AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE: A (A = Add, C = Change, D = Delete) — Amendment Number: ____

DOCUMENT CODE: 3

2. COUNTRY/ENTITY: CAMEROON

3. PROJECT NUMBER: 631-0056

4. BUREAU/OFFICE: USAID

5. PROJECT TITLE (maximum 40 characters): MATERNAL CHILD HEALTH/CHILD SURVIVAL

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM 08 DD 09 YY 92

7. ESTIMATED DATE OF OBLIGATION (Under 'B.' below, enter 1, 2, 3, or 4)
A. Initial FY 87 B. Quarter 4 C. Final FY 90

8. COSTS ($000 OR EQUIVALENT $1 = 300)

A. FUNDING SOURCE	FIRST FY 87 B. FX	C. L/C	D. Total	LIFE OF PROJECT E. FX	F. L/C	G. Total
AID Appropriated Total	1962	138	2100	8767	733	9500
(Grant)	(1962)	(138)	(2100)	(8767)	(733)	(9500)
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S. 1.						
Other U.S. 2.						
Host Country		700	700		5400	5400
Other Donor(s)						
TOTALS	1962	838	2800	8767	6133	14900

9. SCHEDULE OF AID FUNDING ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE 1. Grant	2. Loan	D. OBLIGATIONS TO DATE 1. Grant	2. Loan	E. AMOUNT APPROVED THIS ACTION 1. Grant	2. Loan	F. LIFE OF PROJECT 1. Grant	2. Loan
(1) HE	533	510				2100		9500	
(2)									
(3)									
(4)									
TOTALS									

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each): 530 | bww | 544 | 551 | 653 |

11. SECONDARY PURPOSE CODE: 583

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code							
B. Amount							

13. PROJECT PURPOSE (maximum 480 characters)

To strengthen the existing GRC health services system in such a way that it operates more effectively in providing needed services to women and children in South and Adamaoua provinces.

14. SCHEDULED EVALUATIONS
Interim MM 09 YY 88 MM 09 YY 89 Final MM 09 YY 90

15. SOURCE/ORIGIN OF GOODS AND SERVICES
[x] 000 [x] 941 [ ] Local [ ] Other (Specify) ____

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a ____ page PP Amendment.)

17. APPROVED BY
Signature: [signature]
Title: Director, USAID/Cameroon
Date Signed: MM 08 DD 07 YY 87

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
MM DD YY

AID 1330-4 (8-79)

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CAMEROON MCH PROJECT
1987-1992

PROJECT PAPER

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AID 1330-4 (8-79)

GLOSSARY

Assistant Nurse - Health worker with two years of training in nursing care. Some assistant nurses spend the second year of the two year training specializing in obstetrics and are called assistant nurse midwives. In French an assistant nurse is called an infirmier brevete.

Center for Advanced Training in Nursing (CESSI) - In French it is called Centre d'Enseignement Superieure en Soins Infirmiers. A part of CUSS, the center trains graduate nurses to become Senior Health Technicians (Techniciens Superieurs de la Sante) who normally find employment as teachers in nursing schools and as administrators at the MOH or in other agencies.

Child Spacing Services - With the goal of reducing child and maternal deaths, these services provide families with the education and means to lengthen birth intervals, as well as providing services related to problems of infertility.

Child Survival - This is a term used to refer to programs, activities, or health interventions which apply appropriate, cost-effective technologies in order to reduce infant and child mortality.

Community Health Worker (CHW) - Selected by the members of his or her community, the community health worker receives training at the sub-division hospital in how to treat simple illnesses and manage a village pharmacy. The CHW may receive payment in-kind for his/her services.

Competency-based Training - A problem-oriented educational effort, with curriculum related directly to job performance and excluding irrelevant information. Successful completion is based on attainment of specified pre-determined competencies.

Cost-effective - As it is commonly used, this adjective refers to health interventions which achieve a desired outcome or outcomes at the lowest possible unit cost.

Cost-recovery mechanisms - Ways in which the beneficiaries of health care services participate in the payment for such services.

Developed Health Center - A rural health center which generally serves over 10,000 people, from which basic and primary health care services are provided. It has a small complement of inpatient beds.

Directorate of Health - One of the four major branches of the MOH, responsible for the coordination of rural and hospital medical services, pharmaceutical services and training schools.

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Directorate of General Administration - One of four major branches of the MOH, responsible for personnel recruitment, administration and management, preparation of the operating budget, transportation services, and operational materials and equipment.

Directorate of Preventive Medicine and Public Hygiene - One of the four major branches of the MOH, responsible for coordination and technical control of all preventive medicine services administered by the MOH.

Directorate of Studies, Planning, and Statistics - One of the four major branches of the MOH, responsible for public health services planning and programming, health and demographic statistical studies, health infrastructure technical studies, MOH investment budget preparation, evaluation and studies of public health judicial and ethical problems.

Dispensaries - Primary health care centers located in urban areas in Cameroon.

Division - Geographically defined political and administrative area within a province. Each division contains two or more sub-divisions.

Divisional Chief Medical Officer - Representative of the Minister of Health at the divisional level. Oversees all public health activities and facilities within the division, and is in charge of divisional hospital.

Divisional Service for Preventive and Rural Medicine - Managed by the Divisional Chief of Preventive and Rural Medicine, this office is responsible for control of endemic diseases, vaccination activities, sanitation and hygiene activities, and supervision of sub-division staff and health facilities.

Elementary Health Center - A rural health center which generally serves 5,000 to 10,000 people and has no inpatient beds.

Expanded Programme of Immunization (EPI) - Worldwide WHO/CDC sponsored immunization program against polio, measles, tuberculosis, diphtheria, whooping cough and tetanus. The program is aimed at children less than three years of age.

Graduate Nurse - Health worker who has received three years of training in nursing care. Some graduate nurses specialize in obstetrical nursing care and are called graduate nurse midwives.

Growth Monitoring - A health technology used to detect faltering growth in children and children at risk of malnutrition. It is also used to educate and motivate mothers and health workers. It is performed by regularly recording measurements such as height for age, weight for age, and weight for height on a growth monitoring chart, and observing changes over time.

Knowledge, Attitudes and Practices (KAP) Studies - A survey conducted within a given population, usually to collect base-line data about knowledge, attitudes, and practices relating to specific health matters. The information gained is used to design health delivery programs or services that build on what the population already knows, and are sensitive to cultural norms, values, and taboos.

Malaria Control Programs - Programs designed to reduce the prevalence of malaria to a point where the disease no longer constitutes a major public health problem. Such programs aim at reducing disease transmission in endemic areas and preventing spread of disease to new areas.

Maternal and Child Health - Programs, activities, and health interventions aimed at improving the health status of pregnant women, mothers, and children under age five. World-wide, over half of all preventable deaths occur in these two target populations.

Nurse Aide - Health worker with one year of training in nursing care. In French a nurse aide is called an aide soignante.

Oral Rehydration Therapy (ORT) - The medically preferred technology for treatment of diarrhea and mild to moderate dehydration both in rural settings and urban hospitals. Therapy includes oral rehydration salt (ORS) solution, breast-feeding, and continuation of other foods.

OCEAC - Organization de Coordination pour la Lutte Contre les Endemies en Afrique Centrale. (Coordinating Organization for the Fight against Endemic Diseases in Central Africa). Headquartered in Yaounde, OCEAC collaborates with the Expanded Program on Immunization and the Directorate of Preventive Medicine to design and implement immunization strategies. The office also operates a surveillance system and conducts operations research.

Operations Research - A management tool used to identify, analyze, and resolve problems concerning the implementation of policies and the operation of programs or services. Operations research follows a four step process: 1) systems analysis, 2) identification and documentation of alternative solutions, 3) testing of best alternative solution or solutions, 4) re-design and implementation of solution.

Primary Health Care - Early, first contact curative and preventive health care interventions that generally address the most serious, frequent, preventable health problems in a population. Health care that includes health education, sanitation activities, routine prenatal and postnatal care, midwifery care, immunizations, screening and monitoring care, and basic health care treatments.

Propharmacy - In Cameroon, a MOH recognized and authorized, community owned and operated, drug outlet in areas where there is no commercial pharmacy. A propharmacy license must be obtained from the MOH and drug orders approved by a licensed physician.

Province - Largest geographically defined political and administrative area within Cameroon. There are ten provinces in Cameroon.

Provincial Health Delegate - Representative of the Minister of Health at the provincial level. Oversees all public health activities and facilities within the province.

Provincial Service for Preventive Medicine and Public Hygiene- Managed by the Provincial Chief of Preventive Medicine and Public Hygiene, this office is responsible for overseeing the control of endemic diseases, vaccination activities, sanitation and hygiene activities, and supervision of Divisional Services for Preventive and Rural Medicine. This service is under the authority of the Provincial Health Delegate.

Sub-division - Geographically defined political and administrative areas within a division. Each division contains two or more sub-divisions.

University Center for Health Services (CUSS) - The major medical training center in Cameroon, where health professionals from aides to physicians are trained. Emphasis is on community, rural and preventative medicine and public health. Harvard was the original American University to collaborate in the establishment of CUSS.

Village Pharmacy - Community Health Workers sometimes operate a village pharmacy, where essential drugs and supplies are sold to members of the community, and receipts are used to replenish drug supply. The initial stock may be provided free of charge through UNICEF, or communities may be required to purchase the initial stock of medications themselves. This decision is determined at the divisional level.

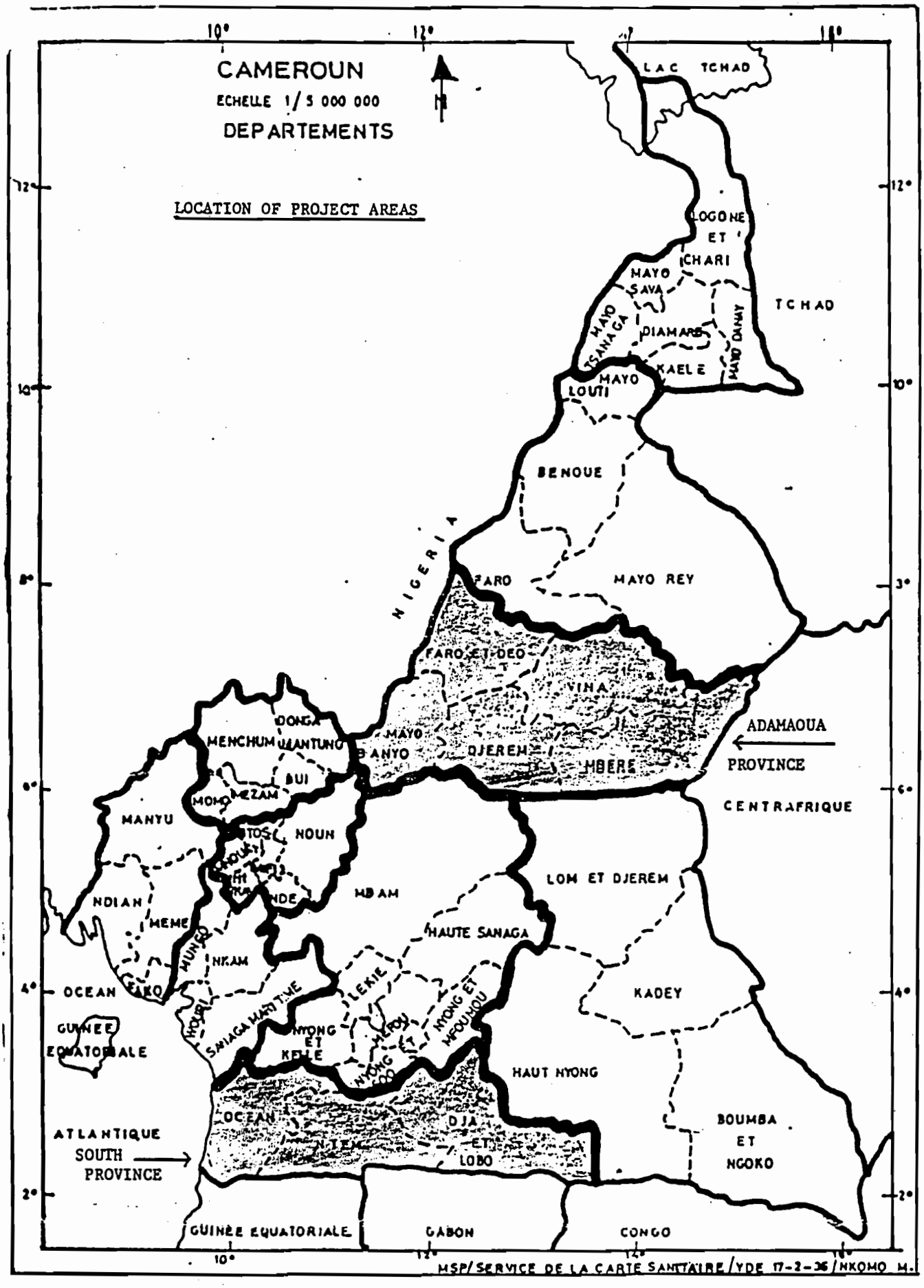
LIST OF ABBREVIATIONS

ADDR	Applied Diarrheal Disease Research Project
AED	Academy for Educational Development
AIDS	Acquired Human Immuno-deficiency Syndrome
AMA	Atelier des Materiels Audio Visuels (Workshop of Audio Visual Materials)
CCCD	Combatting Childhood Communicable Diseases Program
CDC	Center for Disease Control
CDD	Control of Diarrheal Diseases Program
CESSI	Centre d'Enseignement Superieure en Soins Infirmiers (Center for Advanced Training in Nursing)
CFA	Communaute Financiere Africaine (African Financial Community)
CHW	Community Health Worker
COP	Chief of Party
CSD	Centre de Sante Develope (Developed Health Center)
CSE	Centre de Sante Elementaire (Elementary Health Center)
CUSS	Centre Universitaire des Sciences de la Sante (University Center for Health Sciences)
DCMO	Divisional Chief Medical Officer
DCPRM	Divisional Chief of Preventive and Rural Medicine
DHC	Developed Health Center
EHC	Elementary Health Center
ENISFAY	Ecole Nationale des Infirmiers et des Sages Femmes a Yaounde (National Nursing and Midwifery School of Yaounde)

ENSIAAC	Ecole Nationale Superieure des Industries Agro-Alimentaire du Cameroun (National Graduate School of Food Technology of Cameroon)
EOP	End of Project
EOPS	End of Project Status
EPI	Expanded Program of Immunization
ETMSTPGS	Ecole d'Infirmiers, des Techniciens Medicosanitaires et des Techniciens Principaux du Genie Sanitaire de Yaounde (School of Nurses, Medical Technicians, and Sanitary Engineering Technicians of Yaounde)
FCFA	Franc de la Communaute Financier Africaine (Franc of the African Financial Community)
FPIA	Family Planning International Assistance
GRC	Government of the Republic of Cameroon
HBCU	Historically Black College or University
HIID	Harvard Institute for International Development
HSPH	Harvard School of Public Health
IB	Infirmier Brevete (assistant nurse)
IDE	Infirmier Diplome de l'Etat (graduate nurse)
IEC	Information, Education, and Communications
IFFLP	International Federation for Family Life Promotion
INTRAH	International Training in Health
IST	In-Service Training
IUD	Intrauterine Contraceptive Devices
JAV	Journees Africaines des Vaccinations (African Vaccination Days)
JHPIEGO	The Johns Hopkins Program for International Education in Gynecology and Obstetrics

JHU	Johns Hopkins University
KAP	Knowledge, Attitudes, and Practices
LOP	Life of Project
MCH	Maternal and Child Health
MCH/CS	Maternal and Child Health/Child Survival
MINAS	Ministere des Affaires Sociales (Ministry of Social Affairs)
MINPAT	Ministere du Plan et de l'Amenagement du Territoire (Regional Development)
MIS	Management Information Systems
NFP	Natural Family Planning
NGO	Non-Governmental Organization
OCEAC	Organisation de Coordination pour la Lutte Contre les Endemies en Afrique Centrale (Coordinating Organisation for the Fight Against Endemic Diseases in Central Africa)
ONAPHARM	Office National Pharmaceutique du Cameroun
OR	Operations Research
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
PC	Peace Corps
PCMO	Provincial Chief Medical Officer
PCPM	Provincial Chief of Preventive Medicine
PEV	Programme Elargi de Vaccination (Expanded Immunization Program)
PHC	Primary Health Care
PHD	Provincial Health Delegate
PID	Program Identification Document Pelvic Inflammatory Disease

PMI	Protection Maternelle et Infantile (Mother and Child Health Care)
pmLT	person-months Long-term Technical Assistance
pmST	person-months Short-term Technical Assistance
PNUD	Programme des Nations Unis pour le Developpement (United Nations Development Program)
PRITECH	Primary Health Care Technologies Project
PTHE	Practical Training in Health Education
REACH	Resources for Child Health
SCF	Save the Children Federation
SDMPR	Section Departementale de la Medecine Preventive et Rurale (Divisional Service for Preventive and Rural Medicine)
SHDS	Strengthening of Health Delivery Systems Project
SIDA	Syndrome Immunodeficitaire Acquis (AIDS)
SPMPHP	Section Provinciale de la Medecine Preventive et Hygiene Publique (Provincial Service for Preventive Medicine and Public Hygiene)
SSP	Soins de Sante Primaires (Primary Health Care)
STD	Sexually Transmitted Disease
TA	Technical Assistance
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USG	United States Government
WHO	World Health Organization


CAMEROUN
ECHELLE 1/5 000 000
DEPARTEMENTS
LOCATION OF PROJECT AREAS
LAC TCHAD
LOGONE ET CHARI
MAYO SAVA
MAYO TSANAGA
DIAMARE
MAYO DANAY
KAELE
MAYO LOUTI
TCHAD
BENOUE
NIGERIA
FARO
MAYO REY
FARO ET DEO
VINA
MAYO DJEREM
MBERE
ADAMAOUA
PROVINCE
CENTRAFRIQUE
DONGA MANTUNG
MENCHUM
BUI
MEZAM
MANYU
NOUN
NDIAN
MEME
MBAM
LOM ET DJEREM
HAUTE SANAGA
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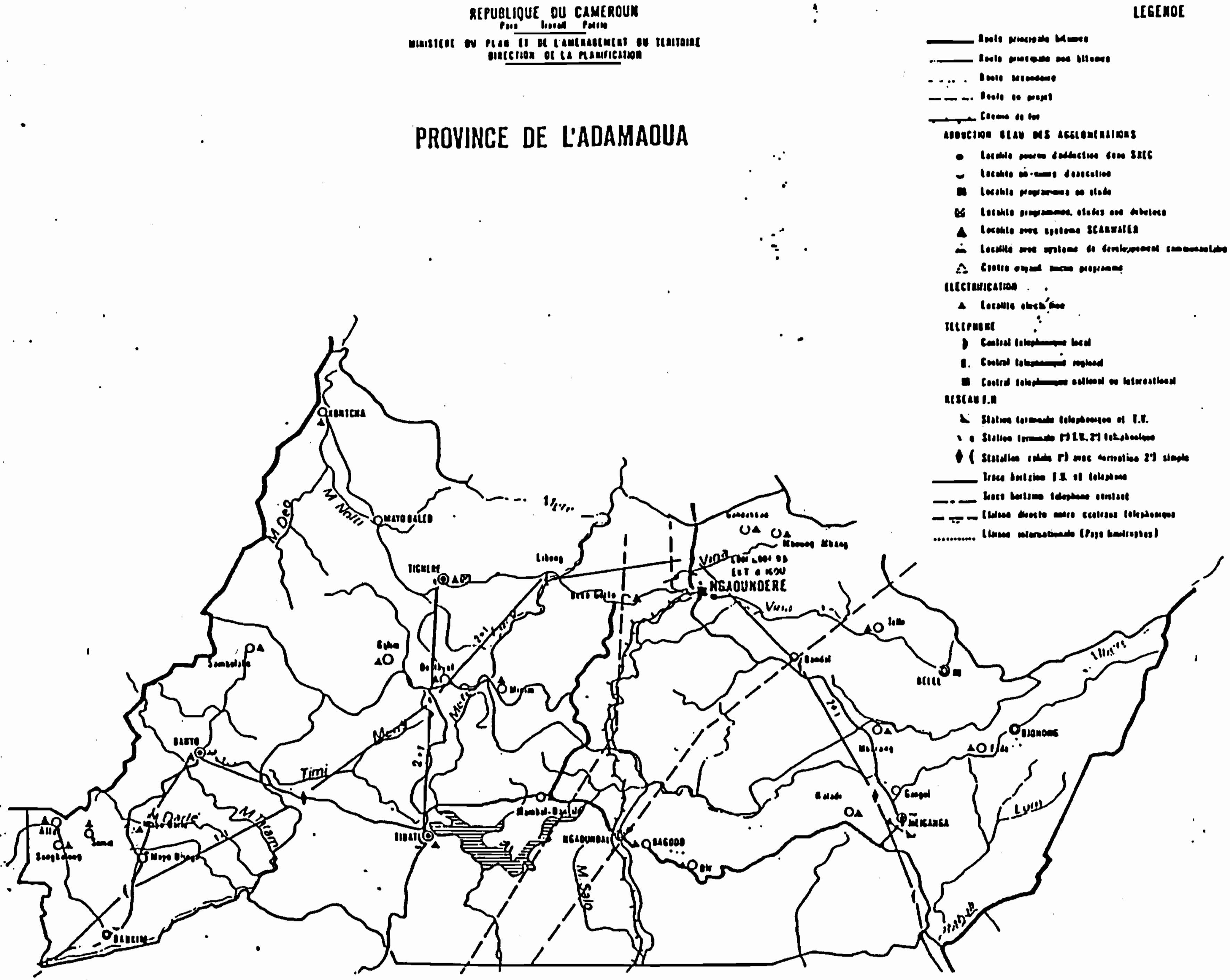
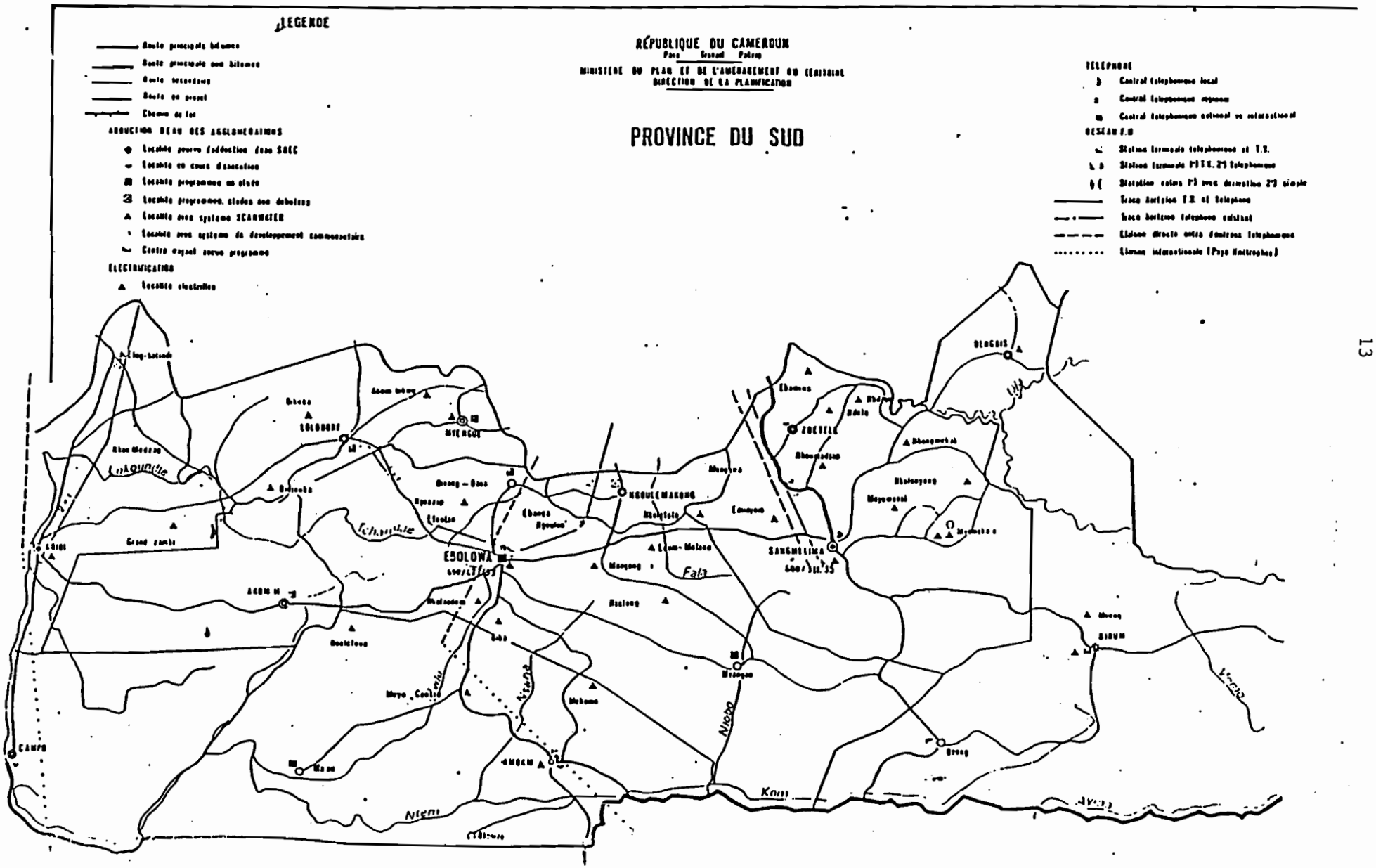
KADEY
OCEAN
FAKO
MUNGO
LEKIE
SANAGA MARITIME
NYONG ET KELLE
NYONG ET MFOUMOU
NYONG ET SOO
HAUT NYONG
GUINEE EQUATORIALE
OCEAN
DJA ET LOBO
BOUMBA ET NGOKO
ATLANTIQUE
SOUTH PROVINCE
GUINEE EQUATORIALE
GABON
CONGO
MSP/SERVICE DE LA CARTE SANITAIRE/YDE 17-2-86/NKOMO M.

REPUBLIQUE DU CAMEROUN
Paix Travail Patrie

MINISTERE DU PLAN ET DE L'AMENAGEMENT DU TERRITOIRE
DIRECTION DE LA PLANIFICATION

PROVINCE DE L'ADAMAOUA



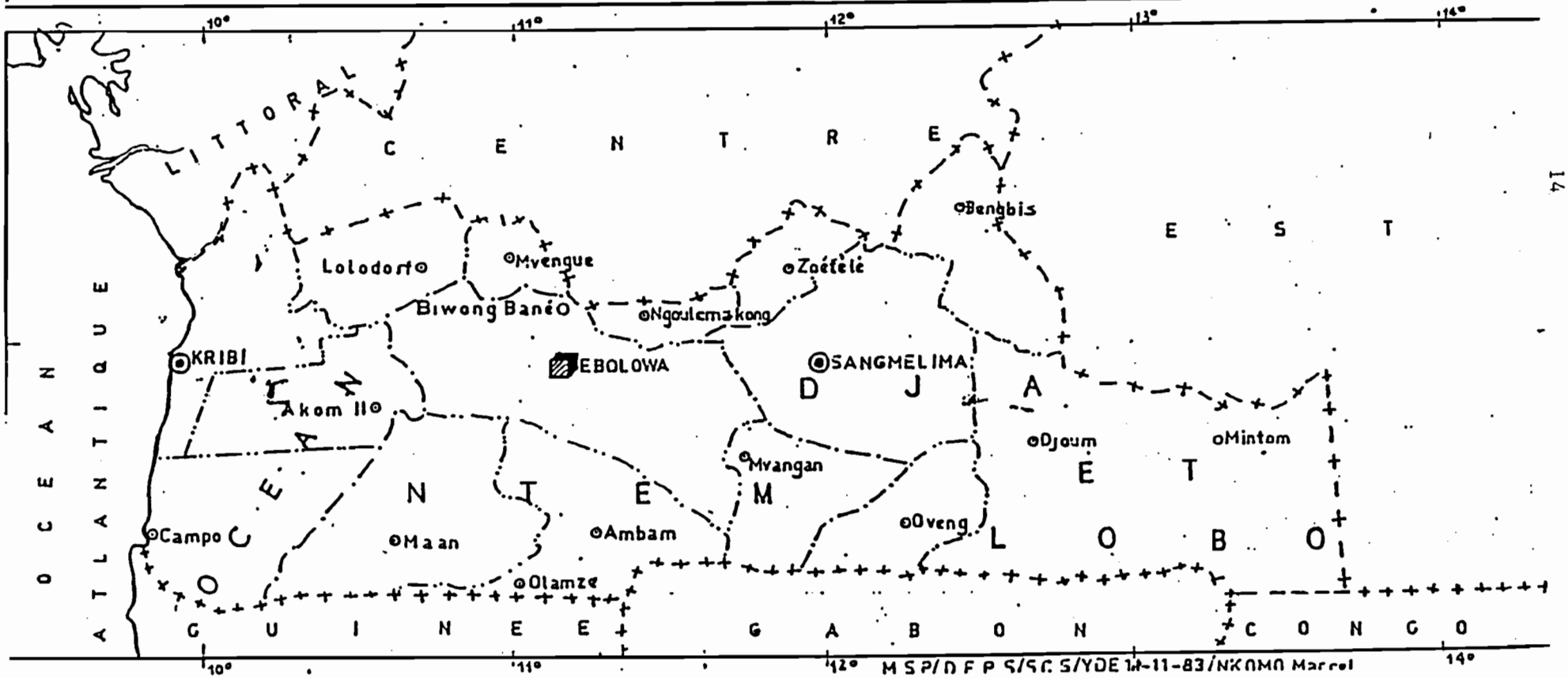

LEGENDE
RÉPUBLIQUE DU CAMEROUN
MINISTERE DU PLAN ET DE L'AMENAGEMENT DU TERRITOIRE
DIRECTION DE LA PLANIFICATION
PROVINCE DU SUD
TELEPHONE
ELECTRIFICATION
ESOLOWA
SANGMELIMA
ZOETELE
MVENGUE
NGOULEMAKONG
EBOLOWA
AKOM II
AMBAM
MEYO CENTRE
MEZESON
BIBUM
BEGBIS
CAMPO
Ntem
Kom
Nyong
Lokoundje
Fala

PROVINCE DU SUD
CARTE ADMINISTRATIVE

LEGENDE

- + + + + + Limite d'Etat
- –+ – + – Limite de Province
- —·—·— Limite de Département
- —··—··— Limite d Arrondissement
- Chef-lieu de Province
- Chef-lieu de Département
- Chef-lieu d'Arrondissement
- Chef lieu de District

ECHELLE 1/2 000 000



M S P/D F P S/S C S/YDE 14-11-83/NKOMO Marcel

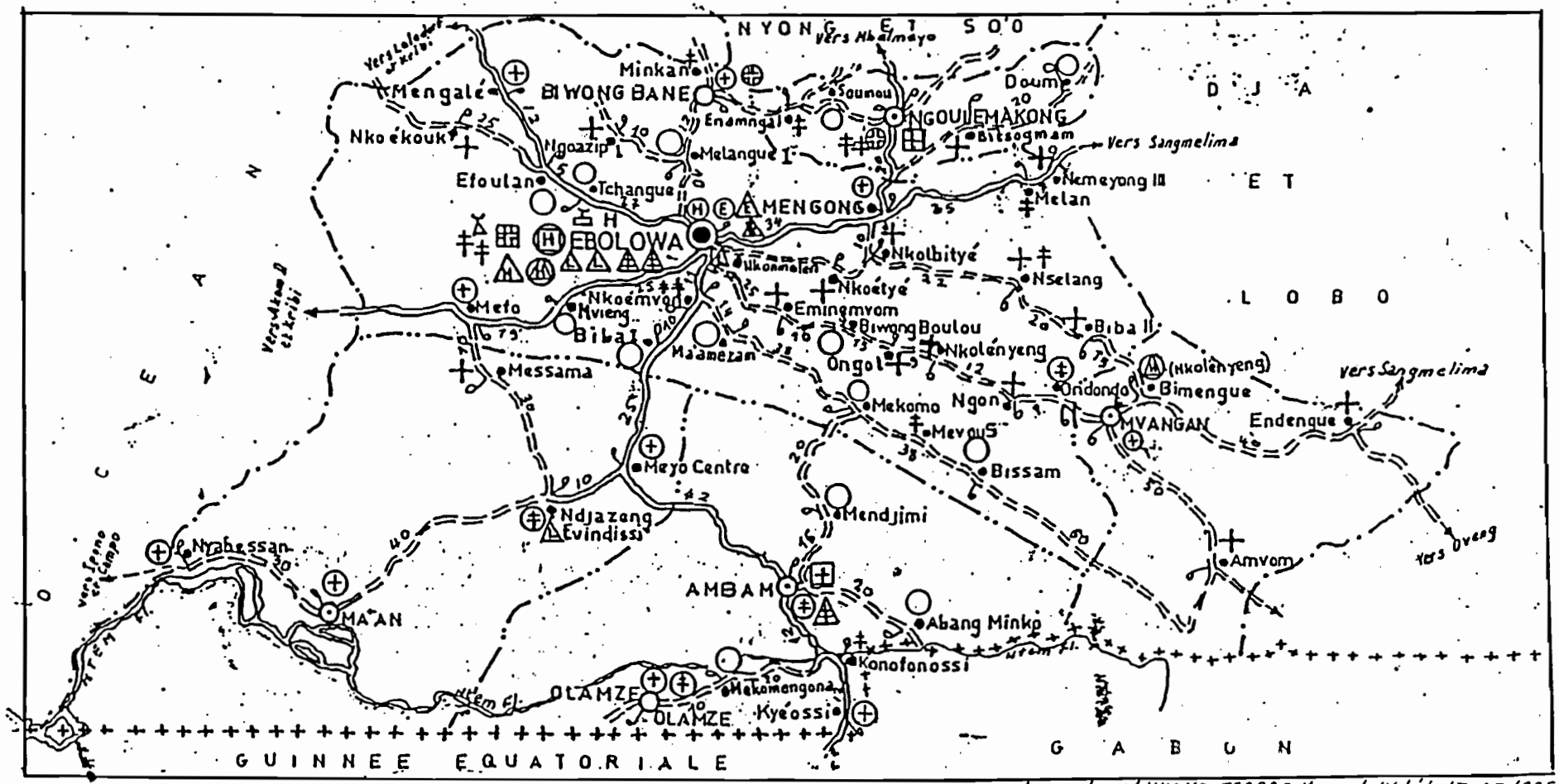
DEPARTEMENT DU NTEM

CARTE SANITAIRE

Echelle: 5Km 0 5 10 15 20Km

LEGENDE

- Frontière
- Limite de département
- Limite d'arrondissement
- Route principale
- Route secondaire
- Chef lieu de départ., d'arr. de district
- Borne kilométrique. Kilométrage
- Centre de Santé Elémentaire public, Privé ou Infirmerie
- Centre de Santé Communal
- Hôpital Provincial, d'Arr., Privé
- C.D.M.P ; PMI publique ; P.M.I. privée
- Cabinet médical - Dispensaire Urbain
- Léproserie publique ; privée
- Ecole de formation publique ; privée
- C.S.D. public ; privé
- Propharmacie ; Pharmacie



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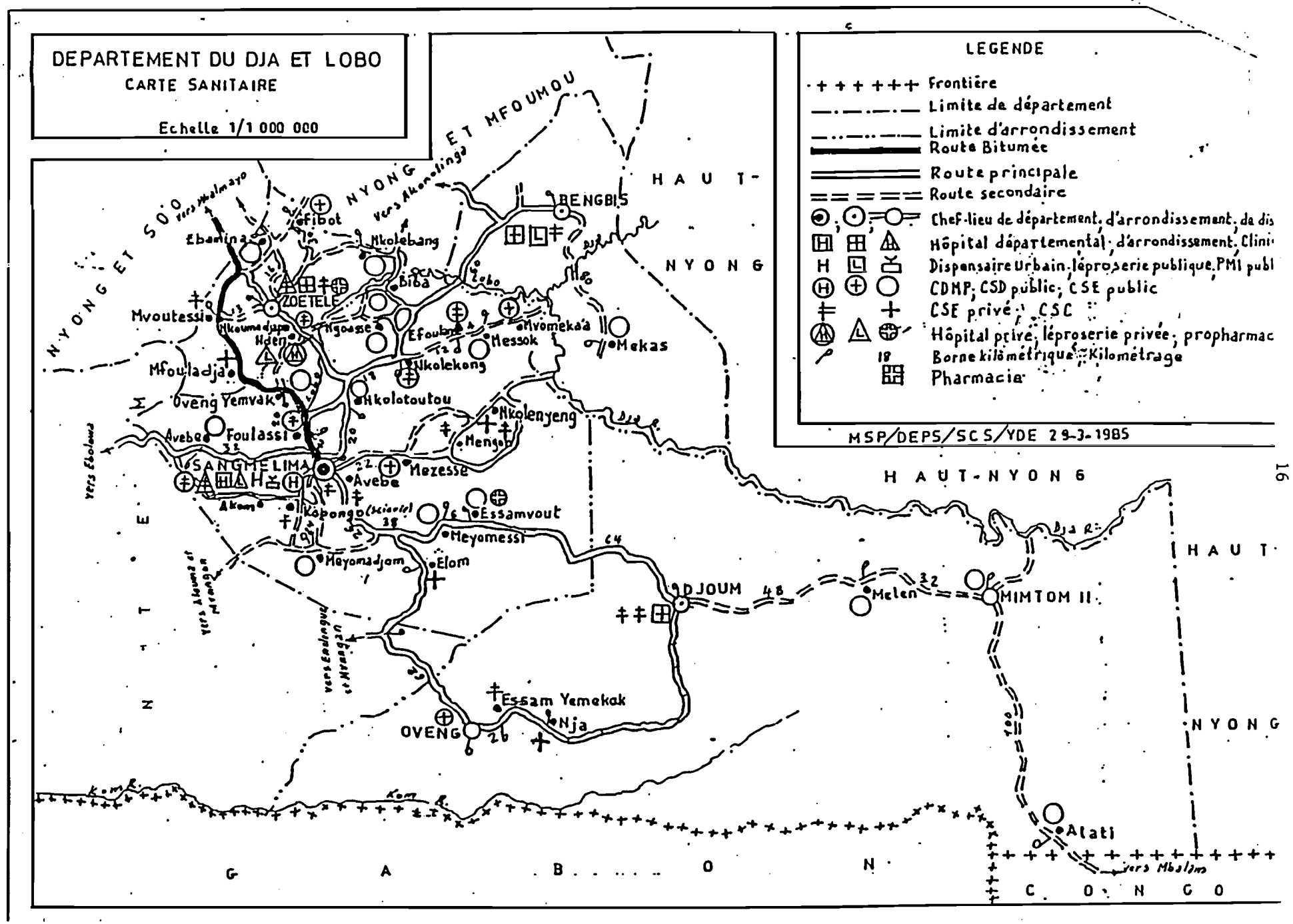
DEPARTEMENT DU DJA ET LOBO
CARTE SANITAIRE
Echelle 1/1 000 000
LEGENDE
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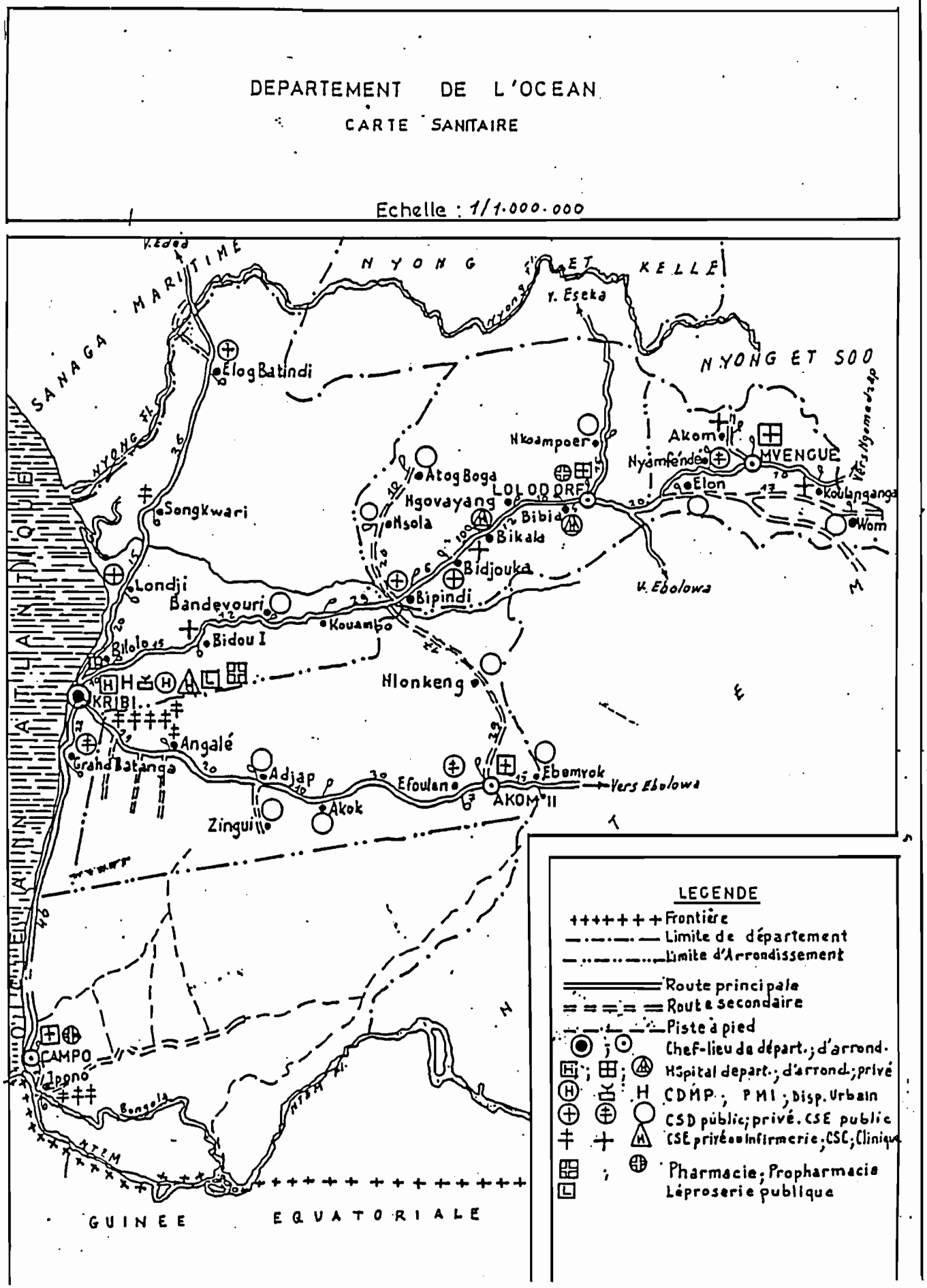
Limite de département
Limite d'arrondissement
Route Bitumée
Route principale
Route secondaire
Chef-lieu de département, d'arrondissement, de dis
Hôpital départemental, d'arrondissement, Clini
Dispensaire Urbain, léproserie publique, PMI publ
CDMP, CSD public, CSE public
CSE privé, CSC
Hôpital privé, léproserie privée, propharmac
Borne kilométrique, Kilométrage
Pharmacie
MSP/DEPS/SCS/YDE 29-3-1985
HAUT-NYONG
NYONG ET MFOUMOU
NYONG ET SOO
NTEM
GABON
CONGO
BENGBIS
ZOETELE
SANGMELIMA
DJOUM
MIMTOM II
OVENG
Ebamina
Fibot
Nkolebang
Biba
Mvoutessie
Mfouladja
Oveng Yemvak
Avebe
Foulassi
Nkolotoutou
Nkolenyeng
Mengo
Mezesse
Essamvout
Meyomessi
Meyomadjom
Elom
Mekas
Messok
Melen
Essam Yemekak
Nja
Alati
Kom R.
Dja R.
vers Akonolinga
vers Mbalmayo
vers Ebolowa
vers Akonolinga et Mvangan
vers Bandjoun et Mvangan
vers Mbalam


DEPARTEMENT DE L'OCEAN
CARTE SANITAIRE
Echelle : 1/1.000.000
SANAGA MARITIME
NYONG ET KELLE
NYONG ET SOO
ATLANTIQUE
GUINEE EQUATORIALE
Elog Batindi
Songkwari
Londji
Bandevouri
Bidou I
Bilolo
KRIBI
Angalé
Grand Batanga
Nkoampoer
Atog Boga
Ngovayang
Msola
LOLODORF
Bibia
Bikala
Bidjouka
Bipindi
Kouambo
Nyamfende
Akom
MVENGUE
Elon
Koulangang
Wom
Vers Ngomedzap
Y. Eseka
Y. Ebolowa
Hlonkeng
Adjap
Efoulan
AKOM II
Ebemvok
Vers Ebolowa
Akok
Zingui
CAMPO
Ipono
Bongola
LEGENDE
Frontière
Limite de département
Limite d'Arrondissement
Route principale
Route secondaire
Piste à pied
Chef-lieu de départ.; d'arrond.
Hôpital départ.; d'arrond.; privé
CDMP ; PMI ; Disp. Urbain
CSD public; privé. CSE public
CSE privée; Infirmerie; CSC; Clinique
Pharmacie; Propharmacie
Léproserie publique

SECTION III. PROJECT AUTHORIZATION

ACTION MEMORANDUM FOR THE DIRECTOR

DATE : July 31, 1987

FROM : Norman L. Olsen, Chairman MCH/CS Design Team

SUBJECT : Authorization for the Maternal Child Health/Child Survival Project (631-0056)

Problem: Your approval is required to authorize the Maternal Child Health/Child Survival Project. The total life of project funding is $9,500,000. The project will be funded under the Health and Child Survival Accounts, Section 104 of the Foreign Assistance Act of 1961, as amended. A.I.D. funding in the amount of $2,051,815 is planned for obligation this year.

Discussion:

A. Project Description

Following AID/W's approval of the PID and subsequent approval of USAID/Cameroon's health strategy in the CDSS, the mission selected a design team to draft the Project Paper for the MCH/CS Project (631-0056). The design team, composed of the Harvard, Drew and AED consortium; representatives of the GRC Ministries of Health and Plan; and members of the USAID staff, completed the Project Paper at the end of July.

The life of project is 5 years. To improve health care delivery to women and children in South and Adamaoua Provinces, the project emphasizes using the existing resources within the Ministry of Health. To this end, a major effort will be undertaken in management, training and the establishment of a cost recovery system for medicines. Five specific health interventions will be stressed: 1) treatment of malaria, 2) immunization, 3) growth monitoring of children, 4) oral rehydration therapy, and 5) child spacing.

B. Budget

The total life of project cost is $14.9 million, of which AID is providing $9.5 million and the Government of Cameroon the equivalent of $5.4 million. USAID/Cameroon's contribution is broken down as follows:

Training	$1,257,000
Commodity	1,202,954
Other Direct Costs	1,803,287
Technical Assistance	3,736,636
Evaluation/Audit	100,000
Contingency/Inflation	1,400,123

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C. Human Rights Clearance

This is addressed in the statutory checklists.

D. Environmental Review

The Africa Bureau's Environmental Officer gave the project a categorical exclusion.

E. Payment Verification

The Controller concurs in the payment verification and audit coverage established in the PP.

F. Conditions Precedent and Covenants

Conditions precedent and covenants are listed below:

First Disbursement

(1) Prior to the first disbursement of the Grant, or to the issuance by AID of documentation pursuant to which disbursement will be made, the Government will, except as A.I.D. may otherwise agree in writing, furnish to AID, in form and substance satisfactory to AID, a statement of the name of the person holding or acting in the office of the Government specified in Section 8.2 of the Project Grant Agreement, and of any additional representatives, together with a specimen signature of each person specified in such statement.

(2) Disbursement for Local Currency Costs. Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement to finance local costs, the responsible A.I.D. officer shall have made the programming determinations required under Chapter 18 A 1(c) of AID Handbook 1, Supplement B.

Terminal Dates for Condition Precedent

If the condition specified in Section F.1 has not been met within 90 days from the date of this Agreement, or such later date as AID may agree to in writing, AID, at its option, may terminate this Agreement by written notice to the Government.

G. Special Covenants

1. Project Evaluation

The Parties agree to establish an evaluation program as part of the project. Except as the Parties may otherwise agree in writing, the program will

include, during the implementation of the project and at one or more points thereafter:

(a) evaluation of progress toward attainment of the objectives of the project;

(b) identification and evaluation of problem areas or constraints which may inhibit such attainment;

(c) assessment of how such information may be used to help overcome such problems; and

(d) evaluation, to the degree feasible, of the overall development impact of the project.

2. Other Covenants

(a) the Government agrees to identify and release within 18 months of the signing of the Project Agreement, the first three Cameroonian technicians to receive long-term training in the United States, under the project;

(b) the Government agrees to assign to the project counterparts to all technical assistance personnel and such additional personnel required for successful implementation of the project. The Government further agrees to provide suitable office space for the technical assistance personnel;

(c) the Government agrees that over a 36 month period beginning with the signing of the Project Agreement, and in concert with AID and the technical assistance team, it will take necessary steps to institute a cost recovery program for essential pharmaceuticals and supplies provided to patients attending government health facilities in South and Adamaoua Provinces;

(d) the Government agrees that personnel assigned to and trained under, the project will, following their training, continue to be assigned to and serve this project for a period of not less than 36 months.

These conditions precedent and covenants, as well as the rest of the agreement, have been discussed with the implementing agency, the Ministry of Health, which is in agreement with the proposal.

H. Gray Amendment Certification

The project meets Gray Amendment criteria; one of the universities in the consortium that designed and will implement the project is an HBCU.

I. Implementation Mode

The project was designed under the collaborative assistance contract mode with the Harvard Institute of International Development, Drew University, and the Academy for Educational Development. It is anticipated that implementation will be done by these same three institutions using a direct A.I.D. contract.

J. Waivers

Waivers for the procurement of vehicles and supplies from UNICEF have been forwarded to AID/W for AA approval.

K. 25% Non-AID Contribution

The Government of Cameroon contribution to the project is estimated as the CFA equivalent of $5.4 million, an amount well in excess of the 25% requirement.

L. Congressional Notification

Per State 230779, the CN expired without objection on 7/22/87.

M. Section 611 Certification

Section 611 requirements have been met.

