

# An evaluation of the Contractor Development Model of Working for Water

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## Abstract

The Working for Water programme of the South African Department of Environmental Affairs has as its major objective the eradication of invasive alien plant species. However, it also has a social development component, which aims at the promotion of small business and entrepreneurship development. This paper explores the socio-economic rationale of one component, the Contractor Development Model. It does so via an examination of the programme's assumptions, and the development of its impact theory. The study revealed a shortcoming in monitoring data for the programme, and a relative lack of assessment of the effectiveness of its activities. It is suggested that the selection criteria for contractors be re-examined, and that consideration be given to two additional elements that may strengthen the effectiveness of the training: mentoring and networking.

**Keywords:** Working for Water, programme theory, entrepreneurship, social development, training

## Introduction

Invasive alien plant species are a significant threat to South Africa's biodiversity, water security, and productive use of land. In 1995 the Department of Water Affairs and Forestry (which became the Department of Water Affairs in 2009) initiated the Working for Water (WfW) programme to address the problem of invasive alien vegetation (DWA, 2010). At the same time, the programme was thought to have significant social benefits for the country's poor (Magadlela and Mdzeke, 2004), through the promotion of small business and entrepreneurship development (Rogerson, 2008). On 1 April 2011 the National Resources Management Programme (NRMP), of which Working for Water was a sub-programme, was transferred from the Department of Water Affairs (DWA) to the Department of Environmental Affairs (DEA).

The WfW programme's overarching goal is to alleviate poverty by creating short- to medium-term jobs for unskilled workers through clearing alien vegetation, as reported in the 2000/01 Annual Report. The reasoning is that the skills and assets workers acquire by participating in the programme prepare them for longer-term employment outside of WfW (Sadan, 2008). At the same time, these efforts are expected to enhance water security, improve ecological integrity, restore the productive potential of land, and promote sustainable use of natural resources (Haigh, 2001).

WfW's ecological aspects have been the main focus of prior research (Common Ground Consulting, 2003). The present study investigated its socio-economic rationale, and in particular one component, the Contractor Development Model (CDM). In 2000 WfW drafted this model, proposing to use contractors to manage and conduct work for its projects. A contractor is

defined as an individual (or in a few cases, small teams) who has set up his/her own small business and conducts work for WfW. They are not employees of WfW, but have commercial contracts with WfW and are paid for completed quantities of work. Contractors are responsible for completing contracts as specified by WfW as well as recruiting and managing their teams and equipment. Workers are employed by contractors who enter into employment contracts with them.

At the time of this study, the CDM was in a period of flux. It had expanded quite rapidly, a number of modifications had been implemented in previous years, and several changes were being considered for future implementation. Interviewees reported that the initial conceptualisation (what can be seen as the 'programme theory' in this study) of both WfW and the CDM was done in a hurried manner. The evaluation conducted by Common Ground Consulting explained that a 'combination of rapid expansion, technical and social complexity, a narrow base of social development staff coupled with pressure to spend large amounts of money in short periods of time have put the attainment of its [WfW's] social development goals under serious pressure' (2003, p. 36). Mangoale (2009) argued that the lack of strategic direction, social development expertise as well as monitoring and evaluation has resulted in an unsustainable effort towards poverty alleviation and social development.

Rather than see this period of relative programme instability as an obstacle for the present study, it presented an opportunity to re-examine the assumptions and expectations stakeholders have of the CDM. Initial discussions with programme staff in the Western Cape revealed an awareness of certain gaps and inefficiencies in the CDM. They expressed a desire to review and assess the CDM in terms of assumptions regarding its objectives and implementation, and these are the aspects that this study focused upon.

