



AGRIDEMO

Case study reports: Serbia CS2



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1. Background

Programme

The Beekeepers Association was founded in mid-20th century. It gathers beekeepers from Novi Sad and its surrounding with goal to foster development and sustainability of beekeeping in the region. The Association is the holder of protected designation of origin for Fruska Gora Lime Honey and actively promotes beekeeping products through annual organisation of Honey Festival. The Association numbers more than 400 members with more than 10000 honeybee colonies. The overall objective is supporting improvement of beekeeping status in the region by simplifying access to most relevant knowledge needed for sustainability of beekeeping and fostering networking.

Funding and Governance

Like other associations funded under law of Republic Serbia there is a president, deputy and steering committee, all elected directly by members of the association. The members of association pay a membership fee which covers about 30% of the costs required for being an active association. Remaining money comes from public funds and from participation in various research or promotional projects. Although the availability of money has a major impact on activities, since the past 20 years, knowledge exchange through series of lectures/workshops that are organised every winter and school for novice beekeeper (held by experienced peers) were ensured.

Actors and networks

The association involves members, researchers and other experts in knowledge exchange. Apart from invited experts (researchers) from the fields of interest, members of the association that are achieving good results in some of the aspects of beekeeping are invited to share their experience. There are strong connections to similar associations in Serbia and neighbouring countries. Demonstrations are often exchanged for hot topics and visits of beekeepers coming from other regions organised by other association.

How it works

- A list of hot topics is selected by steering committee (following the requests from members) aiming for covering four aspects technology, forage, final products, diseases.
- Suitable demonstrators are chosen after the discussion with topic proposers
- Outside of production season (November-March) every week a lecture is organised and another day a round table is organised in the premises of association (this allows additional discussion on presented topics but also positioning of the association towards coming lectures)
- Occasionally the demonstrations of the technology can be organised in apiary for visiting participants following the explicit request
- The demonstrations are advertised to members using the website of the association and the social media
- There is no limit for the profile of participants and the number is limited only by the size of the lecture room. Demonstration is free of charge for members but very often there are participants from other associations.

Event Dates: No event took place in the research period

2. Method

In line with the Methodological Guidelines, three main data sources are used: a background document and interviews at Programme and Farm level to analyse structural and functional characteristics, and event tools and surveys to analyse event level participation and learning, as follows:

1. A background document for every case study was completed by the AgriDemo-F2F partner who carried out the case study.
2. Interviews with representatives of programme/networks (level 1) and farm level interviews with demonstrators/hosts (Level 1) to reveal how the functional and structural characteristics enable learning. Analysis of these interviews is reported in Sections 3 and 4. Data is sourced from 1 interview at the programme level. The analysis followed 4 themes: (1) Coordinating effective recruitment of host farmers and participants, (2) Developing and coordinating appropriate interaction approaches, (3) Planning, designing and conducting appropriate demonstration processes, (4) Enabling learning appropriate to purpose, audience, context, (5) Follow-up activities.
3. No events were planned in the research period.

Finally, partners reviewed the case study reports to prepare their workshops with different stakeholders related to the case studies. These workshops aimed at validating the data presented in the case study reports and to discuss on key characteristics related to effectiveness of demonstrations. A workshop for the case studies of Serbia will be held around January 2019.

3. Structural Characteristics

T1: Programme/network level

1. The main organisations involved in the demonstration activities and their roles

The Beekeepers Association aims at knowledge and experience sharing between the members of the association, which are all active beekeepers. Initiatives undertaken from the association are from beekeeper to beekeeper, i.e. they are organised by the members of the association for the members of association. It is not easy in this case study to make a clear distinction between all actors because all association's members could be demonstrators, audience, lecturers or hold elected roles in the association.

