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INDUSTRIAL DEVELOPMENT ORGANIZATION



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GLOBAL BEEKEEPING AND HONEY PRODUCTION KNOWLEDGE AND SKILLS EXCHANGE
PROJECT (PROJECT ID: 230162)



IN COLLABORATION WITH THE MINISTRY OF ECONOMY, TOURISM AND
SPORT, SLOVENIA

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Brief introduction

This project has foreseen three major outputs:

1. Set up a knowledge platform on everything related to the bees. It will be available 24/7 around the globe without any charges (it is an ongoing task from the beginning to the end of the project).
2. Organize two-way expert exchanges between Slovenia, one of the leading beekeeping countries in the world, and five selected partner countries (In the first phase, Slovene experts travel to the partner countries and set up contacts with experts who will, in the second phase, travel to Slovenia to participate in a beekeeping study tour and to attend an international conference on beekeeping).
3. Organize an international beekeeping conference (in which some internationally renowned experts will be invited as keynote speakers, and the participants from partner countries will be encouraged to present case studies from their countries).

The partner countries in this project are Albania, Kenya, Kyrgyzstan, Peru and Uzbekistan.

Overall progress towards results

In 2025, several online meetings were conducted with representatives from the partner countries, including governmental officials and UNIDO country representatives.

Expert exchanges were carried out to **Albania, Kyrgyzstan, and Uzbekistan** during the same period.

It has been observed that requests for knowledge sharing in all partner countries significantly exceed the financial framework of the current project. To address this challenge, “hybrid” experts—capable of covering two or more thematic areas—were appointed for expert mobility. In this manner, two to three experts were deployed to each country, enabling the coverage of multiple topics during a single mission. Highly specialized topics were reassigned to online delivery by internationally recognised experts.



Picture 1: Workshop for beekeepers in Korçë, Albania in the premises of the municipality library

The current situation, based on the first three expert exchanges undertaken in 2025 (Albania, Kyrgyzstan, and Uzbekistan), enables a comparative assessment among the partner countries. A clear and consistent knowledge gap has been identified in the area of **honey quality**, particularly concerning the quality standards required for potential honey exports to the European Union.



Picture 2: workshop participants in Osh, Kyrgyzstan

To bridge this gap, it has been decided that a series of online lectures will be organised. These lectures will be pre-recorded to allow partner countries sufficient time to translate them into national languages and disseminate them broadly among stakeholders, including beekeepers, students, extension workers, and researchers. One week after the release of each lecture, partner



countries will be invited to submit additional questions. Should further clarification prove necessary, an additional lecture on this topic will be organised.



Picture 3: Lecture at the university of Tashkent, Uzbekistan: Mostly young women, satisfied with having been encouraged to enter an own business

An expert responsible for preparing these lectures has already been appointed and has submitted an outline for two one-hour instructional sessions.

Output 1 - A knowledge platform on beekeeping is established

In 2025, several online meetings were held with international experts who provided guidance on the initiation of activities related to the planned knowledge platform. In August 2025, an online consultation was conducted with experts from IUFoST, a potential host of the platform as part of a current Memorandum of Understanding between UNIDO and IUFoST. During this meeting, recommendations were provided regarding the format and structure of the contributions to be uploaded. Guidance was given on the appropriate length of materials, the need for concise and clearly defined content, and the importance of identifying relevant keywords for each uploaded contribution to facilitate effective navigation and searchability within the platform.

It was agreed that the main development work on the platform would commence in September 2026, following the completion of the study tour and the international conference. This timeline will allow the platform to benefit from the insights, materials, and outputs generated through these activities, thereby ensuring that the uploaded content reflects the most up-to-date knowledge and best practices identified during the project.



Output 2 - A knowledge exchange program between Slovenia and partner countries is designed and conducted

Albania

During this mission, two experts were deployed to Albania, where workshops were conducted in three locations:

- Tirana (the capital),
- Elbasan, and
- Korçë.