The benefits of an exercise like this for a programme in this position are not difficult to find. Weiss (1998, p. 67), for example, argued that such studies would benefit several different individuals or groups. Programme designers, for example, may benefit through a better understanding of the underlying

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logic of a programme, as they can subsequently assess whether their logic and expectations are realistic, and whether the programme design has to be altered. For managers, it may provide information about the likelihood of programme success, which could assist them to establish commitment and support from programme staff. For general stakeholders, this type of clarification provides an opportunity to investigate whether consensus exists about the programme's assumptions, and, if differences exist, to discuss these, which may lead to improvements in the programme plan.

In programme evaluation terms, this is called programme theory, where 'theory' simply refers to a set of beliefs (or assumptions) that underlie the programme's activities. It typically consists of two aspects: impact theory and process theory (Donaldson, 2007; Rossi et al., 2009). Impact theory refers to a programme's cause-and-effect sequence – what is supposed to happen when the programme is delivered to the beneficiaries. Typically this sequence is presented in the form of sequential steps, in which short-term changes set in motion medium-term benefits, which in turn lead to an improvement in social conditions (long-term results).

Programme process theory is the description of how a programme is supposed to operate; its plan of action. It describes, for example, how the programme expects to reach the target population and how the target population will use, continue to use, and exit the programme (Rossi et al., 2009). It also portrays the programme's organisation: how it will perform its required functions, and how it will obtain and organise the necessary resources for effective performance.

Initial discussions with programme staff gave an indication of the direction the study was going to take. Staff perceived a number of gaps and inefficiencies in the CDM, which they believed could be identified to target or prioritise for change. It was also believed that a study such as this one could provide more details about causes of these problem areas. It thus became apparent that staff were interested in reviewing and assessing the CDM in terms of its social development objectives (and not its alien-clearing requirements). This study reports on the development of the CDM's impact theory, as described above.

Two questions were formulated for the present study:

- What is the programme's impact model or theory?
- Is it feasible that the programme will be able to attain these outcomes?

A first step towards answering these questions requires a description of the key components of the CDM itself.

## **Programme description: the Contractor Development Model**

### **Objectives**

One of the WfW's main objectives is to target the 'poorest of the poor'. For the CDM specifically, the target population consists of impoverished, unskilled individuals who have had limited success in finding long-term employment. These individuals may be resident in rural or urban areas across South Africa.

The CDM's social objectives can be seen as closely aligned to two of WfW's social development objectives, as outlined in the Medium Term Strategic Plan of 2003–2007:

- The employment of youth, women and people with disabilities
- Skills development through training

The programme aims to develop contractors so that they become less and less dependent on WfW in the long run. Junior contractors are expected to rely completely on WfW, but intermediate and senior contractors are supposed to function more independently. They are, for example, expected to acquire their own equipment, work under less supervision, and take on larger projects.

### **Training**

According to the Contractor Training Manual, all WfW contractors receive a suite of training modules that include practical skills in clearing alien vegetation, theoretical and business knowledge, and social development.

Functional training in clearing alien vegetation is an obvious element to include in the programme, since this is the first step in training contractors to remove these plants. It includes aspects such as chainsaw and brush-cutter usage, as well as herbicide application. Contractors receive annual refresher training on specific courses that amounts to approximately four days per year.

Once the contractor is awarded contracts, and starts work, further training is provided on an ongoing basis. Referred to as contractor training, this includes aspects such as business principles, business finance, human resources training, how to obtain future work, legal matters around business, marketing, health and safety, and first aid. They are trained in how to manage a team, about good management practices, and conflict management.

Contractors also receive so-called social development training. This specialised training component consists of a range of unique training areas as prescribed by the Expanded Public Works Programme and is provided by external service providers. The topics include: HIV/AIDS and health, diversity management, and personal financial management.

Contractors receive ongoing support from their project managers during all of the project phases. Project managers are supposed to be experienced individuals, able to provide guidance and support to contractors. The support usually entails guidance on developing WfW quotations, checking compliance with clearing requirements, health and safety standards as well as minimum conditions of employment for workers. Contractors are expected to require less support from project managers as they mature and gain more experience.

