Beekeeping Training for Disadvantaged Groups in the Western Cape

A Critical Assessment of a Beekeeping Training Programme in

Cape Town's Manenberg Township

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Research Report

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ABBREVIATIONS

AgriSETA	Agriculture Sector Education Training Authority
CBOs	Community based organisations
CoCT	City of Cape Town
CSOs	Civil society organisations
HIV	Human Immunodeficiency Virus
ILO	International Labour Organisation
NGOs	Non-governmental organisations
TREE	Training for Rural Economic Empowerment

The research for this report was conducted as a Masters Dissertation based on a request for such research by Honeybee.
This summary report focusses on the findings of the study preceded by a brief introduction.

CHAPTER 1: INTRODUCTION

Beekeeping is an important industry in South Africa for ecological, economic and social reasons. Environmentally and socially, bees play a key role in food production, food security and keeping the bio-diversity healthy (Campos & Patrício-Roberto, 2014:160). Economically, income is earned through honey production amongst other bee products. More significantly, income is generated through bee pollination services in crop production, an industry valued at R16 billion per annum in South Africa (Mswazi, 2014). Commercial agriculture, an important sector of the South African economy, relies on honey bees to fertilise crops and other food plants. The monetary value of all pollinators world-wide is approximately a trillion US dollars, and in 2005, pollination services by bees were valued at €153 billion (Campos & Patrício-Roberto, 2014:160).

However, it has been widely acknowledged that South Africa's beekeeping industry is in decline and the country has become a net importer of honey (Villette, 2017). The National Census conducted in 1974/75 and in 1988 showed an annual increase of honey of 2000 tons and approximately1300 tons respectively (ibid). In contrast, however, a 2002 survey showed a sharp decrease in honey production across the nation, ranging from between 412 tons and 650 tons annual production (Conradie & Nortje, 2008:2). Moodie (2011:4) considers the invasion of the Cape Bee which has attacked the ***Apis mellifera scutellata*** species as the main cause of the decline of the beekeeping industry. Johannsmeier (2001:205) agrees that the Cape Bee invasion has damaged the beekeeping industry, "Commercial beekeepers, in particular, have lost thousands of colonies annually, which has forced some beekeepers out of business and increased honey prices and the cost of pollination". In addition, the lack of policy enforcement designed to protect bees and the ecology is considered a contributing factor to the growing inefficiency in the industry (Moodie, 2011:5). The increase in the human population and socio-economic difficulties associated with urbanisation have also been cited as factors that have negatively affected the bee population (Mswazi, 2014). In other words, ecological, political, social and economic threats are behind the current degradation of South Africa's beekeeping industry.

Research Problem

In order to address the ecological, political, social and economic problems, the South African government and development agencies have invested in programmes aimed at maintaining the biodiversity as well as increasing the productivity of the beekeeping industry. Similarly, they view the production deficits in the industry as a lucrative business opportunity for income generation for social-economically disadvantaged groups. Ironically, most of these developmental initiatives, which have taken the form of beekeeping training programmes, have not achieved their intended objectives (Steenhuisen, 2011). For example, Casidra (2013) has reported that despite funding from the Department of Agriculture in the Western Cape "numerous beekeepers … [have] showed no profits and sustainability".

Moreover, a survey by Conradie and Nortje (2008:7) revealed that the Western Cape has the highest number (33%) of South Africa's beekeepers who provide commercial bee pollination services. As the main beekeeping province, the income from pollination services is "what keeps beekeepers going" (Conradie & Nortje, 2008:8). The most recent survey by Conradie and Nortje (2008:7) established that 60% of large beekeepers provide regular pollination services to agriculture and only 14% of small beekeepers offer these services. The survey, therefore, concluded that "the likelihood of offering pollination services in South Africa is a function of both size and location" (Conradie and Nortje, 2008:78). From this premise, it has been argued that since pollination services are what keep beekeepers going, beekeeping is not a viable economic enterprise for poorer communities because they do not have the capacity to amass a lot of beehives to offer pollination services.

Research Objective

Following the undesirable outcomes with training poorer emerging beekeepers as well as the question on their economic viability, my study assessed one such beekeeping training programme in the Western Cape, in order to determine how beekeeping training programmes for poorer communities could be improved, so as to increase the likelihood of trainees becoming viable beekeepers. In particular, I assessed the methodological processes used in the development and implementation of the beekeeping programme from pre-training, through training to post-training.