N. Training to be carried out under Handbook 10

All training to be carried out by this project is planned and will be executed in accordance with appropriate AID regulations.

O. Statutory Checklists

Appropriate statutory checklists have been prepared and are part of the PP.

P. Project Paper

The PP is attached. Within the restrictions of available resources, the GRC and USAID agree that the plans described in the PP represent the best option for improving health care of women and children in South and Adamaoua Provinces.

Recommendation: That in accordance with your authority under the under DOA 551 to authorize projects for up to $20.0 million, that you sign the attached Project Paper and Project Authorization, thereby approving the MCH/CS Project in the amount of $9.5 million in A.I.D. grant funds over a period of five years.

Attachment: a/s

Approved: _____ 8 Aug. 1987

Disapproved: _____

Clearance:EHRD:GLeinen _____
PDE:SScott _____
PDE:ABrewer _____
PDE:BEssama(draft)
CONT:MGianni(draft)
CONT:GHensley _____
LEG:BBryant(draft)

Drafter:PRM:NLOlsen _____ saa:7/31/87:0067P(p34)

PROJECT AUTHORIZATION

Country: Republic of Cameroon

Project Name: Maternal Child Health/Child Survival

Project Number: 631-0056

1. Pursuant to Section 104 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Maternal Child Health/Child Survival Project for Cameroon("Cooperating Country" or "Grantee"), involving planned obligations of not to exceed $9,500,000 in grant funds over a five-year period from the date of authorization, subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the project. Except as A.I.D. may otherwise agree in writing, the planned life of the project is five years from the date of initial obligation.

2. The purpose of the project is to assist the Cooperating Country to improve its program of health care delivery to mothers and children in South and Adamaoua Provinces. The project will concentrate on five specific child survival interventions: 1) immunization, 2) oral rehydration therapy, 3) treatment of malaria, 4) growth monitoring of young children and 5) child spacing. In addition to the specific technical interventions, particular attention will be given to improving the management of the Ministry of Health as it effects health care delivery in the two provinces. The project will be implemented by the Ministry of Health.

3. The Project Agreement which may be negotiated and executed by the officers to whom such authority is delegated in accordance with A.I.D. regulations and Delegations of Authority, shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate:

a. Source and Origin of Commodities, Nationality of Services.

Except as A.I.D. may otherwise agree in writing:

(1) Commodities financed by A.I.D. under the project shall have their source and, except for motor vehicles, their origin in the United States or in the Cooperating Country.

(2) Motor vehicles financed by A.I.D. under the project shall have their origin in the United States.

(3) Except for ocean shipping, the suppliers of commodities or services financed by A.I.D. under the project shall have the United States or the Cooperating Country as their place of nationality.

(4) Ocean shipping financed by A.I.D. under the project shall be financed only on flag vessels of the United States.

b. Conditions Precedent.

(1) First Disbursement. Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement, the Grantee shall, except as the parties may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D., a statement of the names and titles of the persons who will act as the representatives of the Grantee, together with a specimen signature of each person specified in such statement;

(2) Disbursement for Local Currency Costs. Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement to finance local costs, the responsible A.I.D. officer shall have made the programming determinations required under chapter 18A1c of A.I.D. Handbook 1, Supplement B.

c. Covenants.

Project Evaluation

The parties agree to establish an evaluation program as part of the project. Except as the Parties may otherwise agree in writing, the program will include, during the implementation of the project and at one or more points thereafter:

(a) evaluation of progress toward attainment of the objectives of the project;

(b) identification and evaluation of problem areas or constraints which may inhibit such attainment;

(c) assessment of how such information may be used to help overcome such problems; and

(d) evaluation, to the degree feasible, of the overall development impact of the project.

The Grantee shall covenant that:

(1) It will identify and release for training within eighteen months of the signing of the Project Agreement the first three Cameroonian technicians to be trained under the project.

(2) It will assign to the project counterparts to all technical assistance personnel and such additional personnel required for successful implementation of the project and will provide suitable office space for the technical assistance personnel.

(3) Over a thirty-six month period following the signing of the Project Agreement, it will, in concert with A.I.D. and the technical assistance team take the steps necessary to institute a cost-recovery program for essential pharmaceuticals and supplies provided to patients attending Government of Cameroon health facilities in South and Adamaoua Provinces.

(4) Unless the parties otherwise agree in writing, personnel assigned to, and trained under, the project will, following their training, continue to be assigned to the project for a period of not less than thirty-six months.

Date: 8 Aug. 1987

Jay P. Johnson
Director
USAID/Cameroon

Clearances: As shown on the Action Memorandum

0013G:RLO:BBryant:07/28/87

SECTION IV. SUMMARY and RECOMMENDATIONS

The Cameroon Maternal and Child Health Project design is the product of nearly two and a half years of dialogue and direct collaboration between the Ministry of Health of Cameroon and the Health Office of USAID/Cameroon. This Project Paper marks the culmination of one phase of this continuing design effort as the two countries prepare to sign a Project Agreement making AID funds available to begin implementation. However, this document does not indicate that the design work for this Project has come to an end. In fact, it will now begin in earnest as the design activities extend into the implementation phase in a "rolling design" approach whereby Project managers repeatedly assess the effectiveness of their programs and make operational adjustments as appropriate.

The Project will engage AID to provide technical assistance, training, commodities, and some operating costs to improve the management of the rural health services delivery system in South and Adamaoua Provinces. The assistance will last at least five years and will be evaluated by the extent to which the population of these two provinces increase their utilization of government health services improved as a result of the Project.

The Project's main concern is to improve the management of the existing health services system so that personnel and facilities can be used with maximum effectiveness and efficiency in an effort to meet the health needs of the people in a time of substantial resource constraints. The principal activity to be supported by the Project as it works to improve system management is in-service training, which will be directed at all rural health service providers in programs specifically designed for their respective levels of responsibility.

In addition to the emphasis on management training to improve integrated rural health services for children and women, the Project will give special attention to strengthening the delivery of five specific child survival services, selected for their relative cost-effectiveness in rural Africa. The five services to be emphasized are:

1. malaria control,
2. immunization,
3. growth monitoring with nutrition education,
4. oral rehydration therapy, and
5. child spacing.

The detailed rationale and description of the Project follow in the remaining sections of this Project Paper. The Project design activity has brought out the best efforts of the Ministry of Health, USAID, and the Contractor involved. The design itself provides for the continued collaboration of these institutions and draws upon the relative strengths of each. It should be approved without delay to ensure that the collaborative momentum built up during the design phase is maintained.

SECTION V. PROJECT RATIONALE AND DESCRIPTION

The governments of Cameroon and the United States have collaborated for over twenty years in a series of efforts to improve the delivery of health services in Cameroon. Although this collaboration has included highly focused projects such as the eradication of smallpox and the strengthening of the national immunization program, most American health sector assistance has been directed toward the improvement of rural health services delivery to the population at highest risk: children and pregnant women.

This Project derives from a dialogue that has been going on between the Cameroon Ministry of Health and the Health Office of USAID/Cameroon for the past three years, and it is the product of the efforts of planners from both countries to find a health sector assistance model which would make optimum use of AID development funds to improve rural health services delivery to women and children without making any part of the Cameroonian system dependent upon external support.

The health delivery system in Cameroon is currently administered by a strong central Ministry of Health. The Ministry is responsible for a curative medicine and public health system that extends from relatively sophisticated tertiary care hospitals at national and provincial levels and intermediary hospitals at the division and sub-division levels to a network of rural health centers intended to provide health services to the vast majority of the population which lives in the countryside. The way in which this system is presently organized and managed is discussed further in Section VII.

Although the existing network of health facilities in Cameroon does not yet reach the entire population, the principal constraint to effective health services delivery in rural areas is under-utilization of the facilities and personnel which are in place. This under-utilization is partly due to the fact that most rural health centers are not able to maintain adequate medical supplies to treat those patients who need care. The supplies shortage is a consequence of both the lack of a reliable logistics support system and the limited budget available to the government health system.

This Project will address under-utilization of rural health services by providing five years of technical assistance, management training, technical training and modest material support to existing health workers. In addition it will support operations research designed to enhance the GRC's efforts to explore alternative approaches to health care financing and to establish improved management practices.

This Section reviews the rationale behind the Project design from the relative perspectives of the drafters of Cameroon's 6th Five Year Development Plan and USAID/Cameroon's Country Development Strategy Statement (CDSS). It also provides a narrative description of the Project which follows the outline of the Logical Framework.

A. Relation to GRC 6th Five Year Plan

The population of Cameroon in 1981, the beginning of the fifth plan, was 8,965,700. At the start of the sixth plan (1986) it is estimated to be 10,446,400 and it is expected to reach 12,243,700 by the time the plan comes to an end.

At the beginning of the fifth plan in 1981, infant mortality, overall mortality and life expectancy were respectively put at 117/1000, 17.1/1000 and 49.5 years. At the moment, these indicators stand at 105/1000, 14.9/1000 and 52 years. From these figures it is obvious to note that there is an impelling need to reduce infant mortality in order to improve life expectancy. Given the current advances that have been made in public health, it is possible to improve these statistics in the course of the sixth plan. In order to help us understand better the tasks that lie ahead in the sixth plan, it is of benefit to review the main points of the fifth plan. The fifth plan was oriented around four main points:

- The improvement of health coverage in the country in order to progressively satisfy the needs of all sectors of the population.

- Better integration of public health services. The services must be managed in such a way that maximal efficiency is assured.

- Priority to be given to preventive medicine.

- Community participation in order to render it responsible vis-a-vis health problems.

In terms of achievement, the fifth plan succeeded in increasing the number of health infrastructures; hospitals, developed and elementary health centers, maternal and child welfare clinics and training schools increased in numbers.
The greatest problem, however, remained the maldistribution of health personnel. Geographical imbalances prevailed, but government effort to resolve this problem was significant as the total health personnel situation witnessed an improvement from 7,586 in 1980/81 to 12,193 at the end of the plan in 1986. Large sums of money were spent in the acquisition of technical materials and pharmaceuticals.

Some significant achievements were made in preventive medicine. Worthy of mention was the improvement in vaccination coverage brought about as a result of the African year of vaccination, the creation of village health committees, improved control of endemic diseases and the improvement in maternal and child health.

Among the problems which slowed the realization of the objectives of the fifth plan, the following featured prominently:

-Weakness in the conceptualization of programs.

-Inefficient administrative and financial management.

-Lack of personnel skilled in planning and data management.

-Absence of appropriate structures and personnel for the maintenance of hospital equipment.

-Lack of sufficient means of sustaining the functioning of existing services.

The Sixth Five Year Plan

Based on the experiences derived from the fifth plan, the sixth plan tends to be more specific in its objectives. It calls for strict management of the limited resources in order to achieve maximal efficiency and calls on the government hospitals to take lead.

As for the development of infrastructure and equipment, priority will be given to:

-Equitable distribution of health services with priority being given to rural areas.

-Completion of construction and renovation projects in progress.

-Creation of emergency care units in central and provincial hospitals.

-Creation of a national network of propharmacies and supplying them regularly with drugs. Good management of these propharmacies is also recommended.

-Development of a national network of maternal and child welfare clinics where nutritional and health education of mothers will be emphasized.

-Efforts will continue to ensure the availability of essential technical equipment adapted to the hospitals and health centers.

Preventive Medicine

Like the fifth plan, the sixth plan gives priority to preventive medicine. This priority calls for strict monitoring of pregnancies, vaccination coverage of the population, deliveries in equipped health centers, prevention, health education, improvement of hygiene conditions and the fight against endemic diseases.

Unlike the fifth plan, the sixth plan has recommended some bold steps to be followed to reduce infant mortality. According to the plan, hospitals, both public and private, and health centers should institute measures aimed at ensuring close monitoring of infant development. These measures should include:

-Growth monitoring (weighing children)

-Oral rehydration therapy

-Breast feeding

-Total immunization of the target population

-Education of mothers

-Child spacing

-Adequate and balanced nutrition of infants.

To achieve the above objectives, the plan calls for the improvement of health services delivery in the maternal and child care centers in the country. This is to be realized by the creation of 50 new maternal and child welfare clinics and the training of 32 pediatricians and 48 gynecologists.

It will be recalled that the population concerned with maternal and child health programs is put at 1,784,107 for children below 5 years and at 2,508,112 for women from 15-49 years (figures at the beginning of the plan in 1986). These figures are expected to increase to 2,092,366 and 2,042,526 respectively by the time the plan ends in 1991.

Primary Health Care

Primary health care constitutes an important domain for the Ministry of Health. Through P.H.C. the government intends to realize the objective of health for all by the year 2000. The main objective in the sixth plan is to promote primary health care at the village, urban and semi-urban levels, a system of health care which is accessible to all. The population will be charged with developing preventive measures and should be sensitized in the following areas: hygiene, nutrition and vaccinations.

Hospital Care

As mentioned before, public hospitals must take the lead in good management. To improve the quality of care in hospitals and to assure efficient use of limited resources, the sixth plan recommends the following:

- Strengthening of credits allocated to hospitals and health centers.
- Improvement in equipment.
- Establishment of emergency services.
- Reorganization of services and efficient use of personnel by making them more responsible.
- Regular supply of medication (through ONAPHARM)
- The sale of essential drugs at a moderate price.
- The development and integration of maternal and child health activities within existing hospital and health center activities.

Relationship of the MCH Project to the Sixth Five Year Plan

The bilateral Maternal and Child Health (child survival) Project, which is limited to the South and Adamaoua Provinces, is aimed at strengthening the delivery of health services in the two provinces. To achieve this task, the Project will emphasize five technical areas - Immunization, Oral Rehydration, Therapy, Growth Monitoring/Nutritional Education, Malaria Control and Child Spacing. Collectively these represent child survival activities.

It is also planned that the Project will provide development resources through the upgrading of the technical skills of existing health staff and teach basic management skills including such important catagories as procurement, accounting and inventory control. It is believed that these activities have the greatest potential for success in lowering infant and maternal mortality at a cost determined to be within the long range recurrent cost capacity of the Cameroonian government.

As it has been shown in the sixth plan, the government is planning along the same lines as the Project. If there is any difference between the government's sixth five year social, economic and cultural development plan and the comprehensive bilateral MCH Project, it is that the government plan is for the entire country whereas the MCH Project is limited to two provinces. But it is hoped that the Project will develop MCH management models for eventual use throughout the country.

When we compare the fifth plan to the sixth, we can immediately conclude that it would have been very difficult to promote ideas such as child spacing and cost recovery based on the fifth plan. The government's sixth plan advocates the sale of drugs at reasonable rates and also emphasizes child survival activities such as immunization, malaria control, oral rehydration therapy, growth monitoring/nutritional education and child spacing. Because of the lead the government has taken in the child spacing and cost recovery aspects of child survival initiatives, the task for the Project will be less complicated. There will still be some resistance from the population when an attempt is made to introduce these concepts, but with the support of the government, some progress is expected.

The idea of strengthening health services delivery through better management is also expressed in the government plan. The plan calls for the training of pediatricians, gynecologists, and paramedicals, the creation and equipment of more hospitals and health care centers, the regular supply of drugs and encourages the development of more primary health care centers. One of the difficulties encountered in the fifth plan was poor management of health resources and manpower. The government wishes to change this, and the MCH project will contribute to this aspect of the government's plan.

To conclude, there is a direct relationship between the MCH project and the government's sixth five year development plan. The maternal and child health project should develop rural health services management models that will help the government in realizing the objectives of the sixth plan.

B. Relation to USAID CDSS

The FY 89 CDSS Update states the mission's health sector strategy is to improve the delivery of basic health services within Cameroon with an emphasis on the rural population, particularly mothers and children. Our strategic approach is an indirect one that anticipates interventions in four areas: training, management, specific technical interventions and establishing regional centers of excellence. Primary emphasis will be placed on improving the utilization of current resources.

The MCH/CS Project supports this strategy by strengthening basic health services provided to the rural population, particularly women and children, for immunizable diseases, malaria, diarrheal diseases, nutrition and child birth. These are the five health related areas that have the largest impact on maternal/child health in rural areas.

The CDSS argued that effective use of existing resources would substantially improve rural health. The GRC has agreed on the need to improve management. Thus the improvement of management is stressed in the MCH/CS Project. The Project will teach basic management practices of procurement, inventory-control and distribution at the central Ministry of Health level and in two provinces at the provincial and village levels. The MCH/CS Project will also provide training (particularly in-service) which stresses management improvement.

Though agriculture will remain the USAID/Cameroon's sector of concentration, the MCH/CS Project will contribute to that effort by improving rural productivity and health; maintaining a healthy labor force and stemming migration from rural areas because of a lack of health services.

C. Project Description

The Cameroon Maternal and Child Health Project is one in which AID will provide the Ministry of Health with five years of technical assistance, training and material support to initiate a longer process of improving the delivery of rural health services to women and children. It will emphasize services improvement through existing GRC health facilities by existing health workers and will concentrate on using in-service training to assure good management of the rural health system and the effective delivery of proven child survival services. In addition, to training present health workers to be better managers and practitioners, the Project will explore alternative management and health care financing models with the aim of identifying those which are most appropriate for the areas of the country in which the Project is operative and which might guide health services policy for the rest of the country.

1. Sector GOAL:

The Project will contribute to that effort by improving rural productivity and health, to improve the health status of mothers and children in Cameroon.

This Project is designed to contribute to the reduction of infant, child and maternal mortality in Cameroon. However, since the Project will only receive initial funding for a period of five years and will operate in regions of the country which contain less than 10% of the population, it is not expected that one would be able to attribute changes in national mortality rates to Project interventions. Nevertheless, mortality and morbidity data will be collected during the life of the Project, and this may permit demonstration of mortality effects which become evident after the five year Project and may show disease specific morbidity rate reduction in the Project regions.

2. Project PURPOSE:

To strengthen the existing GRC health services system in such a way that it operates more effectively and efficiently in providing needed services to women and children in the South and Adamaoua Provinces.

This Project will be undertaken as an integral part of the Ministry of Health's effort to improve its protection of the health of children and women throughout Cameroon. There are several external donors collaborating with the MOH in this effort in different parts of the country, and AID has been requested to concentrate its assistance in the South and Adamaoua Provinces because they are both new and relatively underserved.

The Project will provide two technical advisors to collaborate with Ministry officials in Yaounde in developing and guiding the Project activities in the two Provinces and in assessing the experience in the Provinces with respect to its relevance to the formulation of health services policies for the rest of the country. These advisors will include a public health physician whose expertise is the development of rural health services and a training coordinator. In addition, there will be an advisor in each of the provincial headquarters to collaborate with provincial, divisional and sub-divisional health workers during all phases of Project execution. These provincial Project Coordinators will also be experienced in the development of rural health services in Africa.

Since the Project must depend entirely upon the better utilization of existing resources for its success, it will concentrate on a specific set of activities. First, it will establish an in-service training program for all health workers in the two Provinces. This training will be designed to provide

the health workers with both the management and technical skills needed for their respective roles in the system. A detailed description of the training plan appears in Section IX. Management training will emphasize program planning, personnel, materials and financial management, and evaluation and reporting. Technical training will stress five health service interventions which have been selected by the Project designers because of their relative cost-effectiveness in protecting the health of children and mothers in settings like rural Cameroon.

The five health service interventions which will be emphasized in both the management and technical training are:

Malaria control

Immunizations

Growth monitoring with nutrition education

Oral rehydration therapy

Child spacing

These interventions have been selected for emphasis because they are the types of services which are expected to make the most efficient use of the very limited resources available to the health sector in rural Cameroon. They are going to be developed as the main activities of the rural health services system in the two Provinces, and they will be integral parts of a single rural health services strategy. Thus, the health workers of the South and Adamaoua Provinces will be trained to manage the simultaneous delivery of an integrated package of child survival and maternal and child health services. They will gain supervised experience in being responsible for identifying and maintaining an appropriate balance between alternative health services which compete for the same scarce resources, and they will participate in the Ministry's exploration of different models of cost recovery to expand the resource base available to support the recurring costs of the rural health services system.

3. END OF PROJECT STATUS Objectives:

The accomplishment objectives of the Project fall into two broad categories: process objectives and impact targets. Each will be presented and will be among the criteria used to determine the "success" of the Project at various evaluation points.

<u>Process objectives</u> refers to the services and procedures which will have been established as permanent features of the

health services delivery system on the two Provinces. An example of a process objective is: A regular in-service training program will be established which engages each health worker at least twice a year.

Impact targets look beyond the processes which have been established and describe the desired health status changes which should derive from the services delivered. An example of an impact target is: A 20% reduction in malaria mortality. There are no impact targets set for this five year Project.

In general, with a project of only five years duration, one does not expect to be able to have many measurable impacts upon health status, so most of the EOPS objectives set for this Project are process objectives. It has already been mentioned that the Project will monitor health status indicators as well as process indicators in order to establish a data base which will permit health status changes to be assessed once they become measurable. An overview of the process objectives of the Project follows below. They are also discussed in the Evaluation Plan in Section XII and in the EOPS portions of each of the project component plans presented in Annex H.

PROCESS OBJECTIVES

a. System Development:

1. A management system will be operational in both Provinces which effectively administers the delivery of selected child survival services in the context of the GRC health system.

2. All provincial health workers will receive regular supervision.

3. All provincial health workers will receive regular in-service training in management, relevant technical skills and health promotion.

4. An adequate medical supplies and equipment logistics system will be operational in both Provinces.

5. Model cost recovery systems will be operating in both Provinces, and these will be effectively recovering the recurrent costs associated with the provision of drugs to rural health centers.

6. A program of regular operations research will be undertaken to assess the relative effectiveness of alternative management, training and communications approaches

7. A health information system will be in place through which regular reporting serves managers and planners from the Ministry level to the sub-divisions.

b. Malaria Control

1. 80% of health facilities and 60% of community health workers will be giving all patients who present with a fever presumed to be malaria prompt, and appropriate malaria chemotherapy.

2. 60% of presumptive fevers occurring in the rural population will be correctly treated.

3. 50% of women who present to health facilities during their first pregnancy will be placed on appropriate chemoprophylaxis and similar treatment will be encouraged for second pregnancies.

4. A surveillance program will be in place to determine the level of parasite resistance to chloroquine.

5. Alternative methods of personal malaria protection and vector source reduction will be under study.

6. 90% of all practitioners in rural health centers will be able to explain proper chemotherapy and prophylaxis.

7. 90% of all rural health centers will be adequately supplied with chloroquine.

8. 80% of adults with access to health facilities will be able to explain how to treat fevers thought to be malaria.

c. Immunization

1. 85% of all children with access to health facilities will be fully immunized by the age of 12 months.

2. 75% of women presenting for prenatal care will receive 2 doses of Tetanus vaccine (VAT).

3. Appropriate cold chain equipment in all health facilities will result in less than 5% of the vaccine supplied being lost through heat spoilage.

4. A satellite surveillance system will assess effective vaccine coverage annually.

5. 90% of rural health center practitioners will be able to explain their respective roles in the immunization program.

6. 90% of fixed rural immunization sites will be adequately supplied with vaccines, needles, syringes and sterilization equipment as needed to assure a sterile needle and syringe for each immunization.

7. 80% of mothers with access to health facilities will be able to explain the importance of immunization.

d. Growth Monitoring with Nutrition Education

1. A standard growth chart will be in use in both Provinces.

2. 80% of all children under 5 who present to health facilities will be weighed and monitored with growth charts.

3. All mothers whose children are found to be malnourished will receive nutrition education.

4. 80% of rural health center practitioners and 60% of community health workers will be able to explain and practice growth monitoring and nutrition education.

5. 90% of rural health centers will be equipped with functioning scales and growth charts.

6. 80% of mothers with access to rural health facilities will be able to explain the role of growth monitoring and good nutrition practices by displaying a growth chart for one of their children and explaining what it means.

e. Oral Rehydration Therapy (ORT)

1. 80% of health facilities and 60% of community health workers will treat diarrhea cases with mild to moderate dehydration appropriately with oral rehydration solution.

2. 60% of the cases of diarrheal dehydration occurring in the community will be given appropriate ORT.

3. 90% of rural health practitioners will be able to explain ORT and practice it correctly.

4. 90% of rural health facilities will be constantly supplied with oral rehydration salts (ORS).

5. 80% of mothers with access to the rural health system will be able to explain ORT and use it correctly.

f. Child Spacing

1. 80% of health facilities will offer child spacing advice and some contraceptive method.

2. 90% of rural health practitioners will be able to explain the role of child spacing in maternal and child health and will be able to offer appropriate counselling.

3. 90% of health facilities will be supplied with some child spacing methods.

4. 80% of couples with access to health facilities will be aware of at least one modern method of child spacing.

g. Health Promotion

1. 80% of rural health centers will have integrated health promotion activities into their regular MCH services.

2. Health promotion broadcasts will be integrated into the programming of the radio stations serving the two Provinces.

3. 90% of rural health practitioners will be able to explain health promotion techniques.

4. 90% of rural health centers are supplied with health promotion graphic materials.

5. 80% of the mothers of children under five will have heard one or more of the MCH radio health promotion messages.

6. 80% of the mothers of children under five who have access to rural health centers will have attended at least one health education activity at a GRC facility.

4. Project OUTPUTS

The outputs of a project are the intermediate results of Project activities which cumulatively lead to the EOPS objectives cited above. Examples of output indicators which this project will use as objectives are numbers of health workers trained, numbers of children immunized, numbers of children weighed, etc. The outputs for this Project are presented below, in the same format as that used for the EOPS above, ie those which pertain to the health system improvement as a whole are presented before those which relate to specific child survival activities.

a. <u>System Development</u>

1. 800 health workers in the two Provinces be receiving in-service training at least twice a year. (See Training Plan in Section IX)

2. Supervision protocols will be developed to guide supervision visits. Separate protocols for each rural health facility which address facility management, services delivery and personnel performance.

3. Training materials will be developed and distributed to all rural health facilities and health workers. These materials are facility and role specific and cover overall health services delivery as well as each of the priority child survival services.

4. Detailed role definition and task analysis studies will be made of each level of health worker to determine in-service training and supervision needs and to evaluate Project interventions.

5. KAP studies will be performed at the community level to determine optimum health promotion approaches and evaluate their effectiveness. These will be frequent as the Project messages are being developed, and will then assume a maintenance frequency of at least twice a year.

b. Malaria Control

1. 10,000 women will receive chemoprophylaxis during their first or second pregnancy every year.

c. Immunization

1. 105,800 children will have been fully immunized.

2. 48,000 women will receive 2 doses of Tetanus vaccine during pregnancy each year.

3. 952 vaccination sessions held.

4. Cold chain made operational in all immunization sites.

d. Growth Monitoring with Nutrition Education

1. 90,000 children under five weighed at health facilities or by CHWs and followed using health charts.

e. Oral Rehydration Therapy

1. 128 ORT service and demonstration sites will be set up and operational.

f. Child Spacing

1. Modern contraceptive materials will be available in 40 health centers in the Provinces.

g. Health Promotion

1. 12,500 posters produced and distributed.

2. 300,000 handbills produced and distributed.

3. 1000 MCH logo "T" Shirts produced and distributed.

4. 6500 guides to poster use produced and distributed.

5. 3000 MCH logo flags produced and distributed.

6. 924 flash radio announcements produced.

7. 648 five minute radio broadcasts produced.

8. 648 ten minute radio broadcasts produced.

** Note: Project outputs are presented in greater detail in the annexes which are dedicated to each of the child survival activities to be strengthened by the project as part of the improvement of rural health services to women and children. See Annex H (sections 1 - 5).

4. Project INPUTS:

The following presentation of Project inputs is a cumulative listing of the goods and services to be provided by AID to assure the production of the outputs above and the achievement of the end of project status objectives. Annex H (Sections 1 - 5) presents the utilization of these inputs in support of specific child survival program development efforts.

a. Training of Personnel	Unit Costs $	COST $
1. 5 Masters Degrees	55,000	275,000
2. 25 MCH Study Tours	10,000	250,000
3. 8000 In-service training encounters	65	481,000
4. Overhead		251,500
	Subtotal	1,257,500

b. Commodity Support		
1. 10 4WD Vehicles	20,000	200,000
2. 25 Motorcycles	3,000	75,000
3. 13 Computers		59,000
4. Computer Software		5,000
5. Promotion materials		216,718
6. ORS Production Center		85,000
7. ORT Commodities		52,400
8. Cold Chain Equipment		63,416
9. Medications & Equipment		319,000
10. Office Equipment and Furniture		47,675
11. Nutrition monitoring equipment		36,370
12. Training materials		43,375
	Subtotal	1,202,954

c. Technical Assistance

1. Chief of Party		996,313
2. Management Trainer		361,428
3. South Advisor		613,284
4. Adamaoua Advisor		613,284
5. 27 months Short Term Consultants	15,000	405,000
6. Overhead		747,327
	Subtotal	3,736,636

d. Other Direct Costs		1,803,287
e. Evaluation and Audit		100,000
f. Contingency & Inflation		1,399,594
	TOTAL	9,499,971

Note: These Project inputs are presented in much greater detail in Sections VI, XI, and Annex H (Sections 1 - 5).

SECTION VI. Cost Estimate and Financial Plan

This cost estimate and financial plan contains the following elements: (i) a detailed budget (Table VI.1); (ii) a breakdown of spending between an institutional contract and direct USAID purchases (VI.2); (iii) a summary budget showing expenditure by year by major categories (VI.3); (iv) a budget showing how spending is divided among Cameroon, external, and as-yet uncommitted (VI.4); and a table (VI.5) showing all sources of support for the Project.

The detailed budget (Table VI.1) is shown in foreign exchange, since the local currency (CFA) is "hard", hence there is ready conversion from dollars to CFA and vice versa, as needed. Separate inflation factors are used for costs of goods and services to be purchased locally and externally. Local purchases are adjusted at an inflation rate of 10 percent annually. This is in line with local inflation rates of the recent past. External purchases are adjusted at an inflation rate of 6 percent annually. This is slightly higher than the recent past, to take account of the expected increase in US inflation. A contingency allowance, for possible omissions or underestimates, of 5 percent is made.

The estimates of units and unit costs are shown in Tables VI.1A and VI.1B . Unit costs are estimated based on recent experience, estimates of the contracting institution's cost structure for technical assistance, and technical experts' cost estimates for commodities.

Table VI.2 shows that institutional support costs of the project will be about $7.5 million, USAID commodities purchases about $540,000, and evaluation and audit $100,000. About $1.4 million will be held in reserve for contingencies and inflation.

Project spending in Cameroon will make up 90 percent of total committed funds (Table VI.4) and 76 percent of all funds.

Table VI.1

TOTAL PROJECT COSTS	$2,290,723	$2,205,299	$1,851,535	$1,585,502	$1,566,913	$9,499,971
Item	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
I. TRAINING of Personnel	$143,750	$398,750	$330,000	$192,500	$192,500	$1,257,500
A. Masters Degrees	$0	$165,000	$110,000	$0	$0	$275,000
B. Short-term, External	$50,000	$50,000	$50,000	$50,000	$50,000	$250,000
C. In-country	$65,000	$104,000	$104,000	$104,000	$104,000	$481,000
D. Overhead	$28,750	$79,750	$66,000	$38,500	$38,500	$251,500
II. COMMODITY Support	$784,537	$286,241	$55,391	$45,541	$31,243	$1,202,954
A. Vehicles 4wd	$80,000	$120,000	$0	$0	$0	$200,000
B. Motorcycles	$75,000	$0	$0	$0	$0	$75,000
C. Computers						
1. Desk top	$50,000	$0	$0	$0	$0	$50,000
2. Laptop	$9,000	$0	$0	$0	$0	$9,000
3. Software	$5,000	$0	$0	$0	$0	$5,000
D. A-V & Communications Equip						
1. Recording Equip	$5,100	$0	$0	$0	$0	$5,100
2. Promotion Supplies	$10,724	$14,298	$14,298	$14,298	$0	$53,618
3. Graphic Art Supp	$8,000	$0	$0	$0	$0	$8,000
4. Mass Media Prod	$30,000	$30,000	$30,000	$30,000	$30,000	$150,000
E. ORT Commodities						
1. ORS Production Ctr	$85,000	$0	$0	$0	$0	$85,000
2. Trng Ctr Equip	$43,200	$0	$0	$0	$0	$43,200
3. Treat Corner Equip	$9,200	$0	$0	$0	$0	$9,200
F. Cold chain equipment						
1. Small refrigerators	$40,000	$0	$0	$0	$0	$40,000
2. Gas generators	$15,000	$0	$0	$0	$0	$15,000
3. Frozen packs	$2,000	$0	$0	$0	$0	$2,000
4. 3M temp indicators	$43	$43	$43	$43	$43	$216
5. EPI thermometers	$200	$0	$0	$0	$0	$200
6. Needles & Syringes	$1,200	$1,200	$1,200	$1,200	$1,200	$6,000
G. Medications & equipment						
1. Chloroquine	$95,000	$0	$0	$0	$0	$95,000
2. Lab equipment	$4,000	$0	$0	$0	$0	$4,000
3. Drug supply kits	$110,000	$110,000	$0	$0	$0	$220,000
H. Office Equip & Furn						
1. Photocopiers	$36,000	$0	$0	$0	$0	$36,000
2. Mimeograph machines	$1,400	$0	$0	$0	$0	$1,400
3. Typewriter	$3,000	$0	$0	$0	$0	$3,000
4. Calculators	$100	$0	$0	$0	$0	$100
5. Local furniture	$5,250	$0	$0	$0	$0	$5,250
6. Imported furn & sup	$1,925	$0	$0	$0	$0	$1,925
J. Nutr Monitoring Equip						
1. Scales	$3,920	$0	$0	$0	$0	$3,920
2. Lgth/Hgt Boards	$550	$0	$0	$0	$0	$550
3. Growth Charts	$9,000	$9,000	$9,000	$0	$0	$27,000

4. Demo Equip	$4,900	$0	$0	$0	$0	$4,900
K. Training Equip & Sup						
1. WHO trng materials	$1,700	$1,700	$850	$0	$0	$4,250
2. Sub-Dist trng equip	$39,125	$0	$0	$0	$0	$39,125
III. OTHER DIRECT COSTS	$347,946	$442,489	$397,854	$321,530	$293,469	$1,803,287
A. Local Hire	$41,200	$41,200	$41,200	$41,200	$41,200	$206,000
B. Vehicle Operations	$28,000	$70,000	$56,000	$37,333	$21,000	$212,333
C. Motorcycle POL	$15,000	$15,000	$10,000	$5,000	$0	$45,000
D. Local Support Costs	$42,000	$42,000	$42,000	$42,000	$42,000	$210,000
E. Operations Research	$12,000	$12,000	$12,000	$12,000	$12,000	$60,000
F. Contract Backstopping	$140,156	$173,791	$157,083	$119,691	$118,575	$709,296
G. Overhead	$69,589	$88,498	$79,571	$64,306	$58,694	$360,657
IV. TECHNICAL ASSISTANCE	$851,471	$824,261	$777,524	$633,006	$650,375	$3,736,636
A. Long term						
1. Chief of Party	$176,445	$188,796	$202,012	$197,777	$231,283	$996,313
2. Training Advisor	$136,778	$146,352	$78,298	$0	$0	$361,428
3. Regional Advisor A	$116,477	$124,630	$133,355	$124,314	$114,508	$613,284
4. Regional Advisor S	$116,477	$124,630	$133,355	$124,314	$114,508	$613,284
B. Short term	$135,000	$75,000	$75,000	$60,000	$60,000	$405,000
C. Overhead	$170,294	$164,852	$155,505	$126,601	$130,075	$747,327
V. EVALUATION/AUDIT	$0	$0	$0	$70,000	$30,000	$100,000
C. Evaluations	$0	$0	$0	$70,000	$0	$70,000
D. Audit	$0	$0	$0	$0	$30,000	$30,000
VI. CONTINGENCY	$60,000	$60,000	$60,000	$60,000	$60,000	$300,000
VII. INFLATION	$103,020	$193,557	$230,766	$262,925	$309,326	$1,099,594
TOTAL PROJECT COSTS	$2,290,723	$2,205,299	$1,851,535	$1,585,502	$1,566,913	$9,499,971

Table VI.1A Units for Costing

Units	Year: 1	2	3	4	5	Total
I. TRAINING of Personnel						
A. Masters Degrees	0	3	2	0	0	5
B. Short-term, External	5	5	5	5	5	25
C. In-country	1,000	1,600	1,600	1,600	1,600	7,400
II. COMMODITY Support						
A. Vehicles 4wd	4	6	0	0	0	10
1. Vehicles for LTTA	4	0	0	0	0	
2. Veh for MOH Serv	0	6	0	0	0	
B. Motorcycles	25	0	0	0	0	25
C. Computers						
1. Desk-top	10	0	0	0	0	10
2. Laptop	3	0	0	0	0	3
3. Software	1	0	0	0	0	1
D. A-V & Communications Equip						
1. Recording Equip	3	0	0	0	0	3
2. Promotion Supplies	64,600	86,133	86,133	86,133	0	323,000
3. Graphic Art Supp	1	0	0	0	0	1
4. Mass Media Prod	1	1	1	1	1	5
E. ORT Commodities						
1. ORS Production Ctr	1	0	0	0	0	1
2. Trng Ctr Equip	36	0	0	0	0	36
3. Treat Corner Equip	92	0	0	0	0	92
F. Cold chain equipment						
1. Small refrigerators	100	0	0	0	0	100
2. Gas generators	25	0	0	0	0	25
3. Frozen packs	500	0	0	0	0	500
4. 3M temp indicators	40	40	40	40	40	200
5. EPI thermometers	200	0	0	0	0	200
6. Needles & Syringes	2,000	2,000	2,000	2,000	2,000	10,000
G. Medications & equipment						
1. Chloroquine	10,000,000	0	0	0	0	10,000,000
2. Lab equipment	8	0	0	0	0	8
3. Drug supply kits	100	100	0	0	0	200
H. Office Equip & Furn						
1. Photocopiers	3	0	0	0	0	3
2. Mimeograph machines	2	0	0	0	0	2
3. Typewriter	3	0	0	0	0	3
4. Calculators	10	0	0	0	0	10
5. Local furniture	3.5	0	0	0	0	4
6. Imported furn & sup	3.5	0	0	0	0	4
J. Nutr Monitoring Equip						
1. Scales	140	0	0	0	0	140
2. Lgth/Hgt Boards	20	0	0	0	0	20
3. Growth Charts	30,000	30,000	30,000	0	0	90,000
4. Demo Equip	140	0	0	0	0	140

K. Training Equip & Sup						
1. WHO trng materials	340	340	170	0	0	850
2. Sub-Dist trng equip	25	0	0	0	0	25
III. OTHER DIRECT COSTS						
A. Local Hire	4	4	4	4	4	20
B. Vehicle Operations						
1. Vehicles for LTTA	4	4	4	3	3	18
2. Veh for MOH Serv	0	6	6	7	7	26
3. Support Ratio	100%	100%	67%	33%	0%	
C. Motorcycle POL	25	25	25	25	25	125
1. Support Ratio	100%	100%	67%	33%	0%	
D. Local Support Costs	12	12	12	12	12	60
E. Operations Research	12	12	12	12	12	60
F. Contract Backstopping	1	1	1	1	1	5
IV. TECHNICAL ASSISTANCE						
A. Long term (pers. yrs.)						
1. Chief of Party	1	1	1	1	1	5
2. Training Advisor	1	1	0.5	0	0	3
3. Regional Advisor A	1	1	1	1	0.75	5
4. Regional Advisor S	1	1	1	1	0.75	5
B. Short term (pers. mos.)	9	5	5	4	4	27
V. EVALUATION/AUDIT						
A. Evaluations	0	0	0	1	0	1
B. Audit	0	0	0	0	1	1

Table VI.1B Unit Costs

Unit Costs	
I. TRAINING of Personnel	
A. Masters Degrees	$55,000
B. Short-term, External	$10,000
C. In-country	$65
D. Overhead rate	25.0% of non-commodity direct costs
II. COMMODITY Support	
A. Vehicles 4wd	$20,000
B. Motorcycles	$3,000
C. Computers	
1. Desk-top	$5,000
2. Laptop	$3,000
3. Software	$5,000
D. A-V Communications & Eq	
1. Recording Equip	$1,700
2. Promotion Supplies	$0.17
3. Graphic Art Supp	$8,000
4. Mass Media Prod	$30,000
E. ORT Commodities	
1. ORS Production Ctr	$85,000
2. Trng Ctr Equip	$1,200
3. Treat Corner Equip	$100
F. Cold chain equipment	
1. Small refrigerators	$400
2. Gas generators	$600
3. Frozen packs	$4
4. 3M temp indicators	$1
5. EPI thermometers	$1
6. Needles & Syringes	$0.60
G. Medications & equipment	
1. Chloroquine	$0.0095
2. Lab equipment	$500
3. Drug stock kits	1100
H. Office Equip & Furn	
1. Photocopiers	$12,000
2. Mimeograph machines	$700
3. Typewriter	$1,000
4. Calculators	$10
5. Local furniture	$1,500
6. Imported furn & sup	$550
J. Nutr Monitoring Equip	
1. Scales	$28
2. Lgth/Hgt Boards	$27.50
3. Growth Charts	$0.30
4. Demo Equip	$35
K. Training Equip & Sup	
1. WHO trng materials	$5

2. Sub-Dist trng equip $1,565

III. OTHER DIRECT COSTS

A.	Local Hire	$10,300
B.	Vehicle Operations	$7,000
C.	Motorcycle POL	$600
D.	Local Support Costs	$3,500
E.	Operations Research	$1,000
F.	Contract Backstopping	15.0% of non-commodity direct costs

IV. TECHNICAL ASSISTANCE

	Total	Base Salary	Fringe	Post Allow	COLA	SOS & DBA	Allowance	Travel
A. Long term								
1. Chief of Party	$176,445	$75,000	$15,750	$11,250	$15,000	$2,253	$49,275	$7,918
2. Training Advisor	$136,778	$50,000	$10,500	$7,500	$10,000	$1,585	$49,275	$7,918
3. Regional Advisor A	$116,477	$35,000	$7,350	$8,750	$7,000	$1,185	$49,275	$7,918
4. Regional Advisor S	$116,477	$35,000	$7,350	$8,750	$7,000	$1,185	$49,275	$7,918
B. Short term	$15,000							

V. EVALUATION/AUDIT

A. Evaluations	$70,000
B. Audit	$30,000

VI. CONTINGENCY fixed amount of $300,000

VII. INFLATION

Local	External
10.0%	6.0%

Rates:	
7.0%	Ann Sal Incr
21.0%	Fringes
25.0%	Post Diff A & S
15.0%	Post Diff Yde
20.0%	COLA
2.67%	DBA Insurance
$250	SOS Insurance
1.5	Children
0.7	Spouse
$5,000	Ed Cost/Child

Allowances:	
$15,000	Shipping
$7,500	Education
$20,000	Housing & Util
$2,400	Storage
$3,600	Security
$775	Conference

Table VI.2 Cameroon-MCH Budget Breakdown

Item	Year 1	Year 2	Year 3	Year 4	Year 5	Total
I. Institutional Support Costs						
A. Training	$143,750	$398,750	$330,000	$192,500	$192,500	$1,257,500
B. Commodities	$258,724	$45,998	$45,148	$44,298	$30,000	$424,168
C. Other Direct Costs	$347,946	$442,489	$397,854	$321,530	$293,469	$1,803,287
D. Technical Assistance	$851,471	$824,261	$777,524	$633,006	$650,375	$3,736,636
Total Inst Support Costs	$1,601,890	$1,711,498	$1,550,526	$1,191,334	$1,166,343	$7,221,591
II. Commodities	$525,813	$240,243	$10,243	$1,243	$1,243	$778,786
III. Evaluations & Audits	$0	$0	$0	$70,000	$30,000	$100,000
IV. Contingency	$60,000	$60,000	$60,000	$60,000	$60,000	$300,000
V. Inflation	$103,020	$193,557	$230,766	$262,925	$309,326	$1,099,594
TOTAL PROJECT COSTS	$2,290,723	$2,205,299	$1,851,535	$1,585,502	$1,566,913	$9,499,971

Table VI.3 Cameroon MCH Project Budget Summary

Item	Year 1	Year 2	Year 3	Year 4	Year 5	Total
I. TRAINING of Personnel	$143,750	$398,750	$330,000	$192,500	$192,500	$1,257,500
II. COMMODITY Support	$784,537	$286,241	$55,391	$45,541	$31,243	$1,202,954
III. OTHER DIRECT Costs	$347,946	$442,489	$397,854	$321,530	$293,469	$1,803,287
IV. TECHNICAL ASSISTANCE	$851,471	$824,261	$777,524	$633,006	$650,375	$3,736,636
V. EVALUATION/AUDIT	$0	$0	$0	$70,000	$30,000	$100,000
VI. CONTINGENCY	$60,000	$60,000	$60,000	$60,000	$60,000	$300,000
VII. INFLATION	$103,020	$193,557	$230,766	$262,925	$309,326	$1,099,594
TOTAL PROJECT COSTS	$2,290,723	$2,205,299	$1,851,535	$1,585,502	$1,566,913	$9,499,971

Table VI.4 Cameroon MCH Project Spending Sites

Item	Cost	Percent of Total
Commodities	$1,202,954	13%
Field TA	$3,736,636	39%
Training	$1,257,500	13%
Other Direct Costs	$1,093,991	12%
Sub-Total In Cameroon	$7,291,081	77%
Evaluation/Audit	$100,000	1%
Institutional Backstopping	$709,296	7%
Sub-Total External	$809,296	9%
Contingency	$300,000	3%
Inflation	$1,099,594	12%
Sub-Total Uncommitted	$1,399,594	15%
TOTAL PROJECT COSTS	$9,499,971	100%

In-Cameroon costs as a percent of committed funds: 90%

BEST AVAILABLE

SECTION VII. REVIEW OF EXISTING MANAGEMENT SYSTEMS AND PLAN FOR MANAGEMENT SYSTEMS IMPROVEMENT

1.0 Introduction

Strong management is essential to assure effective delivery of integrated maternal and child health services. Both management systems and the management skills of health professionals will be strengthened by the activities of the Project, especially in four key areas: supervision and personnel management, management of drug supply and logistics, financial management and budgeting, and management information systems.

The purpose of this section is to provide a brief overview of existing management systems in South and Adamaoua Provinces, focusing on the following questions:

- How do management systems currently work?
- How can systems be modified to function more smoothly?
- How can the management skills of existing personnel be strengthened?

Management systems and training of managers cover a wide range of topics, including:

- Supervision and personnel management
- Drug supply and logistics
- Financial management and budgeting
- Management information systems
- Facilities management
- Training
- Operations research
- Management control and evaluation
- Planning and implementation

Reviews of the Cameroon health sector, as well as policy statements from the Five-Year Plan and other planning documents, have highlighted four of these areas as being most critical, especially at the peripheral level: supervision and personnel management, drug supply and logistics, financial management and budgeting, and management information systems. The project will therefore focus management training programs in these four areas and will develop and test modifications of activities and system structures to improve overall management in integrated maternal and child health service delivery.

2.0 Approach to Management Systems Improvement

The broad process the Project will encourage for management improvement involves the following steps:

(1) Problem-identification by staff involved;

(2) Problem solving by managers responsible using a systems analysis approach, including the development of one or several possible alternative solutions;

(3) Testing of alternative solutions;

(4) Development of guidelines and procedures to implement the solution which is found to be most feasible and appropriate;

(5) Training of staff in new procedures and activities;

(6) Supervision of staff in new activities.

In some cases management systems improvement will require policy changes. When policy changes are relevant, two additional steps will be followed:

(7) Policy recommendation;

(8) Adoption and implementation of policy within the Ministry of Health.

Problem identification will be initiated by personnel at the point of delivery of services. For example, the problem of providing medications to patients is certain to be identified at the health center level. Such problems will then be referred up to a problem solving management group with representation from personnel at point of delivery and from individuals of higher levels of responsibility.

The problem solving management group will use a systems analysis approach to analyze the problem and will consider alternative models for solution. This group will also benefit from Project technical assistance. Wherever possible, one or more models will be tested under actual working conditions.

In some cases, policy change may be necessary to permit testing of alternative solutions, or policy changes may be suggested as a result of field tests. When policy change is required, policy recommendations from the problem solving management group will go to the Ministry which will review the recommendations and forward them to the appropriate government agency for policy setting.

Testing of alternative solutions will be done on a small scale at appropriate sites. Where possible, tests will be conducted at existing sites within the Project area where the model is already in operation. Such tests will be used as a basis for developing written guidelines and procedures for implementing improved management systems. Training will be conducted at the model sites and will be followed by regular supervision.

Examples of rural health services and Project issues which will be subjected to this approach early in Project implementation include: deciding where Project-provided vehicles will be most effectively deployed, and determining how to deal with the need to motivate the users of Project-provided vehicles to take responsibility for ensuring their continued maintenance.

3.0 Existing Organizational Structure

The reorganization of the Ministry of Health since colonial times has been a slowly evolving process which has seen the emergence of many vertical program structures. Often these programs compete for resources, which works against the effective integration of basic health care services. During the past five years, however, there has been a consistent effort to bring vertical programs under more central coordination. The decision to appoint a Secretary of State for Health to coordinate all Maternal and Child Health activities demonstrates the commitment of the Government of Cameroon to the integration of maternal and child health within rural health services.

3.1 Organizational Chart

While the official organizational chart of the MOH does not yet reflect some of these recent changes, the unofficial charts presented in Tables VII.1 and VII.2 present the general chain of command.

