

Report on beekeeping workshops

NUKUS, KARAKALPAKSTAN
MARCH, 2024

PROJECT 'ECOLOGICALLY ORIENTED
REGIONAL DEVELOPMENT OF THE ARAL
SEA REGION

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Table of CONTENTS

01

**Report on beekeeping workshops in Nukus, Karakalpakstan,
March 2024**

02

Summary

03

**Workshop for beginner beekeepers on March 26, 2024 in
Nukus**

1. Agenda
2. Session details
3. Key findings and achievements

07

**Workshop for advanced beekeepers on March 27, 2024 in
Nukus**

1. Agenda
2. Session details
3. Key findings and achievements

10

Workshop statistics and questionnaire results

Workshop participant overview (N=42)
Questionnaire results (N=23)
Post-workshop survey results (N=29)





SUMMARY

In support of Work Package 3's key objective to deliver an information package and training for beekeepers, we organized the first two workshops on March 26-27, 2024 in Nukus. The goal of these workshops was to provide to regional beekeepers with localized information and training materials before the start of the beekeeping season in Uzbekistan, introducing beekeeping technology and collecting relevant data.

The workshop agenda was demand-driven, informed by key questions from the 2022 workshop, beekeeper surveys, questions asked in Telegram, and new developments in beekeeping as advised by beekeeping experts. The workshop was divided into two days by beekeeper experience level to ensure proper level of training by skill level and a comfortable learning environment for beginner beekeepers.

The workshops were held at Jipek Joli Art Hotel in Nukus, and the implementing team included Gulnara Khudaybergenova – ICARDA intern and workshop facilitator, Otabek Goyipov and Farrukh Musaev – national beekeeping experts, and Sagitjan Aytjanov – a translator. All participants registered and completed consent forms, and received draft training materials in Uzbek, a workshop agenda, and a questionnaire.

The second (final) part of the training is scheduled for May 2024, arranging the trainings 1-2 months apart to help with technology uptake (HiveTracks mobile application), community engagement, and customizing the May workshop based on feedback received from March workshops. The May workshops will cover theory on day one, and practical training sessions at an apiary on day two. Draft training materials provided in March will be updated by the May workshops.

Feedback from participants was positive, and the workshops served as a networking opportunity for beginner beekeepers and students. Many participants noted the need for more workshops, with localized information and opportunities for discussion.



WORKSHOP FOR BEGINNER BEEKEEPERS ON MARCH 26, 2024 IN NUKUS

1. Agenda

Time	Session	Responsible person
9:00-9:30	Registration	All
9:30-9:45	Opening speech and welcoming participants: • Workshop goals and objectives • Introducing speakers • Agenda overview	Gulnara Khudaybergenova
9:45-11:00	Beekeeper training topic 1: beekeeping basics - getting started	Farrukh Musaev, Otabek Goyipov
11:00-11:30	Tea break & app download	All
11:30-13:00	Beekeeper training topic 2: Veterinary sanitary rules in beekeeping • new pests • natural, non-toxic medicines for bees	Farrukh Musaev, Otabek Goyipov
13:00-13:45	Lunch break	-
14:00-15:20	HiveTracks Mobile App training: • creating a personal account • setting up an apiary • setting up a hive • doing an inspection	Gulnara Khudaybergenova
15:20-15:30	Break	-
15:30-16:45	Beekeeper training topic 3: Beekeeping products & their commercial features • where & how to sell project • how to register/become certified • alternative income sources (e.g. ecotourism, byproducts...etc.)	Farrukh Musaev, Otabek Goyipov
16:45-17:00	Closing speech	Gulnara Khudaybergenova

2. Session details

The workshop was attended by 17 people, including 13 regional beekeepers and 4 students of Nukus Branch of the Samarkand University of Veterinary Medicine, Animal Husbandry and Biotechnology.



The meeting officially started at 11 AM, later than expected due to the fact that the majority of the participants arrived from Nukus region. While waiting for more participants to join, the beekeepers who arrived on time filled out the questionnaires, reviewed the draft training material, and had small group discussion with the beekeeping experts.

After the introduction of workshop agenda and participants, the first session on Beekeeping Basics covered topics at a beginner level, including: the anatomy of honey bees, the queen bee and other bees' functions, hive inspections, preparing for the beekeeping season, and safety measures for beekeepers. Beekeepers were very involved in the discussions, asked many questions about the safety measures.

The second session on the topic of Veterinary Sanitary Rules covered information on pests, bee illnesses, treatments with natural, non-toxic bee medicines, and preventive measures. Participants were active and attentive during this session, and many shared their experience of battling different bee illnesses.





