MINUTES OF MEETING BETWEEN THE 2nd JAPANESE PREPARATORY STUDY TEAM AND

THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF THE REPUBLIC OF MALAWI ON THE JAPANESE TECHNICAL COOPERATION FOR

THE MALAWI RURAL ELECTIRIFICATION PROMOTION PROJECT

Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the 2nd Preparatory Study Team (hereinafter referred to as "the Team"), headed by Mr. Toshiyuki Hayashi, to the Republic of Malawi from June 9 to June 21, 2006 for the purpose of discussing the concept and scope of the technical cooperation for the Malawi Rural Electrification Promotion Project (hereinafter referred to as "the Project").

During its stay in the Republic of Malawi, the Team had a series of discussions on the Project with the authorities concerned of the Government of the Republic of Malawi (hereinafter referred to as "the Malawian side").

As a result, the team and the Malawian side reached to the common understanding concerning the matters referred to the documents attached hereto.

Lilongwe, June 20, 2006

Mr. Toshiyuki Hayashi

Leader

The 2nd Preparatory Study Team

Senior Advisor

Japan International Cooperation Agency

Japan

Dr.C.R. Kafunba

Director

Department of Energy Affairs

Ministry of Energy, Mines and Natural

Resources

Republic of Malawi

THE ATTACHED DOCUMENT

1 FIELD INVESTIGATION

The Team investigated rural areas, as is shown in ANNEX I, in order to confirm the needs and impacts of rural electrification briefly in Malawi.

As the result of the investigation, it has been confirmed that the needs for rural electrification in rural health centers and trading centers are significantly high. At the same time, economic activities induced by rural electrification, such as video show house, refrigeration of beverages, welding, and maze mills, have also been confirmed in the trading centers that are recently electrified.

2 PROJECT DOCUMENT

The team and the Malawian side (hereinafter referred to as "both sides") jointly have prepared the Project Document for the rationalization of the plan and justification of the Project implementation.

The Draft Project Document is attached in ANNEX II.

3 PROJECT DESIGN MATRIX

The Project Design Matrix (hereinafter referred to as "PDM") was elaborated through discussions. Both sides agreed to recognize PDM as an important tool for project management and the basis of throughout the implementation of the Project.

The PDM will be subject to change within the framework of the Record of Discussions when the necessity arises in the course of implementation of the Project with the mutual consultation of both sides.

The Draft PDM is attached in ANNEX III.

4 PROJECT DURATION

In the Minutes of Meeting signed on June 23, 2004 between Director of Energy Affaires and Preparatory Study Team Leader, the project duration was discussed and both sides tentatively agreed the duration of the Project will be three [3] years.

During the second Preparatory Study, both sides agreed the project duration be three years tentatively, and extension of project duration may be considered based on the progress of the Project in the third years.

5 RECORD OF DISCUSSION

Based on the Preparatory Study and further discussion between the Malawian side an JICA, the Record of Discussion (hereinafter referred to as "R/D") will be developed and signed by

both sides prior to the implementation of the Project.

The R/D will confirm the framework of the Project and the measures to be taken by the Government of the Republic of Malawi and JICA.

The Draft R/D is attached in ANNEX IV.

ANNEX I	SCHEDULE OF FIELD INVESTIGATION
ANNEX II	DRAFT OF PROJECT DOCUMENT (第3章に掲載のため省略)
ANNEX III	DRAFT OF PROJECT DESIGN MATRIX
ANNEX IV	DRAFT OF RECORD OF DISCUSSION
ANNEX V	LIST OF PARTICIPANTS AT THE DISCUSSIONS

SCHEDULE OF FIELD INVESTIGATION

Date	Time	Target	
Jun 14	09:30	Mikondo Healthcare center	
	10:30	Matunba Healthcare center	
	13:00	Mphunzi Healthcare center	
		[These centers were installed Solar Home Systems through the grant assistance	
		for grass-roots human security projects phase 1 by the government of Japan]	
Jun 16	11:45	Ntonda Healthcare center	
		[This center was installed Solar Home System through the grant assistance for	
		grass-roots human security projects phase 2 by the government of Japan]	
	15:00	Mdeka Trading Center	
Jun 17	11:00	Phalula Trading center [Recently electrified center]	
	13:00	Nyambi Trading center [Un electrified center]	
Jun 18	11:00	Malembo Trading Center [Rrecently electrified center]	

ANNEX III

Project Design Matrix

Project Name: Malawi Rural Electrification Promotion Project (MAREPP) Duration: 3 years (Oct. 2006 – Sep. 2009)
Implementing Agencies: (Malawi) Rural Electrification Unit, Department of Energy (REU/DOE); (Japan) Japan International Cooperation Agency (JICA)
Project Site: Lilongwe, Malawi, Target Group: (Primary) Employees of REU/DOE, (Secondary) Local communities near trade centers
First created on 06/22/04 Revised on 6/15/06 (Ver. 2_0), Revised on 6/20/06 (Ver. 2_1)