On top of educational initiatives and other **outward-looking activities** (lectures/presentations, round tables, Honey Festival, debates, lectures/workshops, school for novice beekeepers etc.) the association organises also demonstration activities in order to achieve its objectives (Programme interviewee). On-farm demonstrations are not common but are organised from time to time upon request from another organisation or individual farmers. Usually those involve a host beekeeper and one visiting beekeeper. (Programme interviewee + Background info).

2. Beekeepers Association and the different roles

The roles of the key actors in this type of association are defined by law. Members are those that are elected who then organise activities. E.g. president signs documents and steering committee decides on everyday activities. Vice president shares the effort from the president and replaces when needed. Also very often president and vice president split focus on different key goals (e.g. education, administrative tasks). Major decisions are made by votes from all members on the general assembly that is made from all members (usually once a year) while operational everyday decisions are made by steering committee elected by general assembly.

In this particular association the vice president (interviewed) was responsible for education activities. He initiates proposing and selection of topics. Invites members to propose a list of topics that are of their interest and then in direct communication with members or external experts makes a list of demonstrators. Also he is responsible for organising logistics for lectures.

Targeting host farmers for demonstrations

There are 4 topics concerning beekeeping that are covered in all seasons (technology, forage, final products, and diseases). Some beekeeper members are involved at demonstration activities. Host farmers and demo topics are selected by the members of the association according to the following criteria (Programme interviewee + Background info):

- 1) Those who achieves good/obvious results in some of the aspects of beekeeping
- 2) Those who are chosen as experts for given/specific topic
- 3) Those who are implementing something special , useful and interesting in their practice
- 4) Those who are doing something promising and/ or intriguing for implementation in common practice
- 5) Those who are doing something completely novel

R: Since we are focusing mainly on giving presentations beekeepers like to show off especially when they are chosen as experts for given topic (Programme interviewee).

R: We focus on experts in the topic that is presented. Those that do something special and useful in their practice especially if results are obvious or intriguing. (Programme interviewee).

The demonstrations which occur in the frame of the Beekeepers association, are exemplary according to the Programme interviewee. From his point of view, exemplary approaches are also more preferable, because of the need for working examples. Moreover, the demonstrations provided are mainly in-between single focus and whole farm approaches. (Farmer).

R: Very few beekeepers are ready to experiment and personally, I prefer to see examples on how some technologies work in another apiary and then consider how this is comparable to my apiary (rather than seeing predefined comparisons) (Programme interviewee).

Topic selection

Following the requests/propositions from members, a list of topics is selected by the association's steering committee. Generally, all members of the association are invited to propose topics, but usually the most active members (president, vice president and members of the steering committee) propose them, linked to availability of suitable demonstrators. Suitable demonstrators are chosen after discussion with topic proposers. During the no production season (November-March), every week, a round table is organised in the premises of the association allowing for additional discussion on the topics (Programme interviewee + Background info).

R: There are 4 topics that are covered in all seasons (technology, forage, final products, and diseases). The most interesting aspect from each or the most promising for implementation in common practice is presented. If there is something completely novel it is introduced. All members of the association are invited to suggest topics, but usually the most active members (president, vice president and members of the steering committee) propose topics, often linked to availability of suitable demonstrators. (Programme interviewee).

Development of demo activities (individual and/or program level)

The association sets the objectives of the knowledge transfer programme, and initiates the process with the selection of the most suitable host farmer. From this point forward, the host farmer is exclusively in charge of the development of the individual demonstration activities. Host farmers are always involved in the development of the overall demonstration programme. (Programme interviewee + Background info).

R: The host farmer is fully in charge. The association has an influence only in the beginning by suggesting the most suitable host farmer. (Programme interviewee).

Target Audience/type of participants

The intended audience of the association's initiatives, including demonstrations, are beekeepers from all experience degrees (from novice to experienced professional farmers). Participants are usually members of the association; however, demonstration participants are never targeted for the demonstration events, as the call for participation is always open. The association is planning to open its audience by designing events for people not involved in agriculture. Finally, the association has already organised apiary demonstration for students. (Programme interviewee).

