



**SOMALI NATURAL
RECOURCES**
RESEARCH CENTER



**JAAMACADDA
JAZEERA
UNIVERSITY**

REPORT ON TRAINING BEEKEEPING PRACTICE

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Capacity Building Training for beekeeping practice

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Introduction

Beekeeping as the core of agricultural development in Somalia, as it makes significant contributions to the National Income and Gross Domestic Product GDP of the country in form of improved crop production and export of bee products.

In Somalia, the presence of bee colony can enhance agricultural production in the term of pollinating fruit and vegetable production. Bee hive products especially honey attract best prices making it a valuable commodity for incomes.

Honey bee produces more than just the production of honey, but there are other substance that bee colonies produce naturally, such as propolis, beeswax, pollen grain and royal jelly. These products are very much required in Somalia, but the demand is not always fulfilled by local supply.

Recently beekeeping companies are considerably increasing in Somalia, while traditional bee hives are decreasing when it compared to modern bee hives specially langstroth and ten frame bee hive.

Objectives of the training

The overall objectives of training were capacity building of beekeeping practice to the students from nine different universities with the following specific objective.

- ✓ To conduct the participants for differentiating the queen from workers and drones.
- ✓ To learn the life cycle of honey bee through brood combs.
- ✓ To study bee hive structure and tools.
- ✓ To gain an important information about bee colonies management.
- ✓ To understand causes of bee swarm.
- ✓ To know the reasons that honey colours make distinction.
- ✓ To strength the technical practice of adding to different colonies in one

. Expected training out come

- ✓ Can start beekeeping as beginner with ability for differentiating the queen from workers and drones.
- ✓ Understanding how to manage causes of bee swarming.
- ✓ Recognise the defences between modern bee hives and traditional bee hives.

- ✓ To have a handle on the best way of adding to different bee colonies.

TRAINING METHODS AND MATERIALS

One day training workshop on capacity building for different students from nine universities in Mogadishu such as; Somali National University, Jazeera University, Benadir University, Mogadishu University, Zamzam University, Horseed International University, Darul Hikmah University, Somali International University and Salaam University.

The training was conducted by Somali Natural resources Research Center SONRREC and Jazeera University, the numbers of participants were 63 students while ten of them were female. Presentation lecture, discussion and field visiting were functionally used through this one day training workshop. The following mode were applied in the workshop:

Lecture and presentation by the trainer

The trainers' lecture was three sectors using PPT, the end of each section were applied questions and answers for deeply interaction through discussion.

The training workshop was structured on the basis of three main components:

- Description of honey bee and colony components.
- Colony managements and beekeeping equipments.
- Bee product.

Field visit

All participants went to the field, with succeed fully they observed how to differentiate between queen, workers and drones and also they be trained the lifecycle of each entity of honey bee colony inside the brood comb. Moreover the participants observed modern bee hive which in common use worldwide; such as the Langstroth hive and all its' parts. In addition to that, participants gained the way technically to solve weak colony, through using method of combining two bee colonies into one hive, as they concentrated the following points:

- They Identified the stronger of the two colonies
- They Smoked and opened the weaker colony

- They Smoked and opened the stronger hive
- They took the hive body from the weak colony and placed it directly on top of the stronger colony's hive.

Training Tools

- PPT Projector
- Markers
- Flip chart
- Pens
- Hand books
- Langstroth hive
- Protective Gear
- Shoes
- Gloves
- Smoker
- Queen Catcher
- Queen Excluder
- Queen Marker

MAJOR TRAINING PROCEDURES AND RESULTS

Opening

The workshop was opened by dean faculty of agriculture and veterinary science Mr. Mohamed Dayib Abubakar. He indicated the importance of beekeeping for generating income to the students as individuals or cooperatively. In addition to that he pointed out there are more than 20,000 species of bees in the world today, native to divergent areas all over the world, and these species are provides highly appreciated pollination services for a broad variety of agricultural crops.

Session 1: description of honey bee

In this session, Mr Abdulkadir Sh. Mohamud explained the maintenance of honey bee colonies, commonly by mankind in modern hive, beside that he stated the full classification of honey bee.

He concluded in this session that the best species is western honey bees *Apis mellifera* which most of beekeepers rare for the purpose of honey production in the world wide.