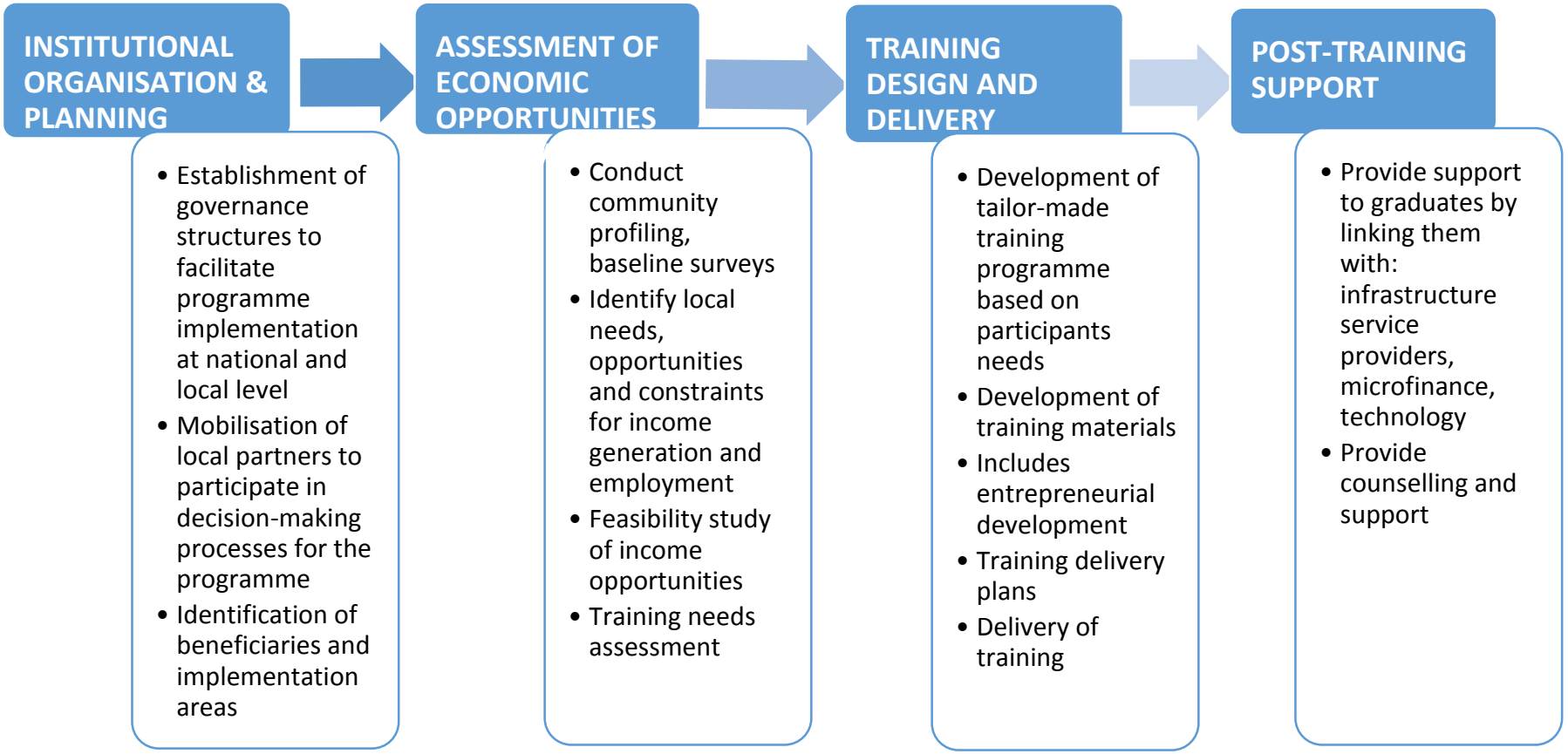
The City of Cape Town's (CoCT) Office of Sustainable Livelihood beekeeping project under study was established to train unemployed or underemployed people from the Manenberg Township to become financially viable beekeepers, in order to improve the quality of their lives (Schmitt, 2014:8). Manenberg is a low-income township in Cape Town where the effects of apartheid, which include the lack of economic opportunities, are still apparent (Cadwallader et al., 2011:1). The project was made up of the following components: beekeeping training, business knowledge and skills development, support for setting up a co-operative, business plan development, and sensitisation of environment conservation (Cadwallader et al., 2011:26). When the R180 000 donor funding from the CoCT's Office of Sustainable Livelihoods exhausted, the project beneficiaries abandoned their beekeeping cooperative business (Schmitt, 2014:8).