The third session of the day was the introduction of the HiveTracks mobile application for beekeepers, starting with downloading the app using QR codes and instructions. More technologically advanced participants helped others to create an email account, password and app account. Every participant managed to create personal account in the app. The session covered information on the account creation, selecting a language (Russian or Uzbek), setting up an apiary according to the actual location, setting up hives and exploring other main functions of the app. Participants discussed the purpose and relevance of the app. The value add of the session was to provide participants with free access to beekeeping knowledge “on to go”, teaching the use of technology that allows to monitor hives, get relevant recommendations and save beekeeping information in a digital format.

The last session of the day was about beekeeping products and their commercial features, covering information on selling beekeeping products, beekeeping certifications, beekeeping tourism and export.



3. Key findings and achievements

- One beekeeper from the 2022 workshop has been using the HiveTracks app since then, finding it very valuable and helping explain it to other beekeepers. He also offered to host the practical workshop at his apiary in May.
- A woman beekeeper summarized challenges in the industry: *“Being a beekeeper is a very challenging and difficult job; you have to be a farmer, biologist, veterinary, understand bees, insects, parasites, plants, climate, seasons, and the food industry... and being a woman farmer-beekeeper is even more challenging in this male-dominated industry, because it doesn’t exclude women from being full time mothers and housewives”*
- There was high demand for the workshop materials, so presentations and draft training materials were sent in the Telegram group chat following the workshop. It was also suggested to video-record May practical workshops to distribute them to a wider audience.



WORKSHOP FOR ADVANCED BEEKEEPERS ON MARCH 27, 2024 IN NUKUS

1. Agenda

Time	Session	Responsible person
9:00-9:30	Registration	All
9:30-9:45	Opening speech and welcoming participants: • Workshop goals and objectives • Introducing speakers • Agenda overview	Gulnara Khudaybergenova
9:45-11:00	Beekeeper training topic 1: preparation for the beekeeping season	Farrukh Musaev, Otabek Goyipov
11:00-11:30	Tea break & app download	All
11:30-13:00	Beekeeper training topic 2: Veterinary sanitary rules in beekeeping • new pests • natural, non-toxic medicines for bees	Farrukh Musaev, Otabek Goyipov
13:00-13:45	Lunch break	-
14:00-15:20	HiveTracks Mobile App training: • creating a personal account • setting up an apiary • setting up a hive • doing an inspection	Gulnara Khudaybergenova
15:20-15:30	Break	-
15:30-16:45	Beekeeper training topic 3: Beekeeping products & their commercial features • where & how to sell product • how to register/become certified • alternative income sources (e.g. ecotourism, byproducts...etc.)	Farrukh Musaev, Otabek Goyipov
16:45-17:00	Closing speech	Gulnara Khudaybergenova

2. Session details

The workshop on Day 2 was attended by 25 participants, the majority of which were students of Nukus Branch of the Samarkand University of Veterinary Medicine, Animal Husbandry and Biotechnology.



After the welcoming remarks, the first session on Preparation for the Beekeeping Season covered the key steps and tasks beekeepers should take to set up for success this beekeeping season, and minimize losses. This session stimulated many questions and experience sharing by participants.

The second session on the topic of Veterinary Sanitary Rules covered topics on pests, bee illnesses, suggestion of natural, non-toxic bee medicines and preventive-measures. Since most of the audience on Day 2 were students and beekeeping veterinary faculty, the topic led to a more advanced technical discussion than the session with beginner beekeepers on the previous day.

The third session of the day was the introduction of the HiveTracks mobile application for beekeepers, starting by downloading the app, creating personal accounts, selecting a language, setting up an apiary according to the actual location, setting up hives and exploring other main functions, like hive inspection, documentation of hive activities. Participants discussed the purpose and relevance of the app and asked questions like:

- Can I see other beekeepers from my region on the map?
- Is there any chat option?
- Are the provided recommendations are localized (blooming seasons of each plant, climate recommendations, weather, disease warnings)
- Does app provide information for beginner level beekeepers?
- Is advertisement option available (bee market)?



The last session of the day was about beekeeping products and their commercial features led by both experts. It covered topics such as selling beekeeping products, beekeeping certifications, beekeeping tourism and export.



3. Key findings and achievements

- University representatives expressed their interest in future collaborations
- This advanced group expressed more interest in the mobile application and participated in more discussions compared to the beginner group



WORKSHOP STATISTICS AND QUESTIONNAIRE RESULTS:

Workshop participant overview (N=42)

- **Location:** The majority of the participants on Day 1 were from Nukus region (Nukus rayon), others were from Nukus and Bozatau, while the participants on Day 2 were from all over the Republic.
- **Gender:** the total number of workshop participants is 42 people (15 women and 27 men), 36 % of workshop participants were women.