Participants were invited in cooperation with the Albanian Ministry of Agriculture and Rural Development, which also hosted the first workshop in Tirana. During the breaks, coffee, bottled water, and cookies were served. Upon completion of the final workshop, participants were offered a full catering service.

To ensure optimal knowledge transfer, two translators were appointed by the Ministry for simultaneous interpretation during the Tirana workshop, which significantly increased the efficiency of the sessions. Consecutive interpretation was provided at the workshops in Elbasan and Korçë. Owing to their prior exposure to the topics, the translators were able to ensure a smooth and accurate delivery.

Outcomes

The objective of the mission was to engage with Albanian beekeepers in three different regions and to deliver workshops on topics identified as priorities for Albania as an EU pre-accession country. All proposed topics were linked to beekeeping and the marketing of hive products. The workshop themes were:

- **Beekeeping-related legislation in the EU** (delivered by Mr. Andrej Šalika),
- **Apitourism**, and
- **Brands, branding, and storytelling** (both delivered by Dr. Sonja Sibila Lebe).

A positive response was observed after the workshops had concluded. Participants expressed satisfaction, requested additional clarification, and asked for the lecturers' contact information for potential follow-up consultations.

In line with experiences from other less developed partner countries, a significant need for knowledge enhancement was identified in Albania as well. The decision to include Albania in this project has therefore proved justified, as the workshops contributed to narrowing the identified knowledge gaps.

It was noted during the workshops that communication among stakeholders is not always optimal. For example, although an Api Route has been established in Albania, most beekeepers were unaware of its existence or of the procedures for joining the initiative.



A second challenge observed—one that can be improved relatively easily—concerns cooperation among local beekeeping associations. It was perceived that joint action is often lacking, even when common benefits could be achieved. One example repeatedly mentioned was the use of pesticides in agriculture. Up to 80% of bee colonies are reportedly lost due to various avoidable factors. This situation could be significantly improved through coordinated action, such as requiring farmers to report scheduled pesticide spraying in advance, allowing beekeepers to protect their colonies by confining bees during these periods. Such measures would require structured dialogue under the leadership of the Ministry of Agriculture.

To provide immediate support, email addresses of all participants were collected during the workshops and handed over to the Ministry of Agriculture. Additionally, the contact details (email and telephone number) of the governmental official responsible for apiculture were publicly displayed, and participants were encouraged to reach out for assistance when needed.

Several examples of best practices in legislation, apitourism, and branding were presented, and participants were encouraged to draw inspiration from these cases.

An opinion poll was conducted at all three venues, providing important insights for future project activities, including:

- The language level used in workshops must be carefully adapted, as several participants appeared to have lower-than-average formal education. Some declined to complete the survey form, possibly due to literacy limitations or lack of reading glasses.
- Stronger support is required to encourage women to enter beekeeping or related service sectors such as accommodation provision or apitherapy, which remain undeveloped in Albania.
- Numerous participants raised concerns regarding bee diseases, particularly the emerging *Tropilaelaps* (trophilaelaps) mite. Additional information and training on prevention and control measures are needed.
- A positive observation was the presence of young beekeepers, making up approximately one-quarter of the participants. Some were full-time bee breeders. This group expressed openness to developing complementary income-generating activities linked to tourism, such as apitourism, which provides earning opportunities during autumn and winter when honey production is minimal.

Kyrgyzstan

Two experts, Dr. Sonja Sibila Lebe and Dr. Janko Božič, conducted a mission to Kyrgyzstan with activities held in Bishkek, Karakol, and Osh. The programme included lectures for university students, meetings with institutional partners, and workshops for beekeepers.

The mission was organised in cooperation with the Ministry of Agriculture of Kyrgyzstan, the Beekeepers' Association of Kyrgyzstan, and the UNIDO Regional Office for Central Asia. Preparatory communication, translation, and logistical arrangements were supported by Ms. Gulnara Pazileva, who also coordinated catering, transport, and translation of materials into



Russian. Workshop venues were provided by the Ministry, and local interpreters were engaged in each city.

