



MedBEEsinessHubs – C_A.1.2_0035

WP6: WP6: Strategic dissemination and policy making

O6.1 Policy document incorporating the Bee economy concept in European and national policies

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Introduction

Managed honeybees and solitary (wild) bees form a great part of the group of insects that are known as pollinators. Pollinators transfer pollen from male to female structures of flowers, enabling fertilisation and reproduction of plants. They increase the quantity and quality of food, and ultimately secure our food supply. Pollinators are essential for nature and for mankind. In the EU, nearly four-fifths of temperate wildflowers and crops depend to various extents on insect pollination. An EU financed project estimated the yearly contribution of insect pollinators to European agriculture at around €15 billion¹. Pollinators increase the quantity and quality of food, and ultimately secure our food supply². However, almost 50% of the land cultivated with pollinator-dependent crops faces a pollination deficit³.

In recent decades, wild pollinators in the EU have declined in abundance and diversity. In 2016, the global assessment of the status of pollinators⁴ concluded that wild pollinators are decreasing under the increasing threat from human activity, including climate change. A 2019 worldwide assessment report on insects⁵ confirmed a negative trend in the number of insects in general, with over 40 % of insect species threatened with extinction. The most affected insect species are butterflies, moths, bees and beetles. According to a report published by the European Court of Auditors⁶, “Wild pollinators in the EU are declining in abundance and diversity under the increasing threat from human activity, in particular conversion to intensive agriculture and the use of pesticides and fertilisers.

When it comes to bees, Europe has a duty of care as a higher proportion of threatened wild bee species are endemic to either Europe (20.4%, 400 species) or the EU 27 (14.6%, 277 species). This highlights the responsibility that European countries must protect the global populations of these species. Almost 30% of all the species threatened (Critically Endangered, Endangered, or Vulnerable) at the European level are endemic to Europe (i.e., found nowhere else in the world).⁷

The European Parliament has called on the EU and its member states to invest more in protecting bee health, combating honey adulteration and supporting beekeepers. A parliamentary resolution in 2018 called for an effective, large-scale and long-term European strategy to improve bee health, combat bee mortality and rebuild bee stocks. More specifically, the resolution had asked for:

- action plan to combat bee mortality,
- breeding programs for bee species resistant to invasive species, such as the Varroa destructor, the Asian wasp (a species very aggressive with other insects) and the American foulbrood,
- strengthening research to develop innovative medicines for bee health,
- ban all active substances in pesticides that have scientifically proven adverse effects on bee health, including neonicotinoids, and provide farmers with safe alternatives,

¹ Potts S. et al, “Status and trends of European pollinators. Key findings of the STEP project”, 14 January 2015.

² FAO, “The power of pollinators: why more bees means better food”, 24 August 2016. L. A. Garibaldi et al, “Mutually beneficial pollinator diversity and crop yield outcomes in small and large farms”, Science Magazine, 2016.

³ Vallecillo Rodriguez, S., La Notte, A., Ferrini, S. and Maes, J., How ecosystem services are changing: an accounting application at the EU level, ECOSYSTEM SERVICES, ISSN 2212-0416, 40, 2019, p. 101044, JRC117072. <https://publications.jrc.ec.europa.eu/repository/handle/JRC117072>

⁴ IPBES, “The assessment report of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services on pollinators, pollination and food production”, 2016.

⁵ Sanchez-Bayo F., A.G. Wyckhuys K. “Worldwide decline of the entomofauna: A review of its drivers”, 31 January 2019.

⁶ European Court of Auditors, “Protection of wild pollinators in the EU — Commission initiatives have not borne fruit”

⁷ https://rea.ec.europa.eu/news/eu-funded-projects-helping-protect-bees-across-europe-2023-05-17_en

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- advanced early warning systems between farmers and beekeepers, foresters, scientists and veterinarians about spraying periods.

To meet the increasing concerns on bee health and generally in reversing the declining numbers of pollinators, the Commission has put in place measures affecting wild pollinators in the areas of the environment, pesticides, agriculture, cohesion, and research and innovation. In June 2018, the Commission published the Pollinators Initiative, which included a list of actions to tackle the main threats to wild pollinators, a document that was revised in 2021 following new consultation with stakeholders.

Furthermore, through the CAP, the apiculture programs provide support to beekeepers, with the key objective of the programmes “to improve the general conditions for producing and marketing apiculture products in the EU”⁸. In regulation 2021/215 under Article 54, the objectives in the apiculture sector are further specified in the sense that ‘The Member States shall pursue at least one of the relevant specific objectives set out in Article 6(1) in the apiculture sector’, ie in one of the nine specific objectives that make up the new CAP policy.

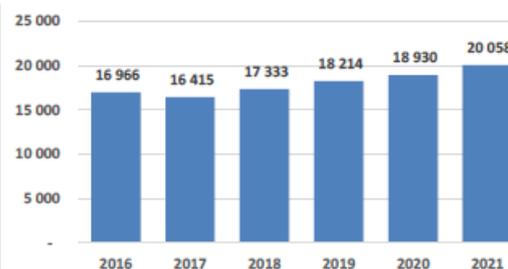
In all these policies, the cluster approach in which the honeybee has a central role in rural development seems non-existent. This is the gap identified by the partners of the MedBEEsInessHubs project, thereby stepping in to set the grounds on which to test the efficacy of the bee economy concept, one that is based on cooperation amongst diverse stakeholders in a specific region, be that a village or a cluster of villages.