The organizational structure of the MOH encompasses 4 directorates:

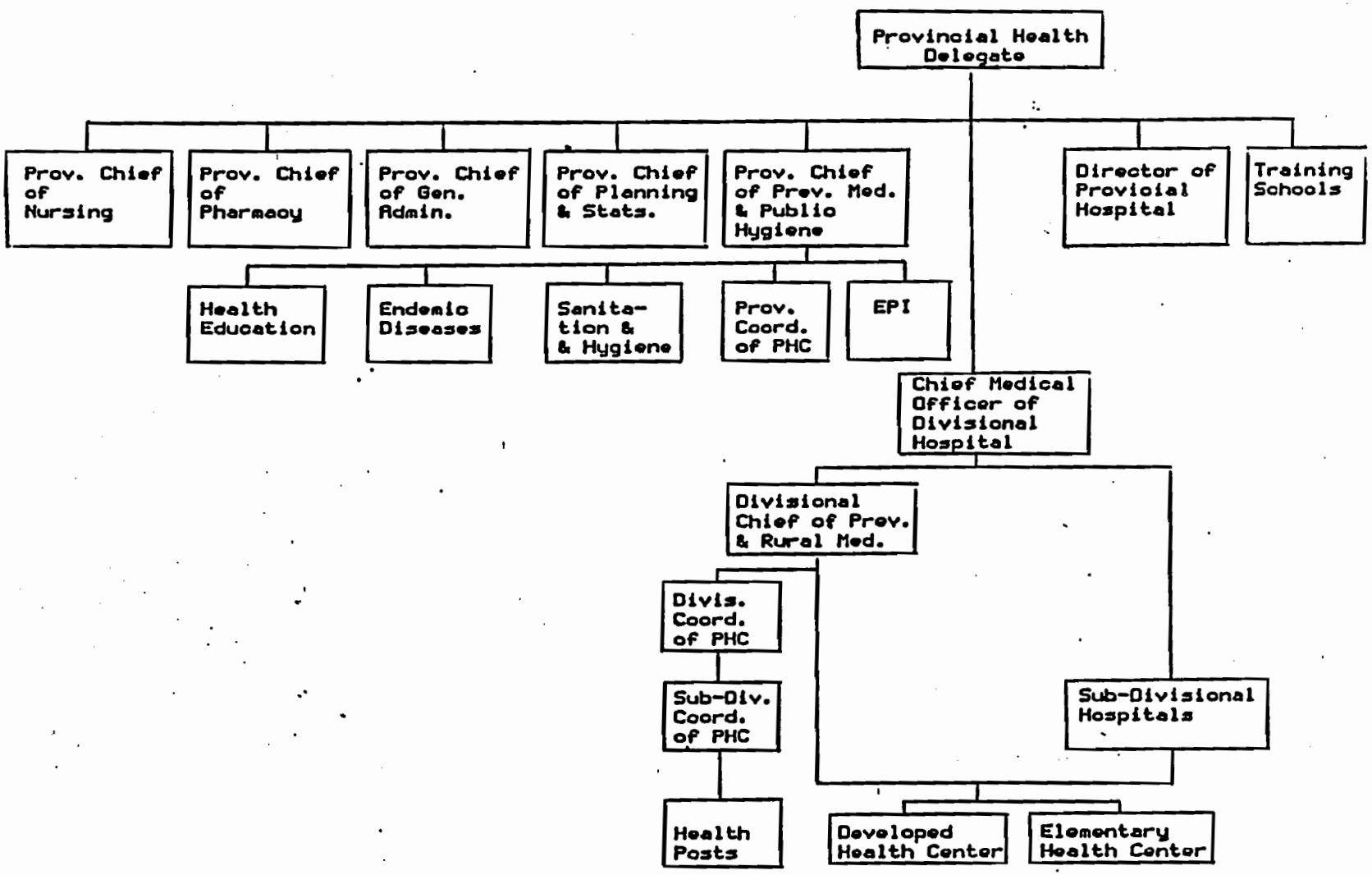
(1) The Directorate of Health, which is responsible for administration of curative medical services offered in urban and rural hospitals and dispensaries;

(2) the Directorate of Preventive Medicine and Public Hygiene which is responsible for surveillance, environmental health, immunizations, MCH, control of communicable diseases, and primary health care services beyond the dispensary level;

(3) the Directorate of General Administration which manages the budget of the MOH and is responsible for procurement of materials and transport;

(4) the Directorate of Studies, Planning and Health Statistics, which is responsible for health planning (particularly investment in infrastructure development), programming, and evaluation.

TABLE VII.2- MOH ORGANIZATIONAL CHART- PERIPHERAL LEVELS



Each of these directorates has central offices in Yaounde, with some representation at the peripheral levels (provincial and divisional) as well.

Representing the Minister of Health on the provincial level is the Provincial Health Delegate (PHD). The PHD is the chief medical officer in charge of overseeing all provincial level public health services -- delivery of curative services, administration, support, planning, and preventive medicine activities and programs. Reporting directly to the PHD are the Provincial Chief of Preventive Medicine and Public Hygiene (PCPM), overseeing preventive medicine activities, and the Provincial Chief Medical Officer (PCMO), who is the director of the provincial hospital.

At the divisional level, the representative of the Minister of Health is the Divisional Chief Medical Officer (DCMO), who is also responsible for managing the divisional hospital and supervising the medical staff of sub-divisional hospitals. Overseeing all preventive activities in the division, as well as the health centers and health posts, is the Divisional Chief of Preventive and Rural Medicine (DCPRM). Both the DCMO and the DCPRM report directly to the Provincial Health Delegate.

At the provincial, divisional, and sub-divisional levels there are
also Coordinators of Primary Health Care who manage the efforts of the MOH to support the development of the village Health posts staffed by Community Health Workers.

3.2 Description of Health Facilities

TABLE VII.3 lists the numbers of health facilities, both public and private, which are located in Adamaoua and South Provinces.

3.2.1 Tertiary Care

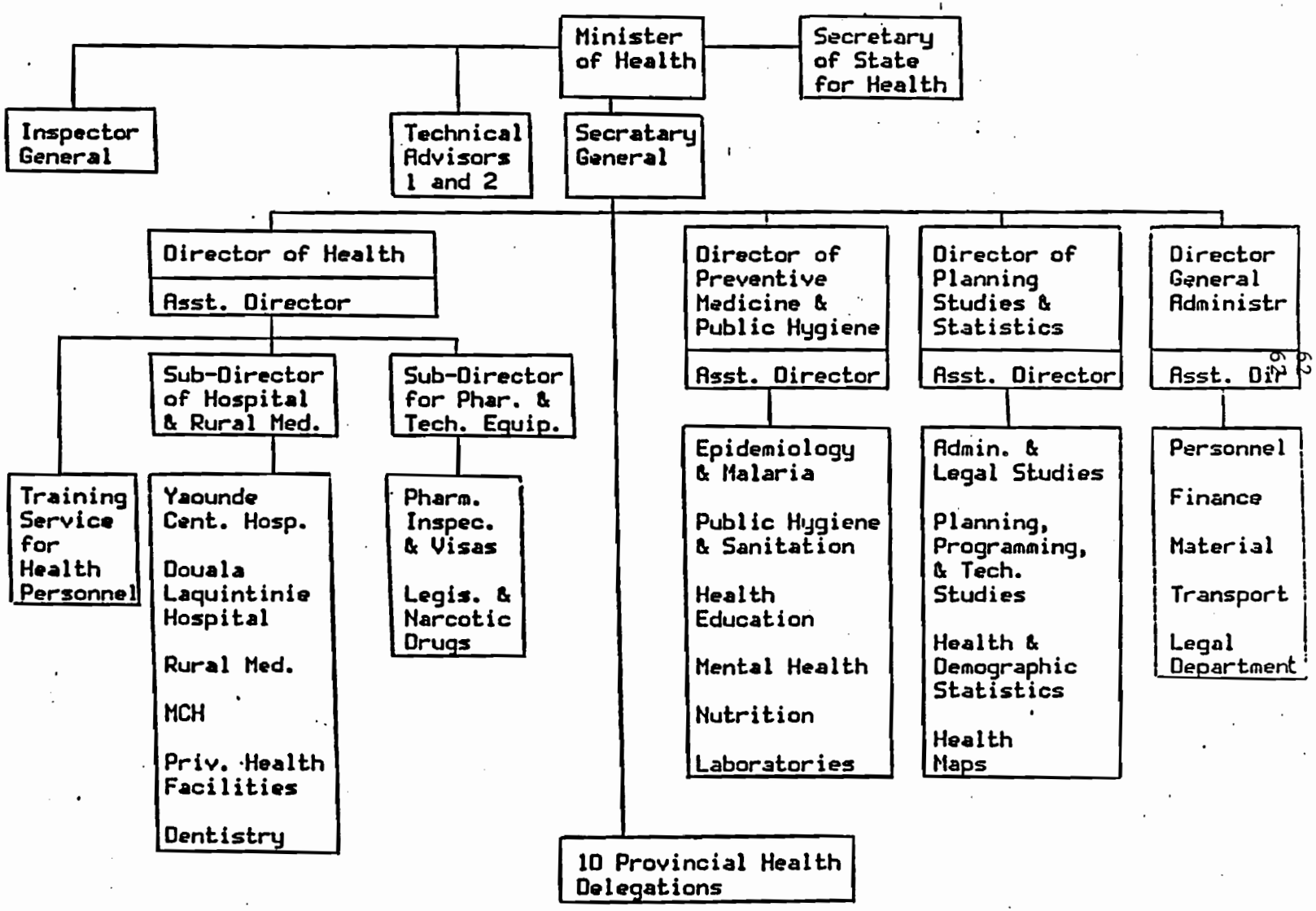
Tertiary care is carried out in four large referral hospitals located in Yaounde and Douala. These hospitals conduct research and are used for teaching and training health care professionals as well.

3.2.2 Secondary and Intermediate Care

Full-service hospitals offering specialty care are located in the provincial capitals, Ebolowa in South Province and Ngaoundere in Adamaoua Province. General hospitals which do not offer specialty services are located in divisional and sub-divisional

TABLE VII.1

MOH ORGANIZATIONAL CHART- NATIONAL LEVEL



capitals. In Adamaoua Province there are four divisional hospitals and 6 sub-divisional hospitals, while in South Province there are 3 divisional and 11 sub-divisional hospitals. Divisional hospitals are staffed by 2-4 doctors and a relatively large nursing and technical staff. Sub-divisional hospitals generally have fewer beds and are staffed by only one doctor and several licensed nurses. Neither type of facility employs full time hospital administrators; doctors are called upon to perform these functions.

There are two private hospitals located in Adamaoua Province and three in South Province.

TABLE VII.3: PUBLIC AND PRIVATE HEALTH FACILITIES
ADAMAOUA AND SOUTH PROVINCES*

PROVINCE Division	HOSPITALS	HEALTH CENTERS	HEALTH POSTS	PRO-PHARMACIES
ADAMAOUA	13	63	50	6
Vina	6	30	22	2
Faro&Deo	2	7	7	2
Djerem	2	7	2	1
MayoBanyo	1	7	--	--
Mbere	2	12	9	1
SOUTH	18	107	86	11
Ntem	6	39	37	2
Dja&Lobo	5	31	29	6
Ocean	7	37	23	3
TOTAL BOTH PROVINCES:	31	170	136	17

*NOTE:
In Adamaoua Province, 2 hospitals and 13 health centers are private. Among the total of 63 health centers 14 are still under construction.

In South Province 3 hospitals are private. It is unclear how many health centers are private and how many are still under construction. As many as 56 may be private.

3.2.3 Primary Care

Primary care is delivered through a network of health centers and health posts ("villages de sante"). Health centers are defined as either elementary (designed to serve approximately 5,000 people) or developed (serving 10,000 people, including beds for maternity patients and short term care). In practice there is not much distinction between the two types of facilities. The model elementary health center is often as large as the developed health center, and staffing patterns do not seem to differ. In addition, the population with access to both types of facilities appears to be less than is indicated by official policy.

The best estimate of the total number of functioning health centers is 63 in Adamaoua and 107 in South Province. Early in the Project, a complete census of facilities will be made to determine the exact numbers, ownership, and condition of health centers which constitute the level at which the population makes first contact with the GRC health system.

For health posts, communities contribute resources to build a "case de sante" out of local material. A community health worker (CHW) is selected by the village and trained at the sub-division hospital. The role of the CHW is to treat simple illnesses and to manage a village pharmacy on a cost recovery basis. Serious illnesses and injuries are referred to a health center. The Government considers the health posts to be outside the public sector; they constitute the first contact between the population and health facilities in the private sector. Best estimates of numbers of health posts which have been started in the two provinces are 50 in the Adamaoua and 86 in the South. Probably no more than 50% of these health posts are currently functional, however.

4.0 Supervision

At the National Conference for the Coordination of Primary Health Care Activities, sponsored by the Directorate of Preventive Medicine and Public Hygiene in Yaounde, June 15-18, 1987, selected health managers from all 10 provinces were brought together to debate important management issues pertaining to primary health care, including supervision, training, information systems and community participation.

The discussion of supervision was particularly lively and revealed a great diversity in problems and in the types of environments faced by the health managers in different provinces. Clearly, a rigid national policy for patterns of supervision and organization within the health care system will not permit managers to respond appropriately to local needs. Within the two provinces, the Project will exercise caution before suggesting

changes in supervisory roles or procedures, thereby assuring that local conditions and existing systems are thoroughly understood and taken into consideration.

Much work has been done in Adamaoua province to clarify supervisory responsibilities and to strengthen effective supervision. For example, the PCPM has elaborated a plan for improving supervision through the establishment of a system of "health zones" within each sub-division. While proposed for Adamaoua Province, ideas such as the zone system may also prove feasible and appropriate for the South. The Project will explore and actively promote such cross-fertilization of ideas and strategies between the two Project areas.

4.1 Description of Existing Systems for Supervision

The roles of the Provincial Health Delegate, the Provincial Chief of Preventive Medicine, and the Divisional Chief of Preventive and Rural Medicine have been described earlier in the management plan. Generally the doctors filling these positions have already had experience directing a sub-divisional or divisional hospital, and are highly motivated individuals. Given the difficult work conditions and limited resources at their disposal, they are to be commended for the programmatic goals they have achieved thus far. Most have received little or no formal training in management.

Important supervisory functions are also performed by divisional and sub-divisional primary health care coordinators who report directly to the DCPRM. Usually an experienced graduate nurse, the divisional PHC coordinator has a dual role: he is at once assistant to the DCPRM, and a sub-divisional PHC coordinator for either the Ntem (South) or the Vina (Adamaoua) sub-division. As such, the job is extremely demanding. In his role as divisional coordinator, he has primary responsibility for reviewing, summarizing, and analyzing reports from all primary care health facilities and CHWs, as well as assisting the DCPRM in general program planning and implementation, procurement, and logistics. Wearing the hat of a sub-divisional coordinator, this person is also responsible for monthly visits to supervise health center staff and village health committees, in addition to managing in-service training of personnel. The monthly visits are rarely possible because of competing responsibilities from his other role, and because of lack of funding for transportation. In one division in the South, the coordinator had not made a supervisory visit in six months, while in the Adamaoua some health centers had not been visited in almost a year. Other sub-divisional coordinators have more time to perform supervision and training, but they too are often constrained by lack of resources.

Provincial level staff in both provinces are convinced that managers at lower levels do not need to be trained in how to

supervise so much as they need to have the financial and physical resources needed to do their jobs. As will be addressed elsewhere in this document (section G.4), analysis of the budget allocations to South and Adamaoua Provinces shows that adequate funds have been allocated in recent years to carry out needed supervision; however, the funds have not been allocated among services and health facilities (henceforth to be called "health units") in a way that corresponds best to the supervisory responsibilities of each health unit.

To improve supervision, making best use of already available funds, the MOH needs to assure that supervision funds are allocated directly to the health units responsible for supervision.

At the village level, the village health committee holds primary responsibility for the supervision of the CHW, who is selected for his or her position using criteria established by the community. The PHC coordinator collaborates with the village health committee to aid with supervision. The need for the PHC coordinator to avoid taking too much responsibility for direct supervision of CHWs was highlighted during the National PHC Conference; conference participants felt that this undermined the power of the village health committee and was detrimental to the promotion of local management skills.

Financial control over the receipts of village pharmacies is exercised by the treasurer of the village health committee. The PHC coordinators meet with both the village health committee and the CHW when visiting a health post. Because such visits are infrequent, many health posts established in the past are currently non-functional and need to be re-established.

4.2 Project Initiatives to Improve Supervision

In the area of systems development, the Project will assist the MOH to:

-- explore and test the feasibility of creating an additional cadre of supervisors at the health zone level by redefining the role of health center nurses and providing additional training;

-- solicit and develop other ideas for changes in the structure and operation of systems for supervision, including possibilities for community input through advisory or oversight committees at all levels;

-- develop policies and design systems for effective decentralized budgeting and planning, which will rationalize the flow of existing resources designated for supervision and increase accountability of managers (see section G.4 also);

-- establish regular schedules for supervision at each level of the health care system;

-- develop standard supervision protocols to guide supervision of both health facilities and health workers.

-- integrate in-service training into supervision activities.

In the area of training in personnel management, the Project will assist the MOH to train supervisory personnel in the following areas:

- setting behavioral objectives,
- devising incentive structures and motivating staff,
- controlling and evaluating the success of managers in using resources to achieve programmatic objectives, and
- using the health information system as a tool for supervision and performance evaluation.

5.0 Drug Supply and Logistics

5.1 Introduction

Of particular importance to the success of this Project will be appropriate management in logistics to improve the capacity of the health system to keep rural facilities furnished with the basic essentials needed to deliver services. With the focus on improved management systems for rural health services which emphasize selected child survival interventions, there must be access to vaccines and cold chain equipment, growth charts, scales, audio-visual materials, child-spacing commodities and most important, essential medications including chloroquine and oral rehydration salts.

Achieving Project objectives requires the integration of several components of health services delivery. A fundamental requirement of health services delivery is the delivery of basic medicines. In response to this need, the Project is designed to:

1. Supply selected medicines to the rural level through efficient program planning and management.

2. Improve the existing supply system within the public sector.

3. Increase the cost-effectiveness and efficiency of the drug and medical supply system.

This section describes the role basic medicines play in the Project, sets forth the ingredients crucial to successful delivery, analyzes the current situation in view of these required ingredients and outlines project activities for drug supply improvement.

5.1.1 Role Of Basic Drugs

Pharmaceuticals (also termed drugs and basic medicines) are of significance to the Project because they will serve as therapeutic, financing, administrative, and political tools. As therapeutic tools, their primary role, drugs will be used to prevent, treat or cure disease. The sale of basic medicines will serve as a financing mechanism for rural primary health care delivery. The presence or absence of needed drugs in a clinic or village will be an indicator of the Project's administrative effectiveness. In the past the provision of basic medicines through the government's health services, without charge, has been a costly instrument of political good will. However, the Minister of Health has just announced the new GRC policy of having patients pay for their medications.

Within the public health sector there is a pharmaceutical sub-sector. Drug products, facilities in which they are manufactured and from which they are dispensed, along with the human and financial resources needed to assure availability and appropriate use are all elements of this sub-sector. Included also are the local pharmaceutical industry, medical and pharmaceutical training institutions, public and private pharmacists and pharmacies.

5.1.2 Critical Ingredients for Providing Basic Medicines

There are two ingredients critical to the provision of essential drugs in primary health care projects: the drug product itself and the supporting systems needed for the drug to have a successful impact on health status. The drug product must be pharmacologically appropriate for the health problem to be treated, safe to use, effective, available in the required dosage form and strength as well as accessible to the target population in sufficient quantities and at a reasonable price.

It is usually not the acquisition of the product that poses the greatest challenge but the undergirding processes which form the supply systems. These supportive systems are necessary for successful health system operation and include the processes for drug product selection, procurement, storage and inventory, distribution, prescribing, drug utilization and information, training and overall sector management.

An understanding of supply systems in Cameroon requires review of the present infrastructure. Such infrastructure includes the

organization of services to deliver drugs within the Government's facilities. The following review is made in the light of the ingredients needed to ensure needed medical supplies.

5.2 Existing Public Sector Pharmaceutical Supply System

5.2.1 Policy Guidance and Organization

Within the country there are two GRC units which have responsibility for providing policy guidance and for supplying drugs and medical supplies to rural health facilities: the Pharmacy Services and Technical Equipment Sub-directorate of the Directorate of Health (Ministry of Health) and the National Pharmaceutical Office (ONAPHARM), a para-statal organization.

The Pharmacy Services unit has four sections: drug registration, drug and equipment supplies, legislation and narcotics, and maintenance of hospital equipment. Even with the recent creation of ONAPHARM, the Pharmacy Services unit will continue to represent the interests of the Ministry of Health in relation to ONAPHARM. It is the budget of this unit for drugs and medical equipment supplies that is used by ONAPHARM for its operations and purchases. The MOH unit is staffed by four degreed pharmacists.

ONAPHARM CAMEROUN, referred to as ONAPHARM, was created in August, 1985 by Presidential decree after a feasibility study published in 1980. It serves as a National Pharmacy Office for the import and distribution of pharmaceuticals. Among its purposes are:

1. to centralize the ordering of pharmaceuticals, dietetic products, chemicals, medical supplies and laboratory reagents for public health facilities;

2. to assure the control of propharmacies and their use as agents for providing pharmacy service within the public and non-profit health sector.

ONAPHARM is guided by an Administrative Council and a Director. The Administrative Council consists of 9 members including two representatives from the Ministry of Health as well as representatives from the Ministry of Commerce and Industry, the Ministry of Finance, the Ministry of Information and Public Works, and the University Center for the Health Sciences. The Secretary of State for Health chairs the Administrative Council. The Council approves the budget and the program of activities for the Office as well as reviews the annual report on the management of the Office at the end of the year. There may be other councils formed to provide scientific and special works oversight. Day-to-day operations are guided by the Director, a pharmacist.

ONAPHARM is located in Yaounde and does not yet have formal, provincial offices throughout the country. It has, however, assigned a person to Adamaoua province. The relationship proposed for ONAPHARM to the Ministry of Health and the public and private sectors as a whole, in the 1980 study, is depicted in Figure 2. However, ONAPHARM relates more to local wholesalers than to outside foreign firms for its procurements. Less than 2 years old, ONAPHARM has made impressive strides in refining and regulating its procurement procedures, but the effects of its supply system strengthening efforts have yet to reach the village level, as verified by site visits of design team members.

Table VII.1 lists the number of propharmacies and village pharmacies, the most peripheral distribution points, in Adamaoua and South provinces. Propharmacies are organized as a part of the Government system for supply. Village pharmacies are often locally organized by the health committee of the village and may procure their drug supply from the Government health centers.

5.2.2 Drug Product Selection

Drug products to be used in Cameroon are selected from a formal list of essential drugs developed and approved by the MOH. There appears to be consensus on which products are to be used at various levels of health care but this has not been formalized in a policy decree.

When drug products are selected for purchase, comparative drug information (as opposed to single entity information) is not usually available to rationalize selections (pharmacological and pharmacokinetic indication, adverse drug reactions, drug interaction, product forms and strengths, etc), establish treatment protocols, set principles of distribution, and monitor use of either categories of pharmaceutical or specific drugs within the entire system. There has been, however, a drug list, not a formulary, developed for the country. A drug formulary contains summarized comparative drug information and specific directions for when and how a drug is to be used. However, the basic medicines to be selected for use in this Project will be subjected to a rationalization process. It is expected that those basic pharmaceuticals selected (eg. antimalarials, anthelmintics, analgesics, topical antibiotics and opthalmics) will be from among those on the country's list of approved drugs.

5.2.3 Procurement

Procuring basic medicines is a multilevel process. On the national level, procuring for the country as a whole is the responsibility of ONAPHARM. It, with its councils, reviews the

requests of the lower levels of health care and composes tenders for purchasing from abroad. The bulk of purchasing is from foreign manufacturers using the tender process which is now facilitated by local wholesalers. This process is driven both by budgetary considerations and the reported causes of morbidity and mortality.

At lower levels of care, each health facility prepares its requests for drugs and medical supplies. These are sent to the next higher level which amalgamates them and forwards them to the next higher level. However, the ordering of drugs and supplies at each level is not based on pre-determined re-order levels or a regularized process in which needs are estimated and formal requests are based on utilization data.

Within the public sector, patients can obtain medicines from hospitals, health centers, and propharmacies. Village pharmacies, supervised by the MOH, but whose drugs are supplied through funds generated at that level, are also a patient procurement source. However, most medicines are procured by patients from the private sector due to shortages within the public sector.

5.2.4 Distribution

Drugs and medical supplies are distributed in the public sector by the Government using transport to the province. Drugs and medical supplies are received at the provincial level by a trained pharmacist who has the responsibility to distribute to the division. At the divisional level there may or may not be a trained pharmacist responsible for storing, inventory control, and distribution to lower levels. Distribution, therefore, is subject to the vagaries of the situation at the next higher level, the availability of transport, and whether or not sufficient supply was sent from the level above which could be divided and sent to the next lower level. Capacity to store drugs and medical supplies does not appear to be a problem. Many hospitals and health centers have adequate shelving and some have refrigeration. However, before additional drug stores are obtained for the health facilities through the Project, responsible health workers will need to know appropriate storage, inventory control, dispensing and distribution techniques. This will be an important objective for the Project's management training activities.

5.2.5 Prescribing and Use

Prescribing at each level is usually done by the person in charge. This can range from a doctor to a village level health aide. The level of training to perform this action is variable. Accordingly, there is inconsistent consideration given to the number of pharmaceuticals ordered at one time, the accompanying

patient education and directions for use. Treatment and prescribing protocols applicable to the training of personnel at each level need to be developed along with consistent documentation of drug dispensing. Some workers do use notebooks to record the number and kind of drugs dispensed, but this is not the common occurrence at every facility, and there is no amalgamation of this information into a systematic process for drug use review.

Drug use review can provide needed feedback into the health information system and the child survival interventions which are emphasized by this Project. This process can track the amount and kind of drugs prescribed and used per dispensing point or patient.

5.3 Problems to be Addressed in the Project

Given the realities of the drug supply and logistics system in the public sector, the Project will collaborate with ONAPHARM in addressing the following problems:

1. Lack of adequate supply at the periphery;
2. The need to structure supply management as a formal and institutionalized process;
3. The need to train health workers in the supply management process; and
4. The financing of re-supply.

5.4 Improving Drug and Medical Supply Logistics

5.4.1 Focus

In support of the plans of the Government of the Republic of Cameroon and Project goals and objectives, the Project will:

1. Supply initial stocks of limited, Project-specific pharmaceuticals in order to initiate the cost-recovery system;
2. Develop recommendations for policy guidance for drug and medical supply logistics;
3. Develop a drug supply management process for delivery of pharmaceuticals to the periphery;
4. Train health workers in the drug supply management process developed above; and

5. Test the use of revolving drug funds to finance re-supply.

5.4.2 Strategy and Approach

5.4.2.1 Building on GRC Initiatives

The GRC has undertaken several initiatives in recent years to address inadequacies in drug supply. The most important of them is the creation of ONAPHARM. This is accompanied by a policy to build propharmacies (200 by the year 1990), as indicated in the Sixth Five-year Plan, and to improve the management of health service delivery, especially drug supply.

The Project will ensure harmony with GRC policies by soliciting the participation of the Director of ONAPHARM, the Sub-Director for Pharmacy Services and Technical Equipment within the Ministry of Health, and others with responsibility for drug supply at the national, provincial and divisional level in guiding project drug supply activities. As a part of Project activities, these persons will be invited to participate in task forces and working groups to set policy guidance for Project activities, and to develop, along with Project personnel, methods and procedures for effective drug supply management.

The Project will collaborate with ONAPHARM in developing a set of drug system methods and procedures and recommendations for their application to primary health care throughout the country. However, application to other parts of the country will rest with ONAPHARM and not the Project. In this way, the Project, with its limited resources, can assist the Government to accelerate the execution of its plans to improve the management of drug supply and logistics within the country as a whole. It is expected that these systems, when in place, will be able to serve as a positive factor on behalf of the Government's recruitment of donor funds to the health sector.

The Project is not expected to construct propharmacies or village pharmacies but will use limited stocking and improved logistics management to enhance the efficient and effective operation of those which the Government or villages create within Adamaoua and South provinces.

5.4.2.2 Institutionalizing Supplies Management

The Project will make every effort to institutionalize the procedures developed for improved drug and medical supply under the Project within South and Adamaoua provinces. This will require the specification and documentation of procedures, the use of these in curricula for training at all levels, and the use of these procedures as references for daily operations, monitoring and supervision.

5.4.2.3 Coordination and Collaboration with Existing Successful Supply Systems in Cameroon

Successful systems to supply drugs and medical supplies to the rural areas do exist in Cameroon. They exist largely within the missionary delivery system. To the extent possible, the Project will look at them for good management ideas.

5.5 Project Activities

5.5.1 Scope

The following activities will be undertaken to improve the drug supply and logistics management system. These will start after appropriate orientation of responsible personnel at all levels to the Project, its goal, purpose, and scope of work.

1. Workshop for problem identification at the provincial level;
2. Workshop for problem identification at the national level and problem-solving system-wide;
3. Policy analysis and recommendation;
4. Development of specific procedures for improving drug and medical supply management;
5. Testing of procedures developed;
6. Design of the training curricula;
7. Training in drug and medical supply procedures and processes; and
8. Supervision.

These are further described below as phases of implementation. Phase I will include activities 1 and 2; Phase II, 3; Phase III, 4 and 5; Phase IV, 6,7 and 8.

5.5.2 Phased Implementation

5.5.2.1 Phase I

In the first phase, one of the first Project tasks will be to rationalize and order the required pharmaceuticals. This process will not only result in the selection of basic drugs for the

Project, but also in drug acquisition. Needed insight into the processes for importing pharmaceuticals will also be provided during this phase. Coordination for import will be with both ONAPHARM and the Ministry of Finance which is expected to provide the exonerations for duty-free,tax exempt import. It is desirable that some portion of this activity occur as part of pre-project implementation to ensure timely receipt of items ordered.

A second key task in this phase is the planning and holding of provincial and divisional supply management workshops to obtain input from health workers on day-to-day issues in providing basic medicines. These workshops will be at the provincial level and will include all those individuals within the Province who have responsibility for drug distribution. The outcome of these workshops will be the documentation of major issues in supply planning, system organization, direction and control, and monitoring and supervision. This document will take the form of a communique and will therefore be a consensus document.

A third task is conducting a workshop, similar to the provincial-level workshop, at the national level. Ideally, this workshop will be hosted by the Administrative Council of ONAPHARM and will review drug supply and logistics issues documented from the provincial workshops as well as begin problem-solving (from a national perspective). This process will result in documented recommendations as a standard approach to supply management and may include policy recommendations as appropriate.

5.5.2.2 Phase II

Relevant policies will be analyzed and a set of recommendations may be developed by ONAPHARM. This phase will proceed in parallel with procedures development to permit continuation of the momentum and the strengthening of drug supply management. It is anticipated that this phase will include consideration of policies for distribution, prescribing, dispensing and patient education for use of Project-specific pharmaceuticals.

5.5.2.3 Phase III

This is the phase in which procedures will be developed, described, and documented for the management improvement of the supply system. The drug product rationalization and selection process developed in Phase I will be documented. Among others, procedures will be developed for:

Procurement

Forecasting Need
Use of the Procurement Cycle
Specifications Development

Transmission of Requests
Receipt of Drugs
Inspecting Drugs Received

Distribution

Scheduled and Unscheduled Acquisition
Inventory Control
Storage
Determining Re-order Points
Requisitioning and Re-Supply
Delivery
Security
Dispensing
Record-keeping
Reporting
Return of Excess Stock
Funds Flow and Maintenance

Prescribing and Use

Levels
Protocol Development
Using Drug Information
Providing Patient Education on Drug Use
Monitoring Drug Use

These procedures will be developed and tested in sites which can serve as model sites for later training.

5.5.2.4 Phase IV

In this phase procedures developed, described, and documented will serve as the training content for health workers at all levels. A curriculum will be designed and health workers at all levels will be trained in those procedures applicable to their level of work. Management support systems training will include a focus on drug supply logistics management to address the reason most often cited for under-utilization of the rural health facilities -- inadequate drug supply. Training for the pharmaceutical component requires a clinical, technical, and administrative perspective. Training in prescribing and dispensing focuses largely on the clinical use of drugs. There will be technical information on why drugs are handled and stored differently from other items. Managers and administrators must be trained in managing their portions of the pharmaceutical component.

Supervision of performance and supply system functioning will be monitored using these procedures.

5.6 Evaluation

Each phase of activity has a specified outcome, and these will be used to monitor the success of the Project. They are:

PHASE	OUTCOME
I	Stocks received.
II	Policy concerns documented.
III	Procedures described.
IV	Courses completed, monies collected, stocks routinely available at the periphery.

6.0 Financial Management and Budgeting

6.1 Description of Existing Systems

The budgetary process in Cameroon is very centralized, with most budget planning taking place at the national level. In Adamaoua province individual health units do not propose their own budgets. In South province, budgets are prepared at the divisional level, reviewed in Ebolowa, and submitted to the national level. However, there is little discussion or feedback among provincial and divisional managers about the proposed financial plans. Generally, managers feel such discussion is futile since Yaounde will make the final decisions, and budgetary allocations are usually less than half of what is requested.

At the national level, no formal process exists by which provincial officials defend their budgets, and the reasons for which changes are made in Yaounde are not clearly understood by managers at the peripheral level.

When allocations are decided at the national level, they are specified for each individual health unit within precisely defined expense categories. The chiefs of services, medical officers, and heads of health centers are then responsible for managing expenditures from their own budgets. They are not permitted to transfer funds between categories, but must spend the money exactly as it has been allocated. The managers find this lack of flexibility frustrating, particularly because they were unable to provide input into the initial budget development process.

Staff within the Directorate of General Administration at the national and provincial levels monitor expenditures to assure that budgets are not overspent, and that approval processes have been respected. However, the control of expenditures made by particular managers is rarely reviewed in relation to performance in achieving programmatic objectives.

Financial management in secondary facilities is slightly more complex, because the MOH permits government hospitals to collect fees for certain services. Since they are required to deposit all such receipts in the general treasury, however, revenues are not budgeted and are not matched with expenses. The financial management tasks of hospital managers are therefore similar to those of managers in other health units, with some additional bookkeeping to report receipts.

In summary, most health units within the MOH currently function as cost centers. The financial management responsibilities of unit managers are limited to assuring efficient use of resources in achieving program objectives. Yet, few unit managers at any level are performing such functions currently. This may be due in part to lack of training and adequate supervision; it is more likely, however, that the system lacks adequate incentives to encourage managers to assume responsibility for efficient use of financial resources. The highly centralized nature of the existing budgetary process does not promote accountability at lower levels. As it now functions, the system requires all health units (over 200 in both provinces) to be accountable directly to Yaounde, a situation which is clearly unmanageable.

At the level of health posts, the health committee and community health worker operate a village pharmacy. The receipts from the sale of drugs to members of the community are used to replenish drug supply. Health posts are not just cost centers, therefore, but are responsible for matching receipts with expenditures, and hopefully generating a surplus as well. Normally this would require a higher level of financial management skill than is required by cost centers. However, the volume of client contact in health posts is usually small, and the programmatic objective (to keep the pharmacy functioning) is simple, so that financial control can be exercised by health committee members with minimal training.

In Adamaoua province, Vina Division has set-up a drug supply system to replenish village pharmacies rather than forcing CHWs to rely on private suppliers who may charge higher prices. CHWs in the division travel to Ngaoundere to purchase drugs. The Divisional Preventive and Rural Medicine Service sells the drugs to the CHWs at wholesale prices and uses the receipts to replenish its own supply. This system seems to work well, and the PCPM would like to extend the model to other divisions in the province. In fact, the new austerity measures undertaken by the GRC in response to the current economic crisis include a decision to end the policy of providing drugs free of charge in government facilities. The system adopted by Vina Division is a timely illustration of one way to implement the new GRC policy and deserves further study. If such systems are adopted throughout the Project areas, health managers will clearly require

additional training in financial management and financial-information systems.

6.2 Project Initiatives to Improve Financial Management and Budgeting

As stated in the policy initiatives for supervision, in the area of systems development the Project will assist the MOH in developing policies and designing systems for effective decentralized budgeting and planning. Such systems will include incentives for managers to care about the financial implications of their decisions. This will strengthen the ability of the MOH to assure that resources are being utilized in cost-effective ways to promote the health of Cameroonian women and children. Accountability of managers for efficiency as well as effectiveness in achieving programmatic outcomes will likewise be enhanced.

A second Project initiative will be to assist the MOH in implementing the new GRC policy of charging fees for drugs. This initiative is discussed in detail in section G.4 and previously in the management plan.

A third Project initiative will be to explore the possibility of increasing the responsibilities of one nurse in each provincial and divisional service of preventive medicine, to assume the role of full-time health administrator. The nurse would assist the Delegate, PCPM, and DCPRM in performing administrative tasks, including financial management. This would not take the place of management training for the doctors, but would supplement such training by strengthening the technical staff on whom the doctors rely for support. Currently the only assistance provided to health managers at these levels is through the divisional coordinator for PHC, who also has a heavy load of supervisory responsibilities, and through a bursar and a bookkeeper, who often have only on-the-job training and need close supervision for any non-routine tasks. The project will study this issue and make recommendations to the MOH.

In the area of management training, the Project will concentrate on improving the financial management and analysis skills of the DCPRM through participant training in the US as well as in-service training. Some topics which will be addressed include:

- explanation of the budget process in the MOH;
- use of the budget as a planning document;
- use of the budget as a management tool for monitoring progress in achieving health goals cost-effectively;
- promotion of cost-consciousness among health managers;
- basic bookkeeping;
- organization of financial information systems; and

- how to read financial reports and perform simple financial analysis.

In addition, the Project will organize in-service training for heads of health centers and for divisional and sub-divisional coordinators to teach basic bookkeeping and financial monitoring skills.

7.0 Management Information Systems (MIS)

7.1 Description of Existing Systems

Information and data systems within the Ministry of Public Health already exist which cover several of the technical components of the MCH Project. In addition, several private agencies have developed health information systems. These systems use a variety of instruments for collecting, summarizing, and reporting health information. Some of the key instruments are described below, according to their program areas:

7.1.1 Communicable disease reporting:

A single form is used throughout the country by the preventive medical services from the health center level through sub-division, division, and provincial levels.

Information collected from individual reporting units is summed at the next reporting level; for example, the sub-division will report total figures for all health centers, the division will report totals for all sub-divisions, etc. No other detail is lost in this process of summation. The form is described in more detail as follows:

> Ministry of Health. " FICHE D'ACTIVITES DE SANTE PUBLIQUE ET TABLEAU DE MORBIDITE-MORTALITE." (Public Health Activity form and Morbidity and Mortality Table, Figure VII.1) This form includes data on:
>
> Identifiers: facility, division, month, year,etc.
>
> a. Health activities: numbers of consultations, hospitalizations, deaths, etc.
>
> b. Obstetric activities: live births, premature births, still births, difficult deliveries, maternal deaths, abortions, numbers of infants, etc.
>
> c. MCH activities: prenatal, postnatal, well child, dietetic visits.

d. Preventive medicine activities: numbers of vaccinations including EPI, yellow fever, meningitis, others.

e. Disease reporting: includes 62 diseases reported for 5 age groups by sex by case or death.

7.1.2 EPI reporting and management:

The EPI information system contains a series of forms to be completed at various levels of the delivery system. Unlike the communicable disease reporting system, the EPI forms are not identical at each level, thus allowing for different amounts of detail as appropriate for the intended user. These forms include:

VACCINATION ACTIVITY:

(1.) "P.E.V. FICHE DE POINTAGE No. 1. SEANCE DE VACCINATION." (EPI Attendance Form for Vaccination Sessions, Figure VII.2) This form is used during a vaccination session to count the number of children being vaccinated as new or return visits and vaccines given by age group.

(2.) "P.E.V. FICHE DE CONTROLE No. 2. Monthly Report" (EPI Control Form No. 2, Figure VII.3): This form consolidates information from vaccination posts by date of session, number of children and mothers vaccinated and number of doses of vaccine given. It is compiled at the Divisional level.

(3.) "P.E.V. FICHE DE CONTROLE No. 3." (EPI Control Form No. 3, Figure VII.4): Monthly report by age group. This report consolidates the vaccination data by age group of vaccinees.

SURVEILLANCE:

(4.) "P.E.V. FICHE DE DEPISTAGE" (EPI Tracking Form, Figure VII.5): This form is a registry of cases of measles, whooping cough, polio, or neonatal tetanus seen at health facilities, recorded by name, age, sex, date, vaccination status, death. It is not clear whether this form is completed by all health facilities.

(5.) "P.E.V. SYNTHESE PAR CENTRES SENTINELLES" (EPI Synthesis by Sentinel Centers, Figure VII.6): This form provides a monthly consolidation of the information from the Tracking Forms for the sentinel health facilities of a division.

(6.) "P.E.V. Rapport (mensuel ou annuel)" (EPI Monthly or Annual Report, Figure VII.7): This form can be filled out at the end of the month or year to present a summary of information collected from the health center tracking forms.

EVALUATION:

(7.) "P.E.V. EVALUATION DE LA COUVERTURE VACCINALE." (EPI Evaluation of Vaccination Coverage) A group of materials have been developed and widely used to do cluster sample surveys of populations and determine the coverage by vaccine, by completion of vaccination series, and by age.

7.1.3 Primary health care activities:

The primary health care system has various forms developed by several agencies:

(1.) "M.S.P. PROGRAMME NATIONAL DES SOINS DE SANTE PRIMAIRES. FICHE D'EVALUATION MENSUELLE (LE SUIVI, VILLAGE-SANTE)" [MOH National Program of Primary Health Care, Monthly Evaluation Form. (Follow-up, Health Posts), Figure VII.8] This form is to be completed by the president of the village health committee or village health worker. It includes:

- Identifiers,
- Curative activities including visits and referrals,
- Disease reporting of 12 conditions by 5 age groups by sex,
- Hygiene and sanitation activities,
- Maternity activities including births, deaths, complications, etc.,
- MCH activities,
- Health education,
- Nutrition,
- Vaccinations,
- Supervision visits.

This form is not widely available or used. Most primary health care people feel it requests too much information from community health workers who are often illiterate.

(2.) P.H.C. MONTHLY RETURN FORM. (Figure VII.9) Developed by the G.T.Z. Project in Bamenda area. This form contains the following information:

- Health Post identifiers,
- Health education and prevention activities,
- Vaccinations given,
- Activities of traditional birth attendants,
- Health Committee (Financial situation and drug stock),
- Morbidity reporting for 14 conditions by number of cases seen,
- Newborns born alive, dead, delivered at home, health post, or hospital, and
- All deaths in village during month by age, sex, category of cause of death.

(3.) "FICHE PRENATALE SIMPLIFIEE", (Simplified Prenatal Form, Figure VII.10): A form for following prenatal care visits for individual women developed by the French health volunteers in the Vina Division of the Adamaoua Province. Intended for use by illiterate community health worker/traditional birth attendant. Uses drawings to identify the information to be completed:

- Living children
- Dead children
- Miscarriages
- Identifies each month of pregnancy from 3 to 9 by drawing of height of fundus.
- For each month contains matrix with drawings for the following conditions: quickening, anemia, edema, proteinuria, nivaquin tablets for malaria prophylaxis, tetanus vaccination and consultation at a health center or hospital.

This form is completed by the traditional birth attendant, but we do not know if it is exploited to recover information on the nature and outcomes of pregnancies.

7.2 Project Initiatives to Improve Information Management

Information is an essential ingredient for improving decision-making and assuring accountability (i.e. assuring that objectives are being met) both at the different levels of direct service delivery and in policy-making offices at the national and provincial levels. The purpose of health information systems is to assure a timely flow of relevant and reliable information to meet these needs.

The existing health information systems in Cameroon are reporting a great deal of data useful for program planning and evaluation. At the same time, there are several ways in which the current system can be strengthened and improved, so that the information produced is most relevant to users.

One of the most important improvements will be to perform an analysis of decision-making and accountability information needs at each level of the health care system, in order to specify a simplified, minimum data set that can be institutionalized and will be most useful to service providers and managers. At each level of the system -- health centers and health posts, divisional, provincial, and national offices -- a committee of users will be organized on health information needs. Each committee will review the available information systems and make decisions about the instruments and systems to be adopted. The committees will also review the use of the instruments and usefulness of systems after 6 months and periodically thereafter. Information needs will be clearly linked to decision-making and accountability purposes. Information which is not essential to these defined purposes will not be collected.

The examination of information needs will cover at least three areas and will look at uses for the information from two points of view, i.e. that of the person collecting the data and that of his or her superiors. The areas covered will include:

1. Program activities: Information regarding the conduct of critical Program activities that address Program objectives. Included are numbers of contacts with members of target populations by specific activities.

2. Surveillance: These data include diagnosed cases of specific conditions like malaria/fever, malnutrition, diarrheal disease, measles, whooping cough, paralytic polio, and neonatal tetanus. This list will be kept short.

3. Management indicators: These include measures of productivity and efficiency. As the Project develops financing mechanisms, it will also need to establish accounting and financial control systems.

The two viewpoints -- local needs and needs at higher levels-- will assure that even at the most peripheral levels of the system people know why they are collecting data and are able to use the data to make better decisions on a daily basis. In addition, ways will be developed to stream-line the flow of information between levels of the system or systems. Since decision-making needs at higher levels of a system are often long-range and strategic, less detailed information is required. At the same time, more analysis is often necessary, and there is greater need for predictive information, projections, etc. Appropriate

reporting forms and procedures will be developed for these needs, along with appropriate methodology for performing data analysis.

Any standard report forms which are developed will be designed with the assistance of field personnel so that these reports will be of value in program management.

Once the proposed system has been tested and modified, the project will help assure that regular feedback is provided to health personnel on both completion of forms and on the implications of the analysis. Such feedback will both serve as a management tool and motivate cooperation with the system.

Although a completely automated health information system is not envisioned by the Project, DCPRMs will be trained in the use of microcomputers for both program management tasks and health data analysis. This will include training in the use of statistical analysis, spreadsheets, data-base management, and word-processing software.

Finally, the Project will provide technical assistance to develop an accounting and financial control system that will meet the budgeting and financial management needs of the Divisional Service for Preventive and Rural Medicine.

FIGURE VII.1

MINISTERE DE LA SANTE PUBLIQUE
DEPS/SSSD

REPUBLIQUE DU CAMEROUN
REPUBLIC OF CAMEROON

FICHE D'ACTIVITES DE SANTE PUBLIQUE ET TABLEAU DE MORBIDITE-MORTALITE

PUBLIC HEALTH ACTIVITIES FORM AND TABLE OF MORBIDITY-MORTALITY

Rapport mensuel/annuel : mois ..... (month)
(Monthly/annual report) année ..... (year)

Cachet – Stamp

Date .....

Province .....
– " –
Département ..... (Division)
Arrondissement ..... (Sub-Division)
Formation ..... (health center)
Categorie .....
Secteur : Public – Privé ..... (Public – Private)

Nombre de lits (number of beds)
Medecine .....
– " –
Chirurgie ..... (Surgery)
Pédiatrie ..... (Pediatry)
Maternité ..... (Maternity)
Autres ..... (Others)

I – ACTIVITES DE SOINS / NURSING ACTIVITIES

Activités en / Activities in	Dispensaire / Dispensary	Médecine / Medecine	Chirurgie / Surgery	Pediatrie/Pediatry		Autres/others		
				0-1 an / year	1-4 ans / years			
Consultants nouveaux / New consultants								
Consultations (anciennes + nouvelles) / Consultation (old + new)								
Malades hospitalisés / Hospitalized patients								
Journées d'hospitalisation / Hospitalization days								
Nombre de décès / Number of deaths								

II – ACTIVITES DES MATERNITES / MATERNITY ACTIVITIES

Nombre d'années ..... / Admissions
Journées d'hospitalisation ..... / Hospitalization days

	Nombre / Number	Naissances vivantes / Live births		Prématurés / Prematures		Morts-nés / Still births	Accouchements dystociques / Difficult deliveries	Décès mères en couche / Maternal deaths	Avortements / Abortions
		M	F	M	F				
	1 enfant / 1 child								
	2 enfants / 2 children								
	3 enfants + / 3 children +								

III – ACTIVITES DES PMI / PMI ACTIVITIES

	Prénatales / Antenatal	Postnatales / Postnatal	Nourrissons / Well babies		Diététiques / Dietetic
			0-1 an	1-4 ans	
Consultants nouveaux / New consultants					
Consultations (nouvelles + anciennes) / Consultations (new + old)					

IV – ACTIVITES DE LA MEDECINE PREVENTIVE / PREVENTIVE MEDECINE ACTIVITIES

Vaccinations	BCG	DT COQ	Antipolio	Variole / Small Pox	Rougeole / Measles	Antiamarile / Yellow fever	Méningite / Meningites	Antitétanique / Antitetanic	Autres / Others		
Nombre / Number											

MALADIES – *DESEASES* C = Cas / *Cases* D = Décès / *Deaths*	C.I.M. O.M.S. Révision 1965		AGE ET SEXE – 1 an M	– 1 an F	1-4 ans M	1-4 ans F	5-14 ans M	5-14 ans F	15-44 ans M	15-44 ans F	45 ans et + M	45 ans et + F	TOTAL/SEXE M	TOTAL/SEXE F
DECLARATION HEBDOMADAIRE														
Rougeole *Measles*	055	C / D												
Ictère fébrile *Icterus-Jaundice*	070	C / D												
Poliomyélite *Poliomyelitis*	041	C / D												
Trypanosomiase *Trypanosomiasis*	087	C / D												
Diarrhées graves *Diarrhoea*	009	C / D												
Fièvre typhoïde *Typhoid fever*	001	C / D												
Méningite cérébro-spinale *Meningitis*	036	C / D												
Choléra *Cholera*	000	C / D												
Variole *Small Pox*	050	C / D												
Fièvre jaune *Yellow fever*	060	C / D												
Charbon *Anthrax*	022	C / D												
Peste *Plague*	020	C / D												
Rage humaine *Rabies human*	071	C / D												
Varicelle *Chicken Pox*	052	C / D												
Coqueluche *Whooping cough*	033	C / D												
Tétanos *Tetanus*	037	C / D												
Lèpre *Leprosy*	030	C / D												
Syphilis toutes formes *Syphilis*	097	C / D												
Pian *Yaws*	102	C / D												
Paludisme *Malaria*	084	C / D												
Rhumes - angines *Cold-Influenza-Angina*	519	C / D												
Pneumonies *Pneumonia*	480	C / D												
Broncho-pneumonies *Broncho-pneumonia*	485	C / D												
Tuberculose pulmonaire *Tuberculosis*	011	C / D												
Affections cavité buccale *Deseases of oral cavity*	528	C / D												
Dysenterie amibienne *Amoebiasis*	006	C / D												
Autres dysenteries *Unspecified dysentery*	009-0	C / D												
Vers intestinaux *Intestinal helminthiasis*	129	C / D												
Dracunculose *Dracontiasis*	125-7	C / D												
Filariose à wuchéréria Bancroft *Filariasis, filariasis*	125-0	C / D												
Filariose à loa-loa *Filariasis, filariasis*	125-2	C / D												
Diphtérie *Diphtheria*	032	C / D												
Trachome *Trachoma*	076	C / D												
TOTAL à reporter		C												

MALADIES *DESEASES*	C.I.M. O.M.S. Révision 1965		AGE ET SEXE										TOTAL/SEXE	
			– 1 an		1 - 4 ans		5 - 14 ans		15 - 44 ans		45 ans et +			
			M	F	M	F	M	F	M	F	M	F	M	F
Report		C D												
Bilharziose intestinale *Intestinal bilharziasis*	120-1	C D												
Bilharziose vésicale *Vesical bilharziasis*	120-0	C D												
Infections gonococciques (gono +) *Gonococcal infections (gono +)*	098-0	C D												
Infections gonococciques (cas non confirmés) *Gonococcal infections (unconformed case)*	098-1	C D												
Leishmaniose *Leishmaniasis*	085	C D												
Rhumatismes *Rhumatism*	718	C D												
Troubles mentaux *Mental disorders*	298	C D												
Epilepsie *Epilepsy*	345	C D												
Conjonctivites *Conjonctivitis*	378	C D												
Otites *Otitis and diseases of ears*	380	C D												
Ophtalmie du nouveau-né *Ophtamia neonatarum*	360	C D												
Occlusion intestinale et hernie *Intestinal occlusion and hernia*	550	C D												
Appendicite *Appendicitis*	540	C D												
Fractures entorses-luxations *Fractures-sprains-dislocations*	N829	C D												
Morsures vénimeuses *Bites of venomous animal*	E905	C D												
Diabète *Diabetes*	250	C D												
Maladies hypertensives *Hypertensive desease*	400	C D												
Goitre *Goitre*	240	C D												
Malnutrition *Kwashiokor*	267	C D												
Anémies *Anemia*	285	C D												
Brûlures *Burns*	N940	C D												
Empoisonnements *Poisonings*	E980	C D												
Intoxication *Intoxication*	N989	C D												
Avortement *Abortion*	645	C D												
Autres complications de la grossesse et suite de couches *Others complications of pregnancy and puerperium*	634	C D												
Maladies de la peau *Demeses of skin*	886	C D												
Drépanocytose *Sickle cell desease*	282-5	C D												
Onchocercose *Onchocerciasis*	125-3	C D												
Autres maladies non spécifiées *Other not specified deseases*	796	C D												
TOTAL.....		C D												

FIGURE VII. 2

FICHE DE POINTAGE N° 1
SEANCE DE VACCINATION
VACCINATION SESSION

Centre of
Centre de: _____ Date: _____

		0 - 11 m	12 - 23 m	24 - 35 m	36 m et +	TOTAL
Nouveaux Ist visit						
Anciens Repeat attendance						
B.C.G.						
DTCOQ DPT	1					
	2					
	3					
		RAPPEL BOOSTER				
POLIO	1					
	2					
	3					
		RAPPEL BOOSTER				
ROUGEOLE MEASLES		9 - 11 mois				
TETANOS TETANUS		FEMMES ENCEINTES PREGNANT WOMEN	1			
			2			
		RAPPEL				
		ADULTES - GRANDS ENFANTS				

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FIGURE VII.3

MINISTERE DE LA SANTE PUBLIQUE

REPUBLIQUE DU CAMEROUN
Paix - Travail - Patrie

PROGRAMME ELARGI DE VACCINATION

FICHE DE CONTROLE N° 2

VACCINATIONS

RAPPORT MENSUEL _____
MONTHLY REPORT

Date	Centre de vaccination	Nouveaux	Anciens	BCG	D.T. COQ 1	D.T. COQ 2	D.T. COQ 3	D.T. COQ R	POLIO 1	POLIO 2	POLIO 3	POLIO R	Rougeole	TETANOS Femmes enceintes 1	TETANOS Femmes enceintes 2	TETANOS Femmes enceintes R	TETANOS Adult et grand enfa
TOTAL																	

FIGURE VII.4

MNA

FICHE DE CONTROLE N° 3

VACCINATION .....RAPPORT MENSUEL PAR TRANCHE D'AGE

MONTHLY REPORT BY AGE GROUP

CENTRE : MOIS : .....