Workshops in Karakol and Osh were well attended and included sessions on bee diseases (Dr. Božič) and api-tourism (Dr. Lebe), both followed by active discussions. The Bishkek session saw lower attendance. University lectures were delivered in all planned locations, with opportunities for exchange with students and in Osh, also with the university staff.

Outcomes

Overall, the mission achieved some positive results:

- a) Student engagement: Students expressed appreciation for the lectures, and in Osh, information on Erasmus+ opportunities was also presented.
- b) High-level meeting: A meeting with the First Deputy Minister of Agriculture, Dr. Janibek Kerimaliev, opened discussions on future cooperation, including potential joint research activities and interest in bee imports.
- c) Beekeeper interest: Workshop participants showed strong interest in the presented topics, actively engaging in Q&A and requesting further contact with the experts.
- d) Regulatory interest: Beekeepers expressed particular interest in EU food-safety requirements related to honey and requested additional information.

Engagement with universities varied; the most extensive exchange took place at the University of Osh, where possibilities for Erasmus+ cooperation and joint publications were discussed.

A follow-up contact was established with Dr. Lucijan Cenčič, an expert on EU pre-accession food-safety harmonisation, who expressed readiness to provide guidance to the Kyrgyz Ministry of Agriculture. His contact details were shared with meeting participants.

Uzbekistan

The mission to Uzbekistan was implemented by three experts — Dr. Sonja Sibila Lebe, Dr. Janko Božič, and Mr. Brane Kozinc — with activities conducted in Bukhara, Samarkand, and Tashkent. The programme included:

- Lectures for university students and meetings with academic staff,
- Meetings with institutional partners, and
- Workshops for beekeepers.



The mission was coordinated jointly by the Ministry of Agriculture of Uzbekistan and the State Agrarian University, who appointed dedicated contact persons and facilitated communication with universities in the three cities. Collaboration with the National Beekeepers' Association enabled the involvement of regional beekeeping organisations. All activities were hosted at university premises.

In Samarkand, the regional beekeepers' association invited its members to join the morning lecture for students and later arranged an additional meeting with a smaller group of beekeepers. This meeting, held at the apiary of a beekeeper active in apitherapy services, offered the experts a valuable opportunity to observe local practices and discuss topics such as bee health and queen breeding in greater depth.

Simultaneous translated support was provided throughout. Translations from English into Uzbek were arranged at all venues, and existing Russian-language materials were used where appropriate. Translation arrangements varied by city and relied on both professional interpreters and bilingual academic staff, ensuring that technical terminology was conveyed accurately.

Outcomes

The mission to Uzbekistan was highly successful, with positive feedback from all groups involved.

a) University engagement:

Students expressed strong appreciation for the lectures, noting the added value of international expertise. Interest was exceptionally high, reflected in active participation and numerous photo requests. Erasmus+ opportunities were presented at all institutions and were well received.

b) Governmental cooperation:

Meetings with the Ministry of Agriculture and senior officials opened discussions on possibilities for future collaboration, including interest in *Apis mellifera carnica* and exchange activities. An official Uzbek delegation has since visited Slovenia and met with Mr. Kozinc at his breeding station.

c) Beekeeper participation:

Beekeepers demonstrated great interest, particularly in queen breeding and in EU food-safety requirements for honey. Workshops generated extensive Q&A sessions, and participants requested follow-up contact with the experts for further guidance.

d) Media visibility and institutional outreach:

In Bukhara, the university proactively informed national media about the project, resulting in a televised interview with the dean and Dr. Lebe. In Tashkent, the experts were received by the Rector of the State Agrarian University and later by the Minister of Agronomy, both expressing strong support for continued cooperation.