⁸ European commission, “Report from the commission to the European parliament and the council”, Brussels 2023

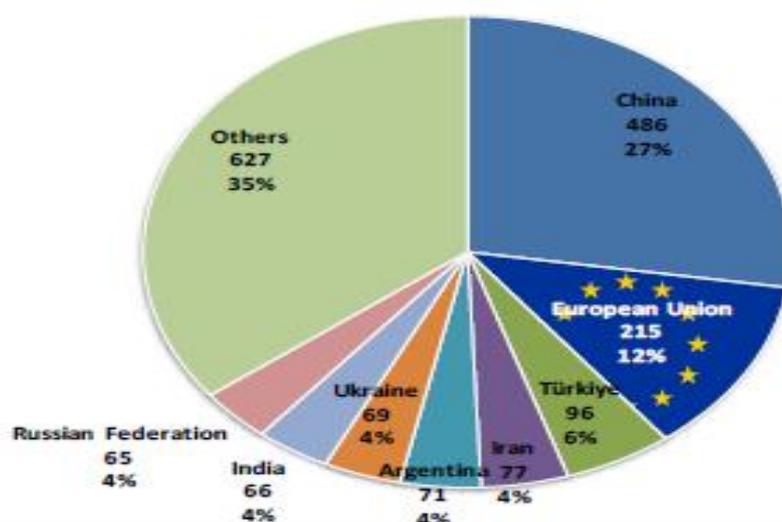
The honeybee supply sector of the European Union & Cyprus

Prior to the preparation of any policy document regarding the honeybee sector in Cyprus and the European Union, it is important to get a glimpse of the current supply situation in terms of production and the number of beekeepers.

At European level, the number of hives shows a continuous increase over the past six years, an increase recorded almost in all member states. The data notified in 2023⁹ show that there were approximately 20 million hives in the EU managed by around 615.000 beekeepers. This denotes a substantial increase since 2016, when there were 568.000 beekeepers. Six countries possess more than 50% of the total hives of the EU, namely Spain, Greece, Romania, Italy, Poland and France.



According to the same data, the European Union produced 217.864 tons of honey in 2020, making the EU the second largest honey producer in the world (12%), after China with 458 100 tons (27%). Since 2018, EU production has fallen by around 16% from 258.610 tons. The EU does not produce enough honey to cover demand. In 2020, it was around 60% self-sufficient¹⁰, i.e. roughly the same level as in 2018. The main supplier for imported honey in 2020 was Ukraine (31% of imports) followed by China (21% of imports).



In terms of the Cyprus honeybee sector and according to the data collected through September and October of 2020 for the “Beekeepers Register” by the Agriculture Department, the number of beekeepers was 755, and the number of hives was 58,184. The total honey production for the year 2020 is estimated at 519.881 kg and the average annual production per hive at 8.93 kg. The average number of colonies per beekeeper was 77 (find bellow data comparing Cyprus with the EU average). It is important to note that from the 755 beekeepers, only 86 are women and from them only 17 have more than 150 hives (considered professionals). It is important to highlight that the export of Cypriot

⁹ https://agriculture.ec.europa.eu/system/files/2023-05/market-presentation-honey_spring2023_en.pdf

¹⁰ Self-sufficiency rate = EU production/(production+imports-exports).

honey is very limited, less than €50,000 annually (2018 data). This is a robust indicator that imported low quality honey from abroad has not been a deterrent to the distribution of local products¹¹

Most data shown below were collected by the Plant Protection and Beekeeping Sector of the Agriculture Department of the Ministry of Agriculture, Rural Development and Environment, and were published through the official webpage of the department¹².

Table 1: Beekeeping in Cyprus statistics, *Source: Department of Agriculture*

	Cyprus (2020)	EU average ¹³ (2020-2022)
No. of Beekeepers	755	615,058
No. of hives	58,184	18,926,000
Total honey production (kg)	519,881	240,000,000
Average annual production per hive (kg)	8.93	22
Average no. of hives per beekeeper	77	21

Table 2: Beehive Distribution in 2020, *Source: Department of Agriculture*

Group based on number of beehives	Number of beekeepers	Beekeepers in group	Number of beehives	Beehives in group
1-9	152	20.1 %	676	1.2 %
10-19	151	20 %	1931	3.3 %
20-29	77	10.2 %	1762	3 %
30-49	113	15 %	4186	7.2 %
50-99	139	18.4 %	9438	16.2 %
100-149	42	5.6 %	4894	8.4 %
>150	81	10.7 %	35297	60.7 %
Total	755	100 %	58184	100 %