		M	
Narrative Summary	Objectively verifiable Indicators	Verification	Important Assumption
Overall Goal	By the end of 2010		
Household electrification rate is increased by extending	Electrification rate of	Electric statistics	1. Comprehensive
distribution lines and disseminating PV systems.	households increased by	from ESCOM	economic
	the national target of 10 %		development policy
			covering various
Project Purpose	By the end of the Project		2. Households use
			electric power supply
Planning and implementation of MAREP is improved.	27 rural trading centers are	Specifications,	for their economic
	electrified as planned in M/P	contractual	activities.
	for MAREP Phase V.	documents,	3. ESCOM continues to
		Asset registration	extend distribution
	Rural Electrification Fund		lines to individual
	(REF) receives audit	Audit report	households.
	annually.		4. Pricing of in-house
			wiring remains
Output			alloldable.
1. Technical capacity of planning and implementing rural	1.1 C/P is able to execute	1.1 Result of F/S.	
electrification projects is enhanced and improved.	F/S appropriately.	1.2 Specification	
	1.2 C/P is able to outsource	documents,	
	detailed design (D/D) to	contractual	
	contractors.	documents and	
	1.3 C/P is able to supervise	detailed design	
	construction projects.	documents.	
		1.3 Completed	
		projects and	
		lacillies.	

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
2. Capacity of contract management for planning and	2. Projects are carried out	2. MAREP Phase V	
implementing rural electrification projects is improved through	based on proper	completion report	
the activities of Phase V and VI.	specifications and		
- 1	contractual agreements.		
3. Technical capacity of inspectors and trainers for PV systems	3.1 Number inspectors	3.1 Record of	MERA starts
is improved.	trained.	training	accreditation of installers
	3.2 Number of trainers	3.2 Record of	and inspection of the
	trained.	training	systems.
4. Capacity of financial management for Rural Electrification	4. Financial management	4. Annual financial	
Fund is developed and maintained.	system is developed and	report	
5. Appropriate administrative and management system of	5. System is developed and	5. Annual report	наливаливаливаливаливаливаливаливаливалив
REU/DOE is developed and maintained.	functioning.	-	
Activities	Input from Japan	Input from Malawi	-Vacant positions in
Output 1: Technical capacity of planning and implementing rural	-Dispatch of long-term	-Assignment of	REU/DOE is filled
electrification projects is enhanced and improved.)	expert,	counterpart	-MERA is established and
1-1. Recruit energy officers to fill the vacant positions.	-Dispatch of short-term	personnel	start its operation before
1-2. Prepare field manual for social and economic investigation.	experts,	-Assignment of	the Project inauguration,
1-3. Carry out social and economic investigation including power	-Training of counterpart	administrative	-Financial constraint of
demand estimate for Phase VI sites using the manual, and	personnel of DOE and	personnel and driver,	Phase IV and V is solved,
revise the manual.	ESCOM in Japan and	-Buildings and	-Energy officers who are
1-4. Prepare annual rural electrification plan of MAREP.	Jordan	facilities necessary	trained and gained
1-5. Carry out feasibility study using the Implementation Manual	-Provision of materials, and	for the Project, and	experience in the Project
the manual if necessary.	-Expenses necessary for	-Allocation of the	are retained in DOE.
1-6. Prepare supervision manual for detailed design	the implementation of the	budget necessary for	
investigation.	Project	the Project.	
1-7. Carry out supervision for detailed design investigation using			
the manual and revise the manual if necessary.			
1-8. Prepare supervision manual for construction works.			
1-9. Carry out supervision for the construction works using the			
manual and revise the manual if necessary.			
1-10. Prepare manual for taking over inspection.			
1-11. Carry out taking over process for Phase IV and V sites			

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
using the manual and revise the manual if necessary. 1-12. Prepare technical and installation standard for distribution lines, use the standard for contractual and supervision process, and revise the standard if necessary.			
1-13. Carry out feasibility study on micro hydropower sites identified by the Master Plan Study in order to prepare for the implementation.			
1-14. Carry out social and economic investigation for monitoring the power demand and connection increases at newly electrified			
trading centers in order to improve the method of demand forecast.			
1-15. Revise the database of Rural Electrification Master Plan.			
(Output 2: Capacity of contract management for planning and			
Implementing rural electrification projects is improved through the activities of Phase V.)			-Energy officers who are trained and gained
2-1. Review the existing contract agreements for material			experience in the Project
procurement, detailed design investigation and construction			are retained in DOE.
Works.			
2-2. Carry out contractual process for material procurement for			
Phase V and review the tender documents for procurement. 2-3. Carry out contractual process for detailed design			
investigation for Phase V sites and revise the contract			
agreement if necessary.			
2-4. Carry out contractual process for construction works for			
Phase V sites and revise the contract agreement it necessary.			
(Output 3: Technical capacity of inspectors and trainers for PV			-Vacant positions in
3-1. Identify engineers of stakeholders to be trained as			-Energy officers who are
inspectors and trainers for PV systems.			trained and gained
3-2. Formulate monitoring and evaluation system.			experience in the Project
			are retained in DOE.
3-4. Train inspectors, carry out inspection works using the manual and revise it if necessary.			