While catering was not provided at the workshops in Uzbekistan, which may have influenced the duration of participation for some attendees, overall engagement remained very positive and constructive.

Kenya

Preparatory Coordination with Kenya

Regular weekly online consultations have been maintained with the Kenya team, which includes representatives of the Government of Kenya, the national apiculture research institute, and stakeholders from the Homa Bay region, identified as the second location to be visited by the experts. The UNIDO country representative has joined the meetings periodically, providing additional coordination support.

To date, agreement has been reached on the arrival schedule of the Slovene experts, the regions to be visited, and the key institutions to be included in the programme, including governmental bodies, academic institutions, and industry partners.

During these preparatory exchanges, the Kenyan counterparts also outlined the principal challenges currently faced by the sector. Based on these identified needs, two experts have already been appointed to undertake the mission planned for January–February 2026. The mission will take place in Nairobi, the capital city, and in the Homa Bay province (Victoria Lake region).

Peru

Preparatory Coordination with Peru

Weekly online coordination meetings have been held with the Peru team, composed of representatives of the Peruvian Government. The UNIDO country representative has occasionally joined the discussions to support alignment and follow-up.

Thus far, agreement has been reached on the arrival dates of the Slovene experts and on the three regions to be included in the mission programme. Consultations with universities are ongoing, with current discussions focusing on the topics to be presented during the experts' visit and on the engagement of governmental institutions, academic partners, and industry representatives.

The Peruvian counterparts have outlined the key challenges facing the national beekeeping sector. In response to these identified needs, two experts have been appointed to carry out the mission scheduled for April–May 2026. The workshops and university meetings are planned to take place in Lima, Oxapampa, and Cusco.



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Output 3 - An international conference on beekeeping and honey processing is organized

The UNIDO conference will take place in Maribor, Slovenia's second largest city. Hosting the conference in Maribor offers a positive impact on the budget, as hotel prices are considerably lower than in the capital, and no venue rental costs are required.

The initial Organizing Committee has been appointed, and its members meet weekly to monitor progress and coordinate all aspects of the conference planning. The conference is scheduled to take place in Maribor on 14–15 September 2026, followed by a half-day conference excursion. On-site catering will be provided during coffee breaks to optimize time efficiency.

A partnership has been established with the EurBee Conference, a biennial scientific meeting held in Bologna, Italy, one week prior to the UNIDO event. Bologna is located approximately 500 km from Maribor, facilitating joint promotion of the two conferences. This collaboration allows UNIDO to benefit from the presence of high-ranking scientists attending EurBee, who may also be invited as keynote speakers in Maribor. UNIDO will cover the travel costs for keynote speakers traveling from Bologna to Maribor.

A further partnership has been coordinated with Coloss, a research group specializing in propolis. To date, most keynote speakers have been invited, with two additional experts yet to be confirmed.

Participants invited directly by UNIDO will benefit from fully covered coffee breaks. Other participants will be responsible for covering the costs of two lunches, two dinners, and the conference excursion.

The conference programme has been designed to cover a broad spectrum of topics, including both scientific challenges and practical beekeeping issues. Additional sessions will focus on value-added activities related to beehive products, such as api-wellbeing, api-tourism, and api-therapy.

Cooperation environment

One of the key outputs of the project is the knowledge platform, where a variety of topics on beekeeping and hive-derived products will be published. This platform provides an ideal space for countries interested in beekeeping to connect with like-minded colleagues, experts, and policymakers. It also facilitates collaboration on common challenges, such as addressing the consequences of climate change.

The progress achieved in the project has generated a number of requests for additional assistance. All five partner countries have requested further support regarding EU legislation on food safety, particularly in relation to honey and other hive products. In response, Dr. Lucijan Cenčič, an experienced expert, has been appointed to prepare a comprehensive lecture tailored to the needs



of the five partner countries. The lecture will be recorded as a video, allowing partner countries to translate it into their national languages or to add subtitles, ensuring accessibility to a wide range of stakeholders.