The CDM is implemented in both rural and urban WfW sites across South Africa. The targeted areas are high priority areas as identified by DEA, usually determined based on high levels of invasive alien plants and/or extreme poverty. These terrains vary greatly, encompassing 7 biomes, from fynbos in the Western Cape to open savannah in the Limpopo Province.

### **Criteria for contractor selection**

WfW aims to appoint contractors based on targets from the Expanded Public Works Programme, which are: 60% women, 20% youth (18–36 years), and 2% disabled people. Pre-qualifying criteria include the following:

- Must have limited other business opportunities or income
- Must be a historically disadvantaged individual
- May not be formally employed
- Must not have taken a state voluntary severance package
- May not be financially involved with or from the immediate family of any DEA or WfW staff member, other contractor, beneficiary or Advisory Committee member

<b>Role player</b>	<b>Function</b>
Project managers	On-the-ground management of WfW projects Management of contractors and contracts Recruitment and selection of contractors
Contractors	Complete WfW contracts and manage WfW workers
Implementing agents	On the ground management of WfW projects Recruitment and management of contractors
Regional training coordinators	Responsible for scheduling and arranging functional and business training for contractors and workers
Regional social development coordinators	Responsible for scheduling and arranging social development training and initiatives for contractors and workers
Western Cape Assistant Director: Implementation	Oversees the implementation of contracts in the region Deals directly with project manager
Private service providers	Provides training to contractors

- Must be a South African citizen
- Must be of good character, self motivated, self disciplined and able to insist on good work and strict discipline
- Have no criminal record

Further criteria for contractor selection include

- Education and experience requirements: Matriculation certificate (National Qualifications Framework Level 4, Grade 12); a valid driver's licence. Business exposure and experience, as well as experience in managing a small team of workers, are considered advantages.
- Asset requirements: access to appropriate transport (minimum requirement is a short-wheelbase vehicle with trailer) which is roadworthy and insured to transport workers, and a cellular phone.

Programme documents mention a number of further requirements:

- Must be a good leader and people manager
- Must have entrepreneurial potential
- Must be committed to continuous learning and development
- Must have a basic understanding of environmental issues
- Preference will be given to women, youth, single-headed households, disabled persons and households coping with human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS)
- Good financial track record (i.e. credit worthiness) is recommended
- Contractors must agree to work according to the norms and standards of WfW

## Funding

All information with regards to funding was obtained during an interview with a WfW staff member. The Expanded Public Works Programme has been the main source of funding for the CDM. Funding is provided in terms of the 3-year Medium Term Economic Framework cycle which is aligned to the Presidential goals. Funding for WfW as a whole has been approved for 2010 to 2013, with only a small proportion of the budget allocated to the CDM. The reason for this is that social development is not the core focus of the programme. In addition, DEA funds all office administration.

## Stakeholders

The CDM is implemented through complex management and operational procedures. Many role players with diverse functions are involved (see Table 1) – project managers, contractors, implementing agents, regional training coordinators, and so on – which adds a layer of complexity to the implementation of its activities.

Implementing agents are key stakeholders in the CDM. The implementing agents are appointed by WfW and are responsible for running WfW projects at a local level. They are, however, not responsible for providing training, as all training is conducted by private service providers appointed by WfW. The implementing agents are responsible for ensuring contractors fulfil their responsibilities according to the contractual agreements. They report to WfW regional offices, which in turn report to the provincial headquarters, which eventually report to the national WfW structures. Implementing agents include various institutions or organisations such as South African National Parks, the Independent Development Trust and the Western Cape District Municipalities. There were 10 different implementing agents in the Western Cape at the time that this study was done.

## Methods

Extracting programme theory is not achieved by the researcher single-handedly, but in conjunction with key programme staff. We used 2 methods to extract the programme design or model: personal interviews and email correspondence with programme staff; and reviews of existing programme documents.

## Records

Existing records refer to data acquired from secondary sources rather than from original data collection efforts (Hatry, 2004). Data recorded as part of regular processes of implementation were collected via the Working for Water Information Management System (WIMS). The table below provides an overview of the programme records that were used.