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
3-5. Prepare trainer's manual. 3-6. Train trainers, carry out training by the trainers and revise the manual if necessary.			
(Output 4: Capacity of appropriate financial management for REF is developed and maintained.)			-Vacant positions in REU/DOE is filled
4-2. Recruit an accountant for the financial management of Rural Electrification Fund.			-Energy officers who are trained and gained
4-3. Asses the present procedure for accounting, budget and asset management.			experience in the Project are retained in DOE.
4-4. Suggest improved procedure for accounting, budget and asset management, and identify the needs of capacity			
development. 4-5 Prepare quidelines and manuals for improved procedure for			
accounting, budget and asset management.			
4-6. Carry out accounting, budget and asset management using			
the guidelines and manuals, and revise the guidelines and manuals if necessary.			
(Output 5: Appropriate administrative and management system			<u>Prerequisites</u>
of REU/DOE is enhanced and maintained.)			Enough incentives to
5-1. Prepare mission statement of REU/DOE.			work for internal
5-2. Prepare job descriptions of respective positions.			management and
5-3. Prepare information sharing and reporting system for internal and external communications.			business for government officers shall be provided.
5-4. Carry out the administrative and management activities			
using the job descriptions, and information sharing and reporting system, and revise them if necessary.			

DRAFT

RECORD OF DISCUSSIONS BETWEEN JAPAN INTERNATIONAL COOPERATION AGENCY AND AUTHORITIES CONCERNED OF THE GOVERNMENT OF THE REPUBLIC OF MALAWI ON JAPANESE TECHNICAL COOPERATION

FOR THE MALAWI RURAL ELECTIRIFICATION PROMOTION PROJECT

Japan International Cooperation Agency (hereinafter referred to as "JICA") had a series of discussions with the Malawian authorities concerned with respect to desirable measures to be taken by JICA and the Government of the Republic of Malawi for the successful implementation of the Project on "The Malawi Rural Electrification Promotion Project" in the Republic of Malawi.

As a result of the discussions, and in accordance with the provisions of the Agreement on Technical Cooperation between the Government of Japan and the Government of the Republic of Malawi, signed in Lilongwe on 1 March, 2006 (hereinafter referred to as "the Agreement"), JICA and the Malawian authorities concerned agreed on the matters referred to in the document attached hereto.

Lilongwe, ** ** ,2006

Mr. Kyoji Mizutani Resident Representative Japan International Cooperation Agency Malawi Office Japan

Principal Secretary Ministry of Energy, Mines and Natural Resources Republic of Malawi

THE ATTACHED DOCUMENT

I. COOPERATION BETWEEN JICA AND THE GOVERNMENT OF THE REPUBLIC OF MALAWI

- 1. The Government of the Republic of Malawi will implement the Malawi Rural Electrification Promotion Project (hereinafter referred to as "the Project") in cooperation with JICA.
- 2. The Project will be implemented in accordance with the Outline of the Project that is given in Annex I.

II. MEASURES TO BE TAKEN BY JICA

In accordance with the laws and regulations in force in Japan, and the provisions of Article III of Agreement, JICA, as the executing agency for technical cooperation by the Government of JAPAN, will take, at its own expense, the following measures according to the normal procedures of its technical cooperation scheme.

1. DISPATCH OF JAPANESE EXPERTS

JICA will provide the services of the Japanese experts as listed in Annex II.

The provision of Article III of the Agreement will be applied to the above-mentioned experts.

2. PROVISION OF MACHINERY AND EQUIPMENT

JICA will provide such machinery, equipment and other materials (hereinafter referred to as "the Equipment") necessary for the implementation of the Project as listed in Annex III.

The provision of Article III of the Agreement will be applied to the Equipment.

3. TRAINING OF MALAWIAN PERSONNEL IN JAPAN

JICA will receive the Malawian personnel connected with the Project for technical training in Japan.

III. MEASURES TO BE TAKEN BY THE GOVERNMENT OF THE REPUBLIC OF MALAWI

- 1. The Government of the Republic of Malawi will take necessary measures to ensure that the self-reliant operation of the Project will be sustained during and after the period of Japanese technical cooperation, through full and active involvement in the Project by all related authorities, beneficiary groups and institutions.
- 2. The Government of the Republic of Malawi will ensure that the technologies and knowledge acquired by the Malawian nationals as a result of Japanese technical cooperation will contribute to the economic and social development of the Republic of Malawi.
- 3. In accordance with the provisions of Article V of the Agreement, the Government of the Republic of Malawi will grant in the Republic of Malawi privileges, exemptions and benefits to the Japanese experts referred to in II-1 above and their families.
- 4. In accordance with the provisions of Article V of the Agreement, the Government of the Republic of Malawi will take the measures necessary to receive and use the Equipment provided by JICA under II-2 above and equipment, machinery and materials carried in by the Japanese experts referred to in II-1 above.
- 5. The Government of the Republic of Malawi will take necessary measures to ensure that the knowledge and experience acquired by the Malawian personnel from technical training in Japan will be utilized effectively in the implementation of the Project.
- 6. In accordance with the provision of Article V of the Agreement, the Government of The Republic of Malawi will provide the services of Malawian counterpart personnel and administrative personnel as listed in Annex IV.
- 7. In accordance with the provision of Article V of the Agreement, the Government of The Republic of Malawi will provide the buildings and facilities as listed in Annex V.