In early November 2025, the project received correspondence from the Deputy Prime Minister of Uzbekistan, Ms. Zulaykho Makhamova, who had been briefed on the project and the upcoming expert visit. As Chairperson of the Committee on Family and Women, she expressed Uzbekistan's interest in further collaboration, particularly in initiatives supporting women's empowerment and their potential to start bee-related or tourism-related businesses. Correspondence with her office is ongoing to define the scope and modalities of this cooperation.

In Kenya, the Homa Bay County has formally requested Slovenia's support in the beekeeping sector, following the successful implementation of a large Slovenia-supported WFP project in the northern provinces of the country. Plans for the UNIDO project are being structured to include Homa Bay County, ensuring that the support and expertise provided can directly benefit the region.

Furthermore, Slovenia has extended the primary project budget to enable broader participation in the upcoming study tour. This extension allows two participants each from Uganda, Mozambique, and Ukraine to join the tour, increasing the international reach of the project and promoting the exchange of knowledge and best practices across a wider group of countries.

Stakeholder engagement

Active engagement of stakeholders has been a central element of the project, ensuring local ownership and relevance of interventions. Project partners, including government representatives, research institutions, universities, and beekeepers' associations, have been closely involved in the planning, organization, and implementation of expert visits, workshops, and the study tour.

Government institutions in all partner countries (e.g., Ministries of Agriculture in Albania, Kyrgyzstan, Uzbekistan, Kenya, and Peru) have facilitated invitations, provided venues, and participated in high-level discussions on policy and regulatory matters. University staff and students have actively contributed to lectures, workshops, and joint research initiatives, demonstrating strong interest in capacity-building and knowledge exchange.

Local communities and beekeepers' associations have engaged actively during workshops, providing feedback, posing questions, and expressing interest in applying newly acquired knowledge. Special attention has been paid to gender inclusion and youth participation to strengthen community-level ownership and empowerment.

International engagement has also been secured through collaborations with conferences such as EurBee 2026 in Bologna and the UNIDO conference in Maribor. These partnerships have enabled knowledge exchange with global experts and reinforced the visibility and credibility of the project.



Overall, stakeholder engagement has fostered ownership, increased relevance of activities, and laid the groundwork for long-term sustainability and replication of project outcomes.

Gender mainstreaming

Throughout the project, partner countries have been encouraged to ensure gender balance when appointing participants. While achieving exact parity is not always possible—male entrepreneurs remain predominant in most partner countries—it has been possible to achieve at least 30% female representation in all partner countries visited to date.

As planning intensifies for the final expert visits to Peru and Kenya, as well as the study tour in Slovenia in September 2026, partner countries have been requested to nominate at least two, preferably three, women as delegation members. In addition, Kenya and Peru have been asked to include a sufficient number of women beekeepers in the workshops. Similarly, when selecting keynote speakers for the conference, careful attention is given to ensure that at least 30% of invited scientists are women, promoting balanced representation and diversity among participants.

Sustainability and scaling up

Sustainability of the project results has been a key consideration throughout all interventions. Several measures have been implemented to ensure that knowledge, practices, and innovations introduced through the project can be maintained, scaled up, or replicated in partner countries.

1. Knowledge Transfer and Capacity Building

The project has emphasized building the capacity of key stakeholders, including beekeepers, university staff, governmental officials, and extension workers. Expert visits, workshops, and lectures have been designed not only to provide immediate technical knowledge but also to equip participants with skills to train others locally. For example, recordings of lectures on honey quality, queen breeding, and EU food safety regulations are being made available to partner countries for translation and dissemination. This ensures a long-term resource that can be used by a wide range of stakeholders, including future generations of beekeepers.

2. Online Platforms and Communities of Practice

The knowledge platform established under the project serves as a hub for continuous interaction, learning, and sharing of best practices across partner countries. By connecting experts, policymakers, and practitioners, the platform supports ongoing discussions on policy, innovation, and climate-adaptive beekeeping practices, fostering an enduring network of collaboration that can extend beyond the project's duration.