Research Methodology

I proceeded to analyse the development and implementation processes in the beekeeping training programme using the International Labour Organisation's (ILO) knowledge and skills development framework for socio-economically disadvantaged groups, called Training for Rural Economic Empowerment (TREE) (International Labour Organisation [ILO], 2009). TREE is a manual for carrying out skills and knowledge development programmes, aimed at "creating new economic and employment opportunities for the poor, the underemployed, the unemployed, informal economy workers, and the otherwise disadvantaged" (ILO, 2009:19). In Figure 1 below I show the flow of the TREE processes which I used to formulate the research questions for data collection and then to assess the development and implementation of the beekeeping programme.

The study used qualitative research methods (Punch, 2005). I interviewed the beekeeping training programmes' Project Manager from the CoCT, the beekeeping trainer and three of the seven trainees who had graduated from the programme. I also scrutinised the beekeeping training manual as a key source of information. My data analysis used Miles and Huberman's thematic coding approach (Miles, Huberman & Saldana, 2014) to identify weaknesses in the development and implementation processes of the training programme at pre-training, training and post-training phases, in order for the Training Agency to re-think and revise future bee training interventions.

Figure 1 Structure of the processes used in carrying out TREE (ILO, 2009:24)



CHAPTER 2: SUMMARY OF RESULTS

In summary, the results are an evaluation of the various processes that were followed in developing and implementing the beekeeping programme. The processes were examined using ILO's recommendations in conducting economic empowerment training for disadvantaged groups.

Unilateral conceptualisation of the beekeeping programme

In order to achieve a high adoption rate of skills learnt through a training which is designed to generate income opportunities for the disadvantaged, TREE recommends that the training be based on the participants' needs (ILO, 2009:21). The training programme must be conceptualised in a way that incorporates income generation opportunities that are available and accessible within the community and/ or in surrounding areas (ibid). Similarly, it should be in a field that will bring fast economic returns to the participants (ibid). All the partners within the community, for example Non-governmental organisations (NGOs), Community based organisations (CBOs), community leaders, representatives of prospective trainees, should join together to identify suitable opportunities (ibid).

In the initial processes of "setting-up" the beekeeping program, the study found that local partners from the programme implementation area, namely Manenberg, did not participate in the conceptualisation and development processes of the programme as well as the selection of the area of training, that is beekeeping. As a result, beekeeping turned out to be an unsuitable enterprise for the graduates or beneficiaries, therefore, the adoption rate of the programme was low.

Conflicts in implementing institutions' setup

The Beekeeping Training Agency that implemented the beekeeping programme is a registered business. Although the Beekeeping Training Agency is a qualified beekeeping training company accredited by the Agriculture Sector Education Training Authority (AgriSETA)[1], its business nature presented a conflict of interest in training disadvantaged communities in

[1] [1] AgriSETA is under the Department of Higher Education and Training (DHET) in the National Government of South Africa. It is mandated to accredit training agencies in specific agricultural fields as well as ensure quality assurance for the trainings they provide (National Government, n.d.)

beekeeping, particularly when it came to mentoring and offering post-training support to graduates because it saw them as competitors. This conflict of interests between the business nature of the Beekeeping Training Agency and the neophyte beekeeping businesses might have contributed to the novice beekeepers abandoning their beekeeping businesses.

Moreover, an analysis of the institutional structure of the beekeeping programme showed that the organisations involved at the implementation level were arranged in a hierarchy, with the Nature Reserve and an NGO that was implementing a project at the reserve at the top, giving them decision making powers at the local implementation level. This left the Beekeeping Training Agency and trainees vulnerable, as the two more powerful organisations did not always make decisions that were in the best interests of the beekeeping programme.

Lack of market assessments and feasibility Studies

According to TREE, a training programme that aims to provide participants with the skills and means to generate income has to be based on viable business opportunities in their community or locality (ILO, 2009).

Neither the Office of Sustainable Livelihoods nor the Beekeeping Training Agency conducted market assessments or feasibility studies in Manenberg before settling for beekeeping as an economic opportunity to be pursued. As a result, some of the constraints of beekeeping as an income generation activity for the participants were not identified earlier for mitigation.