- 8. In accordance with the laws and regulations in force in the Republic of Malawi, the Government of the Republic of Malawi will take necessary measures to supply or replace at its own expense machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the Equipment provided by JICA under II-2 above.
- 9. In accordance with the laws and regulations in force in the Republic of Malawi, the Government of the Republic of Malawi will take necessary measures to meet the running expenses necessary for the implementation of the Project.

IV. ADMINISTRATION OF THE PROJECT

- 1. Director of the Department of Energy, Ministry of Energy, Mines and Natural Resources, as the Project Director, will bear overall responsibility for the administration and implementation of the Project.
- 2. Chief Energy Officer of MAREP (Head of Rural Electrification Division, Department of Energy), as the Project Manager, will bear the direct responsibility of managing and implementing the Project.
- 3. The Japanese Long Term Expert (Rural Electrification Advisor) will provide necessary recommendations and advice to the Project Director and the Project Manager on any matters pertaining to the implementation of the Project.
- 4. Japanese Short Term Experts, together with the Long Term Expert, will give necessary technical guidance and advice to the Rural Electrification Division.
- 5. For the effective and successful implementation of the Project, the Joint Coordinating Committee (JCC) will be established. The functions and members of the JCC are stipulated in Annex VI.

V. JOINT EVALUATION

Evaluation of the Project will be conducted jointly by JICA and Ministry of Energy, Mines and Natural Recourses, at the middle and during the last six months of the cooperation term in order to examine the level of achievement.

VI. CLAIMS AGAINST JAPANESE EXPERTS

In accordance with the provision of Article VI of the Agreement, the Government of the Republic of Malawi undertakes to bear claims, if any arises, against the Japanese experts engaged in technical cooperation for the Project resulting from, occurring in the course of, or otherwise connected with the discharge of their official functions in the Republic of Malawi except for those arising from the willful misconduct or gross negligence of the Japanese experts.

VII. MUTUAL CONSULTATION

There will be mutual consultation between JICA and the Government of the Republic of Malawi on any major issues arising from, or in connection with this Attached Document.

VIII. MESURES TO PROMOTE UNDERSTANDING OF AND SUPPORT FOR THE PROJECT

For the purpose of promoting support for the Project among the people of the Republic of Malawi, the Government of the Republic of Malawi will take appropriate measures to make the Project widely known to the people of the Republic of Malawi.

IX. TERM OF COOPERATION

The duration of the technical cooperation for the Project under this Attached Document will be starting from ** **, 2006, for three [3] years.

ANNEX I OUTLINE OF THE PROJECT

ANNEX II LIST OF JAPANESE EXPERTS

ANNEX III LIST OF MACHINERY AND EQUIPMENT

ANNEX IV LIST OF THE REPUBLIC OF MALAWI COUNTERPART AND

ADMINISTRATIVE PERSONNEL

ANNEX V LIST OF LAND, BUILDINGS AND FACILITIES

ANNEX VI JOINT COORDINATING COMMITTEE

ANNEX I OUTLINE OF THE PROJECT

1. Title of the Project

The Malawi Rural Electrification Promotion Project

2. Overall Goal

Household electrification rate is increased by extending distribution lines and disseminating PV systems.

3. Project Purpose

Planning and Implementation of MAREP is improved.

4. Outputs of the Project

- 1. Technical capacity of planning and implementing rural electrification projects is enhanced and improved.
- 2. Capacity of contract management for planning and implementing rural electrification projects is improved through the activities of Phase V.
- 3. Technical capacity of inspectors and trainers for PV systems is improved.
- 4. Capacity of appropriate financial management for REF is developed and maintained.
- 5. Appropriate administrative and management system of REU/DOE is developed and maintained.

5. Activities of the Project

- 1-1. Recruit energy officers to fill the vacant positions;
- 1-2. Prepare field manual for social and economic investigation;
- 1-3. Carry out social and economic investigation including power demand estimate for Phase VI sites using the manual, and revise the manual;
- 1-4. Prepare annual rural electrification plan of MAREP;
- 1-5. Carry out feasibility study using the Implementation Manual for Grid Extension and revise the manual if necessary;
- 1-6. Prepare supervision manual for detailed design investigation;
- 1-7. Carry out supervision for detailed design investigation using the manual and revise the manual if necessary;

- 1-8. Prepare supervision manual for construction works;
- 1-9. Carry out supervision for the construction works using the manual and revise the manual if necessary;
- 1-10. Prepare manual for taking over inspection;
- 1-11. Carry out taking over process for Phase IV and V sites using the manual and revise the manual if necessary;
- 1-12. Prepare technical and installation standard for distribution lines, use the standard for contractual and supervision process, and revise the standard if necessary;
- 1-13. Carry out feasibility study on micro hydropower sites identified by the Master Plan Study in order to prepare for the implementation;
- 1-14. Carry out social and economic investigation for monitoring the power demand and connection increases at newly electrified trading centers in order to improve the method of demand forecast; and
- 1-15. Revise the database of Rural Electrification Master Plan.
- 2-1. Review the existing contract agreements for material procurement, detailed design investigation and construction works:
- 2-2. Carry out contractual process for material procurement for Phase V and review the tender documents for procurement;
- 2-3. Carry out contractual process for detailed design investigation for Phase V sites and revise the contract agreement if necessary; and
- 2-4. Carry out contractual process for construction works for Phase V sites and revise the contract agreement if necessary.
- 3-1. Identify engineers of stakeholders to be trained as inspectors and trainers for PV systems;
- 3-2. Formulate monitoring and evaluation system;
- 3-3. Prepare inspection manual;
- 3-4. Train inspectors, carry out inspection works using the manual and revise it if necessary;
- 3-5. Prepare trainer's manual; and
- 3-6. Train trainers, carry out training by the trainers and revise the manual if necessary.
- 4-1. Recruit energy officers to fill the vacant positions;