3. Policy Engagement and Institutional Linkages



Regular online meetings with ministries, research institutions, and regional beekeepers' associations have strengthened institutional capacities and promoted policy dialogue. For instance, discussions with Uzbekistan's Deputy Prime Minister and the Ministries of Agriculture in Kenya, Peru, and Kyrgyzstan have facilitated the consideration of gender-sensitive interventions and EU-compliant honey quality standards, laying the groundwork for sustainable regulatory improvements.

4. Gender Inclusion and Diversification

The project has actively promoted women's participation in beekeeping, apitourism, and related enterprises. By ensuring at least 30% female representation in expert visits, workshops, and conference activities, and by liaising with local women's groups, the project fosters long-term inclusion and encourages the development of women-led initiatives that can be scaled up locally and regionally.

5. Scaling-Up and Replication

The design of the study tours, expert missions, and the UNIDO conference in Maribor has considered replication potential. Countries that have participated in workshops and online training sessions are encouraged to adapt successful models in other regions, including the establishment of regional workshops, apitourism initiatives, and value-added hive product enterprises. Furthermore, high-level meetings with ministry officials and university staff have explored the possibility of joint research projects, student exchanges, and collaborations under Erasmus+ and similar frameworks, enabling institutional scaling-up.

6. Monitoring and Follow-Up

To ensure sustained impact, the project includes follow-up mechanisms, including direct coaching, email support, and online consultations with beneficiaries. This continuous engagement helps consolidate knowledge, encourage implementation of best practices, and identify opportunities for further replication and scaling-up.

Assessment

The combination of capacity-building, digital knowledge platforms, policy engagement, gender inclusion, and structured follow-up provides a solid foundation for the sustainability and scaling-up of the project's results. These measures allow partner countries to continue implementing learned practices, adapt interventions to local contexts, and replicate successful elements in other regions, contributing to long-term improvements in beekeeping, apitourism, and related value-added sectors.

Lessons learned in the reporting period

Several key lessons have been identified during the implementation of the project in 2025–2026:



1. Importance of Local Coordination and Language Support

Effective local coordination and language support are critical for the success of expert missions. Translators and local coordinators play a central role in ensuring clear communication, smooth delivery of workshops, and active participation of beneficiaries.

2. Value of Hybrid Expertise

Deploying experts capable of covering multiple thematic areas (scientific, practical, and value-added beekeeping topics) maximizes the efficiency of visits and ensures broader knowledge transfer, particularly in countries with limited resources.

3. Gender Inclusion Requires Proactive Measures

While women often represent a smaller share of beekeeping and entrepreneurship activities, proactive measures—such as setting minimum participation thresholds and liaising with women’s groups—effectively increase gender-balanced participation.

4. Digital Platforms Enhance Sustainability

The knowledge platform has proven to be a valuable tool for continuous learning and networking, enabling participants to access training materials, share experiences, and maintain engagement across countries beyond in-person events.

5. Institutional Engagement is Essential for Scaling-Up

Meetings with universities, ministries, and professional associations strengthen institutional capacity and lay the groundwork for long-term policy improvements, joint research projects, and student exchanges.

6. Tailoring Content to Local Needs Ensures Relevance

Assessing the specific needs of each country—such as EU honey regulations, queen breeding, or apitourism—ensures that workshops, lectures, and study tours are relevant, practical, and directly applicable to local contexts.

7. Follow-Up Reinforces Knowledge Transfer

Providing ongoing coaching, email support, and video-recorded lectures significantly enhances the likelihood of practical implementation of best practices in the participants’ communities.

These lessons provide valuable insights to guide the remaining expert missions (Peru and Kenya), the study tour in Slovenia, and the final project activities, ensuring continued relevance, impact, and sustainability of results.