The following is some of the information which could have been revealed by market and feasibility studies, informed by the interviewees' descriptions of constraints in the programme:

- **Profitability is dependent on volumes**

There was a consensus among the interviewees that there is indeed demand for beekeeping products, particularly honey, in Manenberg and surrounding areas. However, the interviewees also agreed that despite the high demand for honey, the business did not become profitable and sustainable for them because they could only do it on a small scale. Worse still, the graduates soon ran out of stock from their few hives and ended up buying honey from the Beekeeping Training Agency at wholesale price, to sell in Manenberg at retail (Interview with Project Manager 30/05/2017). It soon became apparent that this approach was not sustainable.

Such information about the determinant factors for the profitability of beekeeping in Manenberg could have been revealed in market opportunity or feasibility surveys before the implementation of the programme.

- **Insufficient income to sustain livelihoods**

After selling the first batch of honey, the graduates also soon realised that the profits they were earning weren't sufficient to sustain their livelihoods. Because of this, participation in the beekeeping business started to deteriorate as the pressures to provide for their daily needs and those of their families became overbearing.

- **The high cost of production**

Another cause of insufficient profits for the business was the high cost of production that the group incurred. Considering that Manenberg was not suitable for setting put up their beehives, they had to locate them elsewhere at extra cost (Interview with Graduate 24/06/2017). Furthermore, they did not have the required sterile facilities needed to process the honey, and as such, after the training, the graduates produced, processed and packaged the honey outside of Manenberg, which was costly (Interview with Graduate 10/06/2017). Although they initially managed to access a small loan from the Beekeeping Training Agency in order to process honey, eventually they could not sustain the costs.

This is an especially important observation because the Trainer admitted in our interview that whilst he knew that it was not possible to produce honey in Manenberg, he thought that accessing the honey elsewhere and selling it in Manenberg would be sufficiently profitable (Interview with Trainer 22/04/2017).

- **Suitable as a seasonal business to supplement main income**

Another outcome that could have been predetermined by a community feasibility study is that beekeeping among disadvantaged communities must be taken as a seasonal business to supplement other primary sources of income. At least until such a time that the communities accumulate volumes, then it can become a viable full-time business. Thus, basic research would have shown that perhaps beekeeping was not an appropriate "fulltime" business for the participants given their socio-economic situation and pressing needs.

In order to avoid such situations described above, TREE stipulates that it is important that prospective participants take part in the identification of economic opportunities (ILO, 2009).

This is achieved by carrying out a community profile survey which is then used as a framework for the identification of a suitable economic opportunity (ILO, 2009:58). However, in the beekeeping programme, the field of beekeeping was chosen by the Office of Sustainable Livelihoods and then offered as an employment creation programme to the unemployed that were then volunteering at the Nature reserve in Manenberg. The graduates I interviewed said that trainees did not participate in the process of identifying beekeeping as an income generating opportunity for them. In fact, all the graduates said in their interviews that at that time, given a choice, they would have chosen another field to be trained in.

- **Environmental characteristics of Manenberg impede beekeeping**

The graduates described Manenberg as "a concrete jungle" and a very dry area with few trees and shrubs. The shortage of plants in Manenberg would have been another indication that beekeeping would struggle in the area as bees need sufficient flowering plants to forage for nectar and pollen.

- **Social constraints for beekeeping**

My interviews with the graduates revealed that social constraints were a big concern that negatively affected beekeeping in Manenberg. These social factors included crime. As one of them explained, "Manenberg has a lot of children that dwell in the streets and do not go to school. In the end, they either fall pregnant or become gangsters" (Interview with Graduate 10/06/2017). The high rate of the crime meant that beekeeping equipment would get stolen or vandalised as it is impractical to have someone guard bees. Furthermore, according to the Project Manager and one graduate, the dominance of gang activity in their community meant that they could not always make it to training sessions [especially] at times during gang wars, which made the streets "no-go" areas (Interview with Project Manager 30/05/2017; Interview with Graduate 10/06/2017).

- **Irregular sources of income and implications for training**

Since the participants were basically unemployed and actually job seeking when they got into the beekeeping programme, they needed to be trained in a short course, in a field that could bring them sufficient income on a daily basis to sustain a basic livelihood. As already discussed, beekeeping could not guarantee a regular source of sufficient income.