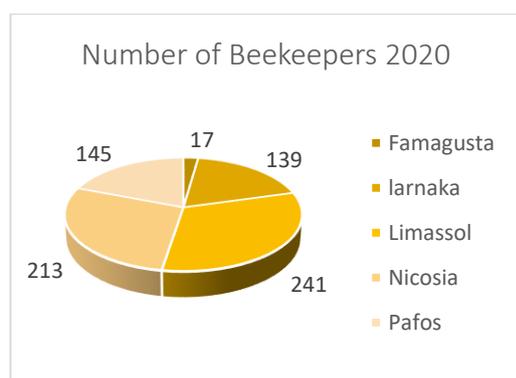


Figure 1: Number of beekeepers in 2020 by province
Source: Department of Agriculture

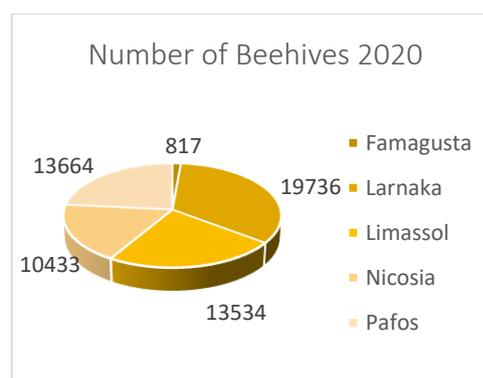


Figure 2: Number of beehives in 2020 by province
Source: Department of Agriculture

¹¹ Department of Agriculture.

¹² Beekeeping Statistics (2020-2021), Xp. T. Agriculture Department, Plant Protection and Beekeeping Sector.

¹³ NAPs 2020-2022

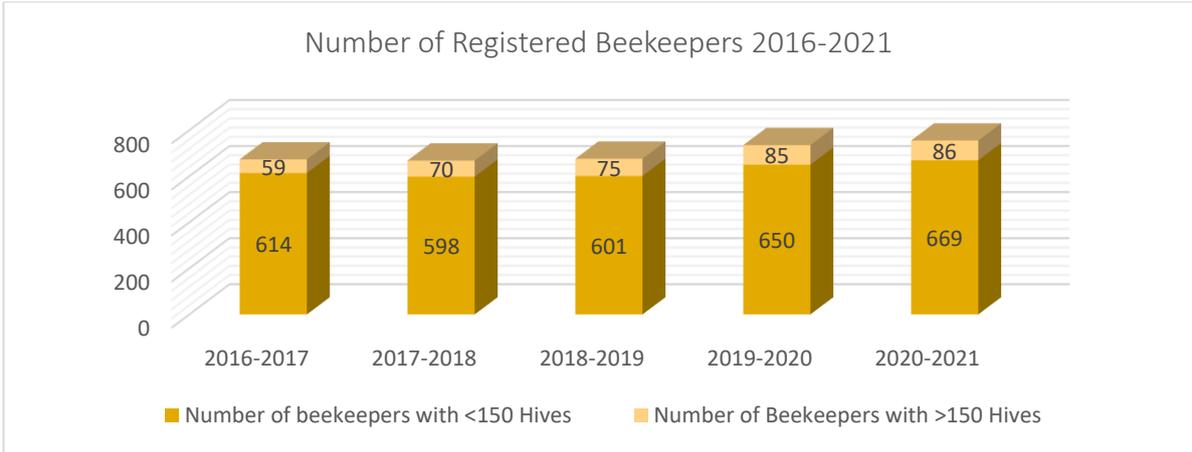


Figure 3: Beekeepers (</>150 beehives) number fluctuation
 Source: Department of Agriculture

The European policy on honeybees and bee pollinators

Apiculture Programmes

Agricultural policy measures always affect beekeeping, either directly or indirectly. Indirectly, they can help improve the impact of agricultural practices on the environment (and thus bees), for example by promoting the maintenance of permanent grasslands or the adoption of environmentally friendly techniques. As regards immediate measures, beekeeping products are part of EU agricultural markets and EU funds are available to support bee health, hive management, technical assistance, analysis and research, market monitoring and product quality. To benefit from these funds, which cover up to 50% of total expenditure, EU Member States draw up three-year national beekeeping programmes in cooperation with beekeeping organisations. Each Member State has a programme, for a budget allocated according to the number of hives in each country.

In line with previous programs, support for apiculture for the period 2023-27 is provided under the new CAP strategic plans. Member States can choose from seven types of interventions in Article 55 of Regulation (EU) 2021/2115, listed below which carry over from previous measures under the CMO Regulation and further broadens the scope of the support provided. The main objective of the programmes is to improve the general conditions for producing and marketing apiculture products in the EU but in setting up their apiculture interventions from 2023-2027 under the strategic plan, Member States must pursue at least one of the specific objectives of the CAP (Article 6(1) of Regulation (EU) 2021/2115). The interventions include,

(a) Technical assistance to beekeepers and beekeepers' organisations. Member States use this measure to fund training, organise courses and print educational brochures, as well as to purchase technical equipment for the production and primary processing of honey and to provide specific support to young beekeepers.

(b) Combating beehive invaders and diseases, particularly varroasis. The scope of this measure was already extended in the previous programme to combat other beehive invaders and diseases, in addition to varroasis, such as the Asian hornet (*Vespa velutina*) and the Small Hive Beetle (*Aethina tumida*). However, most programmes still focus on combating varroasis by supporting actions to decrease the parasitic load and by informing beekeepers of the need to and methods of combating the varroa mite.