Mr. Abdulkadir during his presentation

Session 2: colony components and managements

In this session, the trainer gave details about the components and the lifecycle of bee colony, also he observably explained that colony of the honey bee contains three main types:

- One queen (female)
- Few drones (males)
- Thousands of workers (sterile female)



Mr. Abdulkadir demonstrating the lifecycle of honey bee in the brood comb

Session 3: beekeeping equipments

In this session, the trainer demonstrated all parts of beekeeping equipments manifestly, as well as modern bee hive and its' tools.



Mr. Abdulkadir explaining beekeeping equipments, as well as bee hive and its' tools.

Session 4: Questions & answers (Discussion)

After the presentation was ended, the participants discussed these key points:

- The main solutions for bee swarm
- Cause of honey colour diversity
- Enhancing honey production
- Bee Venom and Its Medical Uses



Some of the participants sharing the discussion

CONCLUSION AND RECOMMENDATION

Conclusion

All participants were students, who can play a great role for improving beekeeping in Somalia. Over 70 per cent of Somalia's population is under the age of 30, therefore, they contribute an effective role for reducing poverty in rural areas. According to the results, it could be concluded the following points:

- The participants recognised the difference between modern and traditional bee hives and other tools related to it.
- Training improved how to manage the way of adding two different bee colonies in one, by using special techniques.
- The participants gained important information about habitual inspection on the bee hive due to mitigate the risk of pests, diseases and food scarcity that could cause honey bee swarming.
- Training created perfect awareness about honey bee taxonomy.

Recommendations

As stated in the outcomes, it has been recommended the following:

- The training should be prolonged to other groups of youth in rural areas.
- Establishing Projects that investing bee honey production for small beekeepers in rural areas, Somalia, to support income generation and decreasing poverty level.
- Since the number of female in this training were 10 where the male were 53, for this reason, it should be well thought-out plan to specific beekeeping training workshop for women in urban (universities) and rural areas.

Annex

Annex 1: Training agenda

Time in Mogadishu, Somalia	Activity/Session	Facilitator /Moderator
8:00 – 8:20 AM	Welcome & Introductions – Opening remarks about workshop objectives	Mohamed Dayib Abubakar
8:30 – 9:20 AM	Session 1: description of honey bee	Mr Abdulkadir Sh. Mohamud
9:20 – 10:00 AM	Session 2: colony components and managements	Mr Abdulkadir Sh. Mohamud
10:00 – 10:20 AM	Tea, coffee	-----
10:20 – 11:00 AM	Session 3: beekeeping equipments	Mr Abdulkadir Sh. Mohamud
11:00 – 12:00 PM	Session 4: Questions & answers (Discussion)	Hassan Mohamed Hussein
12:00 – 1:00 PM	break & Prayer time	-----
1:00 – 4:00 PM	Field visit for practice	Mr Abdulkadir Sh. Mohamud
4:15 – 4:30 PM	Closing remarks	Mohamed Dayib Abubakar

Annex 2: List of the participants from nine different universities

S/N	Name of the Of participants	Universities	Location	Contact Number
1	Aisha Adam Mohamed	Somali national university SNU	Mogadishu	0617498293
2	Sumaya Mohamed Hassan	Somali national university SNU	Mogadishu	0619037104
3	Rahma Ali Roble	University of Somalia (UNISO)	Mogadishu	0615288005
4	Kadija Osman Mohamed	University of Somalia (UNISO)	Mogadishu	0616709955
5	Aisha Mohamed Yusuf	University of Somalia (UNISO)	Mogadishu	0617698872
6	Saytuun Hussein Ibrahim	Somali national university SNU	Mogadishu	0618120220
7	Samiira Hilowle Hassan	Jazeera University JU	Mogadishu	0616623033
8	Muniira Abdiladif Sh Amir	Jazeera University JU	Mogadishu	0618450527
9	Rahma Ahmed Hussein	Jazeera University JU	Mogadishu	0619160640
10	Ikhlas Hersi Ease	Somali national university SNU	Mogadishu	0619690778
11	Ahmed Abdi Adam	Jazeera University JU	Mogadishu	0618958592
12	Ease Abdi Said	Mogadishu University MU	Mogadishu	0612654603
13	Abdiweli Muse Abdisalam	Jazeera University JU	Mogadishu	0618387009
14	Ahmed Keynaan Roble	Zamzam University ZU	Mogadishu	0615945146
15	Mohamed Kadar Osman Muse	Benadir University BU	Mogadishu	0615088143
16	Kadar Abdukadir Mohamed	Jazeera University JU	Mogadishu	0614993807
17	Osman Abubakar Muqtar	Jazeera University JU	Mogadishu	0616831943
18	Mohamed Abdihakim Mohamed	Jazeera University JU	Mogadishu	0615861264
19	Omar Shacir Abdikarim	Jazeera University JU	Mogadishu	0612353146
20	Abdirashid Mohamud Abdulah	Jazeera University JU	Mogadishu	0619146707
21	Abdikafi Ahmed Nor	Zamzam University ZU	Mogadishu	0618567295
22	Adam Yaqub Hassan	Zamzam University ZU	Mogadishu	0612050200
23	Abdifataah Mohamed Osman	Zamzam University ZU	Mogadishu	0615949753
24	Said Salad Nageye	Jazeera University JU	Mogadishu	0618131823
25	Abdihakim Abdullahi Omar	Jazeera University JU	Mogadishu	0615830100
26	Abdibasid Abdullahi Abdirahman	Jazeera University JU	Mogadishu	0616343689
27	Omar Mohamed Abukar	Jazeera University JU	Mogadishu	0617909097
28	Abdinasir Mohamed Sharif	Jazeera University JU	Mogadishu	0619528461