One obvious threat to the validity of data obtained from existing programme records is missing or incomplete data (Hatry, 2004). In the current evaluation, obvious omissions in the data extracted from WIMS were observed, but fortunately some of the missing information could be obtained from other

**Table 2**  
**Programme records utilised**

Document name	Date
Internal programme records	
Annual Report	2000/2001, 2002/2003
Contractor Application Form	April 2010
Contractor Development Training Programme	October 2009
Contractor's Manual	2003
Contractor Selection Registration	June 2010
Contractor Training Manual	2003
Emerging Contractor Information	2009
Implementing Agent Contract 2009 – 2010	2009
Medium Term Strategic Plan 2003 – 2007	2003
Revised Contractor Development Training Programme 2009	2009
Social Development Business Plan	September 2006
Proposal for New Contractor Model	February 2009
External reports	
Evaluation report by Common Ground Consulting	2003
Process evaluation of the Working for Water Programme in Mamathola and Great Letaba Projects by T. Mangoale	2009
Evaluation report by the Ingenieurbüro für Landentwicklung, Florstadt, in association with Institute of Natural Resources, Pietermaritzburg.	1997

records stored on WIMS. Unfortunately some information was not available at all, since programme staff did not collect or record it. For example, no records of training completed by contractors, assessments of training, contractor levels of advancement in the programme, or the number of dropouts, among others, were available. Other critical information that was not available pertained to what contractors do when they exit the programme. In addition, formally documented information on the CDM itself was limited.

We regarded the lack of availability of information as one of the biggest challenges of the present study. As a result, we had little choice but to rely heavily on data obtained from staff interviews.

## Interviews

Semi-structured interviews were conducted with WfW staff. Questions were tailored to the activities of each staff member, but typically included questions about the CDM's strengths and weaknesses, awareness of the programme in the community, enrolment practices, the intended target population, training, and so on. Three interviews were conducted face-to-face, and one via email, due to logistical difficulties.

Interviews were conducted with:

- WfW National Acting Deputy Director: Social Development, who is responsible for WfW's social development components across South Africa; this interview was conducted via email
- WfW National Training Coordinator, who is responsible for training and other implementation-related aspects across South Africa
- WfW Regional Western Cape Assistant Director: Implementation, who has been involved in the CDM since its conception, and has both practical and theoretical knowledge of the programme
- WfW National Assistant Director: Monitoring and Evaluation, who is responsible for tracking and evaluating the social development aspects of the WfW programme across South Africa

Face-to-face interviews were conducted at WfW's offices in Cape Town and Bellville and were scheduled at times that suited programme staff. They were willing to address additional questions and elaborate on their interview answers in e-mail exchanges that took place after their interviews. Consent to conduct the study was obtained from an Ethics Review Committee of the Faculty of Commerce of the University of Cape Town. Consent from WfW was obtained from the National Assistant Director: M&E. Informed consent was obtained from each interviewee prior to conducting the interviews, and participation was voluntary.