- 4-2. Recruit an accountant for the financial management of Rural Electrification Fund;
- 4-3. Asses the present procedure for accounting, budget and asset management;
- 4-4. Suggest improved procedure for accounting, budget and asset management, and identify the needs of capacity development;
- 4-5. Prepare guidelines and manuals for improved procedure for accounting, budget and asset management; and
- 4-6. Carry out accounting, budget and asset management using the guidelines and manuals, and revise the guidelines and manuals if necessary.
- 5-1. Prepare mission statement of REU/DOE;
- 5-2. Prepare job descriptions of respective positions;
- 5-3. Prepare information sharing and reporting system for internal and external communications; and
- 5-4. Carry out the administrative and management activities using the job descriptions, and information sharing and reporting system, and revise them if necessary.

ANNEX II LIST OF JAPANESE EXPERTS

1. Long-term experts

(1) Expert for Rural Electrification Advisor

2. Short-term experts

- (1) Expert for Distribution Line Protection System, other distribution short-term expert will be dispatched according to the project progress
- (2) Expert for Micro Hydro Power Development
- (3) Expert for Photovoltaic Inspection System and Training
- (4) Expert for Financial Management
- (5) Expert for Institutional Management

Note:

Assignment schedule of experts depends on the progress of the Project and availability of the suitable experts. It will be decided through mutual consultations for each Japanese fiscal year.

ANNEX III LIST OF MACHINARY AND EQUIPMENT

Equipment will be given as necessary for the effective implementation of the Project. Details shall be discussed during the Project.

The expected machinery and equipment are as follows:

- a) Four (4) sets of desk top computers,
- b) Two (2) sets of laptop commuters,
- c) Three (3) sets of printers,
- d) Ten (10) sets of filling cabinet,
- e) One (1) set of engineering drawing software (Visual),
- f) One (1) set of equipment and tools for PV system inspection, and
- g) One (1) set of equipment for distribution line inspection.

ANNEX IV LIST OF THE REPUBLIC OF MALAWI COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. Counterpart personnel

- (1) Project Director
- (2) Project Manager
- (3) Head of Technical Service
- (4) Head of Economic Service
- (5) Other Energy officers

2. Administrative personnel

- (1) Drivers
- (2) Other personnel

ANNEX V LIST OF LAND, BUILDINGS AND FACILITIES

- 1. Office space and necessary facilities for Japanese experts and Malawian counterparts
- 2. Other facilities mutually agreed upon as necessary for the implementation of the Project

ANNEX VI JOINT COORDINATING COMMITTEE

1. Function

The Joint Coordination Committee will meet at least once a year or whenever the necessity arises in order to fulfill the following functions;

- 1) To evaluate the annual work plan of the Project;
- 2) To review the progress of the annual work plan;
- 3) To review and discuss major issues that may arise during the implementation of the Project; and
- 4) To discuss any other issue(s) pertinent to the smooth implementation of the Project.

2. Provisional Composition

- (1) Chairperson: Principal Secretary, Ministry of Energy, Mines and Natural Resources
- (2) Member of the Malawian side
 - a) Director of Energy Affaires,
 - b) Head of Rural Electrification Division,
 - c) Chief Executive Officer of MERA,
 - d) Chief Executive Officer of ESCOM,
 - e) Executive Director of CHAM, and
 - f) Other personnel concerned to be assigned by the request of JICA or DOE, if necessary.
- (3) Member of the Japanese side
 - a) Long Term and Short Term Experts,
 - b) Representative from ЛСА Malawi Office
 - c) Other personnel concerned to be assigned by the request of JICA or DOE, if necessary.