Tranche d'âge	0-11 m	12-23 m	24-35m	36 m et. plus	Total	TOTAL
NOUVEAUX						
ANCIENS						
B.C.G.						
DTCOQ 1						
DTCOQ 2						
DTCOQ 3						
DTCOQ R						
POLIO 1						
POLIO 2						
POLIO 3						
POLIO R						
ROUGEOLE	9-11m					
TETANOS	FEMMES ENCEINTES			1		
				2		
	RAPPEL FEMMES ENCEINTES					
TETANOS	GRANDS ENFANTS, ADULTES					
AUTRES VACCINATIONS						

A _____ le _____

Le Responsable.

FIGURE VII.5

MIN. MINISTERE DE LA SANTE PUBLIQUE

REPUBLIQUE DU CAMEROUN
Paix - Travail - Patrie

SURVEILLANCE EPIDEMIOLOGIQUE DES MALADIES DU PROGRAMME ELARGI DE VACCINATION

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FICHE DE DEPISTAGE

CENTRE ..... Mois .....

N°	NOM	Sexe	Age Mois	Résidence	Date de diagnostic	ROUGEOLE		COQUELUCHE		POLIOMYELITE		TETANOS NEONATAL		
						Vacciné date si oui	DCD	Vacciné date 3e dose si oui	DCD	Vacciné date 3e dose si oui	DCD	Mère vaccinée	DCD	Lieu d'accouchement

A..... le

Le Responsable

FIGURE VII.6

MIN. MINISTERE DE LA SANTE PUBLIQUE

REPUBLIQUE DU CAMEROUN
Paix - Travail - Patrie

SURVEILLANCE EPIDEMIOLOGIQUE DES MALADIES DU PEV
SYNTHESE PAR CENTRES SENTINELLES

Province : ..... Département : ..... Année : ..... Mois : .....

CENTRES SENTINELLES	ROUGEOLE			COQUELUCHE			POLIOMYELITE			TETANOS NEONATAL		
	Cas	Vaccinés	DCD	Cas	Vaccinés 3e dose	DCD	Cas	Vaccinés 3e dose	DCD	Cas	Mère vaccinée	DCD
TOTAL												

A (..) ..... le (the) .....

FIGURE V

MINISTERE DE LA SANTE PUBLIQUE

REPUBLIQUE DU CAMEROUN
Paix-Travail-Patrie

SURVEILLANCE EPIDEMIOLOGIQUE DES MALADIES DU PEV
Epidemiological Surveillance of the Diseases of EPI

Rapport (mensuel ou annuel) Report (Monthly or yearly)

PROVINCE..... DEPARTEMENT (Division).....Année(year).....Mois(Month).....

MALADIES Diseases	Tranche d'âge / Age group															TOTAL	
	0 - 5 m			6 - 8 m			9 - 11 m			12 - 23 m			24 m et plus				
	Cas	Vaccinés	Décès	Cas	Vaccinés	Décès	Cas	Vaccinés	Décès	Cas	Vaccinés	Décès	Cas	Vaccinés	Décès	Cas	Vaccinés
ROUGEOLE Measles																	
COQUELUCHE Whooping Cough																	
POLIOMYELITE Poliomyelitis																	
TETANOS NEO-NATAL * Neonatal Tetanus																	

* Mère vaccinée/mother vaccinated.

A (at)....., le (on the).....

LE RESPONSABLE,

BEST AVAILABLE

FIGURE VII. 8

MINISTERE DE LA SANTE PUBLIQUE

PROGRAMME NATIONAL
DES SOINS DE SANTE PRIMAIRES

REPUBLIQUE UNIE DU CAMEROUN
PAIX - TRAVAIL - PATRIE

FICHE D'EVALUATION MENSUELLE (LE SUIVI)

(Village-Santé ou Quartier-Santé)

(A remplir par le Président du Comité de santé et l'agent de santé communautaire)

Province ..... *Année* .....
Département ..... *Mois* .....
Arrondissement ou District ..... *Date* .....
Village .....

I - ACTIVITES DE SOINS CURATIFS

- *Consultants* .....
- *Consultations (Anciens et Nouveaux malades)* .....
- *Evacuations :* - *Accouchements* .....
  - *Nourrissons (0 à 4ans)* .....
  - *Autres cas* .....

TABLEAU DE MORBIDITE

	AGE ET SEXE										
	1 AN		1 A 4 ANS		5 A 14 ANS		15 A 44 ANS		44 ET PLUS		TOTAL
	M	F	M	F	M	F	M	F	M	F	
1. Paludisme											
2. Maux de tête											
3. Toux											
4. Rhume											
5. Diarrhée											
6. Plaies											
7. Blessures											
8. Rhumatisme											
9. Conjonctivite											
10 Abcès											
11 Rougeole											
12 Autres maladies											
Total											

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II. — HYGIENE ET ASSAINISSEMENT

1. Nombre d'habitations au village ....
2. Latrines : Anciennes
Nouvelles ..... Total
- Bien entretenues — Mal entretenues
- Avec couvercle
- Utilisées — Non utilisées
3. Fosses à ordures :
- Anciennes — Nouvelles — Total
4. Enclos pour animaux
5. Propreté des habitations : propres — Malpropres
6. Point d'eau
- Avec abris et rigole et margelle
- Abris sans rigole
- Sans rigole ni abris

III. - MATERNITÉ

1. Nombre de naissances au village
2. Nombre d'accouchements à domicile
3. Nombre d'accouchements normaux
4. Nombre d'accouchements anormaux
5. Evacuations au Centre de Santé ou à l'Hôpital publics ou privés
6. Décès mères
7. Enfants mort-nés
8. Décès enfants dans les 48 heures après accouchement
9. Complications pendant l'accouchement
10 Complications après la délivrance
- Non expulsion de placenta
- Hémorragie
- Autres

IV. - P. M. I.

1. Visites prénatales
2. Visites post-natales : mères
nourrissons (0 à 4 ans)

V. EDUCATION POUR LA SANTE

1. Nombre de séances
2. Nombre de participants par séance (moyenne)
3. Nombre total de participants
4. Visites domiciliaires

VI. - NUTRITION

1. Nombre d'enfants pesés — Poids normal
En dessous du poids normal
2. Mesure du périmètre du bras
3. Nombre d'enfants avec pli cutané persistant
4. Nombre d'enfants avec pli cutané non persistant

VII. - VACCINATIONS

1. Enfants consultés
2. Enfants vaccinés
3. Lieu de vaccination
4. Nom du vaccin
Tétanos — Rougeole — DT coq — Autres
Polio

VIII. - VISITES DE SUPERVISION EFFECTUÉES PAR :

1. Chef de Service Départemental de la Santé Publique :

Nombre de journées de tournées S. S. P. — Date
Nombre de Villages - Santé supervisés :
Observations :

2. Représentant du Chef du Service Départemental de la Santé Publique :

3. Délégué Provincial de la Santé Publique

4. Représentant du Délégué Provincial de la Santé Publique

Nom de l'ASC — Signature :
Le Président du Comité de Santé — L'Agent de Santé Communautaire

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FIGURE VII.9

HC-MONTHLY RETURN FORM

DIVISION:.....

HEALTH POST:.....Month:.....19.....

Dates of visites by SUPERVISORY NURSE:	/ /	/ /	/ /
Dates of HEALTH COMMITTEE meetings...:	/ /	/ /	/ /
Number of Committee MEMBERS present/ total number of REGISTERED members :	/	/	/

HEALTH EDUCATION AND PREVENTION

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Attendance at CHILD WELFARE CLINIC/ total Nº REGISTERED in the QUARTER :	/	/	/	/
Number of CHILDREN UNDERWEIGHT.....:				
Dates of HEALTH TALKS given.....:	/ /	/ /	/ /	/ /
Number of Participants (ADULTS only!).:				

TOPICS:1.....2.....3.....

VACCINATIONS (fill in together with COORDINATOR)	09 D P T	10 Measles	
Other.....	12 Polio	13 Tetanus	

SANITATION

How many Villagers have built new LATRINES this month?...:	
How many COMPOUND CARDS did you fill in this month?.....:	
From these are 2nd or more times visits .....:	

In the CARDS you filled in, COUNT the following :

Having GOOD LATRINE..:		17 NO Latrine/COLLAPSED	
Latrine USED.....:		19 Latrine NOT used...:	
No. of CHILDREN WITH MEASLES Vaccin on IWC-card :		21 Nº attending IWC/ Nº NOT attending IWC :	/

ACTIVITIES of TRADITIONAL BIRTH ATTENDANT(S)-from their records

Nº of DELIVERIES.....:		23 COMPLICATED delivery:	

ANTE NATAL CARE CLINICS in each QUARTER:

	1st	2nd	3rd	4th
Number of PREGNANT WOMEN attending/ total Nº REGISTERED in the QUARTER	/	/	/	/
Nº REFERED because of COMPLICATION.....				

HEALTH COMMITTEE (Financial Situation and Drug Stock)

BALANCE last month (financial record)		INCOME :		new BALANCE:	
		EXPENSES:			

TABLETTS left at the end of this month according to Drug Record:

ASPIRINE 500 mg..:		BACTRIM..:		CHLOROQUINE	
ORAL REHYDR.PACKET		VERMOX..:		PARACETAMOL	

HEALTH WORKER PAID?(mark with X) NO 0 YES 1 if Yes, which:

Community Farming 2 Kind (fowl etc.) 3 Cash, how much?

Sign:

NE: Chairman/Secretary Health Worker PHO-Coordinator

F. MORBIDITY

	FOR EACH PATIENT : (only count ONE, the MAIN COMPLAINT or DISEASE !)	No. of PATIENTS seen or treated below 5 years	5 years & above	Total PATIENTS seen or treated	Patien REFERE
31	ANAEMIA				
32	CONJUNCTIVITIS				
33	DIARRHOEA & DISENTERY				
34	FEVER (Malaria and others)				
35	GASTRIC PAIN				
36	GONORRHOEA				
37	MALNUTRITION (all forms)				
38	MEASLES				
39	RESPIRATORY TRACT INFECTIONS *				
40	RHEUMATIC PAINS				
41	SCABIES				
42	WORMS (all types)				
43	WOUNDS and BURNS				
44	OTHER DISEASES				
45	T O T A L N U M B E R S				

* Bronchitis, Common Cold, and Pneumonia

G. ALL NEWBORNS THIS MONTH IN THE VILLAGE (total numbers)

	46 Male	47 Fem.		48 Male	49 Fem.
BORN ALIVE			BORN DEAD		

	50 home	51 Health Post	52 in Health C. or Hospital
DELIVERED AT			

	53
WOMEN DIED due to pregnancy or child birth ...	

H. ALL CASES OF DEATH THIS MONTH IN THE VILLAGE (one line per case)

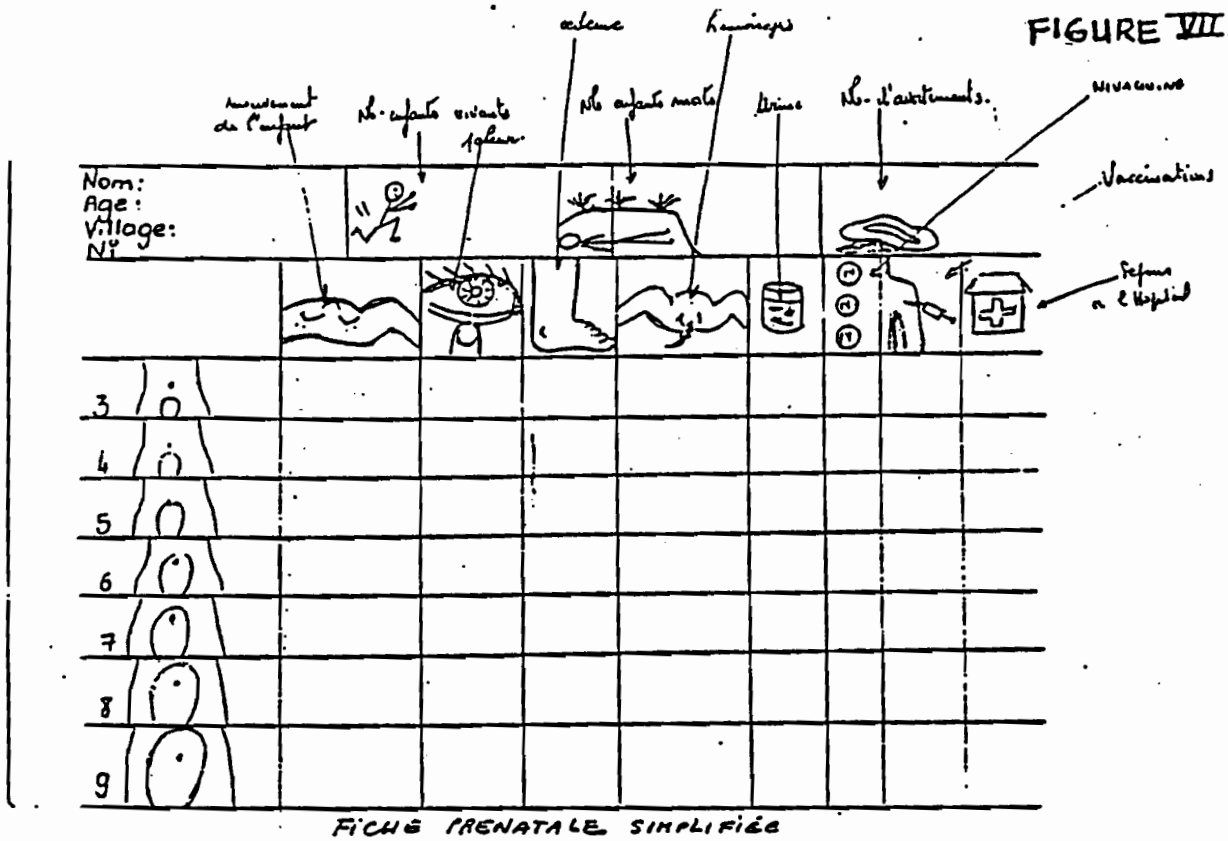
	SEX: M or F (male or female)	AGE (in months under 1 in years above 1 year)	CAUSE: 1.Accident 2.Diarrh. 3.Malaria 4.Malnutr. 5.Measles 6.Old age 7.Pneumon 8.Pregnancy or Delivery 9.Tetanus 10.Oth
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			

	54(m)	55(f)	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
→																	

→ not to be filled in! (0-12m/1-4 years/5-14 years/15-44 years/45

BEST AVAILABLE

FIGURE VII.10



FICHE PRENATALE SIMPLIFIÉE

SECTION VIII PROJECT IMPLEMENTATION PLAN

Implementation of the Project requires the coordinated and complementary efforts of the Ministry of Health, USAID, the Contractor, and numerous other organizations with interests in different Project activities. This section will summarize how the Project expects to accomplish that coordination in pursuit of the Project goal. First the Project objectives, approach, and resources will be summarized. Then the coordination of the various parties will be described. Finally the activities resulting from this coordination will be outlined.

PROJECT APPROACH

The purpose of the Project is the strengthen the ability of the government of Cameroon to provide cost-effective and life-saving health care services to the people of Adamaoua and South Provinces, and particularly to the children and women who are the most vulnerable portion of the population. The Project will provide technical assistance, training, and material resources over a period of five years to accomplish this purpose. It will be integrated with and directed by the Ministry of Health at all levels in the expectation of institutionalizing the improvements achieved through this cooperation.

A primary theme throughout the project will be health systems management in the broadest sense. Management improvements will be introduced in a concrete fashion that makes sense to health personnel at all levels by the development of selected high priority health interventions. The five primary interventions upon which the Project will focus are malaria control, immunization, growth monitoring with nutrition education, diarrheal disease control, and child spacing. However, the full range of health services provided to the people of Adamaoua and South Provinces will benefit from the management improvements.

The Project will promote the selected health service interventions from <u>within</u> the existing health care system. In this way the Ministry officials in these two provinces, and at the national level to a lesser degree, will be developing and employing improved management practices throughout the life of the project, increasing the likelihood for a gradual, non-disruptive institutionalization of those practices. Included among those practices will be improved evaluation and planning, problem solving techniques, personnel management and development, operations research, improved promotion and communications techniques, and improved resource management including the exploration of cost recovery mechanisms for health care financing.

Because the optimal design of many facets of the Project cannot be predicted with any certainty at the outset, significant effort will be devoted to operational research. The results of that research will permit repeated redesign of Project activities if changes appear to be indicated. A close working relationship with health officials at provincial, division, and local levels, as well as the guidance of the Technical Advisory Group at the national level, will assure close Ministry coordination with any design changes. Parts of the Project design - the child spacing intervention is perhaps the outstanding example - have deliberately been left increasingly vague after the first year or two to force a redesign of the activity when better information will be available for planning.

The Project will provide four long term technical advisors and 27 person-months of short term technical assistance to assist the Ministry of Health in the implementation of Project activities. Five Ministry personnel will receive Master's level training in the United States and then return to the Project provinces to supplement and eventually replace the technical expertise provided by the Contractor. Funds will also be provided for short term travel to attend conferences and workshops on subjects related to the Project and to observe successful related activities elsewhere.

In terms of commodities the Project will contribute a modest number of vehicles, fuel, and spare parts; medications, supplies, and clinical equipment; audio-visual and communications equipment and supplies; cold chain equipment and supplies; and office furnishings and equipment including computers.

Operating funds will be available for the various Project activities. As the Project progresses, these will be increasingly diminished as Ministry funding supplements, and in some cases replaces, Project funding. By the end of the Project the Ministry will be supporting the large share of continuing activities. Details of the Project contributions are found in Section VI.

PROJECT ORGANIZATION

This section describes the administration of the Project at the national and provincial levels and defines the roles of the Ministry of Health, the Contractor, and USAID/Cameroon.

Project Administration at National Level

Within the terms of the Project Agreement between the Government of Cameroon and USAID, responsibility for establishing Project policy will reside with the Minister of Health who will delegate responsibility to the Secretary of State or his/her

designated representative. Specifically, the Secretary of State will:

a. appoint a Ministry official to be Project Director;
b. assure the cooperation of the various offices of the Ministry of Health with the Project; and
c. facilitate relations between the Project and government offices within other ministries.

The Project Director will:

a. supervise all Project staff in Cameroon;
b. direct Project activities in accordance with the Project Agreement and the policies and procedures of the Ministry of Health;
c. facilitate a cooperative relationship between the Project and related offices of the Ministry of Health;
d. guide Project staff in Project planning, implementation, and evaluation;
e. assure the preparation of MOH records and reports in a timely manner; and
f. facilitate relations between the Project and other ministries.

The Contractor will:

a. provide a team of expert advisors to fulfil the technical advisory needs of the Project;
b. provide expertise and commodities in a timely fashion to meet the needs of the Project Plan;
c. facilitate the training, both internal and external, required by the Project;
d. establish and maintain an office capable of administering the Project in conformity with the requirements of both governments; and
e. maintain coordination with the Ministry of Health, USAID, and other organizations associated with Project activities.

The Contractor team in Cameroon will include a Chief of Party, a Management Training Advisor, and two Provincial Project Coordinators. The team will be led by the Chief of Party who will be responsible to the Project Director, USAID/Cameroon, and the Contractor organization for the coordination of national level Project activities and for support to activities at provincial and more peripheral levels.

In addition to the long-term technical advisors, 27 person-months of technical assistance will be provided in the following areas of expertise: management techniques, training techniques, formative research, health communications, health economics, nutrition, immunization programs, child-spacing, and malaria control.

USAID/Cameroon will:

a. assure that full agreement and commitment is reached with the Government of Cameroon prior to implementation;
b. assure that the Contractor provides technical expertise and Contractor-procured commodities in a timely fashion;
c. provide commodity and training support in a timely fashion;
d. provide supervision and support to the Contractor in accordance with standard policies and procedures;
e. facilitate coordination between the Project and other USAID and related projects and agencies;
f. assess the progress of the Project periodically and arrange for external evaluation and audit; and
g. prepare U.S. Government documents necessary for Project implementation.

The Health Officer of USAID/Cameroon will be responsible for liaison between the Project and the USAID mission. He will facilitate a working relationship between the Project, other projects, and external organizations.

Project Administration at Provincial Level

Since the essence of the Project is the improvement of health service delivery within South and Adamaoua Provinces, it is within the Provinces that most Project activities must be managed. Ministry officials working at provincial, division, and subdivision level to support the health workers in the field are thus the critical focus for the improved management aspects of the Project. The Project organization at national level will assist and support those efforts, but the most important and durable interventions will occur in the Provinces. The importance of Project administration within the two Provinces can hardly be overstated.

Within the Province the Provincial Health Delegate is the representative of the Minister of Health and is responsible for all health activities. For purposes of Project implementation, responsibility will be delegated to the Provincial Chief of Preventive Medicine who will:

a. direct all Project activities within the Province;
b. assure Project coordination between national and provincial levels;
c. assure Project coordination within the various levels and offices of the MOH within the province;
d. assign appropriate Ministry personnel and resources to Project activities;
e. endeavor to retain personnel trained by the Project in appropriate positions where their training can be utilized; and
f. assure Project coordination with other government agencies within the Province.

For activities occurring at Divisional and Sub-divisional levels responsibility will be delegated to Preventive Medicine officials as appropriate.

The Contractor will be represented at the provincial level by the Provincial Project Coordinator who will:

a: coordinate the input of all technical expertise and commodity support at provincial and more peripheral levels;
b. coordinate the support of the Management Training Advisor and the Chief of Party to provincial and more peripheral level activities;
c. establish and maintain an office capable of administering the Project at provincial and peripheral levels in conformity with the requirements of both governments;
d. assure the transmission of sufficient information to national level concerning activities in the Province to permit appropriate support; and
e. coordinate with other related projects and organizations operating within the Province.

PROJECT ACTIVITIES

The activities of the Project can be grouped into three broad categories:

I. Assessment of the situation: existing problems, resources, policies;
II. Development of strategies for intervention;
III. Management interventions.

These processes are generally not discrete, one-time activities, but iterative processes which are both continuous and changing as experience dictates. Together they comprise a package of health care system management processes which, when incorporated into the Ministry system, will permit the accomplishment of the Project purpose -- an improved capability of the Cameroonian health care system to provide services in the two selected Provinces.

This section will outline the three categories of activities and then indicate how they will be scheduled. A GANNT chart is presented to summarize the schedule of major activities.

Situation Assessment

Although much of the background information will have been collected before the Project actually begins, there will be a need to verify and update that information. Certain types of information, especially relating to health practices,

preferences, and understanding among the population at large, are not well known and will have to be studied. Ministry of Health policies relating to Project activities will need to be examined carefully to be sure that the Project conforms to them. Examples include national immunization and diarrheal disease control strategies, malaria treatment recommendations, selection of growth charts and recording forms to be used, and the degree to which cost recovery may be explored across the range of health services.

Such an assessment of the environment in which the Project will operate will be an ongoing part of the Project. Information will be collected repeatedly to guide and evaluate activities. The Ministry of Health's own management information system will be a preferred source of information, and improvements in that system will be an important and lasting result of the Project. Policy issues will be under constant review, and the Technical Advisory Group will give them particular attention at its annual meetings.

Strategy Development

Based on the information collected and the assessment of the situation, strategies will need to be developed, particularly within the Province -- the critical management level -- to implement the various Project interventions. All intervention strategies will have to be considered carefully with key operations personnel at the outset of the Project. They will be reviewed periodically and reconsidered urgently if serious problems appear.

Specific management strategies will be identified for 1) improvement of the skills of MOH personnel through in-service training, 2) improved systems for transport and logistics, 3) improved supervision systems, 4) improved systems for the distribution of drugs and supplies, and 5) the development of effective methods and messages for health promotion.

Management Interventions

Once the strategies have been worked out with the appropriate level for operations, the Project will attempt to put them into practice. Perhaps the major Project intervention will be the repeated retraining and follow-up of health service personnel at all levels, leading to an institutionalized pattern of regular in-service training and supervision. In order to accomplish this a core of skilled trainers will be developed through a training of trainers program. They will be assisted by Ministry personnel in management and supervisory positions who will receive training in a variety of management and training skills. Finally, the cadre of direct health care providers will receive training at least twice a year. Training will be

followed by supervision to assist in the application of new skills as well as to assess the efficacy of previous training and to identify additional training and resources that may be needed.

In addition to this regular system of training, special courses will be organized for persons carrying out KAP and other studies, for individuals carrying out specific surveillance functions, for personnel operating computers, etc. The staff of those health facilities to be developed into demonstration sites for ORT and nutrition will also require special training. So too will those persons developing and carrying out the various health promotion activities.

While the above training is occurring in Cameroon, five individuals will receive master's level health management training in the United States through the Project. Key Cameroonian personnel will also be sent on observational/study tours and to workshops, conferences, and seminars related to the Project.

A second major type of management intervention will deal with commodities. Drugs, supplies, equipment, and vehicles will be procured and distributed. Systems for the rational use of all such commodities will be developed. For drugs a cost-recovery scheme will be developed. Local production of oral rehydration salts will be pursued if the preliminary studies by PRITECH are encouraging.

A third set of management interventions, one which is expected to expand significantly the reach of the health care system, will involve the elaboration of communications techniques to promote behavior on the part of the public that will improve their health. Effective messages will be developed for communications methods ranging from face-to-face contacts to the use of mass media.

SCHEDULE OF PROJECT ACTIVITIES

Year 1

The first year of the Project will be heavily devoted to the collection of information, the agreement on strategies, procurement of commodities, and the launching of a first round of training and supervision. The schedule of events presented here and summarized in the GANNT chart will be subject to adjustments which constitute an important early activity.

During the <u>first quarter of year one</u> the primary focus of Project activity will be the development of operational work plans for interventions in malaria control, immunization, and

ORT (diarrheal disease control). These will be developed first because national strategies are available or in development. The Project will assist the MOH to interpret and extend those strategies in operational terms. Specific work plans will be developed in each of the Provinces to guide the early activities there.

In the course of developing work plans for these highly desired services, Contractor personnel will develop effective working relationships with their colleagues in the Ministry. It is essential that this step be accomplished at the very start of the Project and in a way that gives a leading role to Ministry personnel in order that the Project develop <u>within</u> the Ministry. The selection of three technical areas at once is expected to foster an integrated approach to their implementation.

Because of the time lag between the ordering of commodities and their receipt, the Project will order during the first quarter as many of the Project commodities (vehicles, equipment, drugs, supplies) as can be foreseen at the start.

During the <u>second quarter of year one</u> the strategies broached during the previous quarter will be refined. Their training implications will translate into the development of curricula and training plans and materials focusing on malaria control and immunization. In order to maintain the crucial link between training and supervision, the system of follow-up supervision will be addressed in association with the elaboration of training plans. Training in survey techniques will permit the special surveys to begin. (Details of those studies are found in the technical annexes.)

It is expected that serious policy discussions and planning concerning interventions that are less well defined by the Ministry will begin during the second quarter. Preliminary plans for the development of a drug distribution system based on the principle of cost recovery will be elaborated. Planning for local production of oral rehydration salts will proceed if initial assessments have been encouraging. Field testing of alternate children's health cards will be inaugurated as a first step in strengthening the management information system within the Ministry.

In the <u>third quarter of year one</u> policy development and training planning will continue. The training of trainers course will be held and the first training workshops for management and supervisory personnel in the provinces will take place. Training in laboratory skills required for malaria surveillance will also occur. Seminars for physicians will be held to solicit their participation in the diarrheal disease control activities. Work will begin on the development of a plan for Project transport and

logistics. Studies will be undertaken to collect the information required for the health promotion and communications activities. A separate formative research plan relating to the child-spacing intervention will be worked out in collaboration with external organizations and other projects.

In the fourth quarter of year one the drug distribution plan will be completed and ready for testing in time to assure the availability of chloroquine required for the malaria intervention which will be a primary subject of the first in-service training provided to the peripheral health workers. Periodic evaluation of training effectiveness will begin as will regular supervision of the health workers. Arrangements will be complete for three Ministry personnel to begin work on master's level programs in health services management in the United States.

By the end of the first year strategies will have been developed for most of the Project interventions and the implementation of some begun. Approximately nine months of short time technical assistance will have been used to help to plan and launch those activities.

Year 2

The second year will continue the activities of year one, but the focus will shift from the development of strategies to their implementation, evaluation, and revision. Particular emphasis will be placed on the drug distribution system, the implementation of the ORT intervention, and the continuation of regular in-service training and supervision. Short term expertise will be employed to help to develop the newer activities and to guide the health promotion campaigns. Plans for the last three years of the Project will be reviewed with a view to identifying additional resources that will be required.

During the first quarter of year two work will continue on the diarrheal disease control strategy and the development of an effective and efficient management information system that embraces the activities of the Project. Health promotion messages will be readied for dissemination for malaria control and immunization. Messages for ORT, nutrition, and child-spacing will be under development. The initial trials of the drug distribution system will be underway. The Technical Advisory Group will meet to consider the Project strategies as a whole. The commodities procured in year one should have been received and distributed.

The second quarter of year two will see the inauguration of health promotion campaigns concerning malaria treatment and immunization. These will be coordinated with the second round of in-service training courses for peripheral health workers. ORT demonstrations centers will be established at hospitals and

health centers to serve both as ORT training sites and as sites where methods for the training of mothers in ORT can be field tested. Plans for nutrition demonstration will be prepared. Study tours to visit other child-spacing programs will be followed by the development of a program of orientation, sensitization, and training in the development of appropriate child-spacing services.

During the third quarter of year two a second training of trainers course will be conducted as well as additional workshops for managers and supervisors. Final preparations will be completed for the third IST round which will focus on ORT. The drug distribution system will be extended if the scheme appears workable.

The third round of in-service training will be held during the fourth quarter of year two and focus principally on the control of diarrheal disease, and particularly the use of ORT. The first trials of nutrition demonstration will be carried out during this quarter. Mass media messages concerning ORT will be ready for dissemination in year three.

By the end of year two all the interventions comprising the Project will have been set in motion. Information will have accumulated by which evaluation of the activities can begin. The basic management systems will be in place. Three individuals will have completed the first year of their master's programs in the United States and two more will be ready to begin.

Year 3

The third year of the Project will be characterized by a continuation of the major activities, with such revisions as needed. The regular training programs will continued, their content determined by trainers within the two Provinces, and their training plans and materials locally generated. By the middle of the year it is projected that the Training Advisor will be able to depart, leaving an ongoing training program in the hands of the Cameroonian trainers.

The mass media effort in year three will focus primarily on ORT first and then nutrition. The availability of child-spacing services will be expanding as experience in integrating them into the standard health services in an appropriate fashion has accumulated.

By the end of the third year the management interventions will be well established in the Ministry. Plans for the integration into Ministry management of the three individuals who will soon return from their master's level training will be completed.

The major activities scheduled for year three are indicated in the GANTT chart, but it is likely that revisions will have been made at the recommendation of the Technical Advisory Group.

Year 4

The first three individuals trained in the management of health systems will return in year four and assume an important role in the development of the management systems in South and Adamaoua Provinces. The ongoing activities of the Project are expected to continue. The mass media campaign will complete the promotion of improved childhood nutrition practices, and special attention will be paid to carrying nutrition and other health messages to target group outside the formal health establishment. Traditional birth attendants and women's groups are two such targets.

During year four increasing attention will be paid to the evaluation of the Project activities. The management information system and specialized surveillance systems will be producing regular reliable information. Special studies will demonstrate the impact of Project activities on the health behavior of the community members. A formal evaluation will assess the Project and recommend any extension of any or all parts of the Project.

Year 5

The fifth year is scheduled to be the final year of the Project. Particular attention will be paid to the withdrawal of the Project while the health and management services supported by the Project continue. Two additional newly trained managers will return from the United States and integrated into the management of the system. The two Provincial Project Coordinators are scheduled to leave during the third quarter of the year. The Project will close at the end of the year unless it has been extended, a decision that will have been made by the beginning of the year. The activities the Project had helped to develop will continue as part of the ordinary services provided by the health care systems of South and Adamaoua Provinces. Some of the more impressive innovations will probably have been introduced elsewhere as well.

The quarter by quarter schedule of events has not been described for the third, fourth, and fifth years of the Project because it is expected to be adjusted after the experience of the first two years. The GANTT chart presented on the following page provides a summary of the tentative schedule of Project activities. The central portion of the chart under the heading "Components Affected" indicates the technical components of the Project that will be affected principally by each of the management activities.

TIME SCHEDULE OF PROJECT ACTIVITIES by Year and Quarter

ACTIVITY	Components Affected					Year 1				Year 2				Year 3				Year 4				Year 5			
	MAL	IMM	ORT	NUT	C-S	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
I. COLLECTION OF INFORMATION AND PROBLEM IDENTIFICATION																									
A. Clarification of policy issues:																									
1. Road to Health Card		X		X			+	+	+	+	+	+	+												
2. Malaria treatment recommendations	X					+	+	+																	
3. Immunization strategy		X					+	+	+	+	+	+													
4. Diarrheal disease control strategy			X			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
5. Acceptablility of cost recovery	X		X				+	+	+	+	+														
6. Feasibility of local ORS production			X				+	+	+	+	+														
B. KAP and nutrition surveys	X		X	X	X		+	+	+	+	+			+	+	+		+	+	+					
C. Mass communications studies	X	X	X	X				+	+	+		+	+	+		+	+	+	+	+					
D. Routine health and management information systems	X	X	X	X	X				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
E. Surveillance systems for malaria and EPI diseases	X	X						+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
F. Evaluation and audit	X	X	X	X	X														+	+	+		+	+	+	
II. STRATEGY DEVELOPMENT																									
A. Develop training curricula and materials	X	X	X	X	X	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
B. Develop transport and logistics plans		X						+	+	+	+	+	+												
C. Develop supervision plans	X	X	X	X	X		+	+	+	+	+														
D. Plan drug distribution system using cost recovery	X		X						+	+	+	+													
E. Identify channels and develop messages for dissemination	X	X	X	X	X					+	+	+	+	+	+	+		+	+	+					
F. Periodic review of Project strategies	X	X	X	X	X					+	+	+		+	+	+		+	+	+		+	+	+	
III. MANAGEMENT INTERVENTIONS																									
A. Develop skills of personnel through training																									
1. Training of trainers	X	X	X	X	X			+	+	+		+	+	+						+	+	+			
2. Training workshops for managers/supervisors	X	X	X	X	X			+	+	+		+	+	+		+	+	+		+	+	+		+	+
3. Provider level in-service training	X	X	X	X	X				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
4. Demonstration sites			X	X							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
5. Special training (studies, surveillance, computer)	X	X	X	X	X	+	+	+	+	+	+	+		+	+	+	+	+	+	+					
6. Training in communications/health promotion	X	X	X	X	X							+	+	+		+	+	+		+	+	+		+	+
7. Long-term external training in health management										+	+	+	+	+	+	+	+	+	+	+	+				
8. Short-term external training, workshops, study tours	X	X	X	X	X	-	-	-	-	v	a	r	i	o	u	s	-	-	-	-	-	-	-	-	-
B. Facilitate regular, effective supervision and feedback	X	X	X	X	X					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
C. Manage Project commodities																									
1. Procure vehicles, drugs, supplies, equipment	X	X	X	X	X	+	+	+	+	+	+	+	+												
2. Implement cost recovery drug distribution system	X		X							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
3. Develop local production of oral rehydration salts			X				+	+	+	+	+	+	+	+	+	+	+								
D. Promote improved health practices																									
1. Sensitize health staff	X	X	X	X	X					+	+	+		+	+	+		+	+	+		+	+	+	
2. Campaigns using mass media	X	X	X	X							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
3. Face-to-face promotion	X	X	X	X	X					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

SECTION IX. TRAINING PLAN

1. Objectives of the MCH/CS Training Program

The objective of the training program is to increase the effectiveness and efficiency of existing health workers in the Adamaoua and South Provinces at all levels of service delivery and management by providing them with the knowledge and skills which are necessary for them to perform their assigned roles competently.

2. Background

2.1 Training of Physicians

The University Center for the Health Sciences, CUSS, (Centre Universitaire des Sciences de Sante) which embraces the Medical School, is administered by the Ministry of Higher Education and Research (MESRES). Its purpose is to train physicians to meet the health care needs of Cameroon.

The Medical School is widely recognized for its accomplishments in the field of community medicine. Students receive practical training in maternal child health and primary health care at provincial hospitals and rural health centers.

However, the major shortcomings in the CUSS curriculum are:

- the lack of management training courses which would better prepare physicians for their future managerial and administrative roles within PHC.

- the lack of training of trainer (TOT) courses which would enable the physician to upgrade the skills and knowledge of his staff through in-service training.

Discussions have already taken place with design team members and CUSS administrators to explore the participation of faculty and students in the Project. Possible areas of collaboration that have been identified include:

- curriculum adaptation/development
- participation of faculty members as trainers in TOT courses
- student participation in operations research in conjunction with their senior thesis research.

2.2 Training of Post-Graduate Nurses (Senior Health Technicians)

Post-graduate level nurses are trained through the Program of Advanced Studies in Nursing (CESSI), under the direction of the Ministry of Education. As a regional center open to all African states, it provides training for post-graduate nurses, graduate midwives, and obstetrical nurses. CESSI, provides a three-year training, and is located in Yaounde.

The program has two major emphases:

1. Training of public health administrators in planning and management of hospitals and paramedical schools.

2. Training of nursing tutors in curriculum development for training programs for all categories of nursing personnel.

Because of CESSI's past experience with modern teaching practices and development of competency-based curricula in the Strengthening of Health Delivery Systems project (SHDS), it could play a role in the design and delivery of the project training curriculum.

Moreover, many of its students are currently deployed at health centers where the Project will be active. Preliminary discussions with administrators and faculty during the design phase indicate a strong interest and willingness to collaborate with the project. Faculty could assist in the design of competency-based curricula, as well as serve as lecturers. Their students could greatly benefit from participating in the KAP studies, functional task analyses, and other operations research activities which will take place in the project areas.

2.3 Ministry of Health Nurse Training Programs

2.3.1 Nurses and Sanitary Technicians

Nurses and sanitary technicians are trained at the School for Nurses, Medical/Sanitary Technicians and Health Engineering at Yaounde, (Ecole d'infirmiers des techniciens medico-sanitaires et des techniciens principaux du Genie Sanitaire de Yaounde). The school has recently opened up a pediatrics section and the graduates are expected to be posted in maternal health care centers, pediatrics wards, and possibly developed health centers. As potentially key personnel in pediatrics hospital wards, they will probably manage ORT units.

2.3.2 State Registered Nurses (Infirmiers Diplomes d'Etat)

The training of state registered nurses and midwives and obstetrical nurses occurs at the National Nursing and Midwifery School, (ENSIFAY), which has locations in both Yaounde and Bamenda. The three-year curriculum focuses on classical nursing models. The training provided is not relevant to the management and delivery of Primary Health Care. Very little training is given in management and supervision. This is particularly disquieting given the fact that governmental policy states that all developed health centers be staffed by a state registered nurse.

2.3.3 Assistant Nurses (Infirmiers brevetes)

Assistant nurses undergo a two-year training program which stresses classical nursing care with little emphasis placed on the delivery of PHC services or the management and administrative skills which are required to help them fulfill their role as directors of rural elementary and developed health centers. In the project zones, there are schools in Ebolowa and Ngaoundere which have indicated that they could provide classroom space and faculty as trainers during their non-peak training periods.

2.3.4 Nurse Aides (Aides soignants)

Training for nurse aids is conducted at one-year schools which focus largely on traditional nursing care using a lecture-type format for instruction. The assistant nurse training school in Ebolowa also has a school for nurses aides and is willing to provide access to its facilities and faculty to assist in training functions during summer and winter breaks.

2.3.5 The Center for Health Training and Health Education

The Center for Health Training and Health Education, a division of the Organization for Control of Endemic Diseases in Central Africa (OCEAC), provides continuing education courses in surveillance, however,these courses are not offered on a regular basis. OCEAC also provides annual courses for graduate nurses in epidemiology and communicable disease control.

2.3.6 Missionary-Affiliated Nurse Training Programs

Missionary schools provide training for many of their own assistant nurses and nurse aids. Missionary schools must comply with the curriculum and policy guidelines issued by the MOH.

3.0 Description of Current Training Activities in Adamaoua and South Provinces

Visits by the design team to the two Provinces revealed that there was little ongoing in-service training at most health centers. The major training activity of health personnel appeared to be that of training community health workers. Many directors of the health centers indicated that the major constraint to implementing in-service training programs was the insufficient budget for training and transport.

The two training schools in Ebolowa have few resources such as audio-visual aids and materials that could be used for practical demonstrations. Instructors indicated that the lack of these teaching materials forced them to resort to traditional lecture-type formats and to focus more on theoretical issues. Their curriculum also does not offer any management courses even though many of the prospective graduates will be employed to manage and supervise personnel at the health centers.

Faculty and administrators alike expressed an interest in collaborating on project activities, including making their facility available to the Project as well as providing faculty to assist in the training program.

To summarize, a number of constraints found to interfere with regular in-service refresher courses for health personnel in the Adamaoua and South Provinces include:

1. The lack of sufficient training budgets to support programs other than the training of community health workers and the budgetary constraints implicit in absorbing transportation costs, per diems and the cost of training materials, trainers and support staff.

2. The logistical problems associated with finding a centrally located, easily accessible center other than in the provincial capitals large enough to hold training courses and accommodate trainees.

3. The service delivery problems which arise when vital staff members are called away from their regular duties for an extended period to attend training sessions.

4. The lack of trained trainers with exposure to adult-learning models and practices who can plan, design and deliver competency-based training.

The project training plan addresses these issues and responds to many of the constraints identified. More significantly, it sets in motion an institutionalized in-service training mechanism that will have life well beyond the end of the Project. The Project will train Cameroonian health personnel in how to plan, conduct and evaluate regular ongoing in-service training programs which will enable rural health personnel to continuously update their knowledge and skills in the face of the ever-changing technology. The Project will be responsive to serial KAP studies performed to monitor the appropriateness of technological interventions within the cultural milieu and will make modifications, whenever necessary, to adapt to local conditions.

4.0 Training Goal:

The central aims of the project training program are to institutionalize in-service training and to update technical skills and knowledge for more effective and efficient management of rural health services.

4.1 Training Strategy

The Project will provide in-service management training to all health personnel with significant management responsibilities. This training will enable existing personnel to implement the management systems improvements proposed by the Project, especially in the areas of supervision, drug supply and logistics, financial management and budgeting, and management information systems.

Separate management training modules will be used for different levels of staff, according to prior management experience and training needs. Initially the Project will train:

1) Provincial Chiefs of Preventive Medicine and Public Hygiene, and Provincial PHC Coordinators.

2) Divisional Chiefs of Preventive and Rural Medicine and Divisional PHC Coordinators.

3) Sub-divisional PHC Coordinators and Heads of Health Centers.

Because of limited project and GRC resources, the Project will use a TOT approach to training rather than training all health personnel directly at provincial, divisional and sub-divisional levels. The Management Training Workshops will first train personnel at the provincial level, who will in turn participate in the training of personnel at the next level down, and so on, thus providing a multiplier effect. In addition, the participants in the Management Training Workshops will be responsible for establishing a weekly half-day in-service training program at their respective health facilities. Periodic supervisory visits will be made to assist trainers and evaluate their progress. Thus, by utilizing existing personnel and facilities, the Project will reduce training costs and improve sustainability.

The Project will engage in three types of training interventions:

1. TOT training. This will permit the Project to deliver cost-effective training in the project areas.

2. Management training. This will promote more effective and more efficient delivery of services.

3. Technical Training. This will provide technical skills training in an integrated approach to child survival through technology that is simple yet appropriate to Cameroon.

4.1.1 Benefits of Training Strategy

The training strategy will have a number of built-in benefits. Trainees will be given more opportunities to practice newly acquired skills over a longer period of time to ensure retention. Trainees will have more opportunities to interact with their trainers and get immediate feedback on their mastery of newly acquired skills. Moreover, institutionalized, regular in-service training will provide more opportunities for effective team-building and problem-solving in the delivery of health services.

5.0 Training Approach

Current teaching practices in Cameroon tend to be largely classical in that the major focus is placed on formal lectures with little emphasis given to case studies, demonstrations and other interactive approaches to learning. Moreover, most health training institutions furnish their students with a broad knowledge base, which may or may not be relevant to job performance. This training orientation explains why many health

workers feel that the training they received did not fully prepare them to perform their duties in the delivery of health services. Many physicians and nurses who are called upon to administer large health programs have received no formal management training.

The cornerstone of all Project training activities will be a competency-based training model which will focus on furnishing the trainees with the skills and knowledge that are required in the performance of their roles within the public health care system. The following elements will be embraced:-

1. Definition of roles.

2. Task analysis of roles.

3. Planning and delivering a curriculum based on the knowledge and skills requirements of tasks.

4. Evaluation based on mastery of training objectives and continuous feedback to trainees regarding their level of performance.

4. Participatory approach to learning, including case studies, role-playing, simulations, demonstrations, small work groups, and the use of audio-visual aids, will enable trainees to master learning objectives.

6.0 Curriculum Adaptation/Development

Because of the significant number of existing materials which relate to the content of the training program of the Project, a materials adaptation approach will be used whenever feasible. This approach will reduce the lead time necessary for producing a curriculum and delivering the first training courses. To organize and complete the curriculum adaptation, the Project will first conduct an analysis of roles of health workers in the project areas, then perform a task analysis of the roles identified, and will finally hold a series of one to two-day orientation seminars at the national and provincial levels to provide information on the project training program and its competency-based approach to training and materials adaptation as well as establish task forces which will have specific roles in the curriculum adaptation process.

6.1 Task Analysis

To perform the detailed task analysis, the following steps will be taken:

1. Definition of roles.
2. Task analysis of roles.
3. Analysis of knowledge, skills and practices required for each task.
4. Separation of the knowledge, skills and attitudes, and their reassembly into discrete "learning units".
5. Determination of the frequency with which a given task is performed in order to establish training priorities and sequences.
6. Determination of performance standards in order to set training priorities.