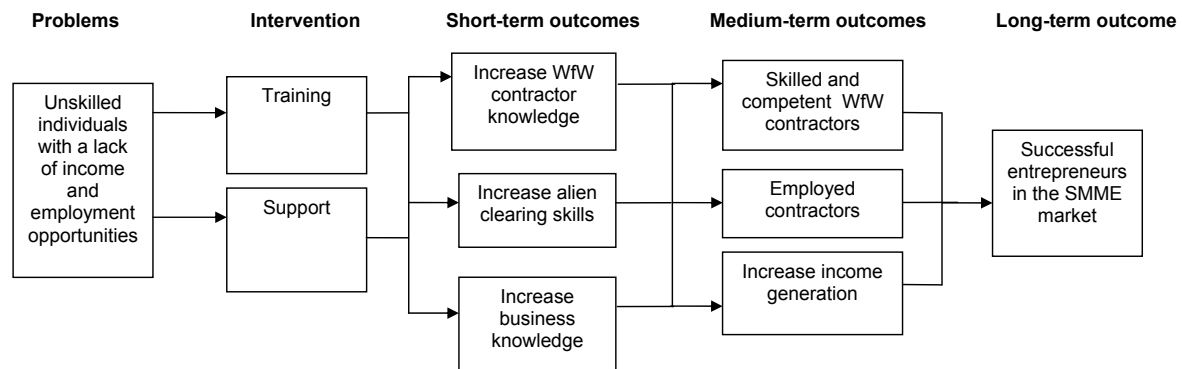
## Results

### Impact theory

The first 'result' of this study was the development of an explicit impact theory for the CDM. The interviews with programme staff, and document analyses, enabled us to produce a visual representation of the programme's outcome chain; in other words, what outcomes the CDM is assumed to achieve, and in what sequence (Fig. 1). Reading from the left, it starts with a brief statement of the social development problems it wishes to address, and the two main components of the CDM (training and support). Its intended short-term outcomes are increasing skills and knowledge. This in turn is expected to lead to medium-term outcomes such as competent contractors who are employed and/or earn an income. In the long run, the CDM has the ultimate intended outcome (impact) of delivering successful entrepreneurs in the SMME market – individuals who will be able to run their own businesses.

### Plausibility

The second research question referred to the plausibility of the model: how likely it is that these outcomes will be achieved, as understood from research findings in the existing literature. We now turn to the findings in this regard.



**Figure 1**  
Simplified version of the CDM's impact theory

Given the assumptions of the CDM, an entrepreneurial lens for assessing the plausibility of its theory was regarded as an appropriate strategy. Despite its operational activities focusing on alien vegetation removal, the programme's ultimate social development goal is the development of independent entrepreneurs, making a study of successful entrepreneurship programmes entirely reasonable. A complicating factor in this regard is the nature of this programme: it is specifically aimed at individuals with limited opportunities and formal education, clearing alien plants in a developing-country setting. The majority of entrepreneurship research has been conducted in developed countries with very different populations in mind, and may therefore have less relevance for present purposes. Fortunately a number of studies have also been conducted locally or in other developing countries (Botha et al., 2006; Graaf, 2007; Brink, 1996; FinMark Trust, 2006; Herrington et al., 2009; Ormond, 1993; Phaladi and Twala, 2008; Pretorius et al., 2005; Smith and Perks, 2006).

The first question one could address to the literature is whether entrepreneurship is teachable at all. There is good evidence that entrepreneurs indeed can be developed through appropriate training (Blanchflower and Oswald, 1998; Charney and Libecap, 2000; Price and Monroe, 1992; Vor der Bruegge et al., 1999). Nevertheless, authors such as Faris (1999) and Henry et al. (2003) argue that, despite a growing body of literature in the SMME field, there is still uncertainty about whether training can in fact contribute to individuals becoming successful entrepreneurs. Our cautious conclusion in this regard is that there is sufficient evidence to at least continue with the CDM training, because there is empirical (but equivocal) evidence to support it.

A second question asked was whether the outcomes the CDM envisages were supported by the literature. The main outcomes associated with effective entrepreneurship programmes seem to be the following:

- Increased knowledge about running a business (Friedrich et al., 2003; Garavan and O'Connell, 1994; Henry et al., 2003; Johannisson, 1991; Solomon et al., 2002)
- Improved skills for running a business (Friedrich et al., 2003; Garavan & O'Connell, 1994; Henry et al., 2003; Johannisson, 1991; Solomon et al., 2002)
- Increased likelihood of entrepreneurs starting their first business (Botha et al., 2006; Charney and Libecap, 2000; Garavan and O'Connell, 1994; Garnie et al., 1991; Lee and Wong, 2003)
- Increased likelihood of entrepreneurs starting multiple

businesses (Botha et al., 2006; Garavan and O'Connell, 1994; Garnier et al., 1991; Lee and Wong, 2003)