R: The call for participation is opened and we let participants decide. From my experience, about 20% of members of our association regularly attend winter lectures. (Programme interviewee).

R: Once we have demonstration apiary we will aim to students but also it would be interesting to design demonstration to people not involved in agriculture. (Programme interviewee).

Q: Do you - at the programme level - continue to engage participants after the demonstrations? R: Participants are members of association so they are engaged. (Programme interviewee).

Researchers, experts, companies, practitioners and teachers

The association involves members, researchers and other invited experts (both researchers and good practitioners) to facilitate knowledge exchange. The demonstration events are organised in order to ensure that end users get the best possible information from these experts. However, it has been commented that, generally, researchers are not skilled to transfer new findings and new knowledge into something appropriate for implementation in everyday practices (Programme interviewee).

3. Networks

The Beekeepers Association was founded in mid-20th century. It gathers beekeepers from Novi Sad and its surrounding. As other associations funded under law of Republic of Serbia, there is president, deputy and steering committee all elected directly by members of association. The Association numbers more than 400 members with more than 10000 honeybee colonies. (Programme interviewee + Background info).

The association is connected with other knowledge exchange organisations. There are strong connections and collaborations with other beekeeping associations in Serbia and neighbouring countries. Demonstrators are often invited among organisations to participate in emerging topics. The Beekeeper association occasionally hosts visits organised by other associations in which beekeepers are attending from other regions. Finally, the association works also with other associations, which helps for a better position of beekeepers in the market (Programme interviewee + Background info).

4. Resources, finances and incentives

The members of the association pay a membership fee, which covers about 30% of the costs of the association. Remaining costs are funded by public funds and/or from participation in various research or promotional projects. With such a mixed funding arrangement, the association managed in the last 20 years to ensure resources for knowledge exchange through series of lectures/workshops organised every winter and school for novice beekeeper, held by experienced peers. The association does not offer any incentives to farmers to host demonstration activities and only travel expenses for the demonstrator are covered (Programme interviewee).

Demonstrations are free of charges for the members for the association, if other people want to attend and there is more space on the location, others are welcome too. There is no limit for the profile of participants and the number is limited only by the size of lecture room, since most demonstration are lectures (Programme interviewee). On-farm demonstrations are rare.

5. Timing

It seems that most (or rather all) demo activities are planned during the inactive period of beekeepers. This seems to pose some challenges and limitations in organising demos.

What do you think is the most effective way to arrange/structure a demonstration activity? R: A technical presentation followed by a farm walk would be perfect but it is not possible for beekeeping technology as demonstrations are organised in winter period. Technically in this period there are no operation activities in the apiary. Organising knowledge transfer during active season is difficult because it is almost impossible to have a number of visitors around hives during operations. This would stress bees and also when operating, (e.g. changing frames, searching for queen, extracting honey) the host beekeeper cannot provide hands-on experiences for more than one participant. Finally when it is extraction time or migration time, it is for beekeepers hardly possible to dedicate time to attending a demonstration (Programme interviewee).

6. Human Resources

The association promotes knowledge exchange through series of educational/training initiatives such as lectures/workshops and school for novice beekeeper held by experienced peers. (Programme interviewee). However, it is not further detailed if those training sessions focus on skills to improve demo delivery.

7. The decision-making process in organising demonstrations

The structure and the overall governance the association follows, are better described as bottom-up approaches. Member farmers are engaged in all association's initiatives and members' engagement (debates, round tables) seems to be pursued. Especially for demonstration events, the host farmers seem to have control of all the activities. However, in the question related to the general approach the association follows when providing demonstration activities, the answer was that a mostly top down approach is followed and more specifically at beekeeping schools.