In conjunction with the functional task analysis, health workers will be asked to assess their own competence (knowledge and skills) of the tasks identified by using a rating scale. Supervisors will use a similar rating scale to assess the level of competence of the health workers. These two measures will assist curriculum designers in establishing priorities in the sequencing of the training materials as well as the relative weighting (emphasis) given to a learning task. Thus, the task analysis will guide the trainers in the design and development of the training materials to meet the training needs of diverse trainee populations. Trained nurses will be expected to progress through certain aspects of the training program more rapidly than nurses aides because of their knowledge and skills. Moreover, because of the differing levels of responsibility, each category of nurse will be required to master different skills and fields of knowledge, directly related to their supervisory and training roles within rural health services delivery.

6.3 Orientation Seminars

After the definition of roles and functional task analyses have been completed in the project zones, a two-day workshop will be organized to discuss the findings and establish task forces to work on specific items in the curriculum adaptation phase.

The participants will include:

Representatives from the MOH who deliver and/or manage training, including training institutions.

MOH officials who assign health workers within Adamaoua and South Provinces.

Physicians from both the public and private sector with experience in rural areas.

MOH management specialists and senior officials.

Experienced rural health workers, including nurses and aides.

Long-term and short-term technical advisors with experience in the following areas: curriculum development, training of trainers, management training and the technical areas of malaria control, immunization, oral rehydration therapy, growth monitoring, and child-spacing.

Specialists from OCEAC, UNICEF, PAID, OSTROM, Save the Children and other NGO's including missionary groups.

All GRC ministries concerned with the delivery of health care services, including the Ministry of Women's Affairs,the Ministry of Agriculture and the Ministry of Social Affairs.

Input from the diverse makeup of the participants will allow for the design of a curriculum which is responsive to the needs and interests of the health care community. Moreover, the deep reservoir of experience and technical expertise will insure the development of a curriculum which embraces the latest technological findings and is appropriate to targeted trainee populations.

In addition, participants will benefit from the experiences gained through the curriculum adaptation process which will guide them in future curriculum design endeavors.

Task forces will be established utilizing some of the participants to review existing training materials from relevant sources (including WHO manuals, CDSS, UNICEF, the SHDS project, and locally produced AMA materials). The Management Training Advisor will be responsible for coordinating the work of the task forces.

7.0 Training Curriculum Formats

As previously stated, the curriculum will be developed from task analyses and job descriptions for every category of health worker. Training materials will be structured to provide the trainee with discrete skills and knowledge to perform specific work-related tasks.

Each instructional unit (module) will contain the following parts:

a. Trainee Text - consisting of:

1. Clearly stated learning objectives
2. Training Content
4. Exercises
5. Self-instructional units
6. Knowledge and skills checklists to be used as evaluation tools to assess progress and mastery of knowledge and skills.

b. Trainers' Manual - comprising:

1. Clearly stated learning objectives
2. Trainer Methodology
3. Trainer Guide
4. Teaching plans and schedules
5. Answers to review questions and exercises
6. Suggestions for supplementing and elaborating text to provide trainee with more learning opportunities
7. Ancillary audio-visual materials
8. Evaluation Instruments such as pre-tests, post- tests, and other tools to measure trainee progress in acquiring skills and knowledge.

7.2 Training Content

The Management Training Workshop will consist of three components with major emphasis given to management.

1. Management Training

The Management Training Workshops will first present a general orientation to the role of a manager, including his or her responsibilities in the areas of planning, program and operations management and evaluation. In addition, the workshops will concentrate on developing practical skills and building knowledge in the four areas of emphasis outlined in Table IX.1 A fifth area is also shown for those managers who will be introduced to the use of computers.

2. Technical Training

The focus of the technical training module will be an integrated approach to the five child survival interventions in the project areas. These include malaria control, immunization, growth monitoring and nutrition, diarrheal disease treatment/management through ORT, and child spacing. The content of the technical training is outlined in the various technical sections found in the Annexes and will be modified during the curriculum adaptation/development process.

3. Training of Trainers

The objective of the Training of Trainers Module of the Project's in-service training program is to provide supervisory and managerial personnel with pedagogical skills and knowledge to design, deliver and manage the training of colleagues and peripheral health workers under their supervision. The training course will focus on competency-based training and performance standards which are central to the management function. Other topics will include modern adult learning models, instructional techniques, preparing learning objectives, evaluating performance, scheduling training activities, preparing instructional materials, developing teaching plans and managing the training program. The training will make use of interactive approaches to learning including role-playing, case studies, problem-solving, simulations and discussion groups.

TABLE IX.1: Management Training Modules

Module	Subjects Covered
1. Supervision & Personnel Management	. Organizational structure of MOH . Roles and responsibilities of health personnel . Setting behavior objectives . Incentive structures and motivating staff . Controlling and evaluating success of managers in using resources to achieve programmatic objectives . Using the health information system as a tool for supervision and performance evaluation
2. Drug Supply & Logistics Management	. Organization of existing public sector pharmaceutical supply system . Roles and responsibilities of health personnel . Procurement(forecasting need, requesting, receiving and inspecting drugs) . Distribution (inventory control,storage, re-ordering, recording and reporting) . Prescribing and use (protocols, control) . Transportation and Facilities management.
3. Financial Management & Budget	. Explanation of budget process in the MOH . Use of budget as a planning document . Use of budget as a management tool for monitoring progress in achieving health goals cost-effectively . Promotion of cost-consciousness among health managers . Basic bookkeeping . Organization of Financial information systems . How to read financial reports and perform simple financial analysis
4. Management Information Systems (MIS)	. Decision-information analysis (determining information needs based on decision-making responsibilities) . Using information for program planning and evaluation . Accountability information needs . Financial management information systems . Recording, classifying, summarizing and reporting information
5. Microcomputers and Computerized MIS (for PCPMPHs and DCPRMs only)*	. Introduction to computer hardware and software . Keyboard and systems components . Data base management systems . Spreadsheets and financial analysis . word processing . Health data analysis

* Probably separate workshops. Actually, the computer training will not really be done in the in-service training workshops, but will be handled one-on-one by our advisors, except for the first session (a special course for users).

In addition to the management courses described in the preceding section, special management problem-solving workshops will be provided for senior level staff to work on resolving management issues identified in the course of the Project. Some topics might include improved management and use of project vehicles, development of incentives for the effective and efficient maintenance of project vehicles, development of incentives to motivate personnel toward improved job performance, development of performance standards, etc.

8.0 Participant Training

A. Long-Term Training in USA

The Project will sponsor five candidates for two-year Master's degrees in Public Health. The training is designed to strengthen the MOH by providing training in Public Health Administration, Maternal and Child Care, Health Care Financing, Community Health Planning and Management Information Systems.

The first three participants will begin Master's degree training in year 2 of the Project. In year 3, the remaining candidates will begin their studies which will ensure their completing their studies before the end of the Project. All long-term participants will return to Cameroon at the end of their studies and will work with both the Project and the MOH.

B. Short-Term Training

Short term training activities will be largely of three types:

1. Participant training at West African institutions in programs related to the objectives of the Project.

2. Participation in regional and international seminars and conferences which focus on issues in public health including health care financing, community medicine, drug supply and logistics management, epidemiological surveillance, public health planning, preventive health maintenance and management information systems.

3. Study Tours which provide participants with opportunities to observe first-hand, institutions and programs which are exemplary models of sound management practices and illustrative of effective strategies and approaches for overcoming some of the managerial and technological constraints in the delivery of rural health services.

9.0 Implementation

A. Curriculum Adaptation/Development

The first step to be taken in the implementation of the training plan will be to verify the actual numbers of health facilities and health personnel by categories. Since the training program envisions training at least one supervisor at each of the existing health facilities in the project zones, accurate counts are critical. The Project will conduct these counts while defining the roles and responsibilities of health personnel.

The Project will then perform task analyses of the roles identified and begin work on the curriculum design and adaptation phase. Following task analysis, the project will hold orientation seminars at the national and provincial levels to acquaint participants with project training objectives to establish task forces which will aid the adaptation/development of specific areas of the curriculum.

Following review and modification of the curriculum, the Project will prepare audio-visuals and begin reproduction of materials. One month prior to the initial training course, the Project will hold another orientation seminar in each province to establish training program schedules and finalize all logistical arrangements.

B. Course Delivery

Basic management training courses are scheduled to be delivered at least twice a year. All courses, except the initial one, will last three to five days. Ideally, the first will last ten days to give participants more opportunity to develop training skills since they will be responsible for implementing in-service training at their work sites and training peripheral health personnel 60 days after this training.

Within 60 days of the initial training, participants will be required to submit detailed action plans for the implementation of training at their work-sites. The content and the level of training should be appropriate to the roles and the responsibilities of the health personnel. On-site training sessions will be conducted in weekly half-day sessions over a period of 15 weeks to cover the initial management, technical and TOT topics. It is expected that this rhythm of weekly training sessions, once established, will be maintained for the purpose of public health study and problem solving.

C. Curriculum Evaluation and Revision

Following the initial management training workshops held in both provinces, the Project will evaluate the results and modify the program accordingly. With appropriate modifications and revisions, the Project will implement in-service training workshops twice a year for all rural health service providers.

Throughout the course of the project, there will be ongoing monitoring and evaluation activities to assess the realization of the training objectives.

10.0 Implementation Activities Schedule

1. Month 1
   Verify number of health workers and facilities.
   Conduct orientation session.

2. Months 1&2
   Perform Task Analysis.

3. Month 2
   Establish Curriculum Adaptation Task Force.
   Develop prototype teaching plans.

4. Month 4
   Review curriculum.
   Modify curriculum based on review.

5. Month 5
   Prepare audio-visuals.
   Materials Reproduction.

6. Month 6
   Provincial orientation.
   Select trainers and provide orientation.
   Establish Program Schedule.

7. Month 7
   Deliver initial training in North.
   Deliver initial training in South.

8. Month 8
   Trainers deliver initial IST course at work site.
   Begin on-going monitoring and supervision of training.

9. Month 9
   Evaluation of initial training courses.
   Modification of training courses.

10. Month 13
    Deliver part 2 of initial training course.

11. Month 15
    Deliver part 2- IST course at work site.

12. Month 18
    Midterm evaluation of Management Training Program.

13. Month 21
    Curriculum Adaptation/Revision.

14. Month 35
    Evaluation of Training Program.

11.0 Training Outputs:

At the end of year one, 800 health workers will have been trained in management training and technical training, emphasizing malaria control and immunization. Of these, 200 will also have been trained in training of trainers. In addition, 15 laboratory workers will be trained in laboratory analysis.

At the end of year two, 800 health workers will have been trained in management training emphasizing ORT, growth monitoring and nutrition and child spacing. A further 200 will have been trained in the training of trainers.

At the end of year three, the trained trainers will take over all training activities in the two project zones.

At the end of year four, three participants will be trained in the United States in Public Health at the Master's level.

At the end of year five, two further participants will have been trained in the United States at the Master's level in Public Health.

TIME SCHEDULE OF PROJECT ACTIVITIES by Year and Quarter

ACTIVITY	Components Affected					Year 1				Year 2				Year 3				Year 4				Year 5			
	MAL	IMM	ORT	NUT	C-S	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
I. COLLECTION OF INFORMATION AND PROBLEM IDENTIFICATION																									
A. Clarification of policy issues:																									
1. Road to Health Card		X		X			+	+	+	+	+	+	+												
2. Malaria treatment recommendations	X					+	+	+																	
3. Immunization strategy		X					+	+	+	+	+	+													
4. Diarrheal disease control strategy			X			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
5. Acceptablility of cost recovery	X		X				+	+	+	+	+														
6. Feasibility of local ORS production			X				+	+	+	+	+														
B. KAP and nutrition surveys	X		X	X	X		+	+	+	+	+			+	+	+		+	+	+					
C. Mass communications studies	X	X	X	X				+	+	+		+	+	+		+	+	+	+	+					
D. Routine health and management information systems	X	X	X	X	X					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
E. Surveillance systems for malaria and EPI diseases	X	X							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
F. Evaluation and audit	X	X	X	X	X													+	+	+		+	+	+	
II. STRATEGY DEVELOPMENT																									
A. Develop training curricula and materials	X	X	X	X	X	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
B. Develop transport and logistics plans		X						+	+	+	+	+	+												
C. Develop supervision plans	X	X	X	X	X		+	+	+	+	+														
D. Plan drug distribution system using cost recovery	X		X						+	+	+	+													
E. Identify channels and develop messages for dissemination	X	X	X	X	X					+	+	+	+	+	+	+		+	+	+					
F. Periodic review of Project strategies	X	X	X	X	X					+	+	+		+	+	+		+	+	+		+	+	+	
III. MANAGEMENT INTERVENTIONS																									
A. Develop skills of personnel through training																									
1. Training of trainers	X	X	X	X	X			+	+	+		+	+	+	+	+	+			+	+	+	+	+	+
2. Training workshops for managers/supervisors	X	X	X	X	X			+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
3. Provider level in-service training	X	X	X	X	X				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
4. Demonstration sites			X	X							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
5. Special training (studies, surveillance, computer)	X	X	X	X	X	+	+	+	+	+	+	+		+	+	+		+	+	+					
6. Training in communications/health promotion	X	X	X	X	X							+	+	+	+	+		+	+	+		+	+	+	
7. Long-term external training in health management										+	+	+	+	+	+	+	+	+	+	+					
8. Short-term external training, workshops, study tours	X	X	X	X	X		-	-	-	-	v	a	r	i	o	u	s	-	-	-	-	-	-	-	-
B. Facilitate regular, effective supervision and feedback	X	X	X	X	X				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
C. Manage Project commodities																									
1. Procure vehicles, drugs, supplies, equipment	X	X	X	X	X	+	+	+	+	+	+	+													
2. Implement cost recovery drug distribution system	X		X							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
3. Develop local production of oral rehydration salts			X					+	+	+	+	+	+	+	+	+	+	+	+	+					
D. Promote improved health practices																									
1. Sensitize health staff	X	X	X	X	X					+	+	+		+	+	+		+	+	+		+	+	+	
2. Campaigns using mass media	X	X	X	X							+	+	+	+	+	+		+	+	+		+	+	+	+
3. Face-to-face promotion	X	X	X	X	X					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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SECTION X PROCUREMENT PLAN

1.0 Planning Considerations

1.1 Responsibilities

Project commodities and services will be obtained by either AID or the contractor. The USAID project office will initiate procurement actions for which AID is responsible. When specific procurement costs exceed the Mission's contracting authority, the contracting will be competed by REDSO/WCA or AID/W. Procurement of Project commodities and technical services by USAID will be carried out in accordance with the Federal Acquisition Regulations (FAR) and the AID Acquisition Regulations (AIDAR) which became effective in April 1984.

Procurement from UNICEF must be authorized in the implementation document and requires the preparation of a PIO/C worksheet by USAID/Cameroon. Contracting will be arranged between AID and UNICEF by AID/W. The implementing office in AID/W is M/SER/OP.

Table X.1 portrays key variables in the procurement process: the category of item to be procured, the procedure required, and the amount of time required to receive the commodity from the date of order. In preparing the Project implementation plan, these factors were taken into consideration when tasks were scheduled.

1.2 Waivers

All commodities intended for procurement are eligible for AID financing and will be procured only from AID geographic code 941 countries or 000 (U.S. only) except for items designated, on Table X.1, as shelf items or which have an approved source/origin waiver.

Several waivers will be required (eg. for vehicles, motorcycles, computers, etc.) as indicated in Table X.1. Waivers will be requested as listed in ANNEX E, Waiver Requests.

1.3 Other Planning Considerations

Other procurement planning considerations include the need to obtain government customs exonerations prior to the arrival of goods in Yaounde. The exonerations will permit duty-free, tax exempt entry of commodities. These will be obtained through the Ministry of Finance with assistance from USAID. Ministry of Finance assistance will also be needed to obtain Orders of Transit to allow freight forwarders to move commodities purchased in the United States from the port of entry in Douala to warehouse facilities in Yaounde and then to Project sites.

In order to ensure procurement initiation as soon as possible after the signing of the contract, an administrative assistant will be brought on board to work with USAID in implementing the procurement process. This person will be experienced in administrative duties and will receive supplementary training by the procurement specialist at USAID.

2.0 Procurement

Commodity procurement will be in support of key interventions under the Project. The Project components and the related procurement processes to be used are given below. Although presented according to components, it is envisioned that procurement will be an integrated process.

3.1 Malaria

All of the malaria commodities and equipment (Table X.2) will be acquired through UNICEF utilizing procedures referred to above. Procurement will be initiated as soon as possible after signing of the PROAG to ensure adequate supplies by the beginning of the Project, since the malaria and immunization activities are to be instituted early. However, Chloroquine 100 mg. base tablets, according to the 1986 catalogue, may no longer be available through UNICEF. This is an early question to be resolved under the Project and, if necessary, an alternate supplier must be found. If there is an alternate supplier, an increased price can be anticipated.

3.2 Immunizations

Vaccines and medical supplies for immunizations (Table X.3) will be obtained through the Ministry of Health in Yaounde. Adequate supplies are already available for the first year. However, an increase in present supplies will be required to meet the increased utilization generated as the Project proceeds., All cold chain supplies can be obtained from UNICEF at UNIPAC Catalogue cost, plus 15% for ocean transportation, 25% for air transportation (when indicated) and 5% UNICEF fee. Cold chain needs are to be assessed by a cold chain inventory which will occur early in the Project.

3.3 Oral Rehydration Therapy

The ORT intervention requires an adequate supply of Oral Rehydration Salts (ORS) and the development of functional ORT training centers at the provincial (2), division (8) and subdivision hospitals (26) as well as ORT corners at the local health centers (92). Materials for the establishment of the ORT units will be drawn from the standardized list which the National

CDDD program manager's office has established with the assistance of the PRITECH Project. It consists of items which can be purchased locally. Table X.4 portrays items needed in support of this intervention.

Citrate based ORS are obtainable through UNICEF, and the Ministry of Health has increased its request for 1988 (from 100,000 to 600,000) in anticipation of the Project. The exact nature of the ORS supply system will be determined by the Project in collaboration with PRITECH. Monies have been budgeted in the Project to permit the development of in-country production if future PRITECH studies indicate that this is feasible.

3.4 Nutrition and Growth Monitoring

All of the equipment and supplies for nutrition and growth monitoring, Table X.5, are available from UNICEF and procurement is subject to the conditions listed above.

The decision on the procurement and financing of health cards with growth charts will depend on the results of field-testing of at least two types of cards, including the one recently recommended by the Ministry of Health.

3.5 Health Promotion and Communication

This component requires the use of a local contractor, AMA (Atelier de materiel audio-visuel) for the design, development and production of graphic arts materials. AMA ia a non-governmental organization which produces graphic arts on contract and sells prepared instructional materials for health worker training and community animation. It is supported by the Catholic Church and is used extensively by the Ministry of Health whose graphic artists are limited by the lack of formal training and drawing materials. The Project will provide technical assistance and basic locally acquired graphic art supplies to support the development of a small graphic arts studio within the Ministry's graphic arts section. Table X.6 depicts commodities and equipment to be procured in support of this Project activity.

Graphic art will be developed through the pre-testing stage by the graphic artist in the Health Education section of the Ministry in Yaounde and by the provincial health educators. The final production design and layout will be produced by the AMA studio artist until the MOH unit is able to take over this function.

3.6 Child Spacing

Contraceptive commodities for year one will be provided from existing supplies. Estimates for year 2 are 5,000 units of oral contraceptive cycles, 2,000 intra-uterine devices, 3,000 packages

of foam, and 1,000 gross of condoms. All are to be procured through central AID procurement resources.

In keeping with AID-assisted bilateral programs worldwide, the procurement of contraceptives will be undertaken with the assistance of AID/W, Office of Population (Commodity and Program Support Division) which is responsible for contraceptive commodity support provided by AID bilateral programs worldwide. The Office of Population has agreed to make available a technical assistant from the centrally-funded family planning and logistics project to help establish procurement and logistics procedures in support of this aspect of the Project. In order to assure that contraceptives and related supplies conform to AID's worldwide goals, AID uses its own specifications, special funding procedures and consolidated procurement methods. Under a special arrangement with AID, GSA provides procurement services for Project requirements of these commodities.

3.6.1 Oral Contraceptives

AID/W requests cable advice from each USAID by October 15 of each year regarding the quantity of oral contraceptives each participating Project requires for shipment from the United States during the next contract year. A non-funded PIO/C worksheet and AID form 11-94, document distribution and shipping instructions, are prepared as soon thereafter as possible and are due in AID/W (S&T/POP) no later than December 31. Shipment follows 9 months later.

3.6.2 Condoms

A process similar to that outlined above for oral contraceptives is used for condoms. AID/W requests cable advice from USAID by September 15 of each year regarding the estimated quantity of condoms each participating program will require during the next contract year. USAID then submit a non-funded PIO/C worksheet to AID/W together with a completed AID form 1194 specifying quantity (units of 6,000 pieces), sizes and colors desired and approximate date by which deliveries are required. The PIO/C is made effective October 1 and is due in S&T/POP no later than December 31. Shipment follows 9 months later.

3.6.3 Other Child Spacing Commodities

Procurement requirements for other child spacing commodities are submitted as PIO/C worksheets to AID/W for issuance to GSA for procurement. The following items are currently on GSA contract: Lippes loops, medical kits, contraceptive jelly, vaginal foams and applicators along with diaphragms and vaginal ring fitting sets.

4.0 Vehicles

Ten vehicles to be procured are listed in Table X.7. During the first months of the Project, four four-wheel drive (4 WD) vehicles will be purchased to support the central and provincial management and technical assistance teams. Additional vehicles are needed at the provincial and divisional levels to ensure adequate commodity support, supervision and training to MCH system workers at the health center and village levels. The MOH is presently devising a national plan for vehicle use and transportation for the provinces and divisions. Purchase of the six remaining 4 WD Project vehicles will be delayed by three months to permit final determination of their ideal deployment before they arrive.

Twenty five motorcycles will be purchased in the first months of the Project and will be used by subdivision primary health care coordinators to ensure adequate commodities and supervision at health center levels.

5.0 Other Project Commodities

5.1 Computers

An additional component of the Project is the development of a simplified, functioning, affordable information management system within the MCH Project which will allow for ongoing evaluation and surveillance of MCH targeted diseases and for management of Project activities. The Project will assist the MOH to develop simplified forms for computerized data collection and analysis. Computers (See Table X.8) will be purchased in the first months of the Project and a training program developed to ensure computer literacy for MOH and Project personnel involved.

5.2 Office Furniture and Household Furnishings

The Project cannot begin until Project management is in place. Therefore, as soon as possible after the signing of the contract, procurement will begin to acquire the office furnishings and equipment as well as the household furnishings for the long-term advisors. Items to be procured under this category are listed in Table X.9 and X.10.

TABLE X.1 PROJECT COMMODITIES

ITEM	SOURCE ORIGIN CODE*	SOURCE	SUPPLIER	PROJECT SITE ETA (mos)	PROCEDURE REQ'D SHELF ITEM	PROCEDURE REQ'D FORMAL	WAIVER APPROVAL	METHOD OF PROCUREMENT	PROCUREMENT AGENT
Vehicles & Parts	935	Cameroon	Japan	6 months	no	yes	AID/W	PIO/C Contract	USAID/C
Motorcycles & Parts (up to 125 HP)	935	Cameroon	Japan	2 months	no	yes	no	PIO/C Contract (per cable)	USAID/C
Tools	935	Cameroon	multiple	1 month	yes	no	AID(C)	Purchase Order (if under 25K)	Contractor
Computers & Software	935	USA, France or Cameroon,	multiple	3 months	no	yes	AID/Cam	Contract (Below 5K no S/O waiver)	Contractor
Audio-Visual Equipment	935	Cameroon	multiple	2 months	yes	no	AID/Cam	Contract	Contractor
Posters, hand-bills, training guides, flags, T-shirts	935	Cameroon	A.M.A., other local suppliers	2 months	no	yes	AID/Cam	Contract	Contractor
Graphic Art Supplies	935	Cameroon	multiple	2 months	no	yes	AID/Cam	Contract	Contractor
Cold Chain Equipment	000	U.S.A.	UNICEF or RPSO	4 months	no	yes	AID/W or AID/Cam	PIO/C Contract	AID/W
Medications and Equipment**	000	U.S.A.	UNICEF or RPSO	6 months	no	yes	AID/W or AID/Cam	PIO/C Contract	AID/W
Nutrition Demon-stration Material	935	Cameroon	multiple	1 month	yes	no	AID/Cam	Contract	Contractor
Copy Machines	935	Cameroon	U.K.	2 months	no	yes	AID/Cam	Contract	Contractor
Mimeograph Machines	935	Cameroon	multiple	2 months	no	yes	AID/Cam	Contract	Contractor
U.S. Long-term Technical Assist. Furniture	935	Cameroon	AID/Cam	4 months	no	yes	AID/Cam	Contract (if under 5K/unit locally)	Contractor
U.S. Long-term Technical Assist. Appliances	935	Cameroon	multiple	4 months	no	yes	AID/Cam (may consider purchase from U.S)	Contract	Contractor
Office Furnishings	935	Cameroon	locally produced	2 months	yes	no	AID/Cam	Contract (locally)	Contractor
Office Equipment	935	Cameroon	multiple	4 months	yes	no	AID/Cam	Contract (S/O if over 5K/unit)	Contractor

NOTES

* CODES marked with an asterisk require waivers. 935 special free world.

** This item includes drug supplies and laboratory equipment supplied by contractor. Other supplies which will not be provided by the contractor may include contraceptive supplies (provided by centrally-funded AID population programs), and Oral Rehydration Salts. (procured through the PRITECH project from UNICEF).

TABLE X. .2

COMMODITIES AND EQUIPMENT FOR MALARIA COMPONENT OF PROJECT
(all AID/W Procurement)

DESCRIPTION	EQUIV. TO CATALOGUE	ITEM NUMBER	APPROX. PRICE	UNIT	UNITS REQ'D
Chloroquine Tablets					
Chloroquine Tab 100 mg.	UNICEF	1532000	$8.33	Tin,1000	10,000
Surveillance Laboratory Equipment					
Microscope Monecular Simple Clinical w/oil-1mm OBJW/O 1LL	UNICEF	0960000	$188.37	each	8
Illuminator Monocular Simple 220V for use w/0960000	UNICEF	0960900	$18.16	each	8
Slides microscope plain 25X75 mm.	UNICEF	0969000	$0.92	box/72	800
Coverglass for microscope slides, 22X22 m	UNICEF	0934001	$0.24	box/50	80
Microscope Slide box (empty) for 100 slides	UNICEF	0922100	$3.13	each	8
Dish Staining Glass for 30 slides	UNICEF	0960900	$18.16	each	8

TABLE X .3

COMMODITIES AND EQUIPMENT FOR EPI COMPONENT OF PROJECT
(all AID/W procurement)

DESCRIPTION	EQUIV. TO CATALOGUE	ITEM NUMBER	APPROX. PRICE	UNIT
EPI Refrigerators				
Electric Refrigerators 220 V w/freezer compartmt (or 1130120 110-140-4-S FCT which is smaller at $118.93 ea)	UNICEF	114220	$224.84	each
Kerosene Refrigerator 220V/24L	UNICEF	1151820	$612.73	each
Generating-Set Gasoline	UNICEF	1800345	$570.69	each
Frozen packs (depends on type of cold-box for vaccine carrier 118500)	UNICEF	1185010	$3.54	set/4
EPI Thermometers				
Thermometer dial vaccine storage bi-metal 0-20 for EPI	UNICEF	1183010	$0.65	each
Vaccine cold chain monitoring cards in French	UNICEF	1183017	$1.09	each
Reusable Syringes & Needles				
Syringe Hypo 0.1 ml Luer BCG Sterilizable	UNICEF	0782215	$5.24	box/10
Ring "O" spacer for 0782215	UNICEF	0782217	$0.56	pkt/10
Syringe Hypo 1.0 ml. Luer EPI Sterilizable for measles, DPT & tetanus	UNICEF	0782220	$2.25	box/10
Ring "O" spacer for 0782220	UNICEF	078222	$0.74	pkt/10
Syringe Hypo 5ml. Luer Sterilizer	UNICEF	0781905	$0.15	each
Needle Hypo 0.70x32mm/22G X1-1/4" Luer for injectable needles, DPT and tetaneous	UNICEF	0750500	$0.36	box/12
Needle Hypo 0.45x10mm/26Gx3/4" Luer for BCG	UNICEF	0751502	$0.45	box/12

TABLE X. .4

COMMODITIES AND EQUIPMENT FOR ORT COMPONENT OF PROJECT

DESCRIPTION	EQUIV. TO CATALOGUE	ITEM NUMBER	APPROX. PRICE	UNIT	UNITS REQ'D	PURCHASE AGENT
ORT Centers cups, spons, bottles, bowls, furnishings, etc.	MOH (PRITECH)	Local Purchase	$1,200.00	standard unit	36	CONTRACTO
ORT Corners	MOH (PRITECH)	Local Purchase	$100.00	standard list	92	CONTRACTO
Oral Rehydration Salts Pkt to make 1 liter of solution (NaCl 3.5g., Trisodium Citrate 2.9g., KCl 1.5g., Glucose 20.0g.	UNICEF	1561105	$0.06	pkt		
			($85,000 budgeted for supply & production)			AID/W

TABLE XI.5

COMMODITIES AND EQUIPMENT FOR NUTRITION AND GROWTH MONITORING COMPONENT OF PROJECT

DESCRIPTION	EQUIV. TO CATALOGUE	ITEM NUMBER	APPROX. PRICE	UNIT	UNITS REQ'D	PURCHASE AGENT
Scale w/trousers Infant spring-type hanging (Salter-type, portable, metric, 25kg Capacity, 50g. with 100g. gradations) Scale w/o trousers, 014555 Trousers set of 5, 0189000	UNICEF	0145550	$23.51	each	140	AID/W
Shorr Height/Length Boards	UNICEF		$27.50	each	20	AID/W
Weight for height chart	UNICEF	0145570	$9.99	each	20	AID/W
Charling Grwth In Small Children Slides/Road to Health Chart, Slides and Tape	UNICEF	17-690-40	$18.51	each	10	AID/W
Orientation Demonstration Equipment (pots, pans, ladle, firewood, matches, replacement @$1.00/mo.)	MOH	Local Purchase	$5,000.00 ($50/set approx.)	total	92	CONTRACTO
Growth Charts	MOH	Local Purchase	$0.03	each	90,000	CONTRACTO

TABLE X4.6

COMMODITIES AND EQUIPMENT FOR HEALTH PROMOTION
AND COMMUNICATIONS COMPONENT OF PROJECT
(all Contractor procurement)

DESCRIPTION	EQUIV. TO CATALOGUE	ITEM NUMBER	APPROX. PRICE	UNIT	UNITS REQ'D
Health Promotion Materials, incl. postors, handbills, training guides, flags, T-shirts	A.M.A. and local suppliers	local purchase	$53,500 (approx. 323,000 pieces)	total	
Graphic Art Supplies	MOH -	local purchase	$8,000	set	1
Nagra hand-held recorders with three battery pack, 3 carrying cases, 3 omni directional microphones, 3 uni directional microphones, six editing blocks with editing tape, 10 dozen 5 inch recording tape	A.E.D.	-----	$5,000 (includes 3 recorders)	total	1

TABLE X..7

VEHICLES AND SPARE PARTS (ALL USAID/C PROCUREMENT)

DESCRIPTION	EQUIV. TO CATALOGUE	ITEM NUMBER	APPROX. PRICE	UNIT	UNITS REQ'D
Vehicles					
4 WD, 7-seat, 2 doors, air-conditioned, standard drive, including spare parts, shock absorbers, points, spark plugs and wires, oil filters, carburator filters, etc.	Toyota	RJ-70	$ 18,000	each	4 FY1 6 FY2
Motorcycles					
125 cc, incl. spare parts	Honda	125cc	$ 3,000	each	25

TABLE X.8

COMPUTERS AND EQUIPMENT (all Contractor procurement)

DESCRIPTION	EQUIV. TO CATALOGUE	ITEM NUMBER	APPROX. PRICE	UNIT	UNITS REQ'D
Computers Desk PC's					
IBM-PS-Model 50-21 Computers with a. 1028K RAM Memory b. Clock/Calender w/battery backup c. 20 meg Hard disk drive w/Controler d. 1.44 meg 3.5 in floppy drive w/Controler e. Serial and parallel parts f. Video EGA Graphics display interface g. IBM Enhanced PC Keyboard h. 80286 10 MHZ processor Chips			$5000	each	8
IBM Monochrome Monitor Model 8503 IBM DOS Operating System 3.3 IBM Technical Reference Manuals (#5871-AAA-0956, 5871-AAA-S68X-2222, 5871-AAA-S68X-221, 5871-AAA-S68X-2224 5871-AAA-S68X-2260)					
Printers, Epson FX-286E Dot Matrix #555-286 (with cable #811-901, ribbons FX-286E)					
Computer Software IBM Compatible			$2500	each set	2
Computer With Desk top Printing Compability (such as McIntosh with IBM Interface)			$5000	each	1
Laser Printer			$5000	each	1
Microcomputers			$3000	each	3

TABLE X .9

OFFICE FURNISHINGS AND EQUIPMENT (all Contractor procurement)

DESCRIPTION	EQUIV. TO CATALOGUE	ITEM NUMBER	APPROX. PRICE	UNIT	UNITS REQ'D
Desks	Produced Local USAID/C	Carpenters		each	12
Tables	"			each	4
Chairs	"			each	12
Computer Desks	"			each	10
Book Shelves	"			each	4
Swivel Chairs	Local Purchase			each	4
File Cabinets	"			each	8
Pentaflex File Frames	"			each	8
Typewriters, French Keyboard	"			each	3
Calculators	"			each	8
Letter Trays	"			each	12
Pencil Sharpeners	"			each	4
Copy Holders	"			each	4
Trimming Board (paper cutter)	"			each	4
Tape Dispensers	"			each	12
Staplers	"			each	12
heavy Duty Staplers	"			each	4
Adjustable 2-hole punch	"			each	4
Utility Sheers	"			each	12
Chalkboards and Erasers	"			each	4
Display Easel	"			each	4
Waste Baskets	"			each	12
Mimeograph Machines	Local Purchase			each	3
Xerox type Machine for Copying (2 sides, collates, etc.)	Xerox	1040	$20,000	each	1

TABLE X .10

LONG-TERM TECHNICAL ASSISTANCE HOUSEHOLD FURNISHINGS AND APPLIANCE
(all Contractor procurement)

DESCRIPTION	EQUIV. TO CATALOGUE	ITEM NUMBER	APPROX. PRICE	UNIT	UNITS REQ'D
HOUSEHOLD FURNITURE	Locally Purchased			Set	4
STOVE: 30" Standard Series LP or Natural Gas, Matching Color Porcelin Background, Efflex Variable Heat, Surface Matchless, Pilotless, 220/230 Volts, 50 or 60 Cycles	General Electric	CD9616W798	$328.30	each	4
REFRIGERATOR: 15.5 cu.ft. capacity, 4.74 cu.ft. freezer, no frost, two door top freezer, 220 volts/50 cycles	G.E.	TBF16S	$601.90	each	4
FREEZER: Chest, 15.3 cu.ft., Capacity/ removable sliding basket, built in lock, interior light 46 1/8" wide with	G.E.	CB15DJ	$407.20	each	4
External Transformer ACME		T60814	$80.80	each	4
AIR CONDITIONER: 208/230 volt, 50 cycles 11,800 BTU	G.E.	F912D	$471.00	each	12
CLOTHES WASHER: filter flow Automatic, 50 cycles 220/230 volt Internal Mounted Transformer	G.E.	WWA5600	$437.2	each	4
CLOTHES DRYER: fully automatic 220/230 volts, Internally mounted transformers	G.E.	DDE0580	$337.30	each	4
Transformers ACME: Step Down 220-240 volts 50/60 cycles	G.E.				
750 watts		T-60839	$54.05	each	8
1000 watts		T-60834	$64.25	each	8
1500 watts		T-60840	$107.90	each	8
Water Heater	Local Purchase				4
Water Filter	Local Purchase				

SECTION XI EVALUATION PLAN

The following section of the Project Paper will describe the information needs of the Project, the instruments that will be used to obtain the information, the users of the information and how this all fits together into an evaluation system. Ultimately the Project is designed to improve the health status rural Cameroonians, particularly women and children. To do this the Project aims to systematize the delivery of health care in order to improve the effectiveness with which current resources are utilized. A fundamental assumption of the Project is that there are sufficient resources available, which if used effectively can deliver effective health care. To assist in achieving this objective a method of systematically providing information will also be developed. Many of the elements of such a system have already been put into place by the Ministry of Health which routinely requires reporting from most units of management. Through this Project collection and analysis will be made more systematic, more rigorous and more responsive to all elements of the health care community. The primary users of the information will be: 1) the Ministry of Health (including Health Centers, Provincial Delegates and Central Headquarters), 2) the Ministry of Plan, 3) the Contract team, and the 4) Agency for International Development. It is also anticipated that other international donors, both multilateral and bilateral, will make use of some of the information generated by the Project.

Because the purpose of the Project is to improve health care delivery the only data that will be collected will be that needed to improve health care delivery. Emphasis will be on providing accurate basic data. We have no illusion that this will be easy. The collection process will be kept simple and unintrusive. It will be based on simple statistical reporting from rural health centers on the drugs they have available and are using. These reports are to be randomly verified during periodic supervisory visits. Patient use of health facilities will also be reported on. While the analysis of the data will be rigorous, the intent is to serve the needs of improved management of the health care delivery system, not to produce philosophical papers.

EVALUATION STRATEGY

There are two fundamental standards against which this Project will be measured: 1) the availability of medicines in health care centers and 2) the number of persons who use the health care centers. During the life of this Project it is unlikely that we will be able to measure a statistically significant reduction in mortality and morbitity. We can however increase the availability of drugs and medicines. If these are available we are confident health in the Project area will improve. We are equally confident that if medicine is available the people will come to use it. Thus our data collection strategy is designed to measure events that affect those two questions. Out of our data collection strategy flows our evaluation strategy.

Reporting will take place monthly, evaluation quarterly. The evaluations, whether internal or external, quarterly or yearly, will be based on the data produced by the monthly reports and supplemented by the special studies. The basic thrust is to get all project personnel to regularly spend a small amount of their time in collecting and analyzing data; we seek to avoid a situation in which large amounts of time are spent on data collection or one time studies are conducted to fill the Project's data needs.

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EVALUATION METHODOLOGY

The evaluation methodology proposed for this project is an uncomplicated one. Each unit of management is to report monthly on its activities. Some of the data will be statistical, other data will be impressionistic. This information will be supplemented by other collection techniques such as field trips and special studies. All of the data will be analyzed by the central management of the Project and the Ministry of Health with the active participation of subordinate units of management. Brief reports based on this analysis will be prepared and made available to all project participants. The thrust of reporting and analysis is to measure progress towards the objective of improving mother/child health care delivery and to assist managers at all levels with delivering services. Hence our focus on two questions: 1) do the health centers have drugs and 2) are people using the centers?

An attempt has been made to anticipate major decision points in the project. At these points we have attempted to schedule evaluations that provide the information needed to make those decisions. Clearly it is not possible to predict all decision points in the project, therefore we have made substantial allowance for change. The chief element of the system is that collection of information will go on constantly, and will be analyzed periodically. Thus all levels of management should be alert to changing conditions. They should therefore also be adequately prepared to make necessary decisions on a timely basis.

The following tables present a list of the principal evaluation instruments and their intended use and a reporting schedule. Additional evaluation criteria are presented in the Project Description in Section V, the Logical Framework in Annex A and the Project Component Plans in Annex H.

EVALUATION METHODOLOGY

	INSTRUMENT	PURPOSE	TIMING	PARTICIPANTS	QUESTIONS	DECISION POINTS
1.	MONTHLY REPORTS	Report on monthly activities of all organizationan elements involved with the project. Provides basic information on the activities of all organizational elements of the project.	Monthly	a. Health Centers b. Provincial Health Delegates c. All Contract Team Members	Reports will cover monthly activities of the reporting unit and oc individual. Some statistical data maybe required and will be decided on in the initial phases of implementation.	Alerts higher management to exceptional events that may require action.
2.	QUARTERLY EVALUATIONS	Based on monthly reports, field trips, and other available information the project committee will review activities for the past quarter. The major purpose is to focus on providing effective daily management that will build the health care system.	End of each quarter	1. Provincial Health Delegates 2. All contract Team 3. MOH HQ Personnel 4. USAID Project Manager	1. Scheduling of Activities. 2. Financial review. 3. Review of Supply situation. 4. Identification/recognition. 5. Initial evaluation of training. 6. Planning of Inputs.	Provides for periodic review and allows central management to alter courses.
3.	PROJECT IMPLEMENTATION REPORTS	AID/W Reporting requirement	Semi annually	USAID Project Manager	1. Review available documents. 2. Summarize activities. 3. Brief assessment of progress to date against planned inputs.	
4.	YEARLY EVALUATION	Determine if inputs were provided as planned, and if they produced the planned outlets. Also provides for an annual review of the project design and course correction if required.	Annually at the end of the 4th qt.	1. Provincial Health Delegates 2. All Contract Team Members 3. MOH HQ Personnel 4. USAID Personnel	1. SUPPLY SYSTEM: a. When was the initial supply of medicines received at the Health Centers, how long did they last, did the centers reorder, when was the reorder received? b. Random verification of Health Centers books, cash and stock. c. What is amount of revenue generated by the health centers? d. How many persons are using the health centers? 2. TRAINING: a. How many persons received training? b. How effective was the training? 3. SUPERVISION: a. Number of supervisory visits per center. b. Examine posting of personnel at beginning and end of year. 4. SECOND YEAR: a. Review validity of past years questions, revise, and recycle. b. Review implementation of past evaluation recommendations.	1. End of year two review TA positions, are they what is needed?
5.	EXTERNAL EVALUATIONS	Provide an indepth look at the project. Determine if a second phase is justified and oc needed.	Once, sometime between the 36th and 48th month.	EVALUATION team jointly agreed to by USAID and the GRC.	Essentially the same type of questions asked in the yearly evaluations will be posed by an independent group. Project design and funding mix will be reviewed. Progress towards achieving EOPS will be reviewed.	1. Determine if a second phase is justified and oc needed. 2. End of year three, make decisions on what positions to fund for the final 2 years of the project.
6.	EXTERNAL AUDIT	AID/W Requirement to determine if all contracts conditions are being complied with.	Between the 48th and 54th month of the project.	Outside audit firm.	Standard contract and financial audit.	Determine if contractor complied with the legal terms of the contract.
7.	SPECIAL STUDIES: a. Operational Research. b. Knowledge, attitude and Practice Studies. c. Immunization Coverage Studies. d. Training Impact Studies. e. Trip Reports.	Primarily to examine specific implementation questions and to determine if project activities are having there desired effect.	As required	Project personnel assisted by outside	To be determined.	Provides information to improve implementation. Also provides information to supplement basic reporting that may be required for major decisions.

EVALUATION SCHEDULE

EVENT	YEAR ONE	YEAR TWO	YEAR THREE	YEAR FOUR	YEAR FIVE
1. MONTHLY REPORTS A. HEALTH CENTERS B. MOH/PROVINCIAL OFFICES C. CONTRACT TEAM MEMBERS	EACH MONTH ▪ ▪ ▪ ▪ ▪ ▪	EACH MONTH ▪ ▪ ▪ ▪ ▪ ▪	EACH MONTH ▪ ▪ ▪ ▪ ▪ ▪	EACH MONTH ▪ ▪ ▪ ▪ ▪ ▪ ▪	EACH MONTH ▪ ▪ ▪ ▪ ▪ ▪
2. QUARTERLY REVIEWS BETWEEN MOH PROVINCIAL, MOH CENTRAL, CONTRACT TEAM, AND AID PROJECT MANAGER	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
3. ANNUAL IN HOUSE EVALUATION MOH, MINPLAN, CONTRACT TEAM AND USAID	4th qt	4th qt	TIMING WILL DEPEND ON THE SCHEDULE OF THE EXTERNAL EVALUATION.	TIMING WILL DEPEND ON THE SCHEDULE OF THE EXTERNAL EVALUATION.	1 2 3 4
4. EXTERNAL EVALUATION			WILL BE SCHEDULED THE 36TH AND 48TH MONTH DEPENDING ON NEED, AVAILABILITY OF PERSONNEL, ETC.		
5. EXTERNAL AUDIT					EXTERNAL AUDITOR WILL AUDIT THE CONTRACT TEAMS BOOKS AT APPROXIMATELY THE 48TH MONTH OF THE PROJECT.
6. SPECIAL STUDIES A. OPERATIONAL RESEARCH B. KAP STUDIES C. IMMUNIZATION COVERAGE STUDIES D. TRAINING IMPACT STUDIES E. TRIP REPORTS	AS REQUIRED AS REQUIRED IN 2ND AND 4TH YEAR IN 2ND AND 4TH YEAR REQUIRED OF ALL PROJECT PERSONNEL VISITING A DIFFERENT LEVEL OF THE PROJECT.				

SECTION XII

SUMMARY OF ANALYSES

The following paragraphs present a brief summary of the major project design analyses. The full analyses are presented in Annex G.

ADMINISTRATION

Administratively, the Project has the support of a full-time, U.S. direct hire health officer in the USAID Mission and support from the USAID Mission's Controller, Management, Program, Project Design/Evaluation and Contracts Offices. The USAID Mission is staffed so as to be able to support the implementation of the Project and arrange services such as the external evaluation and financial audit that have been planned. The GRC/MOH has supported the development of the Project for two years and has assigned top level personnel to work on all aspects of the design. There is good reason to believe that this spirit of co-operation will continue throughout the five year's of implementation.

TECHNICAL

Technically the Project is comprised of five child survival service delivery elements: immunizations, oral rehydration, treatment of presumed malarial fevers with chloroquine, growth monitoring and child spacing. These are all uncomplicated and can be correctly performed by existing nursing staff, auxillary health personnel and community health workers. The technical interventions have been carefully chosen to provide the most significant improvements in the health status of rural inhabitants. Cost efficient and easily implemented, the skills required to correctly administer immunizations, initiate oral rehydration therapy, monitor growth, deliver presumptive treatment of fevers with chloroquine and promote spacing of births can be readily introduced and adapted into the current practices of the health workers.

The only new technology that will be added is the use of lap-top and personal computers for analyzing a simplified health data/information system. The use of computers is compatible with the needs of the Project and there are no serious obstacles to their use in the two provinces.

ECONOMIC AND FINANCIAL

Economically, this Project aims to use resources currently devoted to heatlh care more efficiently. It stresses cost effective delivery of rural health care with recovery of costs. This is a time when the government is seriously searching for materials to self finance health services. Thus the Project will assist the MOH in establishing models of cost recovery. The Project is also designed to minimize recurrent costs; there is no construction, vehicle procurement has been limited and new personnel are not required to be hired by the MOH. The recurrent costs that do exist are easily assumable by the GRC/MOH.

SOCIAL

Socially the Project designers are aware of the cultural differences and complexities that exist in the two geographic regions and have been equally sensitive to the management/implementation issues involved in delivering integrated rural health services. Again, the timing of the Project fits very well with current GRC policy initiatives.

SECTION XIII

LISTED BELOW ARE THE CONDITIONS AND COVENANTS AS SIGNED IN THE PROJECT GRANT AGREEMENT

Article 4: Condition Precedent to Disbursement

Section 4.1. First Disbursement

Prior to the first disbursement of the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursemment will be made, the Government will, except as A.I.D. may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D., a statement of the name of the person holding or acting in the office of the Government specified in Section 8.2., and of any additional representatives, together with a specimen signature of each person specified in such statement.

Section 4.2. Notification

When A.I.D. has determined that condition precedent specified in Section 4.1. has been met, it will promptly notify the Government.

Section 4.3. Terminal Dates for Condition Precedent

If the condition specified in Section 4.1 has not been met within 90 days from the date of this Agreement, or such later date as A.I.D. may agree to in writing, A.I.D., at its option, may terminate this Agreement by written notice to the Government.

Article 5: Special Covenants

Section 5.1. Project Evaluation

The Parties agree to establish an evaluation program as part of the Project. Except as the Parties may otherwise agree

Article 4: Condition Préalable au Déboursement

Section 4.1. Premier Déboursement

Avant le premier déboursement de la subvention, ou avant l'émission par l'AID de documents à la suite desquels le déboursement doit être fait, le Gouvernement fournira à l'AID une déclaration lui donnant satisfaction quant au fond et à la forme, mentionnant le nom de la personne titulaire du poste de l'administration spécifiée à la Section 8.2., ou de la personne assurant l'intérim, et de tout autre représentant supplémentaire, ainsi qu'un spécimen de la signature de chacune des personnes mentionnées dans ladite déclaration.

Section 4.2. Notification

Dès que l'AID aura déterminé que la condition préalable spécifiée à la Section 4.1. a été remplie, elle en avisera rapidement le Gouvernement.

Section 4.3. Dates Limites de la Condition Préalable

Si la condition spécifiée à la Section 4.1. n'a pas été remplie dans les 90 jours qui suivent la date du présent Accord, ou toute autre date ultérieure à laquelle l'AID pourra consentir par écrit, l'AID, à sa discrétion, pourra résilier le présent Accord en le notifiant le Gouvernement par écrit.

Article 5: Accords Spéciaux

Section 5.1. Evaluation du Projet

Les Parties conviennent de mettre en place un programme d'évaluation qui fera partie intégrante du projet. Sous réserve de ce que les parties pourraient convenir autrement par écrit, le programme

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in writing, the program will include, during the implementation of the Project and at one or more points thereafter:

(a) evaluation of progress toward attainment of the objectives of the Project;

(b) identification and evaluation of problem areas or constraints which may inhibit such attainment;

(c) assessment of how such information may be used to help overcome such problems; and

(d) evaluation, to the degree feasible, of the overall development impact of the Project.

Section 5.2. Other Covenants

(a) The Government agrees to identify and release within 18 months of the signing of the Agreement, the first three of five Cameroonian technicians to receive long-term training in the United States, under the Project.

(b) The Government agrees to assign to the Project counterparts to all technical assistance personnel and such additional personnel required for successful implementation of the Project. The Government further agrees to provide suitable office space for the technical assistance personnel.

(c) The Government agrees that over a 36-month period beginning with the signing of the Project Agreement, and in concert with A.I.D. and the technical assistance team, it will take necessary steps to institute a cost recovery program for essential pharmaceuticals and supplies provided to patients attending government health facilities in South and Adamaoua Provinces.