The inability to attend all the training sessions became even more apparent during the post-training phase when they set up their beekeeping business. Their beehives were set up in Philippi and the graduates found it difficult to travel there because they did not have their own transport and public transport is expensive. In order to curb this problem, the City of Cape Town, later on, organised a donation of bicycles that the graduates could use (Interview with Project Manager 30/05/2017). However, this did not solve the transport problem, because it was not safe to cycle from Manenberg to Philippi. In order to get to Philippi, one has to go through Nyanga and Crossroads, which are dangerous and violent townships (Nyanga is infamously known for its high murder rate). Moreover, bicycles do not have the capacity to carry equipment needed for a beekeeping business, as observed by one graduate who said, "You can't load the hive full of bees on the bike" (Interview 10/06/2017). The bicycles were also inappropriate because, within the group, there were older people, one trainee who was sickly for whom riding a bicycle would be very difficult, and at least one other trainee didn't know how to ride a bike (Interview with Graduate 24/06/2017).

The beekeeping programme, therefore, needed to incorporate a comprehensive post-training support strategy for the graduates, since they did not have sufficient resources to independently establish a beekeeping business. These challenges could have been foreseen had the beekeeping programme conducted a community profile survey and, in turn, could have been mitigated in the post-training support strategy.

- **Effects of gender factors on confidence**

The beekeeping programme did not assess the level of confidence among all the participants for them to embark upon this relatively unconventional business of beekeeping. Such information would have helped the trainer structure the course in a way that would encourage female trainees' participation in what was perceived to be a male-dominated industry. For instance, according to one graduate, women and old people in the group did not participate in some of the activities in the training such as building hives and bee removals (Interview with Graduate 10/06/2017). Similarly, when it came to removing bee swamps from homes, only one of the few young men in the group could do it (Interview with Graduate 24/06/2017). It was considered technically quite difficult and demanding work.

- **Training needs for beekeeping**

The study further found that there was a mismatch between what the Beekeeping Training Agency considered to be training needs for the prospective participants and what the graduates thought they needed. Whilst the Beekeeping Training Agency presumed the participants required general skills in life, the graduates indicated that they actually required technical skills for beekeeping, entrepreneurial skills and confidence-building skills. According to the Trainer, the area of training that the beneficiaries needed most was just "a new set of skills" that can be used at any level (Interview with Trainer 22/04/2017).

The graduates, however, indicated that once they had enrolled in the programme, they actually expected that they would get the sort of training that would make them beekeepers, able to run a beekeeping business after the training, hence the need for both technical and entrepreneurial skills. One of the graduates explained that she felt that they needed a lot more time to work practically with the bees rather than sitting in class (Interview with Graduate 14/06/2017). She also added that they needed more training in removing bees, a need another graduate agreed with (Interview with Graduate 14/06/2017; Interview with Graduate 24/06/2017). Furthermore, the graduates pointed to their need for entrepreneurial skills. They explained that they entered the beekeeping business not knowing anything about running a business, therefore, they needed help in setting up the business, especially in accessing finance (ibid). Confidence building skills were also included among their training needs. For instance, one of the graduates presented a situation where they needed a place to set up their business, however, they did not know how to go ask people to rent them a place because "we were never educated in that" (Interview with Graduate 24/06/2017).

Compromised selection criteria of trainees

The findings have shown that the set of criteria for admitting trainees into the programme was weak. Some trainees were co-opted into the programme without having shown interest, consequently, they eventually dropped out halfway into the training before graduating and other participants also dropped out in protest because they felt certain trainees were being favoured in the programme.

Furthermore, the criterion of "interest" that was used to select trainees was insufficient for determining participants who had potential in successfully starting up a small enterprise. Nonetheless, the study also emphasised that those that did graduate from the programme, but eventually left the beekeeping business, did not necessarily lack commitment. However, their

low socio-economic standing and situation did not permit them to fully commit to the beekeeping business.

Step by step course delivery

In terms of training delivery processes, the graduates generally had low levels of formal education, therefore required a greater part of their training to be practical, unlike the 50:50 ratio of theory to practical training that was adopted by the beekeeping training programme. Nonetheless, the graduates commended the Beekeeping Training Agency's approach to teaching, where the trainers gradually progressed through the material, making sure that every trainee understood the material as they went along.

Lengthy course duration

The duration of the course might have been too long for disadvantaged groups who needed to start earning money urgently. This probably contributed to some trainees abandoning the programme midway in favour of casual labour jobs, which could earn them money instantly.