For beekeeping schools top-down is the obvious approach, as participants are complete novices. However participants are always encouraged to explore the suitability of presented knowledge for their business and decide what road to take. On weekly basis during the winter period, we organise active debates where 10-20 members (mostly beekeepers) attend and during which concepts that were presented during lectures are challenged and discussed. (Programme interviewee)

8. Goals and objectives

The objective of the Beekeepers Association is to foster development/improvement and sustainability of beekeeping in the region and to actively promote beekeeping products. Education and knowledge exchange is one pillar of their activities, to support the economic sustainability of beekeeping. Its overall objective is to support and improve the beekeeping status in the region by fostering networking and simplifying access to the most relevant knowledge needed for sustainable beekeeping.

T2: Farm (event) level

No farm level/event level/observation tools were provided.

4. Functional characteristics

T1: Coordinating effective recruitment of host farmers and participants

1. Incentives

The Programme Interviewee described how money from membership allows their association to run, which in part, funded their knowledge exchange programme.

The members of association pay membership fee which covers about 30% of costs required for being active association. Remaining money comes from public funds and from participation in various research or promotional projects. The availability of money has major impact on lifespan but up since past 20 years we are able to ensure knowledge exchange through series of lectures/workshops that are organised every winter. (Programme interviewee)

Specifically, this allowed the network to cover the expenses of host farmers.

2. Motivations for host farmers

The Programme Interviewee noted how beekeepers chosen to be demonstrators were honoured; the opportunity to 'show off' amongst their peers, is a key motivation for them. The opportunity to learn new things and be challenged is also important.

Beekeepers like to show off especially when they when they are chosen as experts for given topic. Also some demonstrators like to be challenged as this brings them new ideas on how to improve. (Programme interviewee)

3. Motivations for participants

Like host farmers, participants were also keen to learn something new. The idea of 'problem solving' was evident here too. Interestingly, the Programme Interviewee noted how attending a demonstration activity provided the opportunity for participants to challenge the conventional thinking of the demonstrator or authority.

Learn something new to improve common practice or solve problem. But also to confront demonstrator and show he is wrong. (Programme interviewee)

4. Target audience

The target audience was exclusively beekeepers, but differed in terms of their levels of experience.

Beekeepers at all experience degrees. From novice to experienced professional farmers. (Programme interviewee)

Participants were not targeted and demonstrations were open to all.

5. Advertising and recruitment

The Programme Interviewee highlighted the increasing role of social media platforms, e.g. Viber, in advertising and recruiting participants, which has replaced more traditional methods e.g. postal letters.

Nowadays it is internet (especially Viber). In the past we used to send letters of invitation to all members with pre-defined program of all lectures and today program is alive and often can change during the cycles. (Programme interviewee)

T2: Appropriate demonstration and interaction approaches

1. The nature of interaction

The events were described as 'Mostly top down' in case of the beekeeping schools; the interviewee suggested that this was attributable to the nature of the topic. He explained that where beekeepers are novices, information can only be transmitted in a top down way. However, he did add that participants are encouraged to consider the messages of the demonstration in the context of their own business models, hence why it was not 'Entirely top down'. Furthermore, association members – who were beekeepers themselves – had the opportunity to attend discussions, the content of which, shaped the demonstration programme.

For beekeeping schools it is obvious approach as participants are complete novices. However participants are always encouraged to explore suitability of presented for their business and decide what road to take. On weekly basis during winter period we organise active debates where 10-20

members (mostly beekeepers) attend and during which concepts that were presented during lectures are challenged and discussed. (Programme interviewee)

2. Involving farmers in the learning process and the demonstration programme

Although demonstrations were described as 'Mostly top down', according to the Programme Interviewee host farmers are 'Always' involved in the development of individual demonstration activities. He attributed this to the fact that professional advisers were seldom involved beekeeping knowledge-exchange (they had other focuses and 'common practice' content does not warrant 'expert' input), therefore, beekeepers were more likely to want to engage with other beekeepers/their peers and learn from each other.