ANNEX V

LIST OF PARTICIPANTS AT THE DISCUSSIONS

Ministry of Energy, Mines and Natural Resources

Dr. Charles Kafumba

Director of Energy Affairs

Mr. C.Kang'ombe

Director of Finance & Administration

Mr. G. Nyrongo

Chief Energy Officer of DOE

Mr. K. Lungu

Principle Energy Officer of DOE

Mr. A.Sambani

Energy Officer of DOE

ESCOM

Mr. T. W. Chisale

Director of Distribution & Customer Services

Mr. H. Machewere

MERAP Manager

JICA Second Preparatory Study Team

Mr. Toshiyuki Hayashi

Team leader

Mr. Masato Onozawa

Organizational management

Mr. Masanori Kozuki

Cooperation planning

5. Marep Proposed Phase V Trading Centers

Northern Region				
Serial	District	Name of TC		
1	Chitipa	Nthalire		
2	Karonga	Hara		
3	Rumphi	Chitimba		
4	Nkhata Bay	Sanga		
5	Mzimba	Edingeni		
Central Region				
6	Kasungu	Chamama		
7	Nkhotakota	Mkaika		
8	Ntchisi	Khuwi		
9	Dowa	Thambwe		
10	Salima	Chilambula		
11	Lilongwe	Nyanja		
12	Mchinji	Chiosya		
13	Dedza	Golomoti		
14	Ntcheu	Ntonda		
	Southern Region			
15	Mangochi	Makanjira		
16	Machinga	Chikweu		
17	Balaka	Chendausiku		
18	Zomba	Jenala		
19	Chiradzulu	Kanje		
20	Blantyre	Mombo		
21	Mwanza	Tulonkhondo		
22	Neno	Matope		
23	Thyolo	Nansadi		
24	Mulanje	Nanthombozi		
25	Phalombe	Phaloni		
26	Chikwawa	Livunzu		
27	Nsanje	Mankhokwe		

MAREP Phase IV

Serial	CENTRE	DISTRICT
	Likoma	Likoma
2	Mkhota	Kasungu
3	Phalula	Balaka
4	Thekerani	Thyolo
5	Neno	Neno
6	Abunu	Mulanje
7	Cape Maclear	Mangochi
8	Chimwankhuku	Dedza
9	Kamphata	Lilongwe
10	Lisungwi	Neno
11	Malembo	Mangochi
	Malomo	Ntchisi
	Marka	Nsanje
14	Mchenga	Rumphi
15	Mwamphanzi	Chikwawa
16	Mwanje	Chiradzulu
17	Nkhamenya	Kasungu
18	Chisemphere	Kasungu
19	Dwangwa	Kasungu
20	Kasisi Hqs.	Chikwawa
21	Nyungwe	Karonga
22	Vuwa (Wovwe R.Sch.)	Karonga
	Ngara	Karonga
	Nchezi	Lilongwe
25	Njereza	Chikwawa
	Villa Mitekete	Chikwawa
	Wovwe T.C	Karonga
28	Chapananga	Chikwawa
	Biriwiri Border	Ntcheu
	Songwe Border	Karonga
31	Mchinji Orphanage	Mchinji
32	Milepa	Chiradzulu
	Mtwiche	Zomba
34	Kunenekude	Mwanza
	Mowo	Zomba
	Chiringa	Phalombe
	Kapoloma	Machinga
	Lichenza CDSS	Chiradzulu
	Malowa CDSS	Salima
	Mwenilondo	Karonga
	Makungwa H/Centre	Thyolo
	Ntchenachena	Rumphi
	Muhuju	Rumphi
	Chikwina	Nkhata Bay
	Mbalachanda	Mzimba
	Mwansambo	Nkhota kota
	Tsangano	Ntcheu
	Champhira	Mzimba
	Kafukule	Mzimba
	Khombedza	Salima
51	Malingunde (Dikisoni)	Lilongwe

52	Chulu	Kasungu
53	Nambuma	Lilongwe
54	Engucwini	Mzimba
55	Misuku Hills	Chitipa
56	Mposa	Machinga
57	Nkhate	Chikwawa
58	Nyambi TC	Machinga

LEARNING CONTRACT

INTRODUCTION

The use of learning contracts with adult learners has gained cogency during the past decade. Research on self-directed learning has resulted in the search for appropriate learning resources and guides. The work of Knowles (1980, 1984) and others relative to andragogy has resulted in a need by many teachers of adults to provide some mechanism for learners to build on past experience and determined needs as they carry out learning activities. Finally, the emergence of non-traditional learning programs like Empire State College in New York has mandated that some vehicle be available for learners to mix experience with actual learning endeavors. Thus, in response to these many needs the learning contract method was developed.

An extended description of how to complete and utilize a learning contract is shown below. A blank form is provided for you to use if the described format is acceptable. In reality a learning contract can take on many shapes and forms ranging from audio tapes, to outlines, to descriptive statements, to elaborate explanations of process and product. The intent of utilizing learning contracts in a learning endeavor is to provide a vehicle whereby you can personalize the learning experience.

For supplemental reading on contracts, the following are recommended: Gross (1977), Hiemstra and Sisco (1990), and Knowles (1986).

LEARNING STYLE PREFERENCES

In developing your learning contract, it may be useful if you have a sense of your own learning and cognitive styles. The following figure (Figure 1) is provided to facilitate the learner who has never filled out a learning contract in obtaining some sense of what might be the best approach for this course.

	Figure 1. Your Learning Style Preferences			
	Self-Directed Learner	Other-Directed Learner		
Learner	Standard contract with suggested structure	Standard contract using		
Dependent	Dependent used as basic guide instructor suggestions			
Learner	Create own contract in terms of content	Develop own version of contract		

Independent	and procedure	
		using instructor suggestions

Note that the range of possibilities is quite extensive.

SOME GUIDELINES FOR THE USE OF LEARNING CONTRACTS

Why Use Learning Contracts?