(c) Rationalisation of transhumance. Support for actions to assist the management of transhumance such as work on identification of beehives and frames, managing a transhumance register, investing in material and equipment facilitating transhumance and mapping flower varieties.

(d) Measures to support laboratories for the analysis of apiculture products with the aim of helping beekeepers to market and increase the value of their products. The scope of this measure (though mainly used to fund analyses of the physico-chemical properties of honey) also covers other apiculture products¹⁴ such as royal jelly, pollen, propolis or beeswax. This information enables beekeepers to better market and increase the value of their products.

(e) Measures to support the restocking beehives. The measure provides assistance to cover bee losses, thereby avoiding drops in production. The funding is mainly used to purchase bee colonies, queens or new hives and to promote the production of queen bees, particularly indigenous breeds.

¹⁴ The apiculture products covered by the apiculture programmes are listed in Part XXII of Annex I to Regulation (EU) No 1308/2013 and are honey, royal jelly, propolis, pollen and beeswax.

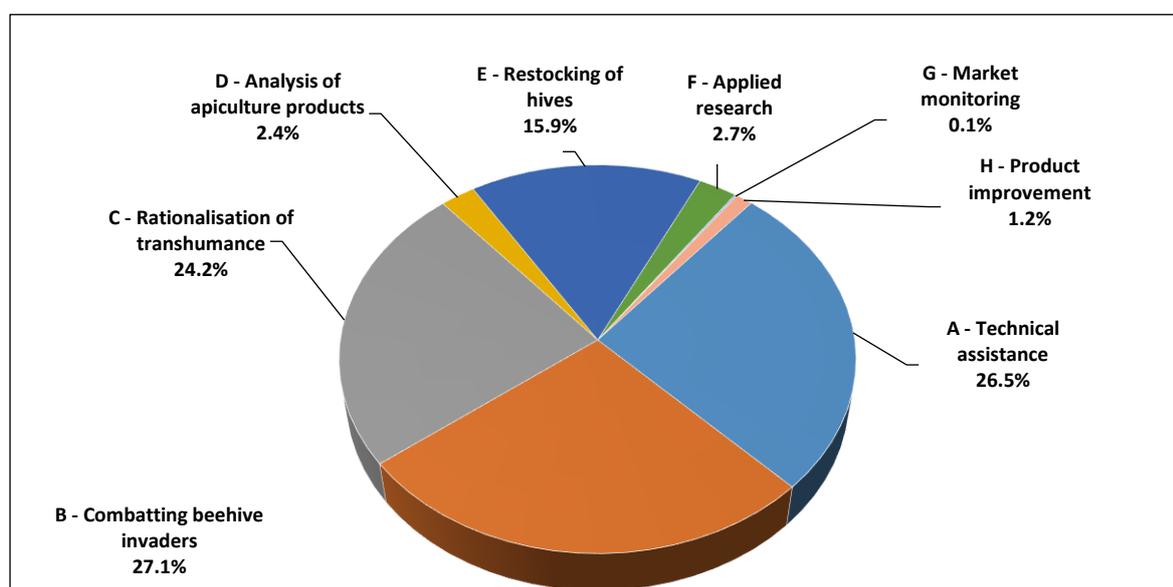
(f) Cooperation with specialised bodies for the implementation of applied research programmes in the field of beekeeping and apiculture products. This enables Member States to fund specific research projects aimed at improving beekeeping, production or the quality of honey, and to disseminate the results of such projects.

(g) Market monitoring. This support funds market monitoring of apiculture products and prices to help improve the conditions of production and support national strategies for monitoring the market.

(h) Enhancement of product quality with a view to exploiting the potential of products on the market. This funds support actions to tap the market potential of honey and other apiculture products.

EU funds allocated to the apiculture sector increased from EUR 36 million per year for the 2017-2019 apiculture programmes to EUR 40 million¹⁵ per year under the 2020-2022 programmes. These were amended in 2021 to extend their duration and increase the budgetary allocation to EUR 60 million as from 2021. Funding for apiculture interventions, as set out in Annex X to the CAP Strategic Plan Regulation will remain unchanged from 2023 to 2025, at EUR 60 million per financial year.

The graph below shows the distribution of funds across the EU in terms of the interventions selected.



Expenditure in percentage per measure during apiculture year 2021

Pollinators Initiative

In June 2018, the Commission adopted the EU pollinators initiative¹⁶. The Initiative is the first-ever EU framework to tackle the decline of wild pollinators¹⁷. It has been strongly supported across stakeholder groups¹⁸. The Initiative set long-term objectives for 2030 which dealt with generating actionable knowledge about the problem, tackling the problem's main known causes, fostering stakeholder collaboration and engaging society at large. To set the EU on the right path, the Initiative outlined 10 actions and 31 sub-actions to be implemented in the short-to-medium term.

The actions supported an integrated approach to the problem and the more effective use of existing tools and policies. This primarily focused on better integration of pollinator-conservation objectives across various sectoral EU policies, including environment and health policies (in particular the Birds

¹⁵ Total EU contribution for the EU-28, including the United Kingdom.

¹⁶ COM(2018) 395 final, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0395>.

¹⁷ Pollinators in Europe are primarily insects, including wild bees, hoverflies, butterflies and moths.