Absence of formal certification of trainees

According to TREE, a graduation ceremony and provision of certificates, even for programmes that are only a week long, are important to graduates (ILO, 2009). The certificate is a reward for the graduates' hard work during the training as well as a symbol of mastery of skills that they can use to improve their livelihoods (ILO, 2009:192).

However, the Beekeeping Training Agency said that certification of the graduates was not part of the deal; the agreement was rather to "just bring the trainees some skills" as their education levels were too low for a formally certified beekeeping course (Interview with Trainer 22/04/2017. As a result of the challenges with formal certification of graduates, the Beekeeping Training Agency certified the participants' mastery of skills informally, through tests. This informal certification procedure meant that trainees that failed tests in the programme still got to be a part of the beekeeping business, thus affecting its viability.

Inappropriate/lack of post-training support

TREE argues that in order to succeed in creating income generation activities for socioeconomically disadvantaged groups, training is not enough and it will also have limited value if it is not coupled with appropriate support mechanisms for the graduates after the training is completed (ILO, 2009:26).

The Office of Sustainable Livelihoods initially solely determined what would be needed for post-training support, without consulting local partners from Manenberg. Because of this, the post-training support offered was not relevant nor was it sufficient for the graduates to successfully start-up a business. This probably further undermined the sustainability of the beekeeping programme. The sustainability of the programme was also affected by the lack of partnerships with suitable community-based organisations in Manenberg, which could have provided continued post-training support.

The following are areas in which graduates felt they needed support after the training, in order to successfully run their beekeeping business. The lack of support in these areas undermined the sustainability of the beekeeping business.

- **Processing Facilities**

The group of graduates formed a beekeeping cooperative after the training, but they did not have premises or facilities where they could harvest and process honey (Interview with Graduate 24/06/2017). As such, they had to depend on the Beekeeping Training Agency to harvest their honey for them, spill it out and bottle it (Interview with Graduate 10/06/2017). This proved to be an unsustainable arrangement, evident by the fact that the Beekeeping Training Agency managed to do the processing for them only once (ibid). The graduates I interviewed said that useful support from the beekeeping programme in this regard would have been a small 5m X 5m premises equipped with tools required to harvest and process honey on their own (Interview with Graduate 24/06/2017; Interview with Graduate 10/06/2017). They further added that they could have constructed the infrastructure themselves if they were loaned the necessary finances (ibid).

- **Equipment**

According to one of the graduates, the Office of Sustainable Livelihoods paid the Beekeeping Training Agency to provide them with various beekeeping equipment (Interview with Graduate 10/06/2017). This included honey producing equipment, equipment to work with the bees and a mixer spinner that is used to sieve honey and drain it out (ibid). However, the Beekeeping Training Agency did not give them any equipment - except the five hives that later were stolen (ibid).

- **Transport**

The graduates also pointed to the need for a little bakkie, “even if it was one that is 20 years old”, that they could utilise in their business when transporting bees for example (Interview with Graduate 24/06/2017).

- **Business Premises**

The graduates also mentioned that they had difficulties securing premises for a small office to do their administration. Nonetheless, in the end, the group leader managed to convince the Chief Executive Officer of the Manenberg People Centre to give them an office to use for free for the first six months (Interview with Graduate 10/06/2017).

- **Start-up Finance**

All the graduates I interviewed also pointed out that they required start-up finance. Two of them stated that “no business gets off the ground without start-up finance” (Interview 14/06/2017; Interview 10/06/2017), and said that they would have used the finance for things such as putting up a small building with a construction cost of R5000 to safely lock up their equipment (ibid).

- **On-the-job support**

All the graduates interviewed felt there wasn’t sufficient on-the-job support after completing the course. According to them, after the Office of Sustainable Livelihoods and the Beekeeping Training Agency left, they didn’t know what was going on and needed someone to show them the ropes, not to be spoon-fed, but someone to just guide them (ibid).

- **Support for the formation of “fundable” groups**

From the onset, the goal of the programme was for the graduates to establish a business cooperative after the training (Interview with Project Manager 30/05/2017). With this, a group of students from America offered business management support to the graduates as well as facilitated the creation and registration of the group into a cooperative.

