste management infrastructure and industries that may potentially use recyclable products in their production cycles. The implementation of the aforementioned actions is one of the foremost priorities of the Department of Environment, in view of the tight time schedules for compliance with the relevant European obligations.

3.2. Promoting the implementation and wider uptake of environmental market tools and labeling (EMAS, ECOLABEL, Green Public Procurement)

Through a series of measures and campaigns, the Department actively promotes the wider uptake of the EMAS for the environmental management of business and other service sectors and the ECOLABEL for products, as well as the enhanced implementation of the Green Public Procurement Plan for the introduction of environmental parameters in the tendering process and the procurement of green products and services by the public sector.

3.3. Dissemination of information

With respect to the promotion of voluntary tools, campaigns are carried out for the European ECOLABEL and EMAS, targeted at certain economic sectors. In the case of Green Public Procurements, campaigns are carried out targeted at the public sector. The aim is to enable the transition to more sustainable production and consumption patterns.

For meeting the targets set for the management of waste, measures will be taken for the dissemination of information, including the creation of an appropriate database system for the collection and assessment of data on waste management and an internet platform for the exchange of knowledge and good practice between stakeholders and the dissemination of information to the general public. Awareness and information campaigns will be carried out for the public and stakeholders, as well as training programmes for local authorities, the wider public sector and other stakeholders.

3.4. Project implementation

For the implementation of the waste management obligations, the Department will absorb financial resources from community funds, participating in co-funded programmes. More specifically, the Department will participate in several EU Competitive Programmes such as LIFE, Territorial Cooperation, ENI, MED, INTEREG, etc. Moreover, financial resources will be absorbed from the Structural and Investment Funds, from which it has already received approval for the period 2014-2020 for the implementation of certain projects. The absorption of funds is expected to begin in 2015.

3.5. Coordination

The implementation of the relevant waste legislation entails significant coordination requirements, due to the many stakeholders involved in the waste management sectors, which demands continuous communication for the exchange of views, as well as frequent meetings and committee sessions. A necessary precondition is the direct communication and negotiations between the Department and the different stakeholders for the establishment of programmes, voluntary agreements, actions and measures to be implemented.

OBJECTIVE 4: ENHANCING THE INSTITUTIONAL CAPACITY AND IMPROVING THE EFFECTIVENESS OF THE DEPARTMENT

STATE OF PLAY

Until recently the Department of Environment lacked a comprehensive strategic plan to link clearly defined objectives and targets with the budget. In 2014 the first comprehensive strategic plan was prepared by the strategic planning team and is under a continuous process of monitoring, assessment and review.

Today, responsibilities in the environmental field are scattered in different ministries, departments and services, which significantly constricts the effective implementation of the environmental policy in Cyprus.

The work of the Department is complicated on several occasions by the existing legal framework for environmental permits, which imposes an increased administrative burden, not only for the government sector but also for businesses and economic operators, given that an installation may be obliged to acquire up to four different licenses, as a result of various legislative provisions. The goals of the envisaged amendments of the legislative framework are 1) to require one permit per installation, and 2) to reduce the number of permits issued without reducing the requirements or the degree of environmental protection.

In addition, the lack of an integrated automation system also restricts the efficiency of the Department, both with respect to its internal functions and regarding the appropriate, full and timely provision of information to the public, mainly through its website. Another important element for the efficient functioning of the Department, which is not currently available, is the infrastructure for spatial data (geographical information systems) and integrated databases.

Aside infrastructure problems, the Department of Environment is either directly responsible for, or coordinates the implementation of more than 120 pieces of legislation that relate to environmental matters. Understaffing has always been an important parameter that deters the effective functioning of the Department. The problem has recently been reinforced by the measures taken to address the government deficit, such as the repeal of 16 new job positions and freezing of recruitments and promotions. The restructuring of the Department on the basis of the Action Plan for the Reform of the Ministry will be an important priority pillar for the coming three years. The study emphasizes the lack of human resources and the fact that many environmental issues are scattered in various other ministries and departments. The latter in particular, deters significantly the Department's work, due to the adoption of different targets and objectives, duplication of work, the requirement of more resources, delays, subjectivity, etc.

Another important factor with respect to personnel issues, which is the result of the dynamic nature of the term "environment" and the continuous development of scientific information and subject fields, is the need to train human resources to deal with new challenges (e.g. hydrocarbons), new trends and new circumstances.

Finally, within the context of improving the efficiency and effectiveness of the Department, of particular importance is the need to enhance the implementation of objectives and targets, including through appropriate

coordination, so as to maximize the utilization of Competitive Programmes, such as LIFE, and other funding programmes from the Cohesion and Investment Funds.

ACTIVITIES

4.1. Improving the institutional framework

One of the priorities is the internal modernization of the Department through the improvement of the institutional framework. This is achieved primarily through the development, monitoring, evaluation and review of the Strategic Plan of the Department. Within the context of institutional improvements, current efforts focus on the consolidation and centralization of responsibilities in the environmental field which are today scattered in various ministries, departments and services. The reform process of the Department of Environment is directly linked to the general restructuring efforts of the Ministry.

Another important aspect for the improvement of the Department's institutional framework concerns the improvement and modernization of the legislative framework for environmental permits, which will lead to the reduction of the administrative burden, both for the public service and the private sector.

4.2. Improving productivity and the quality of the services provided

Improving the productivity and the quality of services provided is a continuous task. Efforts primarily focus on improving the functioning of the Department's procedures, through the establishment of automated procedures, with the development of databases and spatial data, the continuous upgrading of the webpage and the provision of information through electronic governance. At the same time, standardization and the possibility for the electronic submission of information on behalf of operators, are also promoted. The restructuring of the Department is also expected to further facilitate efforts, as does the emphasis given to the continuous training and lifelong learning of the personnel.

4.3. Programmes to enhance the implementation of objectives

For enhancing the implementation of its goals in all sectors, the Department places particular emphasis on the absorption of community funds through the promotion and coordination of funding programmes and actions under the European Cohesion and Investment Funds and the management of the LIFE Programme (submission of proposals). Moreover, the effective implementation of goals is reinforced through the continuous assessment of the state of the environment and the preparation of relevant reports, which demonstrate the effectiveness of measures and guide the formulation of future policy.