¹⁸ https://www.acceptance.ec.europa.eu/environment/nature/conservation/species/pollinators/documents/EU_pollinators_summary_public_consultation.pdf

and Habitats Directives and EU legislation on pesticides), the common agricultural policy (CAP), cohesion policy and research-and-innovation policy.

Furthermore, on 20 May 2020, the Commission adopted the EU biodiversity strategy for 2030¹⁹ and the farm-to-fork strategy²⁰, both of which are flagship initiatives under the European Green Deal. These strategies aim to boost actions to reverse the decline of pollinators through commitments and targets for nature protection and the EU nature-restoration plan.

After comprehensive stakeholder consultations and an evaluation of the Pollinators Initiative by the European Court of Auditors, the EC presented a revised action framework for the EU Pollinators Initiative. The ECA report identified gaps in key EU policies addressing the main threats to wild pollinators and it recommended that the Commission assesses the need to add specific measures to address threats currently not considered in the Pollinators Initiative. It also pointed to the need to better integrate actions to protect wild pollinators in EU biodiversity conservation and agricultural policies and improve protection of wild pollinators from pesticides.

The revised Pollinators Initiative sets²¹ objectives for 2030 and related actions under three priorities:

- I: Improving knowledge of pollinator decline, its causes and consequences
- II: Improving pollinator conservation and tackling the causes of their decline
- III: Mobilising society and promoting strategic planning and cooperation at all levels

Furthermore, the Commission, through the Horizon 2020 and Horizon Europe funding programmes, is supporting bee and pollinator projects across the EU to help turn the tide. Most of these projects are science specific and target at improving the health of bee colonies.

¹⁹ COM(2020) 380 final, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0380>.

²⁰ COM(2020) 381 final, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0381>.

²¹ European commission, "Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions", Brussels 2023

A review of the evaluation of the European policies on pollinators and the honeybee sector

A good indicator of the positive impact of the Apiculture programmes on the sector is the number of beehives, which continues to increase year on year. However, this is not always accompanied by an increase in production, which is heavily dependent on climatic conditions amongst other factors. The overall profitability of the sector also depends on a fair price being paid to beekeepers for their products. Average prices for honey in the EU have not increased much over the years, while production costs continue to rise and import prices fall. Overcoming the many challenges requires a concerted effort by all. This underscores the need to continue to provide support to the sector, particularly given the invaluable role that bees play for agriculture and the environment.

An evaluation of the Pollinators Initiative

The Commission reported on the progress of the Pollinators Initiative in a document published in May 2021²² in which it concluded the following.

This review has shown that a significant progress has been made in the implementation of the Initiative's actions. The Initiative has provided an overarching framework for EU actions on pollinators across sectoral policies. Actions to develop key policy enablers have been successfully launched and substantially progressed. These policy enablers include schemes to monitor pollinator species and the drivers of their decline. A pollinator-information system and tailored research initiatives should further support the initiative.

Progress towards reaching the Initiative's long-term objectives will be substantially strengthened by the EU biodiversity strategy, the EU farm-to-fork strategy and the EU zero pollution action plan, in particular through the commitments to expand protected areas and restore ecosystems. Furthermore, promoting agro-ecological approaches such as organic agriculture, restoring high-diversity landscape features on farmland and reducing the impacts of pesticides and other environmental pollutants harmful to pollinators are of vital importance.

In a report prepared by the European Court of Auditors²³ it was concluded that overall, the Commission had not taken a consistent approach to the protection of wild pollinators in the EU. They identified gaps in key EU policies addressing the main threats to wild pollinators and considered that the Pollinators Initiative does not have the tools and mechanisms to address those gaps. The report has made the following recommendations to help the Commission:

- Assess the need for specific measures for wild pollinators in the follow-up actions and measures for the EU biodiversity strategy to 2030,
- Better integrate actions to protect wild pollinators in EU policy instruments addressing biodiversity conservation and agriculture,
- Improve the protection of wild pollinators in the pesticides risk assessment process.

In a different scene, following increasing public awareness of the decline of insect pollinators, citizens launched in 2019 a European initiative on the protection of bees²⁴. Specifically, this initiative asked the Commission to phase out the use of pesticides in EU agriculture, and to support farmers to transition

²² European commission, "Report from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions, Brussels 2021

²³ Protection of wild pollinators in the EU — Commission initiatives have not borne fruit

²⁴ European Citizens' Initiative "Save bees and farmers! Towards a bee-friendly agriculture for a healthy environment", 30 September 2019.

to sustainable farming practices. According to a roadmap published in January 2020²⁵, leading scientists see reducing pesticide use and diversifying landscapes as tools to conserve and restore insect populations. They stressed the urgency of the situation, stating that there is enough information on some of the main causes of insect decline to formulate solutions immediately.

In 2018, the Commission recognised the need for EU action to address the decline in wild pollinators through a Commission communication on wild pollinators (see paragraph 06). The Pollinators Initiative mainly aimed to increase the efficiency of existing tools, policies and legislation in the areas of the environment, pesticides, agriculture, cohesion, and research and innovation. Since the Pollinators Initiative is a Commission communication, it did not establish a legal framework for the protection and restoration of wild insect pollinators in the EU nor trigger the allocation of specific financial resources.