(d) The Government agrees that personnel assigned to, and trained under, the Project will, following their training, continue to be assigned to and serve as integral members of this Project effort for a period of not less than 36 months.

comportera, tout au long de l'exécution du projet et à un ou plusieurs points dans le temps:

(a) évaluation des progrès dans la réalisation des objectifs du Projet;

(b) identification et évaluation des problèmes et des contraintes pouvant entraver la réalisation de ces objectifs;

(c) détermination de la manière dont ces informations pourraient être utilisées pour résoudre ces problèmes; et

(d) évaluation, autant que possible, de l'impact général du projet sur le développement.

Section 5.2. Autres Accords

(a) Le Gouvernement convient de désigner et de libérer, dans les 18 mois suivant la signature du présent Accord, les trois premiers des cinq techniciens camerounais devant recevoir, dans le cadre du projet, une formation à long terme aux Etats-Unis.

(b) Le Gouvernement convient de désigner pour le projet des homologues à tout le personnel d'assistance technique ainsi que tout le personnel supplémentaire nécessaire pour la réussite de la mise en oeuvre du projet. En outre, le Gouvernement accepte d'attribuer des bureaux convenables au personnel de l'assistance technique.

(c) Le Gouvernement convient que pour une période de 36 mois suivant la signature de l'Accord de projet, il prendra, de concert avec l'AID et l'équipe d'assistance technique, les mesures nécessaires pour l'institution d'un programme de recouvrement des coûts de médicaments et produits essentiels fournis aux malades fréquentant les formations sanitaires publiques dans les provinces du Sud et de l'Adamaoua.

(d) Le Gouvernement convient que le personnel affecté au, et formé dans le cadre du projet continuera après sa formation, à être affecté au projet et à y travailler pour une période de 36 mois minimum.

SECTION XIV. A N N E X E S

The Annexes portion of this Project Paper contains all of the Project Analyses, the five detailed plans for strengthening child survival services and most of the "boilerplate" AID requirements. The ANNEXES Table of Contents follows:

A. PID Approval Message and Response

B. Logical Framework (LOGFRAME)

C. Statutory Checklist

D. Borrower/Grantee Request

E. Waiver Requests

F. 611 (e) Certification

G. Project Analyses

1. Technical Feasibility
2. Administrative Feasibility
3. Economic Analysis
4. Financial Analysis
5. Social Soundness Analysis/Impact on Women
6. Potential Role for Peace Corps
7. Environmental Impact Statement

H. Child Survival Component Plans

1. MCH Promotion Plan
2. Malaria Control
3. Immunization
4. Growth Monitoring with Nutrition Education
5. Oral Rehydration Therapy
6. Child Spacing

I. Gray Amendment Statement

J. Job Descriptions

ANNEX A. PID Approval Message and Response.

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-AMB DCM CHRON (6)

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PP RUEHYD
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CN: 34895
CHRG: AID
DIST: AID

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E.O. 12356: N/A
TAGS:

SUBJECT: CAMEROON M ATERI CHILD PID 65 1 00 56 1-0056)

REF: A) YAOUNDE 06123, B) STATE 208761

1. SUBJECT PID WAS REVIEWED AND CONDITIONALLY APPROVED ON AUGUST 5, 1986. AS PREVIOUSLY NOTED IN ABS GUIDANCE CABLE, MISSION SHOULD NOT PROCEED WITH ANY NEW FY 87 STARTS UNTIL CDSS UPDATE IS REVIEWED. IF DECISION IS MADE DURING CDSS REVIEW TO EXPAND MISSION STRATEGY TO PERMIT BILATERAL HEALTH ACTIVITY, MISSION WILL THEN BE AUTHORIZED TO COMPLETE DESIGN.

2. IN INTERIM, MISSION SHOULD PROCEED WITH ANALYSIS TO JUSTIFY HEALTH PROGRAM AND TO LAY OUT SECTOR STRATEGY. MISSION SHOULD NOT, HOWEVER, DO FINAL PROJECT DESIGN UNTIL CDSS UPDATE HAS BEEN REVIEWED.

3. GUIDANCE FOLLOWS SEPTEL. WHITEHEAD
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LOC: 074 948
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CHRG: AID
DIST: AID
631-0056

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E.O. 12356: N/A

SUBJECT: CAMEROON MATERNAL CHILD HEALTH (631-0056) PP GUIDANCE

REF: A) YAOUNDE 06123, B) STATE 208761

1. ON 3/5/87 THE CDSS REVIEW COMMITTEE AGREED TO ALLOW MISSION TO MOVE FORWARD WITH THE SUBJECT PROJECT PAPER DESIGN. COMMENTS FROM THE 8/5/86 ECPR HAS, THEREFORE, BEEN INCLUDED BELOW FOR GUIDANCE IN PROJECT DESIGN. AS PREVIOUSLY ANNOUNCED TO MISSION, LOP FUNDING WAS INCREASED FROM DOLS 8.0 MILLION TO DOLS 9.5 MILLION TO REFLECT INCLUSION OF OVERHEAD IN INSTITUTIONAL TA CONTRACTS.

2. ECPR COMMENTS FOLLOW:

A. GLOBAL APPRECIATION - THE MISSION IS COMMENDED FOR THE QUALITY OF THE SUBJECT PID WHICH ADDRESSES ALL OF THE CRITICAL ELEMENTS OF A REGIONAL CHILD SURVIVAL INITIATIVE. TECHNICAL STAFF WAS PARTICULARLY IMPRESSED WITH THE EFFORT TOWARD COST RECOVERY THROUGH USER FEES. THE MATCHING OF HBCUS WITH LARGE AND EXPERIENCED PUBLIC HEALTH INSTITUTIONS IS VIEWED AS AN EXCELLENT WAY TO VALORIZE A.I.D.'S INVESTMENT IN STRENGTHENING GRANTS AND TO PROVIDE OPPORTUNITIES TO HBCUS.

B. FIT WITH CDSS - PP DESIGN HAS BEEN ON HOLD FOR SEVERAL MONTHS PENDING THE RESULTS OF A.I.D./W REVIEW OF THE CDSS UPDATE. NOW THAT MISSION IS AUTHORIZED TO MOVE FORWARD WITH THE PP, IT IS REQUESTED THAT THE PP TEAM PAY PROPER ATTENTION TO THE CONCEPTUAL FIT BETWEEN THE NEW PROJECT AND THE REVISED AND MORE FOCUSSED STRATEGY STATEMENT REQUESTED AT THE CDSS REVIEW, AND THAT OUR PROJECT COMMITMENT BE CONSISTENT WITH CURRENT U.S.A.I.D. OBJECTIVES OF A LIMITED ROLE IN THE HEALTH SECTOR IN CAMEROON.

C. COST RECOVERY - ECPR APPRECIATED THE SIGNIFICANCE ATTACHED TO COST RECOVERY THROUGH USER FEES. IT WAS NOTED HOWEVER, THAT COST RECOVERY IS CURRENTLY LIMITED TO REPLACEABLES AND A SMALL PORTION OF SERVICE COSTS.

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ECPR REQUESTS THAT MISSION COMMUNICATE TO THE GRC OUR HOPE THAT THIS FIRST STEP WILL QUICKLY LEAD TO EVEN GREATER PROGRESS IN COST RECOVERY IN ORDER TO INSURE THE SUSTAINABILITY OF PROJECT BENEFITS. THE CONCEPTUAL STRENGTH OF THE DESIGN IS THE DELIVERY OF A QUALITY ZONAL CHILD SURVIVAL PACKAGE WHILE STRENGTHENING COMPLEMENTARY CENTRAL SUPPORT SERVICES FOR CHILD SURVIVAL. THE APPROACH ENVISAGED MUST BE SUSTAINABLE AND SHOULD BE REPLICABLE THROUGH REASONABLY PROGRESSIVE GEOGRAPHIC EXPANSION THROUGHOUT THE COUNTRY. THE ECPR RECOGNIZED THAT IT WILL TAKE EXPERIENCE WORKING WITH BASELINE DATA BEFORE THE MOH CAN FULLY APPRECIATE WHAT TOTAL COSTS ARE, WHAT PORTION IS RECOVERED, WHAT THEY ARE UNDERWRITING, AND HENCE, WHAT SIGNIFICANCE EXPANSION WILL HAVE ON THE GRC RECURRENT COST BUDGET. THE DESIGN SHOULD SEEK TO DEVELOP PERFORMANCE TARGETS WHICH DEMONSTRATE PROJECT SUSTAINABILITY AND REPLICABILITY TO THE GRC BY THE END OF THE PROJECT.

THE ECPR ALSO EXPRESSED CONCERN OVER THE USE OF OTHER DONOR ASSISTANCE TO FINANCE HEALTH DELIVERY WITHOUT USER FEES. IT IS URGED THAT THE MISSION EXPLORE COST RECOVERY COORDINATION EFFORTS WITH OTHER DONORS TO ENSURE PROJECT SUSTAINABILITY IS A REALISTIC OBJECTIVE.

FINALLY, ONE ELEMENT OF COST REDUCTION IS THROUGH PRIVATE MANUFACTURE AND DISTRIBUTION. THE ECPR APPLAUDS THE PROJECT'S INITIATIVES IN FAVOR OF LOCAL MANUFACTURE OF ORT AND FOR SELF SUSTAINING PROPHARMACIES.

3. DELEGATION OF AUTHORITY FOR PROJECT PAPER APPROVAL AND PROJECT AUTHORIZATION IS HEREBY ACCORDED TO U.S.A.I.D./YAOUNDE. SHULTZ
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ACTION :PRM
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RF. DUE:3/23

E.O. 12356: N/A
TAGS:
SUBJECT: CAMEROCN: FY 89 CDSS UPDATE DECISIONS

REFS: (A) YAOUNDE 1273 (B) STATE 33091

FOR MISSION DIRECTOR FROM DAA/AFR/WCA, LOIS RICHARDS

SUMMARY.
1. BASED ON RECOMMENDATION OF CDSS REVIEW COMMITTEE, FY 89 CDSS UPDATE, AS AMENDED BY REF (A) AND QUALIFICATIONS OF CURRENT MESSAGE, IS APPROVED. REFS WILL BE INCORPORATED AS PART OF THE UPDATE DOCUMENTATION. MISSION IS AUTHORIZED TO PROCEED WITH DESIGN OF HEALTH PROJECT PAPER IN A MANNER CONSISTENT WITH THE OVERARCHING STRATEGY.

2. AID/W WISHES TO EMPHASIZE TWO KEY POINTS:

--PRIORITIES: AID/W APPROVES THE CORE AND BASIC PROGRAMS AS PRESENTED. NO OPINION WILL BE OFFERED ON THE SHELF PROGRAM UNTIL THE NEXT FULL CDSS IS DEVELOPED.

--HEALTH STRATEGY: AID/W IS CONCERNED THAT THE SCOPE OF THE STRATEGY REMAINS TOO BROAD. (SEE PARA 4). IN

PARTICULAR WE DO NOT SEE HOW USAID CAN COMMIT ITSELF TO TAKING ON A LEAD ROLE IN THE SECTOR I.E., IMPROVING RURAL HEALTH DELIVERY. MISSION SHOULD CONTINUE EFFORTS TO REFINE AND FOCUS STRATEGY DURING DEVELOPMENT OF HEALTH ACTIVITY PROJECT PAPER AND INITIAL IMPLEMENTATION, WITH A VIEW TO COMING UP WITH A DEFINITIVE FORMULATION FOR THE FY 91 CDSS. END SUMMARY.

3. PROGRAM PRIORITIES: USAID IS COMMENDED FOR PROGRESS MADE IN DEFINING PROGRAM PRIORITIES AND MANAGING THE MORTGAGE ISSUE, AND FOR INFORMATION PROVIDED ON OTHER DONOR ACTIVITIES. HOWEVER, THE WOMEN IN DEVELOPMENT SECTION NEEDS TO BE STRENGTHENED. WE NEED ESPECIALLY A STRATEGY STATEMENT AND A SYSTEM FOR TRACKING GENDER IMPACT OF CORE PROGRAM. USAID SHOULD DEVELOP AND SUBMIT TO THE GEOGRAPHIC OFFICE WITHIN SIX MONTHS A WID POLICY STATEMENT AND A SYSTEM FOR GENDER TRACKING. IF

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REQUESTED BY USAID, PPC WILL PROVIDE GUIDANCE SEPTEL.

4. HEALTH STRATEGY: BUREAU CANNOT WHOLEHEARTEDLY ENDORSE USAID'S APPROACH. WE CAN ACCEPT IT ONLY AS A PRELIMINARY STATEMENT THAT WILL BE MODIFIED AS MORE IS LEARNED ABOUT HEALTH SECTOR DYNAMICS DURING DESIGN AND IMPLEMENTATION OF THE BILATERAL PROJECT. OUR MAJOR CONCERNS ARE:

A. IN ITS STATEMENT OF PRIORITIES, THE MISSION CLEARLY SHOWS THAT HEALTH IS SUBORDINATE TO (ALTHOUGH SUPPORTIVE OF) AG SECTOR ACTIVITIES. YET MISSION'S HEALTH STRATEGY APPROACH PROPOSES SEVERAL MAJOR POLICY DIALOGUE INITIATIVES (COST RECOVERY, FAMILY PLANNING, INCREASING PRIVATE SECTOR ROLE IN SUPPLY OF PHARMACEUTICALS) AND SUBSTANTIAL CENTRALIZED INSTITUTION BUILDING (MANAGEMENT, TRAINING, STATISTICAL CAPABILITY) AS WELL AS LOCAL HEALTH SERVICE DELIVERY. KNOWING THE EXTENT OF RESOURCES REQUIRED TO CONDUCT POLICY DIALOGUE, WE QUESTION WHETHER MISSION CAN DO JUSTICE TO ITS RATHER AMBITIOUS SECTORAL OBJECTIVES AND AT THE SAME TIME MAINTAIN ITS PRINCIPAL FOCUS ON THE AG PORTFOLIO.

B. A SEPARATE BUT RELATED CONCERN IS THAT THE MISSION SEEMS TO BE PROPOSING TO TAKE THE LEAD (REF A SEC. III C) AMONG DONORS IN RURAL HEALTH CARE DELIVERY. SINCE WE ARE A MINOR PLAYER FINANCIALLY, HOW FAR DOES MISSION PROPOSE TO GO IN TERMS OF POLICY DIALOGUE BOTH WITH GOC AND THE DONOR COMMUNITY? CAN SUFFICIENT STAFF TIME BE ALLOCATED TO THIS ACTIVITY?

C. THE FOUR STRATEGY OBJECTIVES: POLICY CHANGE, MANAGEMENT IMPROVEMENTS; TRAINING, AND SERVICE DELIVERY, ADDRESS MOST OF THE MAJOR ISSUES IDENTIFIED IN THE HEALTH SECTOR (REFTEL III.A). ONE ISSUE WHICH THE STRATEGY DOES NOT APPEAR TO ADDRESS IS THE PROVISION OF SUPPLIES. SINCE THIS IS REPORTEDLY A MAJOR CAUSE OF HEALTH CENTER UNDERUTILIZATION, HOW DOES THE MISSION ANTICIPATE THAT THIS CONSTRAINT CAN BE ADDRESSED? ARE OTHER DONORS READY TO BECOME INVOLVED IN THIS AREA? WE DO NOTE (REFTEL III.E.3) THE PROJECT/PROJECT OBJECTIVE OF HAVING THE GOC ADOPT A POLICY OF WORKING WITH THE PRIVATE SECTOR IN PHARMACEUTICAL SUPPLY. PRESUMABLY THIS APPLIES TO THE RESTRICTED PROJECT ENVIRONMENT. IS THIS SUFFICIENT TO INSURE IMPROVED UTILIZATION OF HEALTH CENTERS SECTORALLY?

D. THE PROCESS OF DEFINING ANY STRATEGY INCLUDES THINKING ABOUT POSSIBLE ALTERNATIVES, SETTING PRIORITIES AMONG REALISTIC OPTIONS, AND WORKING OUT TIME-PHASED IMPLEMENTATION OF THE PRIORITIES IN ORDER TO ACHIEVE

STRATEGIC OBJECTIVES. AID/W APPRECIATES THE EFFORT USAID HAS PUT INTO THE HEALTH STRATEGY. YET PART OF OUR UNEASINESS STEMS FROM THE FACT THAT THE MISSION APPEARS TO HAVE SET THE SCOPE OF THE STRATEGY BY TRYING TO ENCOMPASS EXECUTION OR FOLLOW-UP ON ALL OF THE EXISTING HEALTH PORTFOLIO. WE DO NOT REGARD THIS AS APPROPRIATE: SOME OF THE CENTRAL/REGIONALLY FUNDED ACTIVITIES ARE CLEARLY GOING TO BE PERIPHERAL TO IMPROVING RURAL HEALTH DELIVERY THROUGH PREVENTIVE CARE. MISSION SHOULD EXAMINE THE HEALTH PORTFOLIO AS A WHOLE AND DETERMINE WHICH ACTIVITIES ARE RELEVANT AND WHICH ARE NOT AND SHOULD BE ELIMINATED. WE EXPECT THAT IN THE PROCESS OF DEVELOPING THE BILATERAL PP MISSION WILL BE ABLE TO BETTER FOCUS THE SCOPE OF THE STRATEGY AS WELL AS MORE CLEARLY DELINEATING THE DISTINCTIONS BETWEEN THE STRATEGY, THE HEALTH PORTFOLIO, AND THE BILATERAL PROJECT.

E. AID/W COMMENTS AND QUESTIONS ON HOW CENTRALLY FUNDED ACTIVITIES FIT INTO THE STRATEGY, AND HOW THEY WOULD RELATE TO THE PROPOSED BILATERAL PROJECT INCLUDE THE FOLLOWING. WE DO SEE FAMILY PLANNING AND ORT BEING FOLDED INTO HEALTH CLINIC OPERATIONS. WE HAVE MORE PROBLEMS WITH THE SCHISTO UNIT, SINCE IT IS NOT EVIDENT THAT IT CONTRIBUTES DIRECTLY TO THE MISSION'S STRATEGY. DO THE RESEARCHERS PROVIDE NEEDED EXPERTISE FOR DATA COLLECTION AND ANALYSIS? DO THEY STRENGTHEN AN EXISTING RESEARCH CAPACITY, AND IF SO TO WHAT EXTENT DOES THE MISSION PERCEIVE A NEED OR INTEND TO SUPPORT RESEARCH COMPARED TO OTHER DESIRABLE INTERVENTIONS? WHILE WE RECOGNIZE THAT USAID MAY FEEL SOME RESPONSIBILITY TO FOLLOW UP ON BCRP, WE DO NOT SEE THIS AS CENTRAL. SIMILARLY, WHAT ELEMENTS OF THE WEANING PRACTICES ACTIVITY DO OR DO NOT REMAIN RELEVANT TO THE STRATEGY?

4. SPECIFIC GUIDANCE ON PROJECT WILL FOLLOW SEPTEL.
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FOR: AFR/DAS, L. RICHARDS;
AFR/CCWA, J. COLES;
AFR/DP, JIM GOVAN,
S&T/H.

CLASS: UNCLASSIFIED
CHRGE: AID 04/01/87
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CLEAR: 1.CO:MNAPPER
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3.PDE:SSCOTT
4.PRM;NLOLSEN
DISTR: AID6 AMB DCM
CHRON

E.O. 12356: N/A
TAGS: N/A
SUBJECT: CAMEROON: CHILD SURVIVAL/MATERNAL CHILD HEALTH PROJECT (631-0056)

REF: STATE 077503

1. USAID/CAMEROON IS PLEASED WITH REFTEL COMMENTS AND HAS FORMALLY INFORMED THE GRC WE ARE NOW AUTHORIZED TO COMPLETE DESIGN AND INITIATE PROJECT IMPLEMENTATION THIS SUMMER. U.S. AMBASSADOR RECENTLY MET WITH PRESIDENT BIYA AND, INTER ALIA, EXPLAINED THAT USAID/CAMEROON HAD RECEIVED PERMISSION TO MOVE FORWARD WITH THE CS/MCH PROJECT. THE COLLABORATIVE MODE WHEREBY THE DESIGN CONTRACTOR MOVES DIRECTLY TO PROJECT IMPLEMETATION WAS OUTLINED TO THE PRESIDENT. ADDITONALLY, AT MARCH 24 SIGNING CEREMONY OBLIGATING DOLS. 12.6 MILLION OF MISSION OYB (SEE YAOUNDE 2582), AMBASSADOR PUBLICLY ANNOUNCED (IN PRESENCE OF THE LOCAL PRESS) THAT USAID WAS PROCEEDING WITH THE FULL DESIGN OF THE CS/MCH PROJECT AT THE PROPOSED LEVEL OF DOLS. 9.5 MILLION AND THAT AN ADDITIONAL DOLS 3.0 MILLION WOULD BE OBLIGATED THIS SUMMER TO BEGIN FINANCING IMPLEMENTATION OF THE PROJECT.

2. MISSION ISSUED REQUESTS FOR EXPRESSION OF INTEREST (REI) TO FIVE U.S. UNIVERSITIES AND ONE UNIVERSITY CONSORTIUM IN NOVEMBER 1986. THIS PROJECT DESIGN, USING THE COLLABORATIVE MODE (I.E. DESIGN AND IMPLEMENTATION BY SAME INSTITUTION) REQUIRES SUBSTANTIVE INVOLVEMENT OF AN HBCU. THREE RESPONSES WERE RECEIVED, ALL OF WHICH INCLUDED HCBU INVOLVEMENT. JOINT PANEL OF USAID AND GOVERNMENT HEALTH MINISTRY REPRESENTATIVES SELECTED CONSORTIUM, COMPOSED OF HARVARD UNIVERSITY, DREW POST GRADUATE COLLEGE OF MEDICINE (HBCU) AND ACADEMY FOR EDUCATIONAL DEVELOPMENT (AED) AS HIGHEST RANKED RESPONDENT. CONSORTIUM HAS BEEN NOTIFIED OF SELECTION AND REQUESTED TO SUBMIT COST PROPOSAL BY END-APRIL 1987 WHEN DESIGN CONTRACT WILL BE NEGOTIATED. FYI: PDS FUNDS ALREADY ALLOTTED. END FYI. FUNDS HAVE ALSO BEEN MADE AVAILABLE FOR TWO MOH DESIGN GROUP MEMBERS TO VISIT HARVARD ALONG WITH MISSION HEALTH OFFICERS (ON H/L AT THE TIME) TO MEET CONSORTIUM DESIGN TEAM IN MID-APRIL.

UNCLASSIFIED YAOUNDE 2951

3. THE HARVARD PROPOSAL COMMITS TENURED FACULTY MEMBERS FROM ALL INSTITUTIONS TO BEGIN WORK IN CAMEROON MAY 15, 1987. THE MINISTRY OF HEALTH HAS ASSIGNED TWO SENIOR OFFICIALS AS MEMBERS OF THE DESIGN GROUP. MISSION SCHEDULE, WHICH IS BEING CLOSELY MONITORED AND ADHERED TO, PROVIDES FOR COMPLETION OF PP 15 JULY, ASSEMBLY OF AUTHORIZATION PACKAGE (TO BE EXECUTED IN FIELD) BY 31 JULY, AND EXECUTION OF PROJECT AGREEMENT/OBLIGATION NLT MID-END AUGUST.

4. PRITECH (PRIMARY HEALTH CARE TECHNOLOGIES - AID CENTRALLY FUNDED CONTRACTOR) CURRENTLY ASSISTING THE MINISTRY OF HEALTH ESTABLISH A NATIONAL PROGRAM FOR INSTITUTIONALIZING ORAL REHYDRATION THERAPY (ORT) AS THE FIRST LINE OF TREATMENT FOR CONTROLLING DIARRHEAL DISEASES. PROJECT INITIATED IN DECEMBER 1986 AS CS/MCH PRE-PROJECT ACTIVITY. PRITECH WORK SETS THE STAGE FOR IMPLEMENTING ORT IN THE TWO PROVINCES WHERE THE CS/MCH PROJECT WILL WORK. FYI: GOVERNMENT OF CAMEROON IS PRESENTLY HOLDING A CONFERENCE (MARCH 30 - APRIL 3) TO APPROVE AND ADOPT ITS PROPOSED NATIONAL POLICY FOR COUNTRY-WIDE ORT TRAINING PLAN AND IMPLEMENTATION PROGRAM. A NATIONAL COORDINATOR HAS BEEN ESTABLISHED WITH PRITECH PROVIDING ASSISTANCE TO RECENTLY FORMED SECRETARIAT. PROJECT HAS SURPASSED MISSION EXPECTATIONS.

5. USAID/CAMEROON WILL KEEP WASHINGTON INFORMED AS FINAL DESIGN OF THIS TRULY COLLABORATIVE CHILD SUVIVAL/MCH PROJECT PROGRESSES. APPRECIATE THE COOPERATION AND SUPPORT RECEIVED THUS FAR FROM BOTH AFR AND S&T CHILD SURVIVAL COORDINATOR. FRECHETTE

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UNCLASSIFIED YAOUNDE 2951

LOGICAL FRAMEWORK

LOP: FY87-FY92
Funding: $9.5 million
Prepared: July 15, 1987.

Project Title Number: Maternal Child Health/Child Survival 631-0056

NARRATIVE SUMMARY	OBJECTIVE VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
GOAL: To improve the health status of mothers and children in Cameroon.	1. Mortality from measles will decrease by 40%. 2. Utilization of GRC health centers in South and Adamoua Provinces will increase by 30%.	*KAP studies Records	If the project approach is successful, then the GRC will replicate it in other provinces in Cameroon. MOH will continue to emphasize primary health care.
PURPOSE: To strengthen the existing services system so that it provides effective health services to women children in South and Adamaoua Provinces.	End of Project Status: a. A functioning health system composed of facilities staffed by trained and equipped personnel who are delivering services in the five areas of concentration.	Site visits Records	Adequate enthusiasm and discipline can be maintained to ensure effective operation of the system within the two provinces. Villagers will use government health centers. Improved techniques and knowledge acquired by training will be transferred to the health centers.

NARRATIVE SUMMARY	OBJECTIVE VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
	b. Malaria Control: 1. 80% of health facilities and 60% of community health workers will be giving all patients who present with a fever presumed to be malaria prompt and appropriate malaria chemotherapy.		An adequate maintenance program can be maintained with available resources.
	c. Immunization: 1. 85% of all children with access to health facilities will be fully immunized by the age of 12 months.		
	d. Growth Monitoring and Nutrition Education: 1. 80% of all children under 5 who present to health facilities will be weighed and monitored with growth charts.		
	e. Oral Rehydration Therapy (ORT): 1. 80% of health facilities and 60% of community health workers will treat diarrhea cases with mild to moderate dehydration appropriately with oral rehydration solution.		
	f. Child Spacing: 1. 3% of couples will accept child spacing.		

NARRATIVE SUMMARY	OBJECTIVE VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
	g. Health Promotion: 1. 80% of rural health centers will have integrated health promotion activities with their regular MCH services.		
OUTPUTS: An effective health care management system is developed.	Magnitude of Outputs: 1. An effective drug supply system will be in place in Adamaoua and South Provinces. This will include both effective accounting and cold chain systems. The cost of reordering drugs in the system will be met by the patients.	Field audits Site visits	An adequate supply system can be developed and maintained. Patients will be willing to pay for the cost of their medicines.
	2. 800 health workers in the two Provinces receive in-service training at least twice a year. (See Training Plan in Section IX).	Records	
	3. Supervision protocols will be developed to guide supervision visits. Separate protocols for each rural health facility which address facility management, services delivery and personnel performance.	Records	
	4. KAP studies will be performed at the community level to determine optimum health promotion approaches and evaluate their effectiveness.	Records	

NARRATIVE SUMMARY	OBJECTIVE VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
A malaria control program established.	Malaria: 10,000 women will receive chemoprophylaxis during their first or second pregnancy every year.	Records Site Visits	That presumptive treatment for malaria will do significantly more good than harm. GRC will enforce WHO protocol for the treatment of malaria.
An immunization program established.	Immunization: 1. 105,800 children will have been fully immunized. 2. 48,000 women will receive 2 doses of Tetanus vaccine during pregnancy each year. 3. 952 vaccination sessions held. 4. Cold chain made operational in all immunization sites.	Site Visits Records	
A Growth Monitoring and Nutrition Education program established.	Growth Monitoring and Nutrition Education: 90,000 children under five weighed at health facilities or by CHWs and followed using health charts.	Site Visits Records	That mothers will use the information provided to improve the nutrition of their children.
Oral Rehydration Therapy program established.	Oral Rehydration Therapy: 128 ORT services and demonstration sites will be set up and operational.	Site Visits records	Reducing the incidence of mortality, but not the incidence of diarrhea, will be a culturally acceptable practice that will not harm the rest of the program.
Child Spacing program established.	Child Spacing: Contraceptive devices will be available in 40 health centers.	Site Visits records	Medical personnel will be willing to provide contraceptive services and people are willing to accept them.

Project INPUTS:

a. Training of Personnel	Unit Costs $	Total Cost $	Means of Verification	Important Assumptions
1. 5 Masters Degrees	55,000	275,000	Copy of degree	Prior to the first disbursement of the grant, or to the issuance by AID of documentation pursuant to which disbursement will be made, the Government will, except as AID may otherwise agree in writing, furnish to AID a statement of the name of the person holding or acting in the office of Government specified in section 8.2 and of any additional representatives together with a specimen signature of each person specified in such statement. The Government will assign suitable office space and counterparts to the technical assistance team.
2. 25 MCH Study Tours	10,000	250,000	Controller reports	
3. 7400 In-service Training encounters	65	481,000		
4. Overhead		251,000		
Subtotal		1,257,500		
b. Commodity Support				
1. 10 4WD Vehicles	200,000	200,000	PIOCs	
2. 25 motorcycles	7,000	75,000		
3. 13 Computers		59,000		
4. Computer Software		5,000		
5. Promotion materials		216,718		
6. ORS Production Center		85,000		
7. ORT Commodities		52,400		
8. Cold Chain Equipment		63,416		
9. Medications & Equipment		319,000		
10. Office Eqiupment and Furniture		47,675		
11. Nutrition monitoring equipment		36,370		
12. Training materials		43,375		
Subtotal		1,202,954		

		Unit Costs $	Total Cost $	Means of Verification	Important Assumptions
c.	Technical Assistance			Contract	
	1. Chief of Party	996,313			
	2. Management Trainer	361,428			
	3. South Advisor	613,284			
	4. Adamaoua Advisor	613,284			
	5. 27 months Short Term Consultants	15,000	405,000		
	6. Overhead		747,327		
	Subtotal		3,736,636		
d.	Other Direct Costs		1,803,287		
e.	Evaluation and Audit		100,000		
f.	Contingency & Inflation		1,399,594		
	TOTAL		9,499,971		

Note: These Project inputs are presented in much greater detail in Sections VI, XI, and Annex H (Sections 1 - 5).

* An overall reduction of mortality and morbidity in the project area will take place but measuring it would take an inordinate amount of project resources. Therefore we have selected two measures which are relatively easy to measure and which should reflect an overall increase in the health status of the project population.

Drafter:PRM:NLOlsen:saa:7/21/87:00557P

5C(1) - COUNTRY CHECKLIST

Listed below are statutory criteria applicable to: (A) FAA funds generally; (B)(1) Development Assistance funds only; or (B)(2) the Economic Support Fund only.

A. GENERAL CRITERIA FOR COUNTRY ELIGIBILITY

1. FY 1987 Continuing Resolution Sec. 526. Has the President certified to the Congress that the government of the recipient country is failing to take adequate measures to prevent narcotic drugs or other controlled substances which are cultivated, produced or processed illicitly, in whole or in part, in such country or transported through such country, from being sold illegally within the jurisdiction of such country to United States Government personnel or their dependents or from entering the United States unlawfully? NO

2. FAA Sec. 481(h). (This provision applies to assistance of any kind provided by grant, sale, loan, lease, credit, guaranty, or insurance, except assistance from the Child Survival Fund or relating to international narcotics control, disaster and refugee relief, or the provision of food or medicine.) If the recipient is a "major illicit drug producing country" (defined as a country producing during a fiscal year at least five metric tons of opium or 500 metric tons of coca or marijuana) or a "major drug-transit country" (defined as a country that is a significant direct source of illicit drugs significantly affecting the United States, through which such drugs are transported, or through which significant sums of drug-related profits are laundered with the knowledge or complicity of the government), has the President in the March 1 International Narcotics Control Strategy Report (INSCR) determined and certified to the Congress (without NA

Congressional enactment, within 30 days of continuous session, of a resolution disapproving such a certification), or has the President determined and certified to the Congress on any other date (with enactment by Congress of a resolution approving such certification), that (a) during the previous year the country has cooperated fully with the United States or taken adequate steps on its own to prevent illicit drugs produced or processed in or transported through such country from being transported into the United States, and to prevent and punish drug profit laundering in the country, or that (b) the vital national interests of the United States require the provision of such assistance?

3. Drug Act Sec. 2013. (This section applies to the same categories of assistance subject to the restrictions in FAA Sec. 481(h), above.) If recipient country is a "major illicit drug producing country" or "major drug-transit country" (as defined for the purpose of FAA Sec 481(h)), has the President submitted a report to Congress listing such country as one (a) which, as a matter of government policy, encourages or facilitates the production or distribution of illicit drugs; (b) in which any senior official of the government engages in, encourages, or facilitates the production or distribution of illegal drugs; (c) in which any member of a U.S. Government agency has suffered or been threatened with violence inflicted by or with the complicity of any government officer; or (d) which fails to provide reasonable cooperation to lawful activities of U.S. drug enforcement agents, unless the President has provided the required certification to Congress pertaining to U.S. national interests and the drug control and criminal prosecution efforts of that country?

NA

4. FAA Sec. 620(c). If assistance is to a government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) the debt is not denied or contested by such government? NO

5. FAA Sec. 620(e)(1). If assistance is to a government, has it (including any government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities? NO

6. FAA Secs. 620(a), 620(f), 620D; FY 1987 Continuing Resolution Secs. 512, 560. Is recipient country a Communist country? If so, has the President determined that assistance to the country is important to the national interests of the United States? Will assistance be provided to Angola, Cambodia, Cuba, Iraq, Syria, Vietnam, Libya, or South Yemen? Will assistance be provided to Afghanistan without a certification? NO

7. FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent, damage or destruction by mob action of U.S. property? NO

8. FAA Sec. 620(l). Has the country failed to enter into an investment guaranty agreement with OPIC? NO

9. FAA Sec. 620(o); Fishermen's Protective Act of 1967 (as amended) Sec. 5. (a) Has the country seized, or imposed any penalty or sanction against, any U.S. fishing vessel because of fishing activities in international waters? (b) If so, has any deduction required by the Fishermen's Protective Act been made? NO

10. FAA Sec. 620(q); FY 1987 Continuing Resolution Sec. 518. (a) Has the government of the recipient country been in default for more than six months on interest or principal of any loan to the country under the FAA? (b) Has the country been in default for more than one year on interest or principal on any U.S. loan under a program for which the FY 1987 Continuing Resolution appropriates funds?	NO
11. FAA Sec. 620(s). If contemplated assistance is development loan or from Economic Support Fund, has the Administrator taken into account the percent of the country's budget and amount of the country's foreign exchange or other resources spent on military equipment? (Reference may be made to the annual "Taking Into Consideration" memo: "Yes, taken into account by the Administrator at time of approval of Agency OYB." This approval by the Administrator of the Operational Year Budget can be the basis for an affirmative answer during the fiscal year unless significant changes in circumstances occur.)	NA
12. FAA Sec. 620(t). Has the country severed diplomatic relations with the United States? If so, have relations been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?	NO
13. FAA Sec. 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the A.I.D. Administrator in determining the current A.I.D. Operating Year Budget? (Reference may be made to the Taking into Consideration memo.)	UP TO DATE
14. FAA Sec. 620A. Has the President determined that the recipient country grants sanctuary from prosecution to any individual or group which has committed an act of international terrorism or otherwise supports international terrorism?	NO

15.	ISDCA of 1985 Sec. 552(b). Has the Secretary of State determined that the country is a high terrorist threat country after the Secretary of Transportation has determined, pursuant to section 1115(e)(2) of the Federal Aviation Act of 1958, that an airport in the country does not maintain and administer effective security measures?	NO
16.	FAA Sec. 666(b). Does the country object, on the basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. who is present in such country to carry out economic development programs under the FAA?	NO
17.	FAA Secs. 669, 670. Has the country, after August 3, 1977, delivered to any other country or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements or safeguards, and without special certification by the President? Has it transferred a nuclear explosive device to a non-nuclear weapon state, or if such a state, either received or detonated a nuclear explosive device? (FAA Sec. 620E permits a special waiver of Sec. 669 for Pakistan.)	NO
18.	FAA Sec. 670. If the country is a non-nuclear weapon state, has it, on or after August 8, 1985, exported (or attempted to export) illegally from the United States any material, equipment, or technology which would contribute significantly to the ability of a country to manufacture a nuclear explosive device?	NO
19.	ISDCA of 1981 Sec. 720. Was the country represented at the Meeting of Ministers of Foreign Affairs and Heads of Delegations of the Non-Aligned Countries to the 36th General Assembly of the U.N. on Sept. 25 and 28, 1981, and failed to disassociate itself from the communique issued? If so, has the President taken it into account? (Reference may be made to the Taking into Consideration memo.)	Cameroon did reserve on various aspects of the communique which were detrimental to US interests. This was taken into account by the Administrator at time of approval of Agency OYB.

20. FY 1987 Continuing Resolution Sec. 528. Has the recipient country been determined by the President to have engaged in a consistent pattern of opposition to the foreign policy of the United States? NO

21. FY 1987 Continuing Resolution Sec. 513. Has the duly elected Head of Government of the country been deposed by military coup or decree? NO

B. FUNDING SOURCE CRITERIA FOR COUNTRY ELIGIBILITY

1. Development Assistance Country Criteria

FAA Sec. 116. Has the Department of State determined that this government has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, can it be demonstrated that contemplated assistance will directly benefit the needy? NO

2. Economic Support Fund Country Criteria

FAA Sec. 502B. Has it been determined that the country has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, has the President found that the country made such significant improvement in its human rights record that furnishing such assistance is in the U.S. national interest? NO

5C(2) - PROJECT CHECKLIST

Listed below are statutory criteria applicable to projects. This section is divided into two parts. Part A includes criteria applicable to all projects. Part B applies to projects funded from specific sources only: B(1) applies to all projects funded with Development Assistance; B(2) applies to projects funded from Development Assistance loans; and B(3) applies to projects funded from ESF.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

A. GENERAL CRITERIA FOR PROJECT

1. FY 1987 Continuing Resolution Sec. 523; FAA Sec. 634A. Describe how authorization and appropriations committees of Senate and House have been or will be notified concerning the project. — Congressional Notification

2. FAA Sec. 611(a)(1). Prior to obligation in excess of $500,000, will there be (a) engineering, financial or other plans necessary to carry out the assistance, and (b) a reasonably firm estimate of the cost to the U.S. of the assistance? — YES

3. FAA Sec. 611(a)(2). If legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance? — NA

4. FAA Sec. 611(b); FY 1987 Continuing Resolution Sec. 501. If project is for water or water-related land resource construction, have benefits and costs been computed to the extent practicable in accordance with the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See A.I.D. Handbook 3 for guidelines.) — NA

5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and total U.S. assistance for it will exceed $1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize the project?	NA
6. FAA Sec. 209. Is project susceptible to execution as part of regional or multilateral project? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.	It is not susceptible to execution as part of a regional or multilateral project.
7. FAA Sec. 601(a). Information and conclusions on whether projects will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.	NA. - It is a maternal child health project.
8. FAA Sec. 601(b). Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).	Project will be implemented by three private U.S. organizations.
9. FAA Secs. 612(b), 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.	The GRC is contributing 32% of the total cost of the project.
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?	NA

11. FY 1987 Continuing Resolution Sec. 521. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity? NA

12. FY 1987 Continuing Resolution Sec. 558 (as interpreted by conference report). If assistance is for agricultural development activities (specifically, any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference, or training), are such activities (a) specifically and principally designed to increase agricultural exports by the host country to a country other than the United States, where the export would lead to direct competition in that third country with exports of a similar commodity grown or produced in the United States, and can the activities reasonably be expected to cause substantial injury to U.S. exporters of a similar agricultural commodity; or (b) in support of research that is intended primarily to benefit U.S. producers? NA

13. FY 1987 Continuing Resolution Sec. 559. Will the assistance (except for programs in Caribbean Basin Initiative countries under U.S. Tariff Schedule "Section 807," which allows reduced tariffs on articles assembled abroad from U.S.-made components) be used directly to procure feasibility studies, prefeasibility studies, or project profiles of potential investment in, or to assist the establishment of facilities specifically designed for, the manufacture for export to the United States or to third country markets in direct competition with U.S. exports, of textiles, apparel, footwear, handbags, flat goods (such as wallets or coin purses worn on the person), work gloves or leather wearing apparel? NA

14. FAA Sec. 118(c). Does the assistance comply with the environmental procedures set forth in A.I.D. Regulation 16? Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent feasible: (a) stress the importance of conserving and sustainably managing forest resources; (b) support activities which offer employment and income alternatives to those who otherwise would cause destruction and loss of forests, and help countries identify and implement alternatives to colonizing forested areas; (c) support training programs, educational efforts, and the establishment or strengthening of institutions to improve forest management; (d) help end destructive slash-and-burn agriculture by supporting stable and productive farming practices; (e) help conserve forests which have not yet been degraded, by helping to increase production on lands already cleared or degraded; (f) conserve forested watersheds and rehabilitate those which have been deforested; (g) support training, research, and other actions which lead to sustainable and more environmentally sound practices for timber harvesting, removal, and processing; (h) support research to expand knowledge of tropical forests and identify alternatives which will prevent forest destruction, loss, or degradation; (i) conserve biological diversity in forest areas by supporting efforts to identify, establish, and maintain a representative network of protected tropical forest ecosystems on a worldwide basis, by making the establishment of protected areas a condition of support for activities involving forest clearance or degradation, and by helping to identify tropical forest ecosystems and species in need of protection and establish and maintain appropriate protected areas; (j) seek to increase the awareness of

A negative environmental determination has been made.

U.S. government agencies and other donors of the immediate and long-term value of tropical forests; and (k) utilize the resources and abilities of all relevant U.S. government agencies?

15. FAA Sec. 119(g)(4)-(6). Will the assistance (a) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity; (b) be provided under a long-term agreement in which the recipient country agrees to protect ecosystems or other wildlife habitats; (c) support efforts to identify and survey ecosystems in recipient countries worthy of protection; or (d) by any direct or indirect means significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas? NO

16. FAA 121(d). If a Sahel project, has a determination been made that the host government has an adequate sysem for accounting for and controlling receipt and expenditure of project funds (either dollars or local currency generated therefrom)? NOT A SAHEL PROJECT

17. FY 1987 Continuing Resolution Sec. 532. Is disbursement of the assistance conditioned solely on the basis of the policies of any multilateral institution? NO

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

a. FAA Secs. 102(b), 111, 113, 281(a). Describe extent to which activity will (a) effectively involve the poor in development by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, dispersing investment from cities to small towns and rural areas, and

The assistance will provide the poor with improved access to health care.

insuring wide participation of the poor in the benefits of development on a sustained basis, using appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries.

b.	FAA Secs. 103, 103A, 104, 105, 106, 120-21. Does the project fit the criteria for the source of funds (functional account) being used?	YES
c.	FAA Sec. 107. Is emphasis placed on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?	YES
d.	FAA Secs. 110, 124(d). Will the recipient country provide at least 25 percent of the costs of the program, project, or activity with respect to whch the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)?	YES
e.	FAA Sec. 128(b). If the activity attempts to increase the institutional capabilities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the poor majority?	YES

f.	FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in governmental processes essential to self-government.	The project has been designed with the full participation of the GRC/ Ministry of Health.
g.	FY 1987 Continuing Resolution Sec. 540. Are any of the funds to be used for the performance of abortions as a method of family planning or to motivate or coerce any person to practice abortions?	NO
	Are any of the funds to be used to pay for the performance of involuntary sterilization as a method of family planning or to coerce or provide any financial incentive to any person to undergo sterilizations?	NO
	Are any of the funds to be used to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning?	NO
h.	FY 1987 Continuing Resolution. Is the assistance being made available to any organization or program which has been determined to support or participate in the management of a program of coercive abortion or involuntary sterilization?	NO
	If assistance is from the population functional account, are any of the funds to be made available to voluntary family planning projects which do not offer, either directly or through referral to or information about access to, a broad range of family planning methods and services?	NO
i.	FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?	YES

j.	FY 1987 Continuing Resolution. How much of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, and private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged (including women)?	An HBCU will participate in with the design and implementation of the project.
k.	FAA Sec. 118(c)(13). If the assistance will support a program or project significantly affecting tropical forests (including projects involving the planting of exotic plant species), will the program or project (a) be based upon careful analysis of the alternatives available to achieve the best sustainable use of the land, and (b) take full account of the environmental impacts of the proposed activities on biological diversity?	NA
l.	FAA Sec. 118(c)(14). Will assistance be used for (a) the procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner and that the proposed activity will produce positive economic benefits and sustainable forest management systems; or (b) actions which significantly degrade national parks or similar protected areas which contain tropical forests, or introduce exotic plants or animals into such areas?	NO
m.	FAA Sec. 118(c)(15). Will assistance be used for (a) activities which would result in the conversion of forest lands to the rearing of livestock; (b) the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undegraded forest lands; (c) the colonization of forest lands; or (d) the construction of dams or other water	NO

control structures which flood relatively undegraded forest lands, unless with respect to each such activity an environmental assessment indicates that the activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development?

2. Development Assistance Project Criteria (Loans Only)

a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan at a reasonable rate of interest. NA

b. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20 percent of the enterprise's annual production during the life of the loan, or has the requirement to enter into such an agreement been waived by the President because of a national security interest? NA

c. FY 1987 Continuing Resolution. If for a loan to a private sector institution from funds made available to carry out the provisions of FAA Sections 103 through 106, will loan be provided, to the maximum extent practicable, at or near the prevailing interest rate paid on Treasury obligations of similar maturity at the time of obligating such funds? NA

d. FAA Sec. 122(b). Does the activity give reasonable promise of assisting long-range plans and programs designed to develop economic resources and increase productive capacities? YES

3. Economic Support Fund Project Criteria

a. FAA Sec. 531(a). Will this assistance promote economic and political stability? To the maximum extent feasible, is this assistance consistent with the policy directions, purposes, and programs of Part I of the FAA?	YES
b. FAA Sec. 531(e). Will this assistance be used for military or paramilitary purposes?	NO
c. ISDCA of 1985 Sec. 207. Will ESF funds be used to finance the construction, operation or maintenance of, or the supplying of fuel for, a nuclear facility? If so, has the President certified that such country is a party to the Treaty on the Non-Proliferation of Nuclear Weapons or the Treaty for the Prohibition of Nuclear Weapons in Latin America (the "Treaty of Tlatelolco"), cooperates fully with the IAEA, and pursues nonproliferation policies consistent with those of the United States?	NO
d. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made?	NA

ANNEX D. Borrower/Grantee Request.

MINISTERE DE LA SANTE PUBLIQUE
MINISTRY OF PUBLIC HEALTH

REPUBLIQUE DU CAMEROUN
Paix — Travail — Patrie
REPUBLIC OF CAMEROON
Peace — Work — Fatherland

N° E9 /L/MSP/SG/DMPHP/DAMPHP/SEP/2.-

Yaoundé, le / the 20 JUIL. 1987 19

Réf. :
Ref.

Le Ministre de la Santé Publique
The Minister of Public Health

Objet : Request for Aid Grant Funds for the Bilateral MCH Project.
Subject

à M / to The Director
USAID - Cameroon.

JUL 22 1987

Sir,

I have the honour to forward herewith a child survival/maternal and child health programme developed jointly by the Ministry of Public Health; the consortium of Harvard, Drew and Academy for Educational Development; and USAID/Cameroon.

This programme is vital to us as it is intended to implement integrated MCH services in two provinces and develop models for replication of services nationwide.

Because this programme is essential for the economic and social development of the country, my ministerial department therefore requests USAID financial assistance for the implementation of the project. On behalf of my government, I wish to thank USAID, the consortium of Harvard, Drew and the Academy for Educational Development for the time and energy spent in putting together this important document.

Yours Sincerely,

Pour le Ministre
LE SECRETAIRE D'ETAT A LA SANTE PUBLIQUE

République du Cameroun
Republic of Cameroon
Ministry of Public Health
Ministère de la Santé Publique

Mme Isabelle BASSONG

7

ANNEX E. Waiver Requests.

1. Vehicles

2. Mimeograph Machines

3. UNICEF Materials.

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ZNR UUUUU ZZH
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FM AMEMBASSY YAOUNDE
TO SECSTATE WASHDC IMMEDIATE 4230
BT
UNCLAS SECTION 01 OF * YAOUNDE 06758

CLASS: UNCLASSIFIED
CHRGE: AID 07/20/87
APPRV: DIR:JPJOHNSON
DRFTD: PDE:ABREWER:FK
CLEAR: 1.PRM:OLSEN
2.SMD:JNTUBA
3.CO:MNAPPER
4.RLA:BBRYANT
DISTR: AID8 AMB DCM
CHRON

AIDAC

SECSTATE FOR ALAN GETSON

E.O. 12356: N/A
TAGS: N/A
SUBJECT: VEHICLE PROCUREMENT WAIVER FOR MCH PROJECT (631-0056)

1. THE FOLLOWING IS THE TEXT OF A VEHICLE PROCUREMENT WAIVER TO THE AA FOR THE MCH PROJECT (631-0056).

2. SUBJECT: MATERNAL AND CHILD HEALTH/CHILD SURVIVAL (631-0056) PROJECT NON-US ORIGIN PROCUREMENT WAIVER FOR VEHICLES AND SPARE PARTS.

I. PROBLEM:

YOUR APPROVAL IS REQUESTED FOR AN ORIGIN WAIVER FROM GEOGRAPHIC CODE 000 TO CODE 935 IN ORDER TO PURCHASE 10 FOUR WHEEL DRIVE VEHICLES AND SPARE PARTS OF NON-US MANUFACTURE. UNDER DOA 551, THE MISSION HAS AUTHORITY TO AUTHORIZE THE PROJECT; HOWEVER, AUTHORITY TO APPROVE PROCUREMENT OF NON-US ORIGIN VEHICLES IN EXCESS OF DOLS 50,000 RESTS WITH THE AA.