- Improved business performance (Friedrich et al., 2003; Ronstadt, 1985; Sexton and Upton, 1987; Solomon et al., 2002)
- Increased motivation required for entrepreneurship (Graaf, 2007; Johannisson, 1991; Timmons and Spinelli, 2007)
- Increased positive entrepreneurial attitude (Donckels, 1991; Graaf, 2007; Kantor, 1988; Lee and Wong, 2003)
- Improved skills for developing and utilising networks (Klyver et al., 2008; Thorgren et al., 2011)

All but the last three outcomes are included in the CDM's programme theory (Fig. 1), which implies that there is sufficient overlap between the two sets of outcomes to conclude that the programme model is generally in line with existing research findings.

We subsequently turned our attention to the elements contained in the CDM, and those of other entrepreneurship development programmes.

### Approaches to training

Politis (2005) argues that entrepreneurial learning is affected by the context in which learning occurs, the content of what is learned, as well as the processes through which learning takes place. Gorman et al. (1997), as well as Hjorth and Johannisson (2006), argue that the art of entrepreneurship is mainly learned in the business environment through inductive, practical and social experience and not in an educational setting. Smith and Perks (2006) investigated the training intervention needs of Black micro-entrepreneurs in South Africa. They argue that various traditional training approaches may not be appropriate for these entrepreneurs due to their limited educational qualifications. Furthermore, they see an experiential learning approach, where experience precedes learning, as appropriate for aspiring entrepreneurs with limited levels of education. They explain that it is important for individuals to learn by doing and to encourage participants to solve problems from a multidisciplinary viewpoint. Exercises such as role play, management simulations, structured exercises and focused learning feedback sessions may be beneficial for the entrepreneur. Shepherd and Douglas (1997) argue that an individual will only really be able to learn when the skill that he/she is trying to acquire, can be performed in an environment as close to real life as possible.

The CDM includes a number of experiential learning elements which may facilitate contractors' entrepreneurial development. The programme is designed in such a way that contractors receive initial training, and then start working on their own contracts, while receiving further training and ongoing support. Contractors are therefore given the opportunity to work in a relatively sheltered but 'real life' environment, before moving on to more independent contracting work for WfW and potentially outside of WfW. One can conclude that the CDM uses appropriate approaches to entrepreneurial training, improving the likelihood of achieving the intended outcomes.

### **Access to finance**

The most common problem reported by South African SMMEs is a lack of access to finance (Rogerson, 2000; FinMark Trust, 2006). Youth and people from rural areas are particularly unlikely to have start-up capital (Herrington et al., 2009). As far as the CDM is concerned, finance is not provided to contractors. The CDM does, however, provide contractors with tools and equipment to start their contracting businesses. Contractors are expected to repay the equipment at no interest and at a depreciation value. They are also allowed to add up to 20% of the labour costs to their total contract prices for capital build-up purposes or for profit for developing their business. By removing the responsibility of aspiring contractors to provide all of the necessary start-up capital, the CDM addresses a serious obstacle that many aspiring entrepreneurs face. Nevertheless, the intervention does not remove the obstacle of finance completely; it only alleviates the effects to some extent by making equipment available. Many aspiring contractors may therefore still struggle to start their own alien-clearing businesses.

This aspect of the programme is related to the selection criteria mentioned above, and two prerequisites in particular: having access to a vehicle, and a matriculation certificate. According to interviewees these criteria are often relaxed, especially in rural areas, because it is difficult to find aspiring contractors among poor people who meet these conditions. An analysis of the WIMS data from 2002 to 2010 revealed that only 37.8% of the sample were women, compared to the 60% target (data is stored on the WIMS in such a way that it was not possible to provide an annual breakdown). In 2010, 28% of contractors could be classified as 'youth' (data from earlier periods could not be analysed in this way). Disability status is not captured on the WIMS, but an interviewee reported that it is difficult to appoint contractors with disabilities due to the physical responsibilities of contractors.