One of the most significant findings from research about adult learning (e.g., Tough, 1979) is the following: When adults go about learning something naturally (as contrasted with being taught something), they are highly self-directing. Evidence has accumulated, too, that what adults learn on their own initiative they learn more deeply and permanently than what they learn by being taught (Brockett & Hiemstra, 1991).

Those kinds of learning that are engaged in for purely personal development can perhaps be planned and carried out completely by an individual on personal terms and with only a loose structure. But those kinds of learning that have as their purpose improving one's competence to perform on a job or in a profession must take into account the need and expectations of organizations, professions, and society. Learning contracts provide a means for negotiating a reconciliation between these external needs and expectations and the learner's internal need and interests.

Furthermore, in traditional education the learning activity is structured by the teacher and the institution. The learner is told what objective to work toward, what resources are to be used and how (and when) to use them, and how any accomplishment of the objectives will be evaluated. This imposed structure conflicts with the adult's deep psychological need to be self-directing and may induce resistance, apathy, or withdrawal. Learning contracts provide a vehicle for making the planning of learning experiences a mutual undertaking between a learner and any helper, mentor, or teacher. By participating in the process of diagnosing personal needs, deriving objectives, identifying resources, choosing strategies, and evaluating accomplishments the learner develops a sense of ownership of (and commitment to) the plan. Learning contracts also are a means for making the learning objectives of any field or practical experience clear and explicit for both learners and facilitators.

How do you develop a learning contract?

Step 1: Diagnose your learning needs.

A learning need is the gap between where you are now and where you want to be in regard to a particular set of competencies. You may already be aware of certain learning needs as a result of a personal appraisal or the long accumulation of evidence for yourself regarding any gaps between where you are now and where you would like to be.

If not (or even so), it might be worth your while to go through this process: First, construct a model of the competencies required to perform excellently the role (e.g., parent, teacher, civic leader, manager, consumer, professional worker, etc.) about which you are concerned. There may be a competency model already in existence that you can use as a thought-starter and check-list; many professions are developing such models. If not, you can build your own, with help from friends, colleagues, supervisors, and expert resource people. A competency can be thought of as the ability to do something at some level of proficiency, and is usually composed of some combination of knowledge, understanding, skill, attitude, and values. For example, "ability to ride a bicycle from my home to work to get in better physical shape" is a competency that involves some knowledge of how a bicycle operates, and the route to work; an understanding of some of the dangers inherent in riding a bicycle; skill in mounting, pedaling, steering, and stopping a bicycle; an attitude or desire to ride a bicycle; and a valuing of the exercise it will yield. Ability to ride a bicycle in cross-country racing would be a higher-level competency that would require greater knowledge, understanding, skill, etc. It is useful to produce a competency model even if it is crude and subjective because of the clearer sense of direction it will give you.

Having constructed a competency model, your next task is to assess the gap between where you are now and where the model says you should be in regard to each competency. You can do this alone or with the help of people who have been observing your performance. The chances are you will find that you have already developed some competencies to a level of excellence, so that you can concentrate on those you haven't mastered. An example of a competency model is contained in Appendix A.

Step 2: Specify your learning objectives.

You are now ready to start filling out the first column of the learning contract (objectives). Each of the learning needs diagnosed in Step 1 should be translated into a learning objective. Be sure that your objectives describe what you will learn, not what you will do. State them in terms that are most meaningful to you--Content acquisition, terminal behaviors, or direction of growth.

Step 3: Specify learning resources and strategies.

When you have finished listing your objectives, move over to the second column of the contract (resources and strategies) and describe how you propose to go about accomplishing each objective. Identify the resources (material and human) you plan to use in your various learning experiences and the strategies (techniques, tools) you will employ in making use of them. Here is an example:

Step 4: Specify target dates for completion.

After completing the second column, move over to the third column (target completion date). Put realistic dates, unless there are institutionally or other required deadlines.

Step 5: Specify evidence of accomplishment.

Move to the fourth column (evidence) and describe what evidence you will collect to indicate the degree to which you have achieved each objective.

Step 6: Specify how the evidence will be validated.

After you have specified what evidence you will gather for each objective in column four, move to column five (verification). For each objective, first specify the criteria by which you propose the evidence will be judged. The criteria will vary according to the type of objective. For example, appropriate criteria for knowledge objectives might include comprehensiveness, depth, precision, clarity, authentication, usefulness, scholarliness, etc. For skill objectives more appropriate criteria may be flexibility, precision, poise, speed, gracefulness, imaginativeness, etc. After you have specified the criteria, indicate the means you propose for verifying the evidence according to these criteria. For example, if you produce a paper, who will you have read it and what are their qualifications? Will they express their judgments by rating scales,

descriptive reports, or evaluative memos? How will they communicate those judgements to you and to me? Perhaps they can use a memo or some other written statement. If you attempt to improve a professional skill, is there someone at your place of employment who can judge your accomplishments? An action helping to differentiate "distinguished" from "adequate" performance in self-directed learning is the wisdom with which personal validators operate.

Step 7: Review your contract with consultants.