A. COOPERATING COUNTRY: CAMEROON

B. AUTHORIZING DOCUMENT: PROJECT PAPER

C. PROJECT: MATERNAL CHILD HEALTH/CHILD SURVIVAL

D. NATURE OF FUNDING: GRANT

E. DESCRIPTION OF COMMODITIES: 10 FOUR-WHEEL-DRIVE VEHICLES AND SPARE PARTS

F. APPROXIMATE VALUE: DOLLARS 180,000

G. PROBABLE ORIGIN: JAPAN OR EUROPE

H. PROBABLE SOURCE: CAMEROON

II. BACKGROUND:

THE AUTHORIZED GEOGRAPHIC CODE FOR CAMEROON IS 000. ONE OF THE CRITERIA IN HANDBOOK 1B CHAPTER 5B4A7 TO WAIVE THE AUTHORIZED GEOGRAPHIC CODE IS "SUCH OTHER CIRCUMSTANCES A ARE DETERMINED TO BE CRITICAL TO THE SUCCESS OF PROJECT DEVELOPMENT OBJECTIVES." ACCORDING TO SECTION 636(I) OF

THE FAA, MOTOR VEHICLES PURCHASED BY AID MUST BE MANUFACTURED IN THE US UNLESS "SPECIAL CIRCUMSTANCES" EXIST. HANDBOOK 1B CHAPTER 4C2D STATES THAT CIRCUMSTANCE WHICH MAY MERIT WAIVING THE REQUIREMENT ARE THE INABILITY OF US MANUFACTURERS TO PROVIDE NEEDED VEHICLES AND A PRESENT OR PROJECTED LACK OF ADEQUATE SERVICE FACILITIES AND SUPPLY OF SPARE PARTS FOR US MANUFACTURED VEHICLES.

III. DISCUSSION:

THE MATERNAL CHILD HEALTH/CHILD SURVIVAL PROJECT WILL BE CARRIED OUT WITH THE MINISTRY OF HEALTH. THE 5 YEAR PROJECT WILL HELP SOLVE THE MOST SERIOUS HEALTH PROBLEMS THAT AFFECT MOTHERS AND CHILDREN BY PROVIDING TECHNICAL ASSISTANCE, TRAINING AND COMMODITIES. APPROPRIATE SUPERVISION OF PROVINCIAL AND VILLAGE HEALTH WORKERS IS KEY TO THE SUCESS OF THE PROJECT. THE LACK OF TRANSPORTATION IS ONE OF THE MAIN REASONS SUPERVISION IS NOT DONE. USAID/CAMEROON IS REQUESTING 10 FOUR WHEEL DRIVE VEHICLES, EIGHT FOR USE IN THE PROVINCE AND TWO FOR USE IN YAOUNDE SO INSPECTIONS CAN BE MADE AND EQUIPMENT TRANSPORTED THROUGHOUT THE YEAR.

IV. JUSTIFICATION:

CURRENTLY THERE ARE NO U.S. MANUFACTURED VEHICLES IN CAMEROON AND NO LOCAL DEALERSHIPS TO PROVIDE SPARE PARTS AND MAINTENANCE SUPPORT. READILY AVAILABLE LOCAL SUPPORT FOR VEHICLES TO BE USED BY THE PROJECT IS AN INDISPENSABL PREREQUISITE FOR SUCCESSFUL PROJECT IMPLEMENTATION. U.S. MANUFACTURED VEHICLES DO NOT SATISFY THIS IMPORTANT REQUIREMENT IN CAMEROON. CONVERSELY, EUROPEAN AND JAPANESE MADE VEHICLES ARE READILY AVAILABLE THROUGH LOCA DEALERSHIPS WHICH HAVE ADEQUATELY EQUIPPED FACILITIES PROVIDING SPARE PARTS AND MAINTENANCE SUPPORT. FURTHERMORE, THE MINISTRY OF HEALTH HAS GARAGES THROUGHOU THE COUNTRY AND ITS MECHANICS ARE ONLY FAMILIAR WITH NON-US MADE VEHICLES. HENCE, FOR THE ABOVE REASONS YOU SHOULD WAIVE THE GEOGRAPHIC CODE AND SECTION 636 (I) OF THE FAA.

RECOMMENDATION:

UNCLAS SECTION 02 OF 02 YAOUNDE 06758

BASED ON THE JUSTIFICATION ABOVE AND YOUR AUTHORITY, IT I RECOMMENDED THAT YOU SIGN BELOW AND THEREBY:

- (1) WAIVE THE ORIGIN REQUIREMENTS IN HANDBOOK 1B TO PERMIT THE PROCUREMENT OF VEHICLES AND SPARE PARTS HAVING THEIR ORIGIN IN COUNTRIES INCLUDED IN CODE 935.

- (2) CERTIFY THAT EXCLUSION OF PROCUREMENT OF MOTOR VEHICLES FROM FREE WORLD COUNTRIES OTHER THAN THE COOPERATING COUNTRY AND COUNTRIES INCLUDED IN CODE 941 WOULD SERIOUSLY IMPEDE ATTAINMENT OF US FOREIGN POLICY OBJECTIVES AND OBJECTIVES OF THE FOREIGN ASSISTANCE PROGRAM.

- (3) DETERMINE THAT SPECIAL CIRCUMSTANCES EXIST TO JUSTIFY WAIVING THE REQUIREMENT TO PROCURE US MANUFACTUR VEHICLES UNDER FAA SECTION 636(I).

3. PLEASE SEND USAID/CAMEROON AN IMMEDIATE CABLE WHEN A HAS SIGNED. FRECHETTE
BT
#6758

NNNN

UNCLAS SECTION 02 OF 02 YAOUNDE 06758

UNCLASSIFIED STATE 243563

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FM SECSTATE WASHDC
TO AMEMBASSY YAOUNDE PRIORITY 1609
BT
UNCLAS STATE 243563

LOC: 193 680
07 AUG 87 0727
CN: 25349
CHRG: AID
DIST: AID
631-0056

AIDAC

ACTION:CO
info:DIR
EHRD
HNP
CHRON
RF

E.O. 12356: N/A

SUBJECT: VEHICLE PROCUREMENT WAIVER FOR MATERNAL AND CHILD HEALTH/CHILD SURVIVAL PROJECT (6310056)

VEHICLE PROCUREMENT WAIVER FOR TEN FOUR-WHEEL DRIVE VEHICLES AND SPARE PARTS FOR MATERNAL AND CHILD HEALTH/CHILD SURVIVAL PROJECT (6310056) WAS SIGNED BY A/AA FOR AFRICA SAIERS ON 31 JULY 1987. COPIES OF WAIVER BEING DISTRIBUTED TO SER/OP/TRANS, SER/OP/COMS AND M/FM/PAFD. ORIGINAL AND TWO COPIES OF THE WAIVER ARE BEING POUCHED TO THE MISSION. SHULTZ

DUE 8/12

BT
#3563

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UNCLASSIFIED STATE 243563

July 10, 1987

ACTION MEMORANDUM TO THE MISSION DIRECTOR

From: Alfreda Brewer, Project Development and Evaluation Office

Subject: Maternal and Child Health/Child Survival (631-0056) Source/Origin Waiver

I. PROBLEM: Your approval is requested for a source/origin waiver from geographic code 000 to code 935 to procure 2 mimeograph machines.

A. Cooperating Country: Cameroon

B. Authorizing Document: Project Paper

C. Project: Maternal Child Health/Child Survival

D. Nature of funding: Grant

E. Description of Commodities: 2 mimeograph machines

F. Approximate Value:

G. Probable Origin: Western Europe

H. Probable Source: Cameroon

II. BACKGROUND

Under DOA 551, you have the redelegated authority to approve source/origin waivers if the amount does not exceed $5 million per transaction as long as the request is based upon one of the appropriate criteria set forth in Handbook 1B. According to Handbook 1B chapter 5B4a2, you can waive the authorized geographic code if, "The commodity is not available from countries or areas included in the authorized geographic code."

III. DISCUSSION:

The Maternal Child Health/Child Survival Project requires two mimeograph machines to reproduce forms and other documents needed throughout the project.

IV. JUSTIFICATION

The mimeograph machines are an important commodity for the implementation of this project and US manufactured machines and spare parts are not available locally. Maintenance would also present problems. The machines manufactured in Western Europe, however, have many local reliable dealerships and will be able to provide maintenance and spare parts in a timely manner.

V. RECOMMENDATION:

Based on the justification above and your delegated authority under DOA 551, it is recommended that you sign below and thereby:

(1) Certify that exclusion of procurement of mimeograph machines from free world countries other than the cooperating country and countries included in Code 941 would seriously impede attainment of US foreign policy objectives and objectives of the foreign assistance program.

(2) That you waive the source/origin requirements in Handbook 1B to permit the procurement of mimeograph machines from countries included in Code 935.

Approved:_____

Disapproved:_____

Date:_____

Clearances:PRM:NOlsen NMD
SMD:JNtuba_____
CO:MNapper_____
RLA:BBryant_____
A/DIR:MJordan_____

Drafter:PDE:ABrewer_____07/09/87

Y7022EBT *
CO RUEBC
DE RUEHYD #7272/01 216 **
ZNR UUUUU ZZH
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FM AMEMBASSY YAOUNDE
TO SECSTATE WASHDC IMMEDIATE 4471
BT
UNCLAS YAOUNDE 07272

AIDAC

AID/W FOR ALAN GETSON

CLASS: UNCLASSIFIED
CHRGE: AID 08/04/87
APPRV: DIR:JFJOHNSON
DRFTD: PDE:ABREWER:GRN
CLEAR: 1.PRM:NOLSEN
2.CO:MNAPPER
3.HNP:GLEINEN
4.RLO:BBRYANT
DISTR: AID6 AMB DCM
CHRON

E.C. 12356: N/A
TAGS: N/A
SUBJECT: UNICEF WAIVER

1. BELOW IS THE TEXT OF AN ACTION MEMORANDUM TO THE AA TO APPROVE A WAIVER TO PROCURE COMMODITIES FROM UNICEF.

SUBJECT: MATERNAL AND CHILD HEALTH/CHILD SURVIVAL (631-0056) WAIVERS OF SOURCE/ORIGIN, COMPETITION AND US FLAG TRANSPORTATION REQUIREMENTS.

I. PROBLEM. IN ORDER TO PURCHASE COMMODITIES FROM UNICEF, YOUR APPROVAL IS REQUIRED TO WAIVE THE SOURCE/ORIGIN, COMPETITION AND US FLAG TRANSPORT REQUIREMENTS.

A. COOPERATING COUNTRY: CAMEROON

B. AUTHORIZING DOCUMENT: PROJECT PAPER

C. PROJECT: MATERNAL CHILD HEALTH/CHILD SURVIVAL

D. NATURE OF FUNDING: GRANT

E. DESCRIPTION OF COMMODITIES: CHLOROQUINE TABLETS 100
- MG.; MICROSCOPE MONECULAR SIMPLE CLINICAL - W/OIL-1MM
- OBJW/O 1LL; ILLUMINATOR MONOCULAR SIMPLE 220V FOR USE
- W/096000; SLIDES, MICROSCOPE PLAIN 25X75MM;
- COVERGLASS FOR MICROSCOPE SLIDES, 22X22 M, MICROSCOPE
- SLIDE BOX (EMPTY) FOR 100 SLIDES; DISH STAINING GLASS
- FOR 30 SLIDES; ELECTRIC REFRIGERATORS 220V W/FREEZER
- COMPARTMENT (OR 1130120 110-140-4-S FCT WHICH IS
- SMALLER); KEROSENE REFRIGERATOR 220V/24L;
- GENERATING-SET GASOLINE; FROZEN PACKS (DEPENDS ON TYPE
- OF COLD-BOX FOR VACCINE CARRIER 118500); THERMOMETER
- DIAL VACCINE STORAGE BI-METAL 0-20 FOR EPI; VACCINE
- COLD CHAIN MONITORING CARDS IN FRENCE; ORAL
- REHYDRATION SALTS PKT TO MAKE 1 LITER OF SOLUTION
- (NACL 3.5G.; TRISODIUM CITRATE 2.9G, KCL 1.CG,
- GLUCOSE 20.0G.; SYRINGE HYPO 0.1 MIL LUER BCG
- STERILIZABLE; RING "0" SPACER FOR 0782215; SYRINGE
- HYPO 1.0 ML. LUER EPI STERILIZABLE FOR MEASLES, DPT
- & TETANUS; RING "0" SPACER FOR 0782220; SYRINGE HYPO
- 5ML. LUER STERILIZER NEEDLE HYPO 0.70X32MM/22G X1-1/4

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STATES." EITHER. A CODE 935 FLAG TRANSPORTATION WAIVER IS REQUESTED UNDER HB 1B 7B4A(5) "ELIGIBLE VESSELS DO NOT PROVIDE LINER SERVICE FROM THE SHIPMENT'S SOURCE TO THE DESTINATION COUNTRY."

III. DISCUSSION. THE MATERNAL CHILD HEALTH/CHILD SURVIVAL PROJECT WILL BE CARRIED OUT WITH THE MINISTRY OF HEALTH. THE FIVE YEAR PROJECT WILL HELP SOLVE THE MOST SERIOUS HEALTH PROBLEMS THAT AFFECT MOTHERS AND CHILDREN BY PROVIDING TECHNICAL ASSISTANCE, TRAINING AND COMMODITIES. ADEQUATE QUANTITIES AND TIMELY DELIVERIES OF COMMODITIES ARE ESSENTIAL TO THE SUCCESS OF THE PROJECT. EVEN FOR THE PROVINCIAL LEVEL, THE CENTRAL MINISTRY IS RARELY ABLE TO MEET THE DEMANDS, AND AT THE VILLAGE LEVEL, THE LACK OF SUPPLIES IS EVEN MORE CRITICAL. HEALTH WORKERS MUST GIVE A PRESCRIPTION FOR BASIC DRUGS. PATIENTS THEN MUST GO TO A PHARMACY, OFTEN FAR AWAY, TO TRY TO BUY THE NEEDED MEDICINE.

IV. JUSTIFICATION. SOME OF THE COMMODITIES SUCH AS 100 MILLIGRAM DOSES OF CHLOROQUINE (IF STILL AVAILABLE) AND ORAL REHYDRATION SALTS ARE ONLY AVAILABLE FROM UNICEF AND HANDBOOK 1B CHAPTER 12 SECTION C4A(2)(C)2 WOULD APPLY.

ONE OF THE AIMS OF THE PROJECT IS TO IMPROVE THE CAPABILITY OF THE MINISTRY OF HEALTH'S PHARMACEUTICAL LOGISTIC SYSTEM AT ALL LEVELS. IF THEY LEARN THE PROPER PROCEDURES FOR ORDERING AND PRESCRIBING THE UNICEF DRUGS NEEDED FOR THIS PROJECT, THEY WILL BE ABLE TO APPLY THAT KNOWLEDGE TO THEIR WORK OUTSIDE OF THIS PROJECT. MOREOVER, SINCE THE MINISTRY OF HEALTH USES UNICEF COMMODITIES, THE PROJECT WILL CONTINUE WITH FAMILIAR PRODUCTS AND MAINTAIN UNIFORMITY WITH OTHER DONOR AND GOVERNMENT OF CAMEROON PROCUREMENT PRACTICES. FINALLY, THE PROJECT NEEDS A RELIABLE SUPPLIER OF COMMODITIES--UNICEF QUALITY IS EXCELLENT, THE PRICE IS REASONABLE AND THE STOCK AVAILABLE CAN ACCOMMODATE EVEN LARGE BULK PURCHASES. AT THE END OF THE PROJECT WE HOPE THE GRC WILL USE LESSONS LEARNED FROM THIS PROJECT AND APPLY THEM TO THE OTHER PROVINCES. THEREFORE, IMPROVING UPON CURRENT SYSTEMS RATHER THAN INTRODUCING NEW WAYS IS ESPECIALLY IMPORTANT TO THIS PROJECT'S SUCCESS. FOR THESE REASONS, IT IS IN THE BEST INTEREST OF THE US FOREIGN ASSISTANCE PROGRAM TO ORDER COMMODITIES FROM UNICEF.

A TRANSPORTATION WAIVER IS JUSTIFIED BECAUSE NO U.S. VESSELS TRAVEL FROM COPENHAGEN TO DOUALA.

V. RECOMMENDATION: BASED ON THE JUSTIFICATION ABOVE, IT IS RECOMMENDED THAT YOU SIGN BELOW AND THEREBY:

(1) WAIVE THE SOURCE/ORIGIN OF THE COMMODITIES, AUTHORIZE NON-COMPETITIVE PROCUREMENT FROM UNICEF AND WAIVE THE US FLAG TRANSPORTATION REQUIREMENT.

(2) CERTIFY THAT EXCLUSION OF PROCUREMENT FROM FREE WORLD COUNTRIES OTHER THAN THE COOPERATING COUNTRY AND COUNTRIES INCLUDED IN CODE 941 WOULD SERIOUSLY IMPEDE ATTAINMENT OF

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- "LUER FOR INJECTABLE NEEDLES, DPT AND TETANEOUS;
- NEEDLE HYPO 0.45X10MM/26GX3/4" LUER FOR BCG;
- SPRING-TYPE HANGING SCALE W/TROUSERS (SALTER-TYPE,
- PORTABLE, METRIC, 25KG CAPACITY, 50G. WITH 100G.
- GRADATIONS); SCALE W/O TROUSERS, 014555, TROUSERS SET
- OF 5, 016900; SHORR HEIGHT/LENGTH BOARDS; WEIGHT FOR
- HEIGHT CHART; CHARLING GROWTH IN SMALL CHILDREN
- SLIDES/ROAD TO HEALTH CHART, SLIDES AND TAPE. KITS

OF ESSENTIAL PHARMACEUTICALS FROM UNICEF WILL BE ORDERED FOR EACH OF THE 140 HEALTH CENTERS IN THE PROJECT AREA. EXACT COMPOSITION OF KITS TO BE DETERMINED BY GRC/MOH AND T.A. TEAM DURING FIRST THREE MONTHS OF THE PROJECT U.S. DOLLARS 235,000 IS ANTICIPATED FOR THIS PROCUREMENT AND DOLLARS 150,000 FOR THE SPECIFIC ITEMS ABOVE WHICH ARE NEEDED IMMEDIATELY IN THE PROJECT.

F. APPROXIMATELY VALUE: 385,000

G. PROBABLE ORIGIN: WESTERN EUROPE

H. PROBABLE SOURCE: WESTERN EUROPE

II. BACKGROUND. HANDBOOK 15 CHAPTER 6F4 A STATES THAT IN ORDER TO PROCURE COMMODITIES FROM UNICEF, THE FOLLOWING WAIVERS ARE REQUIRED: A SOURCE/ORIGIN WAIVER, A COMPETITION WAIVER AND A TRANSPORTATION SOURCE WAIVER. YOUR APPROVAL IS REQUIRED BECAUSE AUTHORITY TO APPROVE SOURCE/ORIGIN AND COMPETITION WAIVERS USING THE CRITERIA CITED BELOW IS NOT DELEGATED TO THE FIELD. ACCORDING TO HANDBOOK 1B CHAPTER 5B 4, ANY CHANGE IN A GEOGRAPHIC CODE MUST BE BASED UPON CERTAIN CRITERIA. USAID/CAMEROON IS REQUESTING A WAIVER BASED UPON SECTION 5B 4A(7) "SUCH OTHER CIRCUMSTANCES AS ARE DETERMINED TO BE CRITICAL TO THE SUCCESS OF PROJECT OBJECTIVES." A WAIVER OF COMPETITION IS REQUESTED BECAUSE CERTAIN OF THE COMMODITIES HAVE SPECIAL REQUIREMENTS THAT ONLY UNICEF CAN FULFILL AND UNDER HANDBOOK 1B CHAPTER 12 C4A(2)(C)2 PROPRIETARY PROCUREMENT IS JUSTIFIED. FURTHERMORE, 12 C4A(2)(C)5 ALSO APPLIES BECAUSE, "ADHERENCE TO COMPETITIVE PROCEDURES WOULD RESULT IN THE IMPAIRMENT OF THE OBJECTIVES OF THE UNITED STATES FOREIGN ASSISTANCE PROGRAM OR WOULD NOT BE IN THE BEST INTEREST OF THE UNITED

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UNCLAS SECTION 02 OF 02 YAOUNDE 07272

US FOREIGN POLICY OBJECTIVES AND OBJECTIVES OF THE FOREIGN ASSISTANCE PROGRAM.

2. PLEASE CABLE UPON APPROVAL. SANDBERG
BT
#7272

NNNN

UNCLAS SECTION 02 OF 02 YAOUNDE 07272

ANNEX F

Certification Pursuant to Section 611(e)
of the Foreign Assistance Act of 1961, as a

SUBJECT : CAMEROON - Maternal Child Health/Child Survival (631-0056)

Having taken into account, among other things, the maintenance and utilization of projects in Cameroon previously financed or assisted by the United States, I certify hereby that in my judgement Cameroon has the financial capability and the human resources, when supplemented by the external technical assistance to be provided under the project, to maintain and utilize effectively the proposed Maternal Child Health/Child Survival project.

This judgement is based primarily on the facts developed in the Project Paper for the proposed Grant which discusses in detail the capabilities of the Government of Cameroon and the Ministry of Health and finds them in possession of adequate financial and human resource capability to effectively utilize and maintain the project.

Jay P. Johnson
Director
USAID/Cameroon

Clearance:SScott, PDE
ABrewer, PDE
GLeinen, EHRD
MGianni, CONT

Drafter:PDE/PRM:NLOlsen_____saa:7/16/87:0013G(p4)

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ANNEX G PROJECT ANALYSES

Every major AID project design effort must include a prescribed number of special analyses required in order to force the designers to assess the feasibility of the proposed project from a number of different perspectives. This Project Paper includes analyses as follows:

Technical Feasibility - to evaluate whether the technology necessary for project success is both available and appropriate to the absorptive capacity of those health workers who will called upon to use it.

Administrative Feasibility - to assess whether the administrative support systems necessary for the operation of the Project are either already in place or can be established by the Project, and to evaluate the practicality of the administrative model being proposed for the improved rural health services system.

Economic Analysis - to examine the impact of the current economic situation in Cameroon upon the Project and to determine whether the Project approach has been well selected from the perspective of cost-effectiveness.

Financial Analysis - to evaluate the Project design's success in planning technical assistance and commodity support without committing the GRC to a post-Project recurrent cost burden beyond its means.

Social Soundness Analysis - to assess the degree to which the Project planners have taken into consideration influence of local cultural factors in designing services that interact with people and are dependent upon voluntary behavior change, and to estimate the ways in which the Project will benefit various segments of the population, especially women working in development.

In addition, Annex G contains sections which deal specifically with the potential for Peace Corps Volunteers to play a role in Project implementation and with the fact that this services delivery project is unlikely to have any impact upon the environment of Cameroon.

The analyses presented in this annex show that the GRC/USAID/Contractor design team gave careful consideration to a wide range of technical, administrative, economic and social variables and their relationship to the eventual success of the Project. The cumulative finding of these analyses is that the Project should be expected to attain its stated objectives.

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ANNEX G - 1 TECHNICAL ANALYSIS

I. Introduction

The technical analysis which has been applied to this Project design has as its objective the determination of whether any aspect of the Project is dependent upon a technology which either does not exist or is not practical in the Project environment. In addition this analysis explores whether the Project makes optimal use of those relevant technologies which do exist and are available.

II. Analyses

The technical analysis will be presented as it applies to each of the principal intervention concerns of the Project. Thus, it will address the technology associated with the management, training and health promotion emphases of the Project as well as that associated with the child survival services selected for strengthening.

A. Management

The Project's approach to improving the management of rural health services, especially as they apply to children and women, depends primarily upon engaging existing rural health services providers in regular in-service training to strengthen their management skills. The management skills which will be developed involve no sophisticated technology which might be beyond the educational levels of those being trained. Instead, management training will deal with the basic essentials of local program planning, resources management, personnel management, financial management and program evaluation. The latter includes concepts of program monitoring, operations research and information management.

Of particular importance to the Project's management improvement approach is the attention given to improving the system of ensuring that fixed rural health facilities are kept adequately supplied with appropriate medications and equipment.

The technology associated with the above management training objectives already exists, and there is a growing experience with its application in the African setting. The Project will determine the specific management training needs for each of the different responsibility levels of health workers being trained. This will ensure that each level of personnel is required to learn only the management skills relevant to that level of responsibility. The competency-based approach to curriculum development described in the next section will assure that in-

service training remains both relevant and within the grasp of the trainees.

The only new technology being introduced within the context of the management objectives of the Project relates to information management and the use of computers. In recent years microcomputers have become so much less expensive than their original cost, much more durable, small and easily installed, and served by a myriad of simple, user-friendly software programs that development programs throughout Africa are able to use them effectively for information management; they are a rare example of high tech appropriate technology.

This Project will place small personal desk microcomputers in the hands of the principal public health managers at the provincial and division levels, and the resident Project technical advisors will train these managers in the use of computers to simplify information management and reporting. The Project will also provide short term consultant services to help develop an appropriate computer-assisted information management system for rural health services.

There has already been considerable experience with the introduction of microcomputer technology for health services management and planning in Niger, Chad and Zaire, and it is expected that this approach will prove effective in Cameroon.

B. Training

The technology implicit in the Project's approach to its training activities is that of competency-based training. This is described in detail in Section IX of the Project Paper.

In brief competency-based training attempts to tailor training activities to the specific performance responsibilities of the trainees. This approach is in contrast to the classical approach of providing trainees with a broad understanding of a wide spectrum of subjects, leaving the trainees to sort out relevant training when confronted with performance requirements. The classical approach produces a more versatile professional who can deal with unexpected developments more effectively, however it requires much more time and money.

The competency-based approach to training rural health workers has had wide use in Africa, although most basic training is still of the classical type, and it is expected to be effective in this Project.

C. **Health Promotion**

During the past ten years there has been much progress made in the field of motivating community members to make better use of their health services and take more personal measures to protect their health and that of the other members of their families. Of particular note is the emergence of the effective use of mass media such as printed material, radio and television. Because much of the technology of effective promotional message development has come from the private marketing sector, its application to the promotion of social programs like health services has come to be called "social marketing." This Project's approach to health promotion is presented in Section X of this Project Paper.

In brief, the Project will apply the existing technology of carefully developing the health promotion program through the use of KAP studies, focus group interviews and field testing of messages to ensure that printed, radio and occasional television communications with the target audience have the desired impact on behavior. It will be an exciting aspect of the Project to develop, and it is expected to be effective within the technologic setting of Cameroon's communications sector.

D. **Child Survival Services**

As an important part of this Project's approach to improving rural health services management, an effort has been made to specify a limited number of child survival services to be emphasized on the basis of the fact that their relative cost-effectiveness can be expected to help health services managers achieve the greatest impact upon the health of the population with the limited resources at their disposal.

The five child survival services which have been selected for Project support are malaria control, immunization, growth monitoring with nutrition education, oral rehydration therapy and child spacing. The Project approach to each of these specific child survival interventions is discussed separately in Annex H of the Project Paper. The technology requirements of each are minimal and well established through field experience. They are presented below.

1. **Malaria Control**

Due to the current status of the health services delivery system in Cameroon, the epidemiology of malaria here and the potential for increasing parasite resistance to chloroquine, the approach to malaria control that the Project will follow is very similar to WHO's Tactical Variant 1, ie the Project will rely primarily on promoting prompt chemotherapy for all fevers presumed to be malaria and chemoprophylaxis for all women in

their first or second pregnancy. In addition, periodic surveillance will be done to monitor the status of parasite resistance in the Project areas.

The technology of the Project's malaria control support, which is specific to malaria, pertains to the chloroquine dosages for chemotherapy and chemoprophylaxis and the techniques for monitoring parasite resistance. Most of the technology upon which malaria control improvement is dependant is the technology of management, training and health promotion as discussed above. The malaria specific technology has been well established for Africa, and there is a cadre of malaria specialists in Cameroon who are up to date re current chemotherapy, chemoprophylaxis and resistance monitoring, even as they are constantly changing to accommodate the increasing levels of parasite resistance. Furthermore, WHO has agreed to provide Cameroon with additional malaria expert consultation as needed.

It is not expected that access or appropriateness of technology will be a problem for the Project's malaria control objectives.

2. Immunization

The Project's approach to strengthening Cameroon's immunization services in the South and Adamaoua Provinces is different from its approach to the other child survival services because immunization is already being dealt with through the MOH's highly organized EPI program. Thus, for this service only, the challenge is to find how to best integrate an already operational, vertical program into the existing rural health services.

The technology requirements of the immunization program are many, but they have been the subject of extensive research in the past, and this research has established the currently accepted protocols which Cameroon follows with respect to immunization doses, combinations, schedules and coverage surveillance. The Cameroon health system has recently demonstrated its competence with this technology during the national immunization campaign.

There are no anticipated technical feasibility issues associated with the Project's immunization activities.

3. Growth Monitoring with Nutrition Education

The technology requirements of the nutrition activities of the Project are simple and pertain primarily to the selection of an appropriate health card for recording growth data, weighing and measuring techniques and health promotion techniques. The Project will follow the recently published WHO guidelines for the weighing and measuring of children and will emphasize weight-for-

age as the best indicator of chronic malnutrition. The technologic aspects of nutrition education are discussed above under the rubric of health promotion.

Although the technology of growth monitoring and nutrition education is simple and well understood by most health workers, it has yet to be systematically applied in Cameroon as an integral aspect of the child survival services package of the rural health system. Integrating these activities into the programs of the South and Adamaoua Provinces will be a management and training challenge and not a technical one.

4. Oral Rehydration Therapy

The technology of ORT has also been the subject of extensive field research and is summarized in the WHO guidelines for implementation of diarrheal disease control programs. The most relevant technical issues for this Project include the selection of a standard ORS formulation (probably citrate-based ORS packages supplied by UNICEF), development of appropriate guidance for the home preparation of sugar-salt solution using easily available sugar and salt units and mixing containers, and determination of whether Cameroon should develop its own ORS production capacity.

The AID-supported PRITECH Project is actively working with the development of the Cameroon program for the control of diarrheal diseases. Both the PRITECH Project and WHO provide diarrheal disease control technical consultants on request. It is not expected that this Project will encounter any technical obstacles in promoting ORT which cannot be dealt with by the existing MOH system with its WHO and PRITECH support.

5. Child Spacing

The child spacing technologies proposed for use in this Project have been extensively tested in every region of the world. Experience has shown that in-service training can provide rural health workers at all levels with the knowledge and skills necessary to provide appropriate child spacing counselling and access to an appropriate selection of contraceptive methods. However, this Project will approach child spacing services by initially assessing demand for services and providing in-service training re. the role of child spacing in the protection of the health of children and women, so KAP survey techniques and training techniques will be more relevant to reaching Project objectives than contraceptive technology.

The child spacing objectives of the Project do not require technology which is not already available and in use in Cameroon; this aspect of the Project should prove technically feasible.

III. Summary

In review, this Project will make use of management, training, health promotion and child survival technologies which have all been developed through extensive field research in Africa, are already well established in limited sites in Cameroon, and should be transferable to the appropriate health workers through in-service training. In addition, this Project, WHO and the PRITECH Project all have the capacity to provide short term expert technical consultants to deal with future Project technical issues, should the need arise. Thus, the MCH Project design is found to be technically sound.

ANNEX G.2 ADMINISTRATIVE FEASIBILITY

A. Introduction

This section will present an analysis of the administrative environment in which the Project will be undertaken and how this environment will affect the ability of the Project to achieve its objectives. The analysis will compare the administrative capacity of existing organizations to support rural health services delivery in the Adamaoua and South Provinces, to transfer the experience of the Project into improved national health services planning and policy, and to support the operation of the Project, itself. The analysis will show why the Project design team concludes that this is an opportune time to attempt to improve the delivery of rural health services by improving the management, training and child survival services delivery skills of existing health workers and introducing alternative methods of cost recovery to ensure future health care financing.

B. Rural Health Services Administration

This Project is designed to contribute to the lowering of the morbidity and mortality of children and women in Cameroon by improving the delivery of rural health services in the Adamaoua and South Provinces. In particular, the Project will concentrate on the provision of five priority child survival services which has been proven relatively cost-effective uses of scarce resources in rural settings. The delivery of these services will be made more effective by improving the management of the rural health services system and the ability of the existing health workers to deliver the selected services.

The most important accomplishment to be realized by the Project will be the establishment of a network of rural health facilities that is kept well supplied with needed medications and equipment and manned by health workers able to use them to deliver priority child survival services. This is expected to radically increase the utilization of rural health services and result in an improvement in the health status of the children and women in the two Provinces.

The administrative requirements for the maintenance of an effective rural health services delivery system are many, and the discussion of the current organization and performance of the Government health services in Cameroon in Section VII showed that many of these requirements are already in place.

There already exists a strong, central Ministry of Health in which Maternal and Health services have been given priority status by being placed under the direct authority of the Secretary of State for Health. At the Ministry level there is a strong directorate of Preventive Medicine and sound leadership in

the related domains of Primary Health Care, Epidemiology and Planning. The organization of health services in the Provinces reflects that in the Ministry, and the success of the Project will depend most upon the provincial leaders in Preventive Medicine and the Coordinators of Primary Health Care to institute the new management practices and improved services delivery measures which have been planned.

Fortunately, Cameroon has been very active in training health workers since independence, and the existing network of health facilities is relatively well staffed. However, these health workers are often unable to perform to the standards to which they have been trained because they have insufficient supplies. This lack of the material means with which to deliver health services results from both limited capacity of the health system to purchase sufficient quantities to meet the need and from inefficient use of those supplies which are purchased.

The present assessment of the ability of the health system of Cameroon to correct this situation, and to accomplish the objectives of the Project in the target Provinces, is that the organizational structure is already in placed and is staffed with qualified personnel who, with additional training in selected management techniques, could make more effective use of the limited resources available and realize a significant improvement in health services delivery. This improvement will be further enhanced as cost recovery measures add to the resources available.

By emphasizing in-service training of existing health workers at all levels of the rural health services system, this Project will build upon the strengths of the existing administrative system while improving its capacity to provide its personnel with the supervision and materials needed to perform effectively and its planners with the information needed to apply the lessons of this experience to the development of health services in other parts of the country.

C. Health Planning and Policy

The Ministry of Health has effectively maintained the leadership of the design of this Project. It has demonstrated its commitment to the improvement of health services to rural children and women and is expected to use the Project to field test the approach of concentrating on improving the management capacity of existing health workers to attain the maximum use of the limited resources available to the health sector.

To facilitate the application of Project experiences to the health policy formulation of Cameroon, the Project will establish a Technical Advisory Group (TAG) of senior health officials. The selection of the members of the TAG will be among the first

exercises to be undertaken by the Project's direction at the national level. The membership will draw from the many senior Cameroonian health professionals who have been involved in the development of maternal and child health services for the rural population. The TAG will be kept to a small, workable size and will be invited to meet semiannually to review the progress of the Project, advise on its management and make recommendations re the relevance of Project experience for the rest of the country.

Through the TAG the Project will ensure the direct involvement of the senior health policy makers of Cameroon.

D. Project Administration

The administrative environment of the Project itself includes the administrative support systems of the Ministry of Health as presented in Section VII and assessed above, the administrative back-stopping of USAID/Cameroon and the administrative support of the institutional contractor.

1. USAID/Cameroon: AID will provide the Project with the technical and administrative support of a full time Health Officer and the periodic involvement of the USAID Mission's Contracts Officer, Controller, Procurement Officer and Program, Project Design and Evaluation officials. The commitment of USAID/Cameroon to this Project had been demonstrated by the active involvement of its members in all stages of Project design. AID will participate in regular project management review meetings, including formal annual in-house evaluations conducted annually, and it will also sponsor the external evaluation and external audit required by AID to determine the effectiveness of the Project's activities and the appropriate use of the Project funds.

2. Contractor: It is planned that this Project will engage the technical assistance services of a consortium of American universities, including an historically black college or university, and other institutions with experience relevant to the needs of the Project. This was the approach taken during the Project design phase, and it was demonstrated that such a consortium could deliver the full range of technical and administrative support services needed by the Project. It is expected that AID will contract with the same consortium or a similar consortium for the Project implementation phase and that the contractor will be proficient in the provision long term and short term technical assistance, the coordination of Project supported training and the timely procurement and delivery of Project commodities. The institutions under consideration as implementation contractors will be judged by their demonstrated ability to administer technical assistance projects in Africa.

E. Conclusion

From the assessment of the administrative capabilities of the Ministry of Health at the national level and in the Provinces, the administrative support services available from USAID/Cameroon and the level of administrative expertise accessible through AID contracting procedures, it is reasonable to expect that this Project will have the administrative capability to ensure its own effective operation.

Furthermore, existing Cameroonian health services administration is strong enough that the added management training provided under the auspices of the Project, coupled with the increased resource base which may be generated through cost recovery activities, will result in a significant improvement in the capacity of the rural health services system to deliver appropriate child survival services, increased utilization of government health services by the beneficiary population and a resulting improvement in the health status of children and women in rural Cameroon.

ANNEX.G.3. **ECONOMIC ANALYSIS**

This section will present a cost-effectiveness analysis of the Project. The Financial Analysis which follows as Section X.G.4 will discuss the current economic situation in Cameroon and how it will influence the Project.

The benefits of health interventions are difficult to quantify, so that ordinary benefit-cost analysis is rarely applied to health projects. At the same time, it is possible to analyze the proposed health interventions of a project using cost-effectiveness analysis. This analysis evaluates the costs of proposed interventions in relation to the effects which are expected to be achieved. The purpose of such an analysis is to assure that the methods proposed by the project are the least cost methods for achieving the project's health outcomes.

In the case of this Project, specific health outcomes are not expected to be measurable during the life of the Project (See Section V. Project Rationale and Description). As a result it is not possible to calculate Project specific cost-effectiveness ratios. However, it is possible to analyze the relative costs per outcome of the intervention components of the Project in general terms.

The Project is the first phase of a ten-year effort that expects to eventually reduce morbidity and mortality among women and children in the two Province. However, over the five-year lifetime of the first phase no morbidity or mortality objectives are claimed. Thus, no cost effectiveness analysis can be performed during the first phase. Nevertheless, the Project emphasizes a set of interventions assumed to be cost effective. This makes it important to examine the underlying assumptions of the claims for cost effectiveness of the proposed interventions over the course of the Project in the Cameroon setting. If the underlying assumptions are found to be valid during the first phase, then the follow-on five-year project can proceed with the same set of interventions, and possibly add others, and expect to reduce morbidity and mortality efficiently. With this objective in mind, the following analysis lays out the assumptions regarding the cost effectiveness of the Project's emphasis interventions.

The Project's major objective is the improvement of the management of rural health services in the Adamaoua and South Provinces. To attain this objective the Project will focus on the in-service training of existing health personnel in management, training techniques, communications and selected child survival interventions. The child survival interventions to be emphasized by the Project as the most cost-effective

approach to improved rural health services are; malaria control, immunizations, growth monitoring with nutrition education, oral rehydration therapy for diarrheal disease, and child spacing. This analysis examines each of the health interventions for its effectiveness, then its costs. Then, factors that will determine the cost effectiveness of each are assembled. Finally, the ways in which the Project activities to strengthen the delivery system and improve health promotion are expected to contribute to the cost effectiveness of the interventions is discussed.

3.1 Effectiveness

The first step toward a health intervention being effective is that it attacks a real morbidity and mortality problem. Malaria, immunizable diseases, malnutrition, dehydrating diarrhea, and the problems associated with short birth intervals are all cited as among the leading causes of morbidity and mortality in Cameroon, specifically in the Provinces of South and Adamaoua. These problems are only cited anecdotally, however, since the health information system is weak and unreliable. This pattern of morbidity and mortality is similar to other neighboring African countries.

The target population of the Project interventions, women of child-bearing age and children under five years of age, are those population groups with highest preventable morbidity and mortality rates. Again, the evidence for this assertion is anecdotal, but is similar to other African countries. Thus, the interventions are aimed at the leading causes of morbidity and mortality among groups who suffer dis-proportionately from them.

To be effective, an intervention must successfully mitigate the identified problem. Four of the proposed interventions (malaria control, immunizations, child spacing, and ORT) have been shown to be successful in mitigating the problems they attack. Treatment of fevers with chloroquine, presuming them to be malaria, is effective in reducing morbidity and mortality. Immunizations are effective in reducing morbidity and mortality from polio, measles, diphtheria, tetanus, pertussis, and tuberculosis. Longer birth intervals than those practiced by many Cameroonian families will improve the health of both mothers and children. ORT is effective in reducing deaths from dehydration resulting from diarrhea.

The record for growth monitoring and nutrition education is less clear. In the literature, growth monitoring and nutrition education have had spotty success in improving nutritional status, and thus morbidity and mortality. This is because the major determinants of malnutrition are income, age, and sex, and growth monitoring can do little, if anything to change these factors.

In Cameroon, however, the major problem of childhood malnutrition seems to be associated with inadequate feeding at the time of weaning from breast-milk. Thus, if a behavior change can be elicited through growth monitoring and nutrition education, then malnutrition and the associated morbidity and mortality would be reduced.

3.2 Costs

The direct costs of delivery of chloroquine for malaria, ORS for diarrheal disease, and growth monitoring charts and scales are low. Contraceptives for birth spacing have a medium level of direct cost. Vaccines, supplies, and the necessary cold-chain equipment to support immunizations make their direct cost the highest of the Project's child survival interventions, at approximately at $5 per child fully immunized.

There are indirect costs associated with each intervention that must be considered when examining cost effectiveness. Chloroquine is inexpensive, has a long shelf-life, and is widely recognized by the general public as being an effective remedy for malaria. There will be few indirect costs to promoting the use of chloroquine for the presumptive treatment of fevers. However, the desire to have pregnant women take chloroquine prophylactically during pregnancy is likely to require substantial and costly promotional effort, based on experience in other African countries (e.g. Togo and Zaire).

ORS for the prevention of dehydration from diarrhea is inexpensive and has a long shelf life. However, it is not well known to the general public. Moreover, ORS does not treat the apparent symptoms of diarrhea, so its eventual acceptance by the general public is problematic. Substantial promotional costs may be associated with high levels of use.

Appropriately designed simple growth monitoring charts and scales are not expensive and are long lasting. Some promotional effort may be required to achieve high levels of attendance at baby weighing sessions.

Contraceptives are moderately priced and may frequently be supplied at low to no cost by donors. It is not currently known how much demand already exists for birth spacing and how much educational effort will be needed to convince women of the gain to be had from spreading current birth intervals. The amount of education and promotion needed will determine how costly this intervention is.

Immunizations have the highest direct costs. Depending on the population's beliefs about the merits of immunizations, more or less promotional effort may be needed to reach target levels of coverage.

3.3 Conclusions on Cost Effectiveness

Chloroquine for the presumptive treatment of fevers has, a priori the best probability of being cost effective in reducing morbidity and mortality in the Project area. This has been true elsewhere, where cost per death averted has been in the area of $200 to $400. Cost effectiveness of chemoprophylaxis of pregnant women depends on how much promotional effort is needed and how successful it is.

If consumers can be convinced easily to use ORS for the prevention of dehydration from diarrhea, then ORT will be a cost-effective intervention. Where consumers have accepted ORS without costly promotion, cost per death averted has been in the range of $200 to $400. If it takes a costly continuous promotional effort to induce consumers to use ORS, then the cost per death averted will be much higher.

The cost effectiveness of growth monitoring and nutrition education will depend on its success in changing the child and pregnant and lactating mother feeding patterns when malnutrition is detected. To be cost effective this intervention will have to be more successful in changing behavior than it has been in many other countries.

The cost effectiveness of the child-spacing will depend on how much demand there already is for longer birth intervals and what level of promotional effort will be required to make families aware of the health gains from longer intervals and of the possibilities for lengthening them safely and effectively through use of modern contraceptive methods.

Even though immunizations are relatively costly, their effectiveness in preventing morbidity and mortality is strong. The cost of averting death through immunizations in other places has been around $500. If consumers come for immunizations without a costly promotional effort immunizations will be a cost-effective way to avert deaths.

3.4 How Other Project Activities Will Enhance Cost Effectiveness

The Project's efforts to strengthen the way the health delivery system functions and to increase health promotion should enhance the cost effectiveness of the individual interventions. The Project will help the MOH to improve management, budgeting, and planning to make better use of scarce resources. In addition, the Project will support operational research into delivery of services in order to improve effectiveness and efficiency. Special attention will be given by the Project to helping improve the drug and supplies system. This is important

to improving system efficiency since current imbalances among drugs and supplies, personnel, and facilities imply a low level of efficiency and an under-use of services by consumers. All of the Project's efforts will contribute to the health interventions being delivered at lowest possible cost; this enhances their cost effectiveness.

Since consumer demand is an important element in the cost effectiveness of all of the Project's emphasis interventions, except presumptive treatment of fevers with chloroquine (it is already widely accepted as a malaria treatment), the Project's work on improving and increasing health promotion should contribute toward the cost effectiveness of the interventions. At the same time, however, health promotion efforts must be evaluated for cost effectiveness and sustainability. A comprehensive, but costly, health promotion effort increased demand for and use of ORT in The Gambia, but was too expensive to continue over the long term, and demand and use of ORT dropped. Thus, caution should be exercised to ensure that the scale of health promotion effort corresponds to the benefits realized.

In summary, it is essential that the activities selected for support by this Project are among the most cost effective measures that can be undertaken in an effort to improve rural health services delivery. This approach is especially important given Cameroon's current economic crisis, which is discussed in the following Financial Analysis.

ANNEX. G.4. FINANCIAL ANALYSIS

This financial analysis has two parts: a recurrent cost analysis, an analysis of financial constraints on the performance of the Cameroon health system, and a discussion of methods of implementation and financing.

1. Recurrent Cost Analysis

The Project will not entail a major recurrent cost burden for the GRC. The Project will not require that the GRC hire any additional personnel, nor construct any new facilities. The project will assist existing personnel to perform more efficiently and effectively than they are at present. Moreover, the management strengthening effort undertaken by the Project and the assistance given to help organize a wider system of cost recovery from beneficiaries for drugs and supplies will strengthen the GRC's ability to meet recurrent costs. The total annual increase in recurrent costs to the MOH engendered by the project is estimated to be approximately $200,000 (60 million CFA), less than one-half of one percent of the 1986-87 MOH operating budget (see Table G.4.1).

For the purposes of this analysis, recurrent costs will be divided into operating costs and capital replacement costs. Operating costs are those which occur on an annual basis. Capital-replacement costs are those expenditures that are made pluri-annually to replace long-lived equipment. Operating costs increases engendered by the Project fall mainly into the categories of drugs and supplies, in-service training, mass media productions, surveillance, and supervision. Capital replacement costs engendered by the project can be classified as vehicles and motorcycles; cold-chain, communications, ORT, training, lab, and office equipment; computers; and scales.

1.2 Operating Costs

The major operating costs engendered by the Project will be for drugs and supplies and supervision. Costs of drugs and supplies additional to current budgetary allocations are to be paid for through beneficiary payments. It appears that supervision costs can be met through better management of currently allocated budgets. The remaining annual operating costs engendered by the Project (see sections 1.2.2, 1.2.3, and 1.2.4 below) are estimated to be $110,000 (33.0 million CFA). This is within the capacity of the MOH to pay.

1.2.1 Drugs and Supplies

There will be an increase in operating costs for drugs and supplies for each of the five technical emphasis areas of the Project. Chloroquine will be needed to treat malaria. Growth charts will be needed for growth monitoring. ORS will be needed for the diarrheal disease program. Vaccines and supplies will be needed for EPI. Contraceptives will be needed for the child spacing program.

The recurrent costs of these drugs and supplies would represent a substantial increase over the current allocations made by the GRC for drugs and supplies[1]. However, the GRC has made a decision that will relieve this burden. It has decided that drugs and supplies should be paid for by beneficiaries of services. Many details of how this policy will be implemented remain to be decided. Some exemptions to the principle of payment by beneficiaries may be granted for preventive and promotive services, care for chronic illnesses, and to special population groups. Whether drugs and supplies in these exempt categories will be given to patients at zero price or will be subsidized at less than 100 percent has not yet been determined. Neither has a decision been made as to how the exempt drugs and supplies are to be paid for.

The Project will offer technical assistance in the area of drug and supply policy to help the GRC make these decisions. First, the Project's technical assistance in drug and supply policy will help the GRC to consider which drugs and supplies and which population groups should receive what level of subsidy given health objectives, beliefs and practices of consumers, and costs. The Project will urge the GRC to make the total drug and supplies system self-financed above any amount that the GRC is willing to put into the MOH budget for drugs and supplies. That is, the Project will advocate that prices on non-exempt drugs and supplies be increased above costs by a margin sufficient to pay for any subsidies put on exempt products in excess of the budgetary allocation. This policy would assure that recurrent cost of drugs and supplies will be met.

The passing of the recurrent costs of drugs and supplies from the GRC to consumers does not necessarily mean that the consumer will have a larger burden to bear, especially in the two Provinces where the Project will operate. Under current circumstances, where the GRC attempts to provide drugs and supplies at zero price, few drugs and supplies are available to the majority of the population that lives in rural areas far from the major cities, as priority is given to urban hospitals. These rural residents are forced either to purchase drugs and supplies from private sources, or to go without care. The purchase of

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[1] The 1986-87 per capita budgetary allocation for drugs and supplies was only 230 CFA. See Table G.4.1.

drugs from private sources involves high costs, both in terms of the margins charged on products and in travel costs to reach sales outlets. Those who forego care because of these high costs bear the costs of un-treated ill health, including, but not limited to, lost agricultural productivity. Further, the preventive and promotive services that the Project will emphasize will permit consumers to avoid the costs of treatment of the illnesses averted. Thus, in many cases consumers will see a net gain from being assigned this recurrent cost burden.

1.2.2 In-service Training

The Project will carry out two in-service training sessions per year for the approximately 800 health workers in the two Provinces. The cost of each session is estimated to be $65 per worker. Currently, the MOH allocates about $31 per worker per year for in-service training. To maintain the twice-a-year in-service training schedule, the training budget would have to increase by approximately $79,200 (23.8 million CFA).

