

ABSTRACT

Access to reliable and affordable energy is an essential input to sustainable development. Most of the rural communities in Zambia lack access to modern energy. Renewable energy technologies offer a solution to this. Through the help of various stakeholders, various renewable energy technologies are being promoted in rural Zambia. However, dissemination of information about renewable energy technologies may be hindered by several challenges many of which could be overcome through effective communication strategies. However, communication is usually marginalised and sometimes underutilized. Few studies have been conducted on communication strategies through which renewable energy technologies can be introduced to rural communities in Zambia.

The study aimed at finding out effective communication strategies for dissemination and adoption of renewable energy technologies in rural communities in Zambia. To this end, the study examined communication activities in the Jatropha Biofuels Programme by the Netherlands Development Organisation (SNV) in Kasama and Mungwi districts of Northern Province of Zambia.

Data was collected using a questionnaire administered among jatropha growers and in-depth interviews conducted with SNV personnel, the local capacity builder and representatives of the district biofuel association. Besides, focus group discussions were held with two purposefully selected SMEs in Kasama and one in Mungwi. Quantitative data was analysed using the Special Package for Social Sciences (SPSS). Qualitative data was analysed manually and presented thematically according to the research questions and objectives.

The study findings were that in general, the programme was a positive effort in uplifting the lives of rural people by engaging them in economic activities and at the same time creating a base for widening access to modern and clean energy. The study findings also show that generally communication was underutilised. Further, the results show that workshops and community gatherings were effective communication channels for knowledge transfer and awareness creation in the programme. Apart from that, the study revealed that of the mass media channels, radio was more popular as a source of knowledge than television and the print media.

The study recommends that a communication strategy should be developed in order to ensure that effective channels and messages regarding renewable energy technologies are used to reach the rural communities. Further, the study recommends interfacing of mass communication channels and local small scale communication activities.

DEDICATION

To my parents, brother and sisters, nieces and nephews and my son Thomas.

ACKNOWLEDGEMENTS

This study would not have been clearly conceived and consolidated without the support of many valuable people.

I would like to give special thanks to my supervisor, Dr. Isaac Phiri for helping me find an organization to which I was be attached and for providing valuable guidance that eventually has paid dividend by the finalization of this study report.

I pay great honor and respect to the Head of Department of Mass communication, Ms. Josephine Mapoma and all the lecturers namely: Mr. Fidelis Muzyamba for his encouragement and guidance, Mr. Kenny Makungu, Dr. Elijah Bwalya, and Ms. Chibbonta. I am very thankful for the unwavering encouragement and support.

I am greatly indebted to the Netherland Development Organisation (SNV) Zambia staff for having allowed me to be attached to their organisation and do my research on communication of renewable energy technologies using their project sites. I wish to thank Mr. Kennedy Phiri SNV Western Portifolio and Mr. Kapalu Muswala SNV Northern Portifolio private public sector advisor.

Great credit also goes to the members of the Mulondolwa, Lulenco and Kasama Agro enterprises who willingly sacrificed their valuable time to attend the focus group discussions and the other farmers whose participation in one way or the other has lead to the success of this report. I am also indebted to the Chairman for Mungwi District Biofuels Association Mr. Pride Mwelwa and the Vice Secretary Mr. Alfred Mumba and the Local Capacity Builder, Mr. J.L. Mutale.

I give special thanks to Mrs. Gulila Mbetwa Funga (District Education Standards Officer, Kalulushi) for her inspiration, encouragement and moral support.

Nonetheless, the researcher apports no responsibility on any of the parties herein mentioned for whatever misrepresentations, misconceptions and/or omissions.

TABLE OF CONTENTS

Declaration	ii
Certificate of Approval	iii
Abstract	iv
Dedication	v
Acknowledgement	vi
Table of Contents	vii
List of Figures	x
List of Tables	xi
List of Abbreviations and Acronyms	xii
CHAPTER ONE: INTRODUCTION AND BACKGROUND OF THE STUDY	1
1.1 Introduction	1
1.2 Background of the Study	2
1.2.1 Energy Development Efforts in Zambia	2
1.2.1.1 Rural Electrification	2
1.2.1.2 National Energy Policy	3
1.2.2 Renewable Energy	5
1.2.3 Biofuels	5
1.2.4 Jatropha as a Biofuel Crop	7
1.2.5 The Jatropha Biofuel Programme in Northern Province	9
1.3 Statement of the Problem	11
1.4 Rationale	11
1.5 Research Questions	12
1.6 Objectives of the Study	13
1.6.1 Main Objective	13
1.6.2 Specific Objectives	13
1.7 Outline of the Report	13
CHAPTER TWO: METHODOLOGY	14
2.1 Introduction	14
2.2 Data Gathering Techniques	14
2.2.1 Qualitative Data	14