After you have completed the first draft of your contract, you will find it useful to review it with two or three friends, supervisors, or other expert resource people to obtain their reaction and suggestions. Here are some questions you might have them ask about the contract to receive optimal benefit from their help:

- Are the learning objectives clear, understandable, and realistic? Do they describe what you propose to learn?
- Can they think of other objectives you might consider?
- Do the learning strategies and resources seem reasonable, appropriate, and efficient?
- Can they think of other resources and strategies you might consider?
- Does the evidence seem relevant to the various objectives, and would it convince them?
- Can they suggest other evidence you might consider?
- Are the criteria and means for validating the evidence clear, relevant, and convincing?
- Can they think of other ways to validate the evidence that you might consider?

Step 8: Carry out the contract.

You now simply do what the contract calls for. But keep in mind that as you work on it you may find that your notions about what you want to learn and how you want to learn changing. So don't hesitate to revise or renegotiate your contract as you go along.

Step 9: Evaluation of your learning.

When you have completed your contract you will want to get some assurance that you have in fact learned what you set out to learn. Perhaps the simplest way to do this is to ask the consultants you used in Step 7 to examine your evidence and validation data and provide you their judgment about adequacy.

[Adapted by permission of Malcolm Knowles from materials he distributed in his classes.]

APPENDIX A

DEVELOPING COMPETENCY MODELS

One of the most valuable techniques for discovering (and constantly rediscovering) learning needs is the competency model. To build a competency model, it is necessary to decide first of all what the competency components are for successful or outstanding performance in a particular field or activity. When this is done, the next step is to determine your own present level of competence with regard to each of the competency components. Once this has been accomplished, the gaps between your present level of attainment and the required level become apparent. While this seems to be simple--and it is--there can be quite an impact when we clearly identify our own learning needs for the first time. The awareness of the gap between "what I can do" and "what I want to be able to do" produces a strong motivational pull to close the gap with all deliberate speed.

An example of this process can be demonstrated in looking at potential competency requirements for a position such as that of a purchasing manager in an industrial corporation. The required competencies might be the following:

Competence Factors

- 1. A knowledge of source of products, materials, or services required for successful corporate operation.
- 2. Knowledge of purchasing techniques and methods.

- 3. Familiarity with pricing structures, discounts, allowances, and quantity price breaks.
- 4. Awareness of delivery schedules, alternate shipping techniques, and transportation routes and methods.
- 5. Competence in lease/buy decision making and the negotiation of specific performance and delivery contract.

Supervisory and Managerial Skills

Utilizing competency models in organizations can produce the following effects:

- 1. Self-diagnosis of training and development need.
- 2. Self-directed planning of personal growth progress leading to greater internal commitment.
- 3. Increased feelings of psychological success rather than psychological failure.
- 4. Clarification of supervisor and subordinate perceptions of attainment and competence.
- 5. Improved bonus and compensation planning.
- 6. An orientation toward a continuing cycle of growth and development with a focus on forward progress rather than judgment.

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Learning Contract Form (Simulation One - A Distance Education Course)

Course: _AED 5220_Instructor: _Hiemstra ___ Contract Grade: _A Learner: _Jane Smith_

What are you going to learn (objectives)	How are you going to learn it (resources/strategies)	Target date for completion	How are you going to know that you learned it (evidence)	How are you going to prove you learned (verification)
Improve my general understanding of distance educ.	Actively participate in the course (LA#2) Complete a Learning Contract (LA#1)	1. End of the course 2. By June 12	Self perceptions about my contributions and during our CMC time make appropriate contracts with class mates	Ask Roger and learning partner for feedback 2. All contract tasks completed
Acquire more info, about dist ed and its uses	Read the texts, at least 1 more book, and several related journal articles	End of course	Read log (see my term project description)	Ask Roger for feedback
Improve my ability to acquire knowledge about accessing info. electonically (LA3)	Participate in any related class discussions Practice searching and downloading information that I find	By end of the term	A brief report that describes the listserves I join and my part in them plus some sample copies of downloaded materials	Ask both Roger and several work colleagues for feedback on my involvement and its potential for my work
Enhance my	1. Read at least 4 books	By end of the	1. Written report of my findings	Ask both Roger and my supervisor

understanding of	listed in the bibliography	term	including implementation implications	for some feedback
CMC and its				
potential for training	2. Annotate ideas,		2. Make 1-hr. presentation in-class on	
employees at work	reflections, and learnings		ii.	
(LA4a)	in a reading log			
Improve my ability	1. Use the info I obtain for	End of course	A written report of my entire effort,	Ask Roger and all work
to create and employ	LA4a and design a		including the design, implementation,	participants for feedback on the
CMC in my	several week training at		evaluation, and future implications	experience and its long term
workplace (LA5)	work w/CMC			implementation possibilities
	2. Carry out and evaluate			
	the CMC activities			
Enhance my overall	1. Read at least 3 books	End of course	Extensive interactive reading log	Ask Roger and as appropriate my
understanding of the	listed in the bibliography		where I will both summarize and	supervisor for feedback
potential of distance	beyond what I have		interact with my readings	
education in the	already described			
workplace (term				
project)	2. Annotate all my ideas,		1	
	reflections, and new			
	learnings in a reading log			