Intensive agriculture is a driver of pollinators' decline²⁶. Around 38 % of the overall EU budget for 2014-2020 allocated to supporting agriculture, and the CAP has been "particularly influential in shaping European landscapes and the nature they contain"²⁷. Several instruments in the CAP aim to protect and improve biodiversity, in particular in the current period 2023-27.

The report concluded that certain cross-compliance standards could make a significant contribution to biodiversity, but these standards provide weak incentives. Neither the Commission nor the Member States have measured the impact of cross-compliance on biodiversity.

Overall, the report concluded that biodiversity benefits little from greening, and that greening has triggered few changes in farming practices.

To date the implementation of the CAP has not resulted in the sufficient uptake of pollinator measures to support the recovery of the wild populations of pollinators²⁸. The devolution of decision making on environmental options to Member States, especially as the Commission did not include the protection of pollinators or pollination services explicitly in the objectives of the CAP and its eco-schemes, makes it less likely that uptake of pollinator options will be improved in the future.

²⁵ Harvey, J.A., Heinen, R., Armbrrecht, I. et al., "International scientists formulate a roadmap for insect conservation and recovery", *Nature Ecology & Evolution*, 6 January 2020.

²⁶ IPBES, "The assessment report of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services on pollinators, pollination and food production", 2016.

²⁷ EEA, SOER 2020, Chapter 13 "Environmental pressures and sectors", p. 295.

²⁸ European Commission, "Evaluation of the impact of the CAP on habitats, landscapes and biodiversity", November 2019.

https://ec.europa.eu/info/sites/default/files/food-farming-fisheries/key_policies/documents/ext-eval-biodiversity-final-report_2020_en.pdf

The Cyprus (national) programme on the apiculture sector

The Cyprus apiculture policies are exclusively dependent on the Apiculture program of the CAP. The activities of the NAP can be distinguished in the following measures for the period 2023-27:

A	Technical support to beekeepers and beekeepers' organizations	221.530
B	Retention of beehive invasions and diseases, especially varroa	1.352.500
C	Streamlining seasonal movement	
D	Support activities for beekeeping product analysis laboratories in order to facilitate beekeepers in marketing and upgrading the value of their products	40.000
E	Cooperation with specialized bodies and experts for implementation of applied research programs in the beekeeping sector and beekeeping products	50.000
F	Improving the quality and promotion of product in the market	32.500
		1.696.530

The eligible actions included in the forementioned categories and consequently in the NAP:

Action A1a:	Beekeepers Training Courses
Action A1b:	Equipment and Consumables related to Education
Action A1c:	Technical Support of the Program
Action A2:	Operation of a Beekeeping Centre
Action B1:	Good practices of using licensed treatments for varroa
Action B2:	Adjusting bases with sieve or pipes to combat varroa
Action C:	Replacement of old or damaged beehives
Action D1:	Analyses of Honey and Candle Samples
Action D2:	Analyses of Beekeeping Products
Action E:	Cooperation with experts for the implementation applied research programs
Action F:	Improving the Quality of Beehive Products

The total amount devoted to apiculture is less than 1% of the total CAP budget, and by far the funds are targeted at combatting disease and varroa issues.

Part time beekeepers are not supported in any way by other funds for improving honeybee products and marketing activities.

Cyprus policy making follows closely the CAP approach in treating beekeeping as a productive sector that should increase the production of quality honey, be competitive in its objective of providing food security to EU consumers. To this end, beekeeping is not seen as one tool for rural growth under specific Objective 8, hence no policy to this direction has ever been provided.

The MedBEESinessHubs project – lessons learnt & good practises.

The MedBEESinessHubs project aims to protect the bees, managed and wild, by taking a different approach from that of existing policies that stems from the notion of creating local economies that depend on the bees, thereby aligning individual incomes with the necessity to protect the bees and lead to an end result of preserving biodiversity as a source of economic wellbeing.

To achieve this objective, the project has undertaken a number of good practises at the level of a pilot implementation. These good practise activities are noted below:

Defining a strategy using a sound bottom-up approach and creating a regional cluster: Alongside the micro grants support to the micro SMEs at the individual level, the project focuses in creating networks of cooperation among beekeepers at the regional level. These networks aim to bring in farmers and other service providers as well as local community authorities, in order to create a brand on which all the people will be dependent on. A very specific methodology has been utilised in the project in order to achieve a well organised cluster. A Social Democratic dialogue was the initial step for identifying the potential of creating a brand for a specific region and then further training activities were organised to support the formation of the brand at the regional level. These methodological approaches are essential when trying to organise people of any rural community around the concept of the honeybee production and its related products.

Training in activities that go beyond technical beekeeping subjects: The project has organised training programmes which have covered all the subjects associated with beekeeping and honey processing & marketing activities. It is important to note that issues of business organisation, marketing and consumer behaviour are key constituents for a successful beekeeping activity that are most often ignored in the apiculture programs, certainly being the case with the Cypriot program.