### **Development of personal skills**

Van Aardt and Van Aardt (1997) compiled a list of the most pertinent personal skills documented in entrepreneurial literature (these skills are distinguished from business-operation skills for the purposes of this study). This includes good organisation, problem-solving, communication, stress management, leadership qualities, and negotiation. Similar skills were identified by Bridge et al. (2003).

The CDM contractor training includes elements that develop organisation, problem-solving, communication and stress management skills as well as leadership qualities and negotiation skills. Although these are skills that may not be acquired through a relatively short course, the course can be seen as sufficient for making contractors aware of the importance of these skills and their role in business.

### **Business operations skills**

According to Van Dyk et al. (2001), business operations skills are key ingredients to entrepreneurial success. Theorists (Hisrich and Peters, 1998; Solomon et al., 2002) explain that these operational or technical business skills can include general business management, budgeting, safety and security, financial management, handling employees, and customer relations.

Graaf (2007) distinguishes entrepreneurship skills from other business skills. She argues that entrepreneurship skills include management skills, the identification of entrepreneurship opportunities as well as the development of networking abilities required for learning.

The contractor training component of the CDM covers a broad range of business operating elements as well as entrepreneurship elements. These include general management (1 day), financial management (2 days), human resource management (1 day), legalities of having a business (1 day), business plan development (half day), marketing (half day), budgeting, and health and safety (1 day). Although many of these sessions are relatively brief, the CDM does cover the main business operating skills documented in the literature. Assessing the effects of the contractor training course would be an interesting and important exercise for the CDM and a worthwhile topic for an evaluation.

### **HIV/AIDS component**

A small section in the training programme is dedicated to HIV/AIDS, and is delivered by external providers. It provides contractors with a brief overview of how HIV/AIDS can affect a contracting team's work and how contractors can practically support individuals who are HIV-positive. It also indicates that contractors have a 'special responsibility' to ensure that people with HIV/AIDS are not victimised or discriminated against. In each contracting team, an HIV/AIDS peer educator is appointed.

### **Training material**

In addition to appropriate activities, Brink et al. (2003) argue that entrepreneurship training material is an important component of entrepreneurial learning. They explain that course material should be focused on the practical application of concepts and procedures. Training material that is developed according to the levels of education of participants increases the likelihood of achieving training objectives.

The CDM's manual for contractors is practical, and includes various exercises, illustrations and practical examples. It is written in a simple, but clear style. Contractors can use the manual during the training course, but it can also serve as a reference document that can guide them in the field. The manual is however only available in English, which may present a challenge for contractors with limited English language skills.

### **Mentoring and networking**

The literature review identified two potentially useful activities that currently are not included in the CDM, namely mentoring and networking.

Personal guidance through mentoring is said to enhance entrepreneurial learning (St-Jean and Audet, 2009). Smith and Perks (2006) argue that mentorship is a key component in

entrepreneurial development and requires a supportive relationship between the inexperienced entrepreneur and an expert. Phaladi and Twala (2008) also view poor mentoring as a severe limiting factor for emerging entrepreneurs in South Africa.

The CDM currently does not include a mentorship component. Ongoing support is however offered by project managers through assistance and guidance. Project managers, however, do not have a dedicated time period that they are required to spend with contractors. Their main responsibility is overseeing the contractors' projects and ensuring that the contract is completed according to the specified requirements. Brinkerhoff and Montesino (1995) argue that support by supervisors before, during and after training can lead to a greater transfer of training in the workplace. The support provided by project managers is more on an operational level and cannot be classified as mentorship.

Despite the costly nature of mentoring, including an element of further support in the CDM may greatly enhance the effects of the intervention. If one-to-one mentoring is not an option due to budgetary constraints, it may be worthwhile to investigate less expensive support options such as group sessions or referring contractors to non-governmental organisations (NGOs) that specialise in business support.