The graduates appreciated the rationale for having formed a business cooperative because it would have been easier for them to get help as a group rather than as individuals (Interview with Graduate 10/06/2017). For instance, business cooperatives could access start-up finance from the CoCT’s Department of Trade and Industry provided that they met certain criteria. However, according to the graduates, they required help in setting up a cooperative that would

meet the criteria to access a loan from the Department. In order to access the loan, their cooperative required the inclusion of certain numbers of people of the following demographics; blacks, people living HIV/Aids, females, and people with disabilities (Interview with Graduate 10/06/2017). The cooperative that the trainees formed did not meet this criteria, therefore they could not access funding.

CHAPTER 3: RECOMMENDATIONS

This session presents some recommendations informed by the study's findings; on how beekeeping trainings for disadvantaged communities can be improved.

Inclusive decision-making with locals

The study has shown that inclusive decision-making processes with locals are paramount in producing programmes that are relevant to the beneficiaries' contexts and sustainable development. In order to achieve this, it is advisable that the Beekeeping Training Agency facilitates the establishment of a local committee in each respective project implementation area, to oversee the planning, design and implementation of the training programme. The committee should ideally comprise of representatives from various key role players in the targeted community, such as representatives from NGOs and CBOs working in the community, community leaders, trainees or potential trainees in the programme etc.

Foster equal partnerships among all implementing bodies

The findings of this study have shown that the organisation structure in which the local CBOs, the local committee and the Beekeeping Training Agency operate is vital if effective inclusive decision-making is to be achieved. The study found that political disputes arise in instances where the organisations operate in the form of a hierarchy. As such, the Beekeeping Training Agency, participating institutions and local partners should operate on an equal level, where no entity has controlling powers over the others. Following Davids et al.'s (2008) recommendations, an equal partnership between the Beekeeping Training Agency and local committees can be achieved by ensuring that the local committee has enough power to make decisions on the conceptualisation, planning and implementation of the programme, without the influence of the Beekeeping Training Agency or other "powerful authorities".

Systematic selection processes of trainees

In order to target more suitable beneficiaries, the Beekeeping Training Agency could invest in feasibility studies of the social and economic profiles of participants, social and environmental contexts, as well as marketing opportunities in surrounding areas. Furthermore, it is advisable that the Beekeeping Training Agency develops robust application and selection systems for trainees. The Agency should advertise the programme publicly within the community in order

for potential trainees to respond by applying to participate in the programme. The selection criteria for those admitted into the programme should be based on their potential to successfully start-up a small enterprise. Following ILO's (2009) recommendations, the Beekeeping Training Agency must look at the applicants' levels of motivation and experience; understanding and meaning they have of a business enterprise as well as the willingness to invest some of their resources into the business.

Small-scale beekeeping taught as a supplementary source of income

Given that the graduates could not maintain a full-time commitment to the beekeeping cooperative and ended up finding full-time jobs that could give them income more frequently, perhaps small-scale beekeeping for disadvantaged groups should not be taught as a means of a primary source of income, but rather a supplementary one.

Development of a beekeeping training gender mainstreaming strategy

As has been established, beekeeping is a relatively unconventional business with some activities that are considered to be a man's job, such as building beehives. Thus, in the beekeeping programme women shunned these classes. Consequently, the Beekeeping Training Agency needs to develop a gender mainstreaming strategy which will help the trainer structure the course in a way that would encourage female trainees' participation in classes or skills that are perceived as male orientated work.

80:20 ratios of practical to theory classes

The beekeeping programme trainees generally had low levels of education and therefore they found the practical lessons more helpful than the theoretical ones. Given this feedback, when training socio-economically disadvantaged groups, the ratio of practical sessions to theory classes could be an 80:20 rather than a 50:50 approach that was used in the beekeeping programme. The theory could also be integrated into the practical sessions in ways that link more closely theoretical knowledge and applied knowledge.

Fulltime training duration of no more than 3 months

Furthermore, the fulltime training component ought to be over a shorter period, no more than three months, so that graduates from poorer communities can start earning an income as soon as possible. The rest of the duration of training could be on the job so that they earn as they

learn. Trainees appreciated the step by step progressive teaching approach the Beekeeping Training Agency used in both practical and theory classes, this ought to be maintained.

Formal certification of graduates

Whilst the Agency assumed that the trainees just needed to learn life skills, therefore they did not require formal certificates for the training, the participants said that they, in fact, needed a beekeeping training certificate they could use to run a beekeeping business or get jobs related to the qualification. As such, certification of trainees is necessary.