Provision of micro-grants: On a pilot scale, the project has launched the subgrants facility which was aimed directly to meet the demands of the micro-SMEs working in beekeeping activities. The subgrants eligibility of expenses focused more on improvements for processing and marketing of honey bee products in an effort to improve the position of beekeepers and honeybee processors both in the marketing of their products as well as their ability to act as tourism providers.

Cross border cooperation: A cross border approach in cluster development can provide the internationalisation of the concept of brand building for regional development based on the honeybee and its products. This is an important aspect for achieving the global visibility of regions that create long term sustainable places thereby attracting visitors and tourists at a faster pace.

Policy Implications

Preserving pollinators and supporting the honeybee sectors of the agricultural economy are currently considered as two distinct activities in policy making. Farming practises of an intensive character, as they are in most rural areas, invariably become competitive to pollinators and the apicultural activity. Transferring this to the CAP, pollinators within the context of biodiversity are struggling to survive in the framework of securing food security in a competitive and highly productive agricultural sector. As the ECA said “As far as the CAP is concerned, the auditors consider that it is part of the problem, not part of the solution”.

The new CAP 2023-27 has taken into consideration the need to reverse the negative impacts of agriculture on the environment. Yet, Cypriot farmers are reluctant to take up all the proposed actions, especially those that require less pesticide use. Agriculture and apiculture seem to be competitive activities since farmers must achieve high yields and combat pests and diseases using the lowest cost methods. Apiculture, one more, tends to be underplayed in both policy and planning. One reason may be the focus of rural development, wherein crop production and livestock rearing are taken to be dominant activities in rural areas. This perspective can render invisible the part beekeeping occupies in social life, culture, and local economies.

The extra-remarkable aspect of beekeeping is that it ensures the continuation of natural assets: by the pollination of wild and cultivated plants. As bees visit flowers, they are not only collecting food for today, but by their pollination activities are ensuring future generations of food plants, available for future generations of bees, and for us too; the perfect self-sustaining activity.

The conclusions reached from the review of the current policies, prove that the total expenditure devoted to the honeybee sector through the Apiculture program is quite small and focuses on specific problems of the beekeeping practise, not on the wider concept of the honeybee as an economic activity for sustainable development. Anyone interested to become engaged in the processing and marketing of honeybee products has to use other (horizontal) policy measures which are usually competitive and demand high investments in processing equipment and infrastructures. Bearing in mind that the majority of beekeepers are very small in size and practise beekeeping as a secondary occupation for additional family income, these horizontal measures in the processing and marketing of honeybee products are not targeted to this group of people. Furthermore, the need for a different legislative framework for the handcrafting of food products is essential, an issue that is pending for the past three (at least) years at the Cypriot parliament and with the National Authorities.

In policy making, beekeeping needs to be considered as an important ‘sideline activity’ for regional growth. Hence, apiculture and related trades can be sources of valuable economic strength to countless numbers of rural people’s livelihoods. Hence policy making must not focus on beekeeping as a productive activity that can safeguard food security (as with other sectors) but as a policy for rural economic growth through diversification of incomes.

Beekeeping fits well alongside many other livelihood activities and the natural resources used by them (for example, forestry, agriculture, conservation activities). Although impossible to quantify, pollination is the most economically significant value of beekeeping. Flowering plants and their associated bees are interdependent: you cannot have one without the other. Referring to the definition of a livelihood, that it can enhance its capabilities ‘while not undermining the natural resource base’, it is clear that beekeeping actually helps to sustain the natural resource base. How many other income-creating activities can be said to restore natural resources? Beekeeping has been in the past a regular part of village agriculture worldwide, and we need to ensure that it is retained as farming practices change.

The revised document on the Pollinators' initiative²⁹ has set three priorities, as noted above. The third priority focuses on *Mobilising society and promoting strategic planning and cooperation at all levels*. This priority should encompass citizen science as well as organised processes of public participation in monitoring and conservation activities at all relevant levels. The European sustainability competence framework³⁰ can empower citizens to act in this regard.

As the decline of pollinators is expected to strongly impact future generations, particular attention should also be paid to youth engagement.

Engagement of key business sectors should be further facilitated through existing networks, with a view to promoting the uptake of the guidelines on action for pollinator conservation across sectors.

The bee economy concept

In line with the third priority of the revised Pollinators Initiative and to align with the widely recognised priorities on restoring biodiversity in a resilient rural economy, the MedBEEsInessHubs project has developed the notion of the bee economy as a driver for regional development. In essence this term refers to a holistic approach in which an economy is dependent on the honeybee and its products to such an extent that environmental protection measures are not imposed by regulations, but they are taken up` by the people themselves to protect the honeybees, hence protecting their livelihoods.

The Bee economy concept recognises that,

- beekeeping can provide substantial secondary income to people of rural areas and become a valuable source of prosperity,
- bees, their ecosystem and their products can blend well to create a destination brand thereby increasing the local economy's capabilities to diversify,
- in an economy where most people depend on the honeybee its products and its ecosystems, the need to impose pollinator friendly policies is substituted with society's will to preserve a valuable source of income that sustains their livelihoods.

Therefore, the concept of the bee economy in which local people are dependent economically on beekeeping and selling honeybee products is a self-regulated system for environmental sustainability in rural development policies.