Advisers are rarely focused on beekeeping practice in Serbia. Beekeepers tend to be more flexible in adapting to the knowledge and demands their colleagues have. Researchers are not skilled to transfer new findings and new knowledge into something appropriate for implementation in common practice. (Programme interviewee)

It was clear from the interview that the Association played a limited role in the content of the demonstrations, but assumed a role in the administration and organisation in the early stages.

Host farmer is fully in charge. Association has influence only at the beginning by suggesting the most suitable host farmer. (Programme interviewee)

The fact that the 'the beekeeper association is formed by beekeepers and they set objectives of the *knowledge transfer programme*', the association is always across 'what is relevant for improvement of practice in the fields of diseases, end products, forage and technology'.

Elsewhere in the interview the Programme Interviewee talked about the role of 'expertise'. Although he understand this as important, he also recognised that it can also detract from the demonstration experience if they are not open to discussion or change. This highlights some interesting issues with regards to the balance of 'participant' and 'expert' involvement.

Expertise is important but could be drawback as those beekeepers that are really experts often are too proud to accept suggestions. (Programme interviewee)

3. Focus and Design

The Farmer described the demonstrations he provides as 'In between' 'Single focus' and 'Whole farm, and 'Exemplary' in nature. He expressed a preference for an 'Exemplary' approach. He claimed that beekeepers were not interested in experimenting, but are simply interested in seeing how something works.

Very few beekeepers are ready to experiment and me personally prefer to see example on how some technology works in other apiary and the consider how this is comparable to my apiary (rather than seeing predefined comparison). (Programme interviewee)

The Programme Interviewee described a predefined topic-base – listing 4 topics – which is open to discussion and input from members of the association, but he noted how this tended to be dominated by the more active members.

There are 4 topics that are covered in all seasons (technology, forage, final products, diseases). The most interesting aspect from each or the most promising for implementation in common practice is presented. If there is something completely novel it is introduced. All members of the association are invited topics to be covered but usually the most active members (president, vice president and members of the steering committee) propose topics often linked to availability of suitable demonstrators. (Programme interviewee)

4. Group size

Whilst no upper limit was imposed, 30-40 people was the typical number of attendees. The Programme Interviewee suggested that a range of 30-40 meant that 10 people were involved in discussion. This suggests there is scope to run smaller events or divide into sub groups to allow participants to get the most from events.

For winter lectures there is no limitation but for debates 30-40, as usually 10 are involved in discussion while others are just listeners. (Programme interviewee)

T3: Enabling learning appropriate to purpose, audience, context

1. Facilitating interaction and learning: structure, content and techniques

The Programme Interviewee recommended a traditional format of a technical presentation, combined with a farm walk. Although he did recognise this can sometimes be limited by the weather.

A technical presentation followed by a farm walk would be perfect but it is not possible for beekeeping technology as demonstrations are organised in winter period. (Programme interviewee)

It emerged in the interview that facilitating 'Problem solving' was the most important characteristic of a demonstration activity.

There are a number of problems nowadays for beekeeping and to survive beekeepers require solutions for their problems. But in my experience when participants ask questions and talk openly it usually leads to problem solving. (Programme interviewee)

2. Taking into account variation in learning

The Programme Interviewee claimed to take into account variation in learning styles and types by starting demonstrations from the lowest possible base.

When I give presentations I tend to treat all participants as having lowest level of experience. (Programme interviewee)

T4: Effective follow-up activities

1. Follow-up activities and materials

While there was no specific programme in place to engage participants after events, by being members of the association, many participants were engaged with by default.

Participants are members of association so they are engaged. (Programme interviewee)

2. Assessing impact

The Programme Interviewee claimed there was no assessment of whether participants have acted on/changed their practice. Nor was there any attempt to assess the impact of such demonstrations on the wider farming/beekeeping community.

5. Event analysis: effective peer learning characteristics

No events were planned during the research period.