There is substantial evidence that networking is important for entrepreneurs (Bergh, et al., 2009; Klyver et al., 2008; Smith and Perks, 2006). In an Irish longitudinal study, interaction with other entrepreneurs was identified as one of the key benefits of involvement in a one-year entrepreneurial programme (Henry et al., 2003).

Currently, the CDM does provide informal opportunities for contractors to network with other contractors as well as with project managers. No other networking opportunities, however, are offered. Providing contractors with networking opportunities could be even more important in rural or low-income areas where limited potential business opportunities exist.

Concluding the plausibility analysis, it would appear that the CDM compares quite well with what is known from the research literature about entrepreneurship programmes. Firstly, training for entrepreneurship is a reasonable intervention to employ, even if the evidence for effectiveness is equivocal. Secondly, the outcomes that it pursues are largely in line with what others have identified. Thirdly, the CDM includes almost all of the critical entrepreneurship programme components reported in the literature, even adding an HIV/AIDS awareness component to acknowledge the situation in South Africa. The addition of two aspects identified from the literature, mentoring and networking, may enhance the ability of contractors to develop into entrepreneurs.

## Recommendations and conclusion

We have already mentioned two considerations that may strengthen the effectiveness of the training: mentoring and networking. Mentoring in particular is a potentially costly addition, and may have to be considered carefully.

The present study was often impeded by the nature of the data collected by the programme. In most cases, this was not due to a lack of data, but due to the manner in which the data was collected. A 1997 evaluation conducted by the Ingenieurbüro für Landentwicklung (1997), in association with the Institute of Natural Resources, indicated that, in order to assess the socio-economic impact of the WfW programme as a whole, coherent M&E systems should be implemented. This

report also mentioned the need for baseline studies. Six years later a report prepared by Common Ground Consulting (2003) indicated that an overall evaluation of WfW's social development interventions was unrealistic due to the lack of baseline information. Despite these consistent recommendations around the need for increased and improved monitoring, WfW does not collect data on what contractors do when they are no longer involved with WfW. The programme will certainly benefit from an effort to identify key information to be tracked, and the introduction of a monitoring system to do so. It is impossible to track all programme information, but programme staff could take strategic decisions as to what information should be collected. If these monitoring efforts furthermore become embedded in programme activities rather than as something additional to be done, it could improve the way WfW achieves its results. We would go further, and recommend that the programme moves towards outcomes-based monitoring, and not just the monitoring of inputs or activities. This would be in line with a movement towards results-based monitoring and evaluation, in order to manage for results (Kusek and Rist, 2004).

In our contact with the CDM we were struck by the relative lack of assessment that takes place. For example, the results of the training provided by service providers are not measured, even though it can give WfW important information on what is being achieved. Contractors too are not being assessed, which means that contractors may be entering the field without the necessary minimum requirements. Mangoale (2009), conducting a process evaluation in the Limpopo Province, also commented that training within the CDM and WfW is not assessed, monitored or evaluated as recommended.

As indicated above, some of the selection requirements may not be realistic for the poorest segment of South Africa's population. We suggest that these criteria be re-visited, and their appropriateness be reconsidered in the light of the characteristics of the existing participants in the programme.

Finally, the impact theory of the CDM envisages a long-term outcome of employment or entrepreneurial opportunities based on the new skills acquired. This study has shown that the programme's model or theory is a plausible one, based on existing research. What our study could not do is comment on the plausibility of the long-term outcome being achieved. Unfortunately, the evidence for that is not promising. Tobias (1999), for example, indicated that it may not be a lack of skills or credentials that prohibit economic advancement, but a lack of economic prospects or opportunities. Similarly, Borat et al. (2002) and McCord (2003) have argued that the sustainability of training is largely dependent on an individual's ability to find work. It therefore remains an open question whether these long-term effects will in fact materialise, even if the short- and medium-term outcomes are achieved.

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