Indeed, European policies that support agricultural practises with respect to the environment are always in place but seldom work efficiently because intensive agriculture is the key driver for economic growth. While organic farming practises safeguard the environmental stability in many countries (as well as in Cyprus), they are not linked to apiculture as a form of regional economic asset.

Hence can we make beekeeping and the sale of honeybee products the most important economic activity in a region? Can we turn beekeeping and other honeybee activities a major part of the tourism industry of a particular region? Can a particular region (a village or cluster of villages) be absolutely dependent on the brand of the honeybee for its economic growth?

The MedBEEsInessHubs project worked in a specific methodology to help towards the creation of the bee economy concept. This methodology requires policies that target on three directions:

- At the individual microSME beekeeper and processor of honeybee products

²⁹ European commission, "Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions", Brussels 2023

³⁰ https://joint-research-centre.ec.europa.eu/greencomp-european-sustainability-competence-framework_en

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- At a regional level in terms of creating networks and synergies among producers and other economic actors
 - At the local community and regional tourism authorities to establish a brand, by creating public areas that promote the honeybee and by promoting and supporting the intangible asset of brand building.

These three axes of action can help towards the formulation of distinct policies for a holistic approach in achieving an economic model based on the concept of the bee economy. However, the starting point of any effort towards a bee economy lies in a public will of a change, an issue that can be best addressed by a public consultation through the methodology of a structured democratic dialogue, as demonstrated in the MedBEEsInessHubs project.

A regional brand on its way to success in Cyprus

Its success obviously depends on the level of maturity of each designated region. In Cyprus, Orini Larnakos has built up a reputation of a bee cluster under the Greek name 'melissochoria Orinis Larnakos (honeybee villages of mountainous Larnaka). This is a cluster of villages in which,

- beekeeping is extensively practiced,
- bee flora parks are created,
- honeybee festivals are organized.

Yet, there is still a long way ahead for an operational cluster which will bring SMEs together and support a long-standing regional brand.

Policy suggestions

The following policy suggestions are hereby noted in brief, aiming to provide some initial thoughts in ways to capitalise on the concept of the bee economy and the examples cited by the MedBEEsinessHubs project.

- **Provide microfinance to beekeepers for investments in equipment facilities and marketing activities in order to improve competitiveness and create an attractive place for visitors.**

Beekeepers and bee product processors are microSMEs or often housewives who practise the activity as an additional family income. We propose a versatile funding instrument of microfinances for small improvements in their premises with the following characteristics:

- ✓ Subsidies of max 20.000€ with a percentage support of 70-90%
 - ✓ Funding of processing equipment, infrastructures for improving visitors experience
 - ✓ Purchase of beekeeping equipment and hives at a maximum of 30%
 - ✓ Eligibility for consultancy and marketing services/ actions up to a specified percentage.
- **Support, through financial subsidies, cluster formation as a tool for rural development through cooperation actions which aim to create a common brand across a cluster of villages.**

Under article ‘Cooperation’ of the Cyprus Strategic Plan, it is suggested to create a honeybee cluster which will aim to support the regional brand. Such a cluster will include farmers and beekeepers as well as restaurant owners, local municipalities etc. The core concept of the honeybee cluster will be the creation of a destination brand based on the honeybee and its products.

- **Provide additional incentives for growers in a designated bee-economy cluster to manage a minimum number of beehives and/or maintain ‘solidarity bee hotels’:**

A bee economy requires a wide number of farmers to practise beekeeping or somehow possess an incentive for protecting honeybees. Hence, by providing financial incentives, policies achieve (a) farmers can see an economic benefit to protect pollinators (thereby taking up ecofriendly action) and (b) provide an additional source of family income.

Growers may be supported financially for maintaining beehives and/or pollinator hotels in their fields with annual financial support as a topup to other ACM or ecoscheme practises. Such supports schemes may only be provided in designated honeybee regional clusters, based on a well-defined concept of honeybee clusters.

- **Support training sessions on actions to protect pollinators from agricultural practises:**

In the CAP strategic plan, there are many measures (ACM and ecoschemes) which are beneficial for pollinators (including honeybees). Their combined effect could be highly beneficial for pollinators, especially if applied by most farmers across a specific region. Yet, farmers are not adequately informed, not simply about the environmental benefit of these measures but their economic value for the region, especially when linked to the survival and health of pollinators. Even more important, this economic benefit takes more importance when farmers and their families practise also beekeeping or are somehow dependent on honeybees as an additional source of family income. It is therefore suggested to organise training programs on CAP strategic measures that are favourable for pollinators, aiming to increase the uptake of these programs by most farmers in a specific region.

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- **Provide incentives to the local communities to create and preserve honeybee parks and trails.**

Communities that belong to a honeybee cluster should get priority in receiving subsidies for creating and managing (managing should also be part of the subsidy scheme) bee parks and trails.

- **Cluster top-up incentive eg in the form of direct payments:**

Pay a top-up incentive to farmers, in the form of direct income support, who jointly setup a honeybee cluster in which they own a minimum of 10 hives per farmer and apply at least one ecoscheme and 2 ACM that are recognized as beneficial to bees. The competent authorities will identify such 'bee friendly' interventions as well as the definition of an active cluster.

The concept of the Bee economy cluster for regional development