Questionnaire Results (N=23)

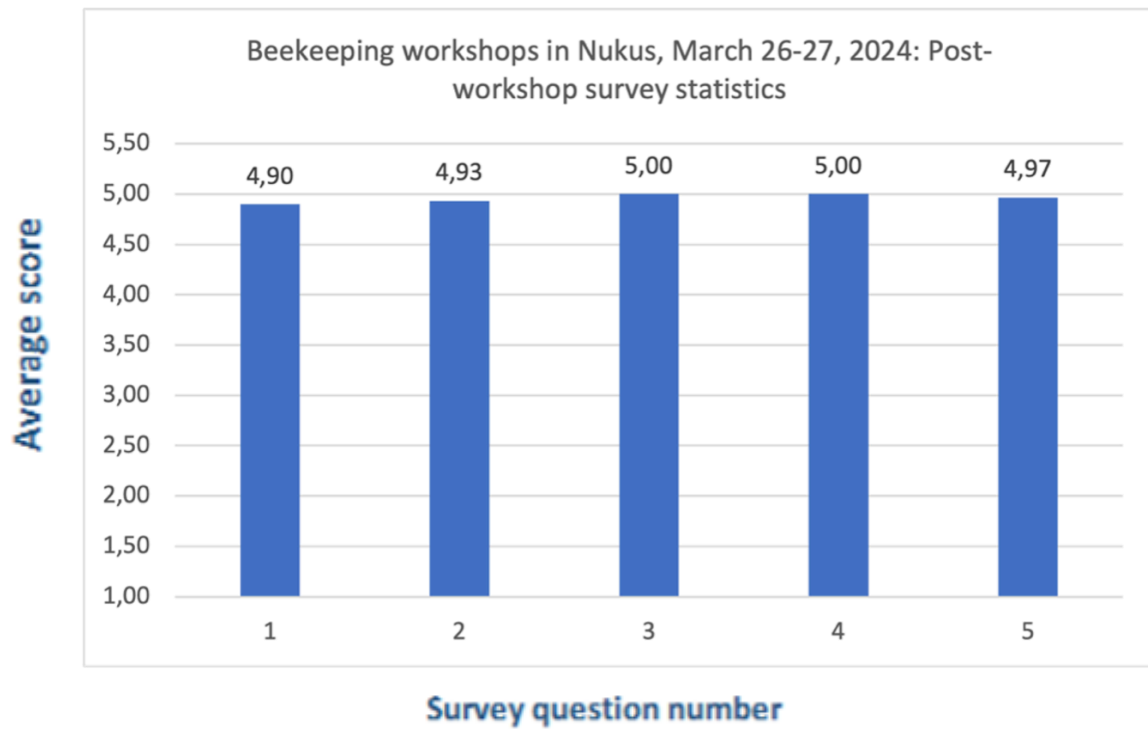
- **Age:** An average age of the workshop participant is 40 years old (among 23 respondents of the questionnaire)
- **Colonies:** The average number of bee colonies of the respondents is 23.
- **Experience:** The majority of the respondents are beginners with less than 3 years of beekeeping experience.
- **Scale of operation:** Beekeeping is a side-hobby / supplemental income to the majority of the respondents and the majority of the respondents do beekeeping work with their family members.
- **Income:** None of respondents export their beekeeping products, and the majority of the respondents think that royal jelly, pollen and propolis would be commercially successful and are interested in learning the techniques of getting them.
- **Flora:** Respondents' bees mostly pollinate gardens and cotton fields, while honey is collected mostly from agricultural fields.
- **Access to information:** the main sources of information to survey participants included:
 - Courses: 9*
 - Other experienced beekeepers: 5*
 - Books: 5*
 - Internet: 5*
 - Workshops: 4*
- **Key topics:** Beekeepers want to learn more about bee diseases (losing bees due to illnesses during winter cold weather), safe apiary transportation tips, and how to breed a queen bee.

Post-workshop survey results (N=29)

The survey included of 6 questions to gather feedback from participants about the workshop, answers are visualized in the graph below. Questions included:

1. How was our communication prior to the workshop?
2. How comfortable did you feel to ask questions and participate in discussion?
3. How do you feel about the time you spent at today's workshop?
4. Were the topics covered in today's workshop relevant to your needs as a beekeeper?
5. How relevant do you think the HiveTracks app will be to your needs as a beekeeper?
6. Your comments





The grade system is 1-5, where 1 is for “very bad” and 5 is for “excellent”.

All 29 respondents rated communication, organization and relevance of the overed topics positively (Graphic 2) and expressed interest in participating at May workshops.