2.2.1.1 In-depth Interview	14
2.2.1.2 Focus Group Discussion	14
2.2.1.3 Observation	15
2.2.1.4 Document Review	15
2.2.2 Survey	15
2.3 Sampling Procedure	15
2.3.1 Selection of the Study Area	15
2.3.1 Selection of Respondents	16
2.4 Data Analysis	16
2.5 Limitations	16
2.6 Conclusion	16
CHAPTER THREE: CONCEPTUAL AND THEORETICAL FRAMEWORK	17
3.1 Introduction	17
3.2 Conceptual and Operational Definitions	17
3.2.1 Renewable Energy Technology	17
3.2.3 Subsistence Farmer	17
3.2.4 Emergent Farmer	17
3.2.5 Stakeholder	18
3.2.6 Communication	18
3.2.7 Communication strategy	18
3.2.8 Communication Channel	19
3.2. Participation	19
3.2.10 Capacity Building	19
3.2.11 Empowerment	20
3.3 Communication Theories and Approaches	20
3.3.1 Agenda Setting	20
3.3.2 Diffusion	21
3.3.3 Participatory Communication	22
3.3.4 Communication for Sustainable Development	24
3.3.5 Advocacy Communication	25
3.4 Conclusion	26

CHAPTER FOUR: LITERATURE REVIEW	27
4.1 Introduction	27
4.2 Implementation of RETs	27
4.3 Barriers to Successful Implementation of RETs	28
4.4 Strategies to Overcome the Barriers	30
4.4.1 Capacity Building, education and Public Awareness	30
4.4.2 Participation, Ownership and Benefits to Local Community	31
4.5 Case Studies of Communication in Renewable Energy Development	33
4.5.1 France-Réunion	33
4.5.2 The Case of Samsøe	33
4.5.3 The Highflat Centre (HEC) in South Africa	34
4.6 Promotion of RETs in Zambia	36
4.7 Conclusion	36
CHAPTER FIVE: PRESENTATION OF FINDINGS	37
5.1 Introduction	37
5.2 Findings from the Survey	37
5.3 Findings from Indepth Interviews	42
5.4 Findings from Focus Group Discussions	44
5.5 Conclusion	50
CHAPTER SIX: DISCUSSIONS AND INTERPRETATIONS OF RESULTS	51
6.1 Introduction	51
6.2 General Characteristics of the Respondents	51
6.3 Communication Activities	51
6.4 Participation, Ownership and Benefits	57
6.5 Empowerment	60
CHAPTER SEVEN: CONCLUSIONS AND RECOMMENDATIONS	61
7.1 Introduction	61
7.2 Conclusions	61
7.3 Recommendations	63
REFERENCES	65
APPENDICES	69

LIST OF FIGURES

Figure 1:	Raw Jatropha fruit	8
Figure 2:	Young jatropha plant	8
Figure 3:	Lantern and stove using jatropha oil	9
Figure 4:	Jatropha seeds	9
Figure 5:	Jatropha soap, oil and organic fertilizer	10
Figure 6:	Sex of the survey respondents	37
Figure 7:	Source of knowledge	39
Figure 8:	Initiator of the programme	40
Figure 9:	Respondents' reasons for participating	41
Figure 10:	Ownership	41
Figure 11:	Empowerment	42

LIST OF TABLES

Table 1:	Respondents' occupation	38
Table 2:	Source of income	38
Table 3:	Composition of FGDs	45
Table 4:	Small scale media	46
Table 5:	Mass media	48
Table 6:	Level of education, source of knowledge cross-tabulation	57

LIST OF ACRONYMS AND ABBREVIATIONS

BAZ	–	Biofuels Association of Zambia
CFU	–	Conservation Farming Unit
DOE	–	Department of Energy
ESCO	–	Energy Supplying Companies
ECA	–	Economic Commission for Africa
EEA	–	European Environment Agency
GNESD	–	Global Network on Energy for Sustainable Development
GRZ	–	Government of the Republic of Zambia
IEA	–	International Energy Agency
INGO	–	International Non-Governmental Organisation
LCB	–	Local Capacity Builder
MACO	–	Ministry of Agriculture and Cooperatives
MEWD	–	Ministry of Energy and Water Development
NEP	–	National Energy Policy
PRSP	–	Poverty Reduction Strategy Paper
REA	–	Rural Electrification Authority
REF	–	Rural Electrification Fund
REMP	–	Rural Electrification Master Plan
RETS	–	Renewable Energy Technologies
SADC	–	Southern Africa Development Committee
SMEs	–	Small and Medium Enterprises
SNV	–	Netherlands development Agency
UNCTAD	–	United Nations Conference on Trade and Development

