

DECLARATION

I declare that this dissertation is my own, unaided work. It is being submitted for the degree of Master of Science in Engineering to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.

(Signature of Candidate)

----- day of ----- 2004

EXECUTIVE SUMMARY

This MSc (Eng) Investigational Project Report entails the evaluation of the Sekhukhuneland Development Programme (SDP). The SDP is a joint initiative of the Donaldson Trust and the Research Centre for Employment Creation in Construction (WORK). Its objective is: to increase the use of labour-intensive methods in the rehabilitation and maintenance of rural roads and other infrastructure in order to contribute to employment generation, skills development, provision of infrastructure and poverty alleviation.

In order to achieve this objective an “Association not for gain” called LITE (Labour Intensive Training and Engineering) was formed; the Donaldson Trust provided the finance, and the expertise was provided by The Research Centre (WORK) but with additional support by Employment Intensive Engineering Consultants (EIEC). As the contracting organisation evolved from nothing into the training and engineering company LITE, the number of employees rose from none to fourteen. The University of the Witwatersrand provided a number of students to the project site at Mohlaletse in Sekhukhuneland where they provided voluntary assistance as part of their studies. Many of these students were from the University of Twente in the Netherlands, and it was largely due to their commitment that the project enjoyed such healthy growth. Considering the meagre resources this growth was a remarkable achievement, and it was made possible, not only through the efforts of the students, but also through the acceptance and support of the community. This support included providing accommodation for both students and site management. With a minimum of resources local community members were trained and employed by the SDP over a prolonged period of three years. The SDP evolved into a new programme, the Mohlaletse Youth Service Programme (MYSP), funded by the Umsobomvu Youth Fund. Of the R1.700.000 donated to the SDP, R1.690.000 was used during the evaluated period. Of this sum approximately 50% was spent directly within the Mohlaletse and Monametse community.

The SDP consisted out of three main phases. The organisation evolved during the first two phases from no organisation into LITE Section 21, an organisation that could deal with training and engineering based on a strong labour-intensive focus. During the Pilot Phase the programme focused on establishing contact with the community and proving that labour-

intensive construction method could work. The next phase was the Training Phase where the necessary team leaders were trained to perform a variety of construction techniques. These techniques range from drainage structure to roads and buildings. The last phase is the Construction Phase during which the construction went ahead as planned using fully trained team leaders from the local community. The total setting of the SDP was as follows:

SDP Phases	SDP Periods	Organisation	SDP Projects
- Pilot Phase:	Period 1999H	None	Period Projects
	Period 2000A	Point-of-Fact (Pty) Ltd	Period Projects
- Training Phase:	Period 2001A	Money-Cant-Buy	Period Projects Mohlaletse
		Section 21	Period Projects Monametse
	Period 2001H	LITE - Section 21	Period Projects Mohlaletse
			Period Projects Monametse
- Construction Phase:	Period 2002H		Period Project Compound
			Period Projects Mohlaletse
			Period Projects Monametse
			Period Project LITE-House and LITE-School

The main reason for the success has been the substantial involvement of the local Mohlaletse community and the acceptance of the Site Management within the Community. Within the constraints of the programme definition and objectives, the SDP has been a success to its sponsors and beneficiaries.

Major problems were encountered within the fields of Labour-Intensive Construction Methods and the Project Management Areas of Knowledge. These should be taken into consideration when a new Constructing-Training Programme is started in future.

PREFACE

This research has been conducted as an MSc (Eng) Investigational Project as part of my studies for an MSc(Eng) in the Civil Engineering at the University of the Witwatersrand, South Africa. The assignment was started in November 2002 and most of the fieldwork of this research has been executed in Sekhukhuneland as part of the Investigational Research Project at the Research Centre for Employment Creation in Construction at the University of the Witwatersrand. My research began in February 1999 and was completed in July 2003.

The topic of research came up during a discussion with Prof. R.T. McCutcheon on the possibilities for an MSc (Eng) Investigational Project. The potential to contribute to knowledge about employment creation and poverty alleviation through employment-intensive construction immediately appealed to me. The past months have been very interesting and I present this report with great pleasure.

In addition, I would like to thank the following people for their support during my research:

- Prof. McCutcheon, my supervisor, for his direct support and feedback in South Africa and the in depth discussions on my research topic and relating fields.
- Special thanks to B.J. Donaldson and M. Lieuw Kie Song Minister P. Sekwati and his Family for taking care of me in Mohlaletse and the discussions we shared.
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Meppel, June 2004

Hubert E. van Zandvoort

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LIST OF ABBREVIATIONS

B	Builder
EIEC	Employment Intensive Engineering Consultants
HO	Head Office
ILO	International Labour Office
km	Kilometre
KPI	Key Performance Indicators
LI	Labour Intensive
LITE	Labour Intensive Training and Engineering
Moh	Mohlaletse
MYSP	Mohlaletse Youth Service Programme
Mon	Monametse
m	Metres
m ²	Square metres
m ³	Cubic metres
PI	Performance Indicator
PMBOK	Project Management Body of Knowledge
R	Rand
RDP	Reconstruction and Development Programme
SC	Sub-Contractor
SDP	Sekhukhuneland Development Programme
SO	Site Office
T	Task
TL	Team Leader
UYF	Umsobomvu Youth Fund
WB	World Bank
WBS	Work Breakdown Structure
WORK	Research Centre for Employment Creation in Construction