Comprehensive post-training support

The study has found that a major contributing factor to the unsustainability of the beekeeping programme was a lack of sufficient and appropriate post-training support. Therefore, I support the ILO (2009) recommendation that in order to ensure that post-training support is sufficient and appropriate, it should be planned with the graduates, local committees, and other relevant local partner organisations at the onset on the programme. Similarly, post-training support should be informed by the graduates' needs identified in the various assessments required at the beginning of the programme (ibid). Where possible, the Beekeeping Training Agency must also consider partnering with NGOs from the project implementation area that will focus on providing post-training mentorship and support to the graduates. This is necessary because the study has shown that as a business entity, the Training Agency is not able to provide comprehensive post-training support to participants, who also essentially become its competitors. Alternatively, the Beekeeping Training Agency must consider developing a business model where it includes graduates as its suppliers so that the post-training support it offers can still be to the benefit of its company, as well as the graduates.

CHAPTER 4: CONCLUSION

My study interrogated the methods and processes used in the development and implementation of a beekeeping training programme that aimed to create a means for income generation for a disadvantaged group from Manenberg. Using ILO's framework "Training for Rural Economic Empowerment" (TREE), I interrogated the methodology from pre-training, through training to post-training phases of the beekeeping programme, in order to identify weaknesses in the methodology that may have affected the sustainability of the programme, in order to determine how beekeeping training programmes for poorer communities could be improved, so as to increase the likelihood of trainees becoming viable beekeepers.

The findings indicate that there is sufficient evidence to conclude that the beekeeping programme was not a viable fulltime economic activity for the disadvantaged group from Manenberg, which led to the graduates eventually abandoning the beekeeping business. The graduates had no other sources of income and beekeeping was not the type of business that could bring them immediate daily and regular income. Consequently, for survival, they were compelled to find other jobs that paid them faster than beekeeping. Small-scale beekeeping should, therefore, be taught as an additional source of income to groups of people that already have other sources of income or the means to survive. At least this should be the case until the beekeeping business can take over as the primary source of income.

Furthermore, my study has found that the underlying factor of the unsustainability of the beekeeping programme was a serious weakness in the methodology, caused by a lack of high-level and constructive participation by locals in planning processes. As a result, the beekeeping training programme did not match the participants' needs, economic opportunities in their area, and their social situations, and these circumstances contributed, in large part, to the graduates not taking up beekeeping.

The beekeeping programmes' methodology needed to first unveil and take into account participants' knowledge of their life experience, so that the training programme would accord with their needs, circumstances as well as problems, and tailored to the opportunities available to them. According to Anyaegbunam et al. (2004:9), many training projects have failed because participants' knowledge and life experiences have not been taken into account when the projects are being formulated and delivered. Such projects tend to assume that disadvantaged people are 'empty vessels' that need to be filled with information and skills determined by

'experts' (ibid). Consequently, trainees have often abandoned practicing the knowledge and skills acquired because they are not relevant to their social and economic situations and needs, as was the case with the beekeeping project. Experience-based knowledge is therefore valuable for training programmes directed at poorer communities if the training outcomes are to be contextually relevant and contribute to sustainable development.

As such, along with Boulet (2015), I argue that human beings are often knowledgeable about their experiences, irrespective of their levels of formal education on the subject matter. This paper has shown that even though the participants had no experience in beekeeping, they had knowledge of their social and economic contexts which would have helped structure the programme into one they could sustain. For instance, planning sessions with prospective participants using information obtained from needs assessments and feasibility studies conducted with them, would have revealed that beekeeping would not be a viable fulltime economic activity for them. As such, the programme would have been structured more suitably, perhaps as a side business supported by another source of income. Furthermore, appropriate post-training support would have been arranged, as the support that was rendered to graduates after the training was insufficient and inappropriate. This appears to have contributed substantially to the graduates abandoning the beekeeping business venture and being attracted to other work.

These findings do not suggest that high-levels of participation by locals in planning and implementation processes are a panacea to the challenge of sustainability of future beekeeping training programmes aimed at developing the disadvantaged, but rather that they are a key ingredient that cuts across the processes in the methodology. High-level participatory development methods can contribute substantially to addressing the problem of sustainability.

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List of Interviews:

Graduate 1 Interviewed on 10th June 2017

Graduate 2 Interviewed on 24th June 2017

Graduate 3 Interviewed on 14th June 2017

Trainer Interviewed on 22nd April 2017

Project Manager Interviewed on 30th May 2017