29	Mohamed Ibrahim Abukar	Jazeera University JU	Mogadishu	0618711200
30	Abdikadir Ahmed Mohamed	Jazeera University JU	Mogadishu	0618268336
31	Saciid Qalbinuur Cabdi Somane	Jazeera University JU	Mogadishu	0617142224
32	Abdisamad Ahmed Abdirahman	Jazeera University JU	Mogadishu	0612659544
33	Abdifatah Hassan Hussein	Somali national university SNU	Mogadishu	0618315454
34	Hassan Ahmed Mohamed	Somali national university SNU	Mogadishu	0617909063
35	Ahmed Mohamed Hassan	Somali national university SNU	Mogadishu	0617979530
36	Mohamed Abdulahi Samatar	Somali national university SNU	Mogadishu	0615100373
37	Abdulahi Ibrahim Isak	Horseed International University HIU	Mogadishu	0616399738
38	Zakaria Hassan Ga al	Horseed International University HIU	Mogadishu	0617085562
39	Sahal Abiikar Abdi	Darul Hikmah University DHU	Mogadishu	0615544736
40	Hussein Abdullahi Haylow	Darul Hikmah University DHU	Mogadishu	0616828178
41	Abdirahman Abdullahi Mohamed	Jazeera University JU	Mogadishu	0613344472
42	Nafiso Khalif Ease	Jazeera University JU	Mogadishu	0612122257
43	Mohamed Deeq Yuusuf	University of Somalia (UNISO)	Mogadishu	0617431055
44	Abdishakur Abdulkarim	Jazeera University JU	Mogadishu	0612177190
45	Maslah Sokorow Ali	Jazeera University JU	Mogadishu	0616221102
46	Osman Hussein Mohamed	University of Somalia (UNISO)	Mogadishu	0616805189
47	Mohamed Bare Ibrahim	University of Somalia (UNISO)	Mogadishu	0618018816
48	Ayaanle Abdi Ali	University of Somalia (UNISO)	Mogadishu	0619696770
49	Abdullahi Fuad Jamac	University of Somalia (UNISO)	Mogadishu	0615603084
50	Abdinasir Adam Mohamed	Jazeera University JU	Mogadishu	0612511373
51	Hassan Mohamed Osman	Darul Hikmah University DHU	Mogadishu	0615781985
52	Abdala Daahir Diini	Darul Hikmah University DHU	Mogadishu	0618958863
53	Khalid Abdirashid Muse	Jazeera University JU	Mogadishu	0616406751
54	Mohamed Durow Hassan	Darul Hikmah University DHU	Mogadishu	0616187552
55	Mohamed Aadam Kerow	Darul Hikmah University DHU	Mogadishu	0615634505

56	Mohamed Abdiasiis Mohamud	Darul Hikmah University DHU	Mogadishu	0617099999
57	Abdikafi Awil Mohamed	Darul Hikmah University DHU	Mogadishu	0615768289
58	Abdifataah Mohidiin	Somali national university SNU	Mogadishu	0616328687
59	Abdikaafi Guleed ALi	Horseed International University HIU	Mogadishu	0616371465
60	Mohamed Jaama Mohamed	Jazeera University JU	Mogadishu	0616775555
61	Abdullahi Ali Dahir Moahmed	Somali national university SNU	Mogadishu	0615931331
62	Mohamed Aways Khalif	Darul Hikmah University DHU	Mogadishu	0618713861
63	Usama Ibrahim Abdullahi	Darul Hikmah University DHU	Mogadishu	0617707803