1.2.3 Mass-media Productions

The Project will allocate $30,000 per year for the production of radio and television messages. The MOH is already granted air time at no cost by the national broadcasting system. The MOH will have to increase its allocations by $30,000 (9.0 million CFA) to match this level of effort.

1.2.4 Surveillance

The Project will supply equipment and initial supplies to eight laboratories to monitor the possible development of chloroquine resistant malaria. The resupply of these labs in reagents and other supplies will represent approximately $800 (240,000 CFA) per year.

1.2.5 Supervision

The Project has identified supervision as a key element in effectiveness of peripheral health services delivery. Current levels of supervision are insufficient. The Project will support, on a declining basis over the life of the project[2], the

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[2] The Project will support the full operating costs of six vehicles and 25 motorcycles for the first two years of the project. During this time frequency and modalities of supervision will be studied and new management, budgeting, and planning systems put in place. With the new supervision and budget allocation systems in place in the third year of the Project, support for operating costs will diminish to two-thirds of full costs, then to one-third of full costs in the fourth

operating costs of more frequent supervision. The Project will assist the MOH to study the levels of supervision needed to make existing personnel and infrastructure effective and efficient, as well. Further, the Project analysis indicates that the levels of funds currently allocated to the two Provinces for transport are largely sufficient to accomplish needed supervision, but the funds appear to be inefficiently distributed among services. The Project will work with the MOH to develop the management, budgeting, and planning systems to ensure that future transport allocations are distributed more efficiently. Hence, there is expected to be little to no additional operating budget increase necessary to fund improved supervision.

1.3 Capital-replacement Costs

Unlike most other Sub-Saharan African countries, Cameroon has been willing and able to make a large portion of its own capital investments and replacements. The current situation of economic crisis will diminish that capability, but not eliminate it. In the past ten years Cameroon has rapidly expanded its stock of health facilities. However, this expansion has not been as rapid as called for in the Five-Year Development Plans[3]. The Sixth Five-Year Development Plan calls for further expansion of the public health infrastructure. In light of current circumstances (i.e. the economic crisis) caution in pursuing this objective seems warranted. It would be prudent for the GRC to give priority to fully equipping existing facilities and to the replacement of capital. If these priorities are made, then replacement of capital will not be a problem. Realization of expansion of infrastructure will necessarily be slower than planned, however.

At the Annual Conference of Health Officials, held in Yaounde from June 29 to July 2, 1987, as well as during the speech by the Minister of Health to the National Assembly in June, priority was given to finishing construction of tertiary hospitals in Yaounde and Douala (80% of the capital investment budget proposed for 1987-1988) and lesser priority given to equipping recently constructed facilities (20% of investment budget). However, the MOH is also likely to receive additional capital investment funds from the unspent balance of the 1986-87 total GRC capital budget. These funds may be used for equipping existing facilities. In addition, the Minister of Health has called for a more rational management of vehicles and equipment. This will mean better control of capital replacement costs.

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year, and full costs will be the responsibility of the GRC in year five.

[3] See the Sixth Five-Year Development Plan, 1987.

The capital-replacement costs engendered by the Project are modest. The annual real cost (1987 US$) of capital replacement is estimated to be $93,600 (28.1 million CFA) (See Table G.4.2). This is less than one-half of one percent of the 1986-87 MOH investment budget of more than 8 billion CFA. Vehicles and cold-chain equipment are only to be added to facilities that lack them. The MOH has agreed to work with the Project to test whether shared ownership of the motorcycles to be provided can improve the lifetime of the equipment and help reduce the capital replacement cost burden. Equipment that is entirely new to the system will be provided by the Project only in the form of communications, ORT, training, lab, and office equipment; computers; and scales.

1.3.1 Vehicles and Motorcycles

Only ten new vehicles are programmed for the Project. Of these, four are for the use of the expatriate advisors. The remaining six vehicles are to fill in where there are not sufficient vehicles already. The MOH representatives on the Project design team argued that they did not wish to acquire more vehicles than they could maintain and replace over the long term. Given a lifetime of three years, the annual cost of replacement of the vehicles would be $36,000 (10.8 million CFA).

The Project will provide 25 motorcycles for supervisors of peripheral health activities. The annual replacement cost of these motorcycles is estimated to be $25,000 (7.5 million CFA). The Project will assist the MOH in testing models of user purchase to improve the users' motivation to maintain and thereby extend the lifetime of their motorcycles. If the test results in the development of a successful system the capital replacement cost of motorcycles will be reduced by lengthening their useful lifetime and through user participation in paying for the motorcycles themselves.

1.3.2 Cold-Chain Equipment

Approximately 100 facilities currently without equipment will be provided with cold-chain materials for vaccine storage. The annual cost of replacement of this equipment will be about $5,700 (1.7 million CFA).

1.3.3 Other Equipment

Other equipment provided by the Project (for communications, ORT, training, surveillance labs, and offices) will engender an annual replacement cost of about $16,600 (4.9 million CFA).

1.3.4 Computers

The Project will purchase ten desk-top and three lap-top computers. The lap-top computers will be used primarily for special field studies during the life of the project. Hence, only the desk-top models will need to be replaced. The annual cost of replacement of the computers is estimated to be $10,000 (3.0 million CFA). It should be noted that the use of computers is expected to allow the MOH to improve efficiency by more than the annual cost of operation and replacement of the machines.

1.3.5 Scales

The Project will supply 140 scales for weighing of children for growth monitoring. The low-cost and long-lasting scales will engender an annual replacement cost of only about $400 (120,000 CFA).

2. Financial Constraints on System Performance

There are two principal manifestations of financial constraints on the performance of the health system, especially with regard to rural, preventive, and promotive services. The reflection of financial constraints fall in the areas of the availability of drugs and other supplies and supervision of peripheral health units.

This section first describes the current situation with respect to these impacts of financial constraints. Next an analysis of the situation is done. Finally, how the Project will intervene to assist the GRC in relieving these constraints is laid out.

2.1 Current Situation

The policy of the GRC has been that all drugs and supplies in government health facilities should be provided at zero price to patients. However, logistical and organizational problems and an inability to allocate sufficient funds to purchase drugs and supplies have led to a situation where few drugs and supplies are available, especially at peripheral levels. MOH budgetary allocations for pharmaceuticals (see Table G.4.1) have represented no more than 11 percent of the total MOH budget in the last five years. In per capita terms, allocations have never been more than 246 CFA ($US 0.82); this is hardly sufficient to meet demand. Moreover, when stocks are made available, deliveries are irregular and there are frequent over supplies of some items and under supplies of others. Given this situation, health personnel at all levels often must prescribe drugs and recommend to patients the purchase of supplies from private sources.

Outside the government health system, at private facilities

and in some communities[4], drugs and supplies are usually paid for by patients. The result is a greater utilization of these health units by consumers because availability of medications is more reliable.

The peripheral level of service delivery, health centers and CHWs, receives little supervision. Further, provincial and divisional level preventive medicine officers rarely supervise their subordinates at the divisional and sub-divisional levels. Budgets allocated to preventive and rural medicine units are inadequate to carry out necessary supervision[5] and many of the supervisors do not have vehicles. The consequent lack of supervision hampers the delivery of quality services.

The overall consequence of the poor supply system and the lack of adequate supervision is under-utilization of services at the peripheral level and the near-absence of preventive and promotive services. In addition, consumers are obliged to purchase prescribed drugs from private sources at relatively high prices and travel costs.

2.2 Analysis of the Current Situation

2.2.1 Drugs and Supplies Management

The GRC has taken two major steps towards improving the drugs and supplies situation. It has decided recently to end the policy of supplying drugs at zero price and has created a new pharmaceutical para-statal to improve supply logistics.

The inability of the GRC to allocate sufficient funds to the MOH for the purchase of drugs and supplies in recent years is unlikely to improve over the near- to medium-term, given the budget austerity that is to begin in 1987-88[6]. In light of this, the GRC has decided to end the policy of trying to provide drugs and supplies to patients at zero price beginning with the 1987-88 fiscal year. This is a practical basic policy response to the situation. However, as analyzed below, there remain many policy choices to be made and implementation steps to be taken to make this policy operational.

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[4] Communities which have propharmacies or village pharmacies.

[5] See, for example, Tables G.4.3 and G.4.4, where in 1986-87 transport allocations to Provincial Preventive and Rural Medicine Services were 200,000 CFA in South and zero in Adamaoua.

[6] The 1987-88 overall GRC operating budget was cut by 15 percent in nominal terms from the 1986-87 operating budget. The MOH budget fared relatively well, being cut by 8 percent.

In addition, in 1984 the GRC set up the para-statal, ONAPHARM, to improve drug and supply logistics. ONAPHARM has begun to operate, but its effectiveness in improving logistics has been hard to evaluate since to date it has been working within the bounds of the inadequate funding of zero-priced drugs. That is, ONAPHARM has had to depend on the restricted drug orders form the MOH, so that ONAPHARM's capacity to handle quantities of drugs sufficient to meet demand has not been tested.

2.2.2 Policy Issues

Policy issues include:

* determining where the receipts from drug and supply sales will be managed;

* how prices for drugs will be set;

* what are the roles to be played by ONAPHARM, private for-profit, and private non-profit pharmacies in supplying government units; and

* how the system is to be capitalized.

To date all receipts generated by the sale of goods and services by government units must be deposited into the general treasury. If this policy is continued for the sale of drugs, it will have several disadvantages. The major disadvantage is that the collection of payments for drugs would not necessarily increase the funds available to the health system. Moreover, the receipts collected by individual units would not have any connection with resupply. This would mean that there would be little incentive for managers of drug supply to strictly enforce collection of funds.

2.2.2.1 Pricing Policies

Pricing policies must be decided with respect to: (i) whether and how drugs for preventive, promotive, and chronic care will be cross-subsidized by prices charged for curative drugs; (ii) whether a single set of prices will be applied everywhere or local flexibility will be permitted; and (iii) whether margins on drugs will be used to raise additional revenues for the health system. A single set of prices would have the advantage of treating everyone the same.

In some other African countries (e.g. Zaire, Benin, and Guinea) where drugs and supplies are paid for by consumers, a policy of cross-subsidization is applied. This type of policy deliberately sets high margins on drugs and supplies for which demand is strong (e.g. chloroquine, aspirin, de-worming medicine) so that prices can be set lower than cost for "merit" drugs and

supplies (e.g. vaccines, contraceptives, STD medicines) and drugs for the treatment of chronic illnesses (e.g. tuberculosis, leprosy).

A single set of prices would mean that some kind of transport subsidy would have to be granted in the system to provide for the extra cost of reaching distant service delivery points. Local conditions and practices may make a single price policy inappropriate. For example, in places where demand for chloroquine for treatment of malaria is strong and appreciation of vaccinations is weak, putting a high margin on chloroquine and zero price on vaccinations would be appropriate. In another area the same price for chloroquine might inhibit its use, while a nominal charge for vaccinations would be tolerated. Flexibility in pricing would permit each location to set its prices accordingly.

Extra margins (above costs and in addition to any cross-subsidy adjustment) could be added to the sales prices of drugs to augment GRC budget allocations to the health sector for such purposes as costs of transport for supervision (see discussion of the need for additional funds for supervision, below).

2.2.2.2 Roles of Drug Suppliers

The statute creating ONAPHARM states that eventually ONAPHARM will be the exclusive supplier of drugs and other supplies to all government and non-profit private units. However, this provision has not yet been applied. Propharmacies and non-profit facilities still supply themselves largely from the private for-profit and non-profit pharmacies.

It would be efficient for ONAPHARM to be the exclusive supplier-only if ONAPHARM can provide supplies of the same or higher quality, same or lower price, and with the same or better reliability than private competitors. The experience of Cameroon with para-statal monopolies performances with respect to quality, price, and reliability has not been good. In some other African countries (e.g. Togo and Niger) para-statal pharmaceutical monopolies perform well with regard to quality and reliability, but poorly with regard to price and choice of drugs (e.g. purchasing relatively expensive brand name drugs, instead of generic drugs in bulk).

An option that should be considered would be to permit continued competition among all current and other potential pharmaceutical suppliers. Individual units or groups of units could be free to contract with whatever supplier provided the best combination of services. Suppliers could be required to submit annual bids. Competition for contracts would hold down prices; poor performance with respect to reliability could be grounds for exclusion from competition for future contracts. If

ONAPHARM were the best performer, it would gain the dominant place in the market. If not, it might gain some share of the market where it could perform better than its private competitors.

2.2.2.3 Capitalization of the System

A policy decision will have to be made as to how individual health units will obtain the necessary capital (or initial stock of drugs and supplies) to begin operations. Further, when needs for capital increase (e.g. when prices for drugs and supplies rise; demand for services, hence supplies, increases; or new services are added) the health units will need sources of supply of capital. One option, similar to that proposed for village pharmacies at the National Conference for Coordination of PHC Activities (June 1987), is to require communities to raise the funds necessary to initially capitalize a drug supply. However, this may not be feasible at the health center level, where the community served is much larger (and probably less cohesive). Another option would be to have some institution (e.g. a special fund set up by the MOH, a project, or lending institution) set up a fund from which health units could borrow to fund initial stocks and, later, additions to capital. The loans would be repaid through proceeds of an extra margin on the sales price of the drugs. A third option would be to have private investors capitalize the system, by buying shares in the operation[7] and earning returns from margins charged on sales. More shares could be sold when capital needs increase.

2.2.3 Implementation Steps

To implement the policy of consumer payment for drugs and supplies the MOH will have to carry out a number of practical implementation steps. These steps will include setting up ordering and delivery systems; development and implementation of financial control and oversight systems; and training of personnel involved in the supply system in management information systems.

Decisions will have to be made with regard to how drug and supply ordering is to be carried out. Choices for ordering and delivery schedules range from standard kits of drugs and supplies sent to units at fixed intervals to flexible ordering on an as-needed basis. The former has the advantage of being simple to administer. However, a disadvantage would be the lack of flexibility to respond to differing rates of consumption arising from varying patterns of morbidity, seasonality, and socio-

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[7] Similar to the system recently introduced for the SOCOOPED savings and development cooperative in Vina Division, where shares are sold to participants at 3,000 CFA each.

cultural factors. Another decision to be made is at what levels orders will be consolidated (i.e. at the provincial, divisional, sub-divisional, or village level).

The MOH will also have choices to make with regard to what kind of delivery systems to use. Choices include individual drug-supply workers travelling to the source of supply; vehicles from the supply source making delivery rounds; and the use of common transporters to deliver supplies. The latter would have the least direct cost as taxi or truck drivers making regular runs to delivery sites could carry supplies at a fraction of the cost of individual travel or specialized delivery vehicles. However, safeguards against theft would have to be built into such a system, e.g. the bonding of drivers or contracts with common transport firms.

Procedures will have to be designed for handling of cash, including the procedures for financial controls and oversight and sanctions for misuse of funds. This may include designing a role for community oversight bodies, such as those employed in the village pharmacy program.

Finally, the personnel who are to manage the drug supplies will need to be trained in how to manage and supervise the supply system within the procedures and policies developed. Supply managers will need training in management information systems covering ordering, stock control, and cash management. In addition, the supervisors of the drug supply managers will have to be trained in how to oversee and supervise those tasks. This training will involve supervisors and managers of drug supplies at the provincial, divisional, sub-divisional, and health center levels. If community oversight is to be a part of the system, then training for communities and community oversight bodies must be included.

2.3 Supervision

Analysis of the budget allocations to the South and Adamaoua Provinces, shown in Tables G.4.3-G.4.6, indicates that adequate funds have been allocated in recent years to carry out needed supervision. However, the funds have not been used to carry out the most important supervisory activities. The allocation of fuel, maintenance, and travel allowance (henceforth to be called simply transport) funds apparently corresponds better to the relative shares of total funds allocated than to needs for transportation. Thus, hospitals in both provinces receive the largest share of transport funds, yet they have only limited need to travel. Some units that have no means of transport receive transport budgets. Preventive and rural services which must frequently supervise peripheral units to be effective receive negligible transport allowances.

Some of these apparent anomalies have explanations. All provincial services are supposed to coordinate the use of transport budgets. Thus, if preventive and rural services are not performing adequate supervisory visits, it is because they encounter problems in coordinating with the hospital. Units that have no means of transport are to rent vehicles or contribute towards the fuel and maintenance of shared vehicles with other services. Also, even though budgeting and planning is supposed to be decentralized, the budget allocations received by the provincial and lower levels following approval by the National Assembly bear little resemblance to the budgets prepared during the decentralized process.

To make the best use possible of the funds available, the MOH should find ways to put funds under the control of the units that are responsible for the tasks that the funds are used to perform. Then, units should be held responsible for completing tasks for which they have been allocated funding, including coordinating with other units.

The decentralized budgeting and planning process should be meaningful. Taking all decisions in Yaounde means that follow up on what activities are carried out must be done by Yaounde. This is clearly impossible. When planning activities to be accomplished during the year, it should be done as a function of objectives to be accomplished during that year and the funds available to carry them out. Planning should not be done assuming an unlimited budget. Planning should be done collaboratively between the executing unit and its supervisor. Then the unit should be held responsible for completing the planned activities by the supervisor. Some options to be considered to improve the decentralization of budgeting and planning are: re-budgeting and planning of activities at the peripheral levels after the voted budget is known; periodic progress reports on activities and spending versus plans and budgets; and making following year budgets dependent on past year's performance.

2.4 Project Initiatives to Improve Supervision and Drug Supply

In the area of drug and supply systems, the Project will assist the MOH to: (i) address the policy issues with respect to drug supply; (ii) develop and test methods for ordering and delivery of drugs and supplies; (iii) train personnel in management methods appropriate to the new supply system. In the area of supervision, the Project will assist the MOH to: (i) develop and test systems where units are responsible for the accomplishment of tasks for which they are given budgets; (ii) develop and test new modalities for decentralized budgeting and

planning so that objectives reflect budgets and vice versa; and (iii) train personnel in financial management, information systems, budgeting and planning.

The Project will provide the MOH with short-term technical assistance in the economics of drug revolving funds and cost recovery to help with development of policy and the design of ordering and delivery systems. Short-term management technical assistance will be provided by the Project to help the MOH develop methods for making units responsible for tasks that are budgeted and in design of systems for effective decentralized budgeting and planning. In both cases the task of the short-term technical assistance will be to work with Cameroonian counterparts to develop sets of policy options from which MOH decision makers can make informed choices. All options presented will be described such that advantages and disadvantages of choices will be spelled out. Training in management methods for the new supply system, financial management, information systems, and budgeting and planning will be provided to all personnel in the two Provinces who are involved in administering either the supply system or budgets. The short-term technical assistance in management will participate in the development of the training materials.

3. Methods of Implementation and Financing

Table G.4.7 shows the methods of implementation and financing of the Project, including approximate amounts by method. No departures from general policies are proposed. Planned, but uncommitted, funds (i.e. contingency and inflation allowances) are not shown.

All technical assistance, training, and other direct costs and a portion of the acquisition of commodities are to be implemented through an institutional contract with a non-profit organization (a university). The method of financing will be through the Letter of Credit procedure.

Commodities procured by USAID will be implemented as direct contracts. The method of financing will be direct pay. Similarly, the evaluation and audit will be implemented as direct contracts and will use direct pay financing.

It was determined that a project audit should be conducted at the end of the five years.

PAYMENT VERIFICATION POLICY

Table G.4.7. shows the methods of implementation and financing of the Project, including approximate amounts by method. No departures from general policies are proposed. Planned, but uncommitted, funds (i.e. contingency and inflation allowances) are not shown.

All technical assistance, training, and other direct costs, and a portion of the acquisition of commodities are to be implemented through an institutional contract with a non-profit organization (a university). The method of financing will be through a Letter of Credit.

Commodities will also be procured by AID/W from UNICEF and by USAID/Cameroon under direct contracts with direct payments being made. Evaluations and audits will be direct pay using IQCs.

Funds have been budgeted in the project for a financial and compliance audit of the university contractor at the end of the project. This audit will be performed by independent public accountants. No other audits are considered necessary under this project.

Table G.4.7.
SUMMARY Methods of Implementation and Financing

Method of Implementation	Method of Financing	Approximate Amount (US $000)
TA-Institutional Contract	LOC	$3,930
Training-Inst Contract	LOC	$1,258
Commodities-Inst Contract	LOC	$424
Oth. Dir. Costs-Inst Contract.	LOC	$1,824
Commodities:		
AID Procurement-UNICEF	Direct Pay	$246
USAID Direct Contract	Direct Pay	$340
Evaluation/Audit-Profit-making IQC	Direct Pay	$100

TABLE G.4.1

MOH OPERATING BUDGET (in millions of CFA)

	81/82	82/83	83/84	84/85	85/86	86/87
PERSONNEL	7,642	9,094	11,817	15,993	19,427	20,683
TRANSPORTATION	1,781	2,936	326	500	515	698
OTHER OP. COSTS	0	0	3,198	2,191	2,350	2,341
PHARMACEUTICALS	409	477	545	2,480	2,480	2,480
BLDG. MAINT.	141	169	194	286	327	108
SCHOLARSHIPS	73	98	121	149	195	198
OTHER	164	1,054	1,256	1,423	1,453	1,248
TOTAL OP. BUDGET	10,210	13,828	17,457	23,023	26,747	27,756
Per Capita Op Budget	1,139	1,484	1,802	2,287	2,556	2,572
Per Capita Pharm Exp	46	51	56	246	237	230
Real OP. BUDGET	10,210	12,077	13,835	17,085	17,865	16,553
Per Capita Real Op Bud	1,139	1,296	1,428	1,697	1,707	1,534
Per Cap Real Pharm Exp	46	45	45	183	158	137

MOH OPERATING BUDGET (by percent)

	81/82	82/83	83/84	84/85	85/86	86/87
PERSONNEL	74.8%	65.8%	67.7%	69.5%	72.6%	74.5%
TRANSPORTATION	17.4%	21.2%	1.9%	2.2%	1.9%	2.5%
OTHER OP. COSTS	0.0%	0.0%	18.3%	9.5%	8.8%	8.4%
PHARMACEUTICALS	4.0%	3.4%	3.1%	10.8%	9.3%	8.9%
BLD. MAINT.	1.4%	1.2%	1.1%	1.2%	1.2%	0.4%
SCHOLARSHIPS	0.7%	0.7%	0.7%	0.6%	0.7%	0.7%
OTHER	1.6%	7.6%	7.2%	6.2%	5.4%	4.5%
TOTAL OP. BUDGET	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

% Change in Cons Prices	14.5	10.2	6.8	11.1	12.0	10.0
Cons Price Index	100	115	126	135	150	168
Population (000)	8,966	9,319	9,687	10,069	10,466	10,791

Sources: MOH Operating Budgets, World Bank, Sixth Five-Year Developmen Plan.

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TABLE G.4.1 (Cont)

OP. BUD. OF SOUTH PROVINCE

	81/82	82/83	83/84	84/85	85/86	86/87
PERSONNEL	0.0	0.0	0.0	2.3	4.4	4.4
TRANSPORTATION	0.0	0.0	0.0	26.7	26.4	24.9
OTHER OP. COSTS	0.0	0.0	0.0	57.1	67.3	72.8
BLD. MAINT.	0.0	0.0	0.0	15.3	15.5	5.6
TOTAL OP. BUDGET	0.0	0.0	0.0	101.4	113.6	107.7

OP. BUD. OF ADAMAOUA PROVINCE

	81/82	82/83	83/84	84/85	85/86	86/87
PERSONNEL	0.0	0.0	0.0	1.7	3.8	3.8
TRANSPORTATION	0.0	0.0	0.0	22.1	21.5	22.8
OTHER OP. COSTS	0.0	0.0	0.0	41.3	50.0	51.2
BLD. MAINT.	0.0	0.0	0.0	9.1	9.1	3.5
TOTAL OP. BUDGET	0.0	0.0	0.0	74.3	84.4	81.3

OP. BUD. OF SOUTH PROVINCE AS A PERCENT OF TOTAL OP. BUD.

	81/82	82/83	83/84	84/85	85/86	86/87
PERSONNEL	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TRANSPORTATION	0.0%	0.0%	0.0%	5.3%	5.1%	3.6%
OTHER OP. COSTS	0.0%	0.0%	0.0%	2.6%	2.9%	0.0%
BLD. MAINT.	0.0%	0.0%	0.0%	5.3%	4.7%	5.2%
TOTAL OP. BUDGET	0.0%	0.0%	0.0%	0.5%	0.5%	0.4%

OP. BUD. OF ADAMAOUA PROVINCE AS A PERCENT OF TOTAL OP. BUD.

	81/82	82/83	83/84	84/85	85/86	86/87
PERSONNEL	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TRANSPORTATION	0.0%	0.0%	0.0%	4.4%	4.2%	3.3%
OTHER OP. COSTS	0.0%	0.0%	0.0%	1.9%	2.1%	0.0%
BLD. MAINT.	0.0%	0.0%	0.0%	3.2%	2.8%	3.2%
TOTAL OP. BUDGET	0.0%	0.0%	0.0%	0.3%	0.3%	0.3%

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Table G.4.2

Capital Replacement Costs

Item	Number	Unit Cost	Total Cost	Lifetime (years)	Annual Replacement Cost (US$)	Annual Replacement Cost (CFA)
Vehicles *	6	$18,000	$108,000	3	$36,000	10,800,000
Motorcycles *	25	$3,000	$75,000	3	$25,000	7,500,000
Computers ***	10	$5,000	$50,000	5	$10,000	3,000,000
ORT Equip			$52,000	10	$5,200	1,560,000
Training Equip			$38,920	10	$3,892	1,167,600
Cold-Chain	100	$572	$57,200	10	$5,720	1,716,000
Lab Equip	8	$450	$3,600	10	$360	108,000
Office Equip	3	$12,467	$37,400	5	$7,480	2,244,000
Comm Equip	3	$1,667	$5,001	5	$1,000	300,060
Scales	140	$28	$3,920	10	$392	117,600
Total			$431,041		$95,044	28,513,260

* Four other vehicles are to be used by expatriate advisors and not replaced.

** User purchase plans will be tested to try to lengthen the useful lifetime of motorcycles through better maintenance. Replacement costs will also be reduced since users will contribute some share of the purchase price.

*** Three other laptop computers will not need to be replaced.

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TABLE G.4.3

ALLOCATION OF THE SOUTH PROVINCE BUDGET (millions of CFA)

	84/85		85/86		86/87	
	TOTAL	TRAVEL	TOTAL	TRAVEL	TOTAL	TRAVEL
ADMINISTRATION	12.50	4.61	12.99	4.61	13.44	4.58
Provincial	10.70	3.35	10.93	3.35	11.18	3.61
Departmental	1.80	1.26	2.06	1.26	2.26	0.97
HOSPITALS	42.36	13.73	43.58	14.08	44.54	15.83
Provincial	13.32	2.87	13.40	2.87	14.63	3.09
Departmental	10.38	3.06	10.54	3.06	10.88	4.02
Arrondissement	18.66	7.80	19.64	8.15	19.03	8.72
RURAL AND PREV. MED.	23.60	7.28	31.27	7.28	31.00	8.07
Provincial Prev. Med.	0.55	0.20	0.64	0.20	0.64	0.20
Departmental	6.28	3.33	6.82	3.33	7.01	3.52
Health Centers	16.77	3.75	23.81	3.75	23.35	4.35
URBAN AMB CURATIVE MED.	2.79	0.25	3.17	0.25	3.22	0.30
Urban Dispensaries	0.55	0.25	0.64	0.25	0.68	0.30
Departmental PMI	2.24	0.00	2.53	0.00	2.53	0.00
TOTAL	81.25	25.87	91.01	26.22	92.20	28.77

Note: Travel is defined as Fuel, Maintenance, and Per Diem.

Source: Annual MOH Operating Budgets.

TABLE G.4.4

ALLOCATION OF ADAMAOUA PROVINCE BUDGET (millions of CFA)

ADAMAOUA PROVINCE	84/85		85/86		86/87	
	TOTAL	TRAVEL	TOTAL	TRAVEL	TOTAL	TRAVEL
ADMINISTRATION	14.47	6.24	15.49	5.58	15.93	5.85
Provincial	11.72	4.20	12.19	3.62	12.44	3.87
Departmental	2.75	2.04	3.30	1.96	3.49	1.98
HOSPITALS	32.80	12.63	35.32	13.21	37.13	13.44
Provincial	13.36	2.82	14.85	2.82	16.12	3.09
Departmental	14.07	6.81	14.75	7.40	15.14	7.20
Arrondissement	5.38	3.00	5.73	3.00	5.88	3.15
RURAL AND PREV. MED.	13.09	3.95	17.12	3.41	16.97	3.60
Provincial Prev. Med.	0.50	0.20	0.57	0.00	0.57	0.00
Departmental	5.56	3.55	6.43	3.26	6.54	3.34
Health Centers	7.03	0.20	10.12	0.15	9.86	0.26
URBAN AMB CURATIVE MED.	2.10	0.00	2.60	0.00	2.60	0.00
Urban Dispensaries	0.00	0.00	0.15	0.00	0.15	0.00
Departmental PMI	2.10	0.00	2.45	0.00	2.45	0.00
TOTAL	62.46	22.82	70.52	22.20	72.63	22.89

Note: Travel is defined as Fuel, Maintenance, and Per Diem.

Source: Annual MOH Operating Budgets.

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TABLE G.4.5

ALLOCATION OF THE SOUTH PROVINCE BUDGET (by percent)

	84/85		85/86		86/87	
	TOTAL	TRAVEL	TOTAL	TRAVEL	TOTAL	TRAVEL
ADMINISTRATION	15.4%	17.8%	14.3%	17.6%	14.6%	15.9%
Provincial	13.2%	12.9%	12.0%	12.8%	12.1%	12.5%
Departmental	2.2%	4.9%	2.3%	4.8%	2.5%	3.4%
HOSPITALS	52.1%	53.1%	47.9%	53.7%	48.3%	55.0%
Provincial	16.4%	11.1%	14.7%	10.9%	15.9%	10.8%
Departmental	12.8%	11.8%	11.6%	11.7%	11.8%	14.0%
Arrondissement	23.0%	30.1%	21.6%	31.1%	20.6%	30.3%
RURAL AND PREV. MED.	29.0%	28.1%	34.4%	27.8%	33.6%	28.0%
Provincial Prev. Med.	0.7%	0.8%	0.7%	0.8%	0.7%	0.7%
Departmental	7.7%	12.9%	7.5%	12.7%	7.6%	12.2%
Health Centers	20.6%	14.5%	26.2%	14.3%	25.3%	15.1%
URBAN AMB CURATIVE MED.	3.4%	1.0%	3.5%	1.0%	3.5%	1.0%
Urban Dispensaries	0.7%	1.0%	0.7%	1.0%	0.7%	1.0%
Departmental PMI	2.8%	0.0%	2.8%	0.0%	2.7%	0.0%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: Travel is defined as Fuel, Maintenance, and Per Diem.

Source: Annual MOH Operating Budgets.

TABLE G.4.6

ALLOCATION OF THE ADAMAOUA PROVINCE BUDGET (by percent)

	84/85		85/86		86/87	
	TOTAL	TRAVEL	TOTAL	TRAVEL	TOTAL	TRAVEL
ADMINISTRATION	23.2%	27.3%	22.0%	25.1%	21.9%	25.6%
Provincial	18.8%	18.4%	17.3%	16.3%	17.1%	16.9%
Departmental	4.4%	8.9%	4.7%	8.8%	4.8%	8.7%
HOSPITALS	52.5%	55.3%	50.1%	59.5%	51.1%	58.7%
Provincial	21.4%	12.3%	21.1%	12.7%	22.2%	13.5%
Departmental	22.5%	29.8%	20.9%	33.3%	20.8%	31.5%
Arrondissement	8.6%	13.1%	8.1%	13.5%	8.1%	13.8%
RURAL AND PREV. MED.	21.0%	17.3%	24.3%	15.4%	23.4%	15.7%
Provincial Prev. Med.	0.8%	0.9%	0.8%	0.0%	0.8%	0.0%
Departmental	8.9%	15.6%	9.1%	14.7%	9.0%	14.6%
Health Centers	11.3%	0.9%	14.3%	0.7%	13.6%	1.1%
URBAN AMB CURATIVE MED.	3.4%	0.0%	3.7%	0.0%	3.6%	0.0%
Urban Dispensaries	0.0%	0.0%	0.2%	0.0%	0.2%	0.0%
Departmental PMI	3.4%	0.0%	3.5%	0.0%	3.4%	0.0%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: Travel is defined as Fuel, Maintenance, and Per Diem.

Source: Annual MOH Operating Budgets.

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Table G.4.7

Summary Methods of Implementation and Financing

Method of Implementation	Method of Financing	Approximate Amount (US $000)
TA-Institutional Contract	LOC	$3,930
Training-Inst Contract	LOC	$1,258
Commodities-Inst Contract	LOC	$424
Oth Dir Costs-Inst Contract	LOC	$1,824
USAID:		
Commodities:		
(UNICEF)	Direct Pay	$246
Direct Contract	Direct Pay	$340
Evaluation/Audit	Direct Pay	$100

ANNEX G.5: SOCIAI SOUNDNESS ANALYSIS

OUTLINE

I. Socio-cultural Environment

II. Socio-cultural Feasibility

III. Socio-cultural, organizational and policy constraints

IV. Beneficiaries

V. Participation and Related Issues

1. Participation

2. Spread Effects

3. Institutionalization

VI. Impact on Women

VII. References

I. SOCIO-CULTURAL ENVIRONMENT

Cultural perceptions, beliefs and practices relating to mother and child health, child-bearing, infant nutrition and traditional roles and relationships have been demonstrated to have a significant influence on the health of mothers and children. These factors must therefore, be carefully examined in the design of any health project aimed at improving the delivery of MCH services to rural areas.

A great deal of medico-social and ethnographic research has been conducted in various parts of Cameroon, either for academic purposes or to generate baseline data for specific projects. These studies, coupled with existing anecdotal evidence, provide some insight into the socio-cultural context of the proposed MCH/Child Survival Project. The focus of this analysis is on those socio-cultural features and practices which are relevant to the design and implementation of this Project.

The ecological, cultural and ethnic diversity of Cameroon is reflected in both the South and Adamaoua Provinces.

The South Province is situated in the forest zone, where the major cash crop is cocoa, and the main food-crops are cassava, cocoyam, plantains, groundnuts and pumpkin seeds. Fishing is widely practiced by the people of Ocean Division. The predominant ethnic group in the South is the Bulu; other groups include the Fang, the Bene, the Fong, the Ntoumou, the Ewondo, and in the Ocean division, the Ngumba, Mabea and Pygmies. With the exception of the last three, these ethnic groups share a common language group ("Beti"), and can therefore communicate with one another. The majority of the people belong either to the Protestant or Catholic religion; however, there is a sizeable number of non-christians, often referred to as "animists".

The Adamaoua Province represents a zone of transition, situated between the humid, rainy tropical forest of the South and the semi-arid sahelian zone of the North. Here, the plateau is covered by savannah grass and some trees

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which offer excellent possibilities for agriculture and animal husbandry. The indigenous populations are mainly engaged in the cultivation of cotton (which represents the main cash crop), sorghum and in raising cattle, sheep, goats or chickens. The Province comprises several ethnic groups, among which the Fulanis, the Mboum, the Dourou, Doayo, etc. Sorghum, peanuts, and gumbos are the most widely consumed food-crops. Islam and Christianity are the main religions, although some families belong to neither. Foulbe (the language of the Fulanis) is the main vehicular language, although families in their homes use their respective ethnic languages.

Despite the differences described above, there are many cultural beliefs and practices in Cameroon which are deeply imbedded in the social fabric and transcend regional specificities. These deserve to be mentioned in this context, particularly as they relate to maternal and child health.

The first line of therapy for most rural Cameroonian families is in the home, and many childhood and other diseases are treated at home with local herbs or a combination of local herbs and modern drugs. The availability of medicines in approved medical and pharmaceutical facilities as well as through unofficial channels ("bush" shops, market stands, itinerant peddlars) reflects the ubiquitous practice of self-medication. Traditional health practitioners are also frequently consulted and modern health facilities are used as a last resort, when home treatment and/or traditional medicine have failed. Diseases are often believed to be caused by supernatural agents, and frequently a patient may consult simultaneously the traditional medicine man and the modern medical doctor, in order to satisfy his/her own perceived notions about the disease. The scenario described by Van der Geest about the Ntem division in the South province applies to most rural communities of Cameroon. He writes:

> In most villages of Ntem people do not rely on trained health workers and official health institutions for their primary health care. First aid is given by members of the family or neighbors. This aid may be based on traditional therapy with herbs or on treatment with modern pharmaceutical products. Each family has some home remedies against the most common medical complaints and in

> each village one finds a few people who have learned how to give injections. Then, if these forms of self-medication bring no quick result, one may resort to a specialist in herbal medicines. Such specialists can be found in nearly every village. A nearby rural health centre may also be visited, but since many of these centres are often without medicines, people sometimes prefer to travel straight away to a distant hospital or private dispensary where medicines will be available. People may have to wait half a day, or longer, before they find transport to take them there.

Once a woman gets married, she leaves her own family and permanently adopts her husband's family, clan and community. Her social status and acceptance in the community are essentially a function of the positive relationships she develops with her new "relatives", the number of children (particularly male children) she is able to bear and her ability to manage he home and farms.

Men are primarily responsible for agricultural work related to cash crop production (cotton in Adamaoua and cocoa in the South), although they are usually assisted by their wives and children. Women are primarily responsib for the cultivation of foodcrops (for household consumption and for the sale of the surplus to earn supplementary income), and for all household activiti (cooking, care and feeding of children, house-cleaning, gathering firewood f cooking purposes, doing the laundry etc...). Thus, as a wife, mother, child-bearer, food producer, homemaker, the rural woman has relatively littl time left to devote to other social or health development activities. This factor must be given due consideration in planning educational or promotiona activities under this Project.

The majority of Cameroonian women will continue to prefer large families as long as infant and child mortality remain relatively high. Larger famili are preferred as more children provide more security to the parents, and are considered an investment for the future. Children (particularly boys) are valued as they assure the continuity of the lineage. However, in urban and semi-urban centers an increasing number of women are seeking medical advice more reliable methods of spacing their births.

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Infertility has been reported in some parts of the South, the East and in the lower Benoue River (Adamaoua) region. However, overall births rates remain relatively high, due to a combination of high fertility and declining infant mortality.

Traditional practices of child spacing exist in Cameroon. The most widely used method is sexual abstinence while nursing an infant, which may last from six to eighteen months. Unfortunately this period of prolonged sexual abstinence has been decreasing in recent years, particularly in urban and semi-urban areas, with the increasing use of bottle feeding. The relatively widespread practice of polygamy has also been reported to result in fewer children per married woman, due to a reduced exposure rate.

Traditionally, younger children eat together with their older siblings. This practice has the positive effect of reinforcing the communal bond among siblings; however, it may contribute to depriving the younger child from essential nutrients as the latter cannot yet adequately feed himself(herself) and still needs to be assisted by an older child.

The traditional practices of purging infants and preschool children periodically (to "cleanse" their bowels) and of withholding foods and/or fluids from children suffering from diarrhea must be examined in terms of their potential effects on the nutritional and health status of children. Herbal infusions and traditional steam baths are widely used to treat diarrhea or "fevers". The Project needs to examine such practices to gain a better understanding of their relative contribution to maternal and child health.

Very little information exist on traditional beliefs and attitudes about immunizations. However, one misconception often expressed by mothers in "well baby" clinics or MCH centers is that certain vaccines (e.g. measles, DTP) actually increase the child's risk of contracting the disease they are supposed to prevent. This misperception is probably due to the minor fever and malaise these vaccines sometimes provoke, and points to the need for proper education of the parents about the benefits of immunization.

II. SOCIO-CULTURAL FEASIBILITY:

A careful review of the strategy and interventions proposed under this Project within the context of the socio-cultural environment described above strongly indicates that the Project's approach and focus are socially sound and culturally appropriate. The following reasons support that conclusion:

1. Despite its relatively high level of economic growth, Cameroon's achievements in the health sector remain limited. Infant mortality and morbidity remain relatively high, and complications of childbirth and pregnancy are one of the major causes of maternal morbidity and mortality. As a result of the limited outreach capability and inaccessibility of public health services, the majority of the rural people still suffer from diseases which for the most part, can be prevented through improved delivery of primary health care services and through community hygiene and sanitation. In this context, young children (0-5 years) and women in their reproductive years, because of their special physiological requirements and other socio-cultural factors, represent the most vulnerable group. Any health program which is designed to improve the delivery of primary health care services to this vulnerable segment of the population is socially sound. Furthermore by putting an accent on preventive and rural medicine, the Project addresses the second major constraint to rural health services delivery.

2. The South and Adamaoua Provinces have been reported to be behind the other provinces in terms of health service coverage and child survival indicators. Therefore, focusing its attention on the public health care system in these two Provinces, the Project will impact on the most underserved populations of Cameroon.

3. The ecological and socio-cultural diversity of the two Provinces calls for a Province-specific and phased approach to the implementation of the proposed interventions (i.e., the concept of

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"rolling design"). It also highlights the importance of formative research on disease causality, transmission and prevention (as perceived by the target population) to generate baseline data and guide the formulation of specific program activities. Such studies are envisaged under this Project, in order to gain a better understanding of the relative influence socio-cultural beliefs and pratices have on the health of mothers and children in the two Provinces. The methodology will consist of a review of relevant ethnographic and social literature, coupled with an assessment of the patterns and rates of utilization of local health services in the two Provinces and with Province specific KAP surveys focused on specific technical areas that have not been covered by previous studies and are critical to the successful implementation of this project.

KAP surveys will be carried out on the target populations, the traditional health practitioners and MOH health staff working in the Project zones to determine their knowledge, attitudes and practices with regards to family planning, child care and nutrition, antenatal and postnatal care, immunizations, diarrheal disease management etc. Through this process, the Project will capitalize and build upon existing health promoting behaviors and beliefs to achieve the desired outcomes. All these activities will be planned and carried but by the project staff, in close cooperation and collaboration with the local government, MOH personnel at the central level and in the field and influential people in the community.

Thus, by involving local populations, local government authorities, MOH health practitioners and community medicine men in all phases from program planning through implementation and evaluation, the Project designers assure that the specific activities which are developed are culturally appropriate and responsive to the needs and desires of the communities they are intended to serve.

4. In light of the low fertility rates reported in some areas of Cameroon, the GRC/MOH has initiated programs designed to reduce the incidence of sexually transmitted diseases (STDs) and thereby allow infertile couples to have the children they desire. The purpose of this Project is to improve delivery of health services to women (of child-bearing age) and preschool children in the Adamaoua and South Provinces and not to reduce the incidence of STDs. Nevertheless, th GRC's objective regarding STD reduction will have a limited impact o maternal and child health if the women, whose reproductive capacity has been restored, are not provided with appropriate services to adequately space their children. The approach to be used in this Project is non-coercive in the sense that it emphasizes the voluntar and informed choice by couples with respect to the timing and numbe of their children.

III. SOCIO-CULTURAL, ORGANIZATIONAL AND POLICY CONSTRAINTS

The implementation of the proposed MCH/CS Project faces a number of constraints which must be addressed early in the design phase, to ensure successful implementation and long-term sustainment of the Project. These constraints can be grouped into three categories as follows:

1. Socio-cultural constraints

As in many other African countries, the primary health care experience in Cameroon has demonstrated that rural people, despite their limited resources, are generally willing to pay for curative services or to contribute funds for the establishment of rural propharmacies. Yet, when it comes to preventative health activitie they usually show very little interest in these programs, which the generally perceive as having no immediate effect on their health. This attitude must be taken into account by the Project staff in th design of an appropriate cost recovery system for the proposed package comprising vaccines, medicines, child spacing services,

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promotional and educational activities and other supplies, (ORS, growth charts etc...)

Another potential constraint, peculiar to the South province, relates to the social structure and cultural characteristics of traditional communities. These characteristics have a bearing on the mobilization and organization of villagers' participation in the South. Indeed, the traditional structure of the majority of Southern villages does not lend itself well to the development of a strong community spirit at the village level. Unlike many other groups in Cameroon, the "Beti" communities did not have the traditional position of "village chief". This position, according to history, was imposed upon them by the colonial administration. Villages were (and continue to be) composed of several patrilineages ("Mvog"), with different or conflicting interests, headed each by an elder. Social power and prestige is generally acquired not as a result of an inherited function, but as a result of a person's abilities and qualities. Accordingly, the leaders who were imposed as "chiefs" frequently were not able to muster the social prestige and power that these positions provided in other communities. Today, those "Beti" chiefs who are highly influential in their communities are respected more on the basis of their personal qualities and achievements than on the basis of their administrative position. Therefore, in trying to mobilize and organize villagers' participation in the South Province, the Project staff will need to coordinate their efforts with those of the local community development services to determine whether it is appropriate to use the village as the basic social unit, and if not, which social structures and channels would be more effective for the development of promotional and educational activities.

2 Organizational Constraints

One of the management objectives is to examine the current functional organization of the MOH from the central level to the various levels

in the two Provinces, and to look into current practices of program monitoring and evaluation, supervision, staff allocation and assignments, procurement and distribution of essential drugs and commodities, to identify both the strengths and weaknesses of existing systems and procedures and to suggest systems improvements.

Integration of primary health care and maternal and child services delivery will pose serious implementation difficulties in the field given:

- the current allocation of the MOH budget and field staff along classical lines imposed by the management of vertical programs, and

- the present separation of the PHC program and budget from other preventative medicine and rural health programs.

Although these separate vertical programs present certain advantages (such as easy disbursements and accounting) they pose implementatio constraints in the field in terms of coordinating the resources and inputs of related health services, reconciling lines of supervision, setting up an effective referral and follow-up system at various levels, assessing recurrent costs and establishing a coherent system of cost-recovery. The challenge therefore, will be to find appropriate organizational mechanisms and channels through which the proposed technologies can be made available, in a cost effective and efficient manner.

Furthermore, MCH centers which provide mother and child protection services ("Centres de PMI") are organized only in urban areas and no generally accessible to rural communities where one finds the highes incidence of infant malnutrition.

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3 Policy Constraints

Although the GRC national health strategy outlined in the current Development Plan (1986-1991) gives priority to preventative and primary health care programs, the allocation of health resources to this sector seems to favor hospital-based curative care. Indeed seven years ago, the MOH budget provided only 7 percent of the operating expenses to rural and preventive medicine, whereas 30 percent went to the central administration and 59 percent to central and regional hospitals.

Although there has been some slight improvements in the relative allocation of MOH resources, their distribution remain skewed in favor of curative hospital-based medicine.

This trend will need to be progressively reversed over the years, at least in the Project zones, to ensure adequate logistical and financial support to primary health care activities, of which continuous on-the-job training and supervision of field personnel are vital elements.

The recent economic crisis affecting the world community (including Cameroon) certainly puts additional pressure on the already limited health budget. It strongly mitigates against greater concentration of GRC resources to subsidize curative, labor-intensive programs, and justifies increased public support to preventative and primary care programs. It is important to note that the MOH leadership is aware of this imbalance and that the political will exists at the highest level of the GRC to progressively reverse the situation and expand access to basic health services to the rural populations.

IV BENEFICIARIES

The ultimate beneficiaries of the MCH/CS Project are the rural women and children of the Provinces of Adamaoua and South who have not heretofore had

access to the government health services. Since they represent a significant portion of the agricultural work-force, the health benefits derived from this project will also impact on the welfare of other family members through an increase in agricultural productivity and household income.

Secondary beneficiaries of this Project are the MOH professionals and paramedical workers and community health workers who will receive long term academic or short term competency based training and thereby upgrade their skills and the quality and efficiency of their services.

V PARTICIPATION AND RELATED ASPECTS

1. Participation

The success of this Project depends to a large extent on the active participation of the beneficiaries in the assessment as well as the implementation phases of the Project, and on the strong support of influential people in the Project areas.

The Project approach is based on continuous interaction and collaboration between local health services and the target populations. Priority will be given to preventive aspects of community health and to what families can do themselves to improve their health and the health of their children. The Project will also collaborate with relevant local government and private institutions involved in community outreach and education activities (e.g., Community Development Service of the Ministry of Agriculture, relevant Services of the Ministry of Social Affairs, "Maisons de la Femme", local credit union associations etc.) to mobilize the target communities for effective health development. Community-based structures which have been created by these local institutions as well as other traditional social groupings which are active in the communities will serve as the main entry points for pre-program activities as well as for educational and promotional efforts undertaken by Project.

The Project will also use the participatory approach in the development and execution of competency-based training modules for MOH professional and paramedical staff and for community health workers. For instance, as part of the training in management, the Project will work with the MOH health staff at the central level and in the field to develop an appropriate and effective system of supervision as well as the support system required to increase the workers productivity, effectiveness and efficiency. Under the leadership of the MOH, the Project will tap the experience of national and regional training institutions such as OCEAC, PAID, INADES, CUSS to develop appropriate competency-based training programs in organization and management and in the technical areas which are relevant to the proposed interventions.

2. Spread Effects

This Project's training strategy emphasizes the technical and management training of health personnel at the divisional and subdivisional levels. The personnel at the sub divisional level will train and supervise community health workers (CHWs and traditional birth attendants) who in turn will become more effective motivators and educators in their communities. Training activities at the divisional and subdivisional levels will also be reinforced at the provincial and central levels of the MOH. Through this tiered approach to training, the benefits derived from this Project will be spread and lead to improved performance and better supervision of health workers at all levels.

3. Institutionalization

The purpose of the Project is to strengthen the existing government health services system in such a way that it operates more efficiently and effectively in providing needed services to women and children in the South and Adamaoua Provinces. The accent therefore, is on the management system and administrative procedures of the MOH and not on the actual technologies being delivered.

This objective has an institution-building character. For example administrative, financial and commodity procurement and distribution methods

which will be developed under the Project will inevitably influence the policies and operations of Government health facilities in the two Provinces as well as the operations of the MOH at the central level. The Project will not be a separate activity but will work with existing government health personnel and facilities in the two Provinces and reinforce existing services. Furthermore, the interventions proposed will cut across different services of the MOH and as a result, progressively permeate the MOH operational system at the national level. New skills and approaches which will be acquired through training will slowly infiltrate administrative, management and technical quarters within the MOH.

Finally, the successful institutionalization of this Project into GRC's structures depends on the continued interest and support of the GRC in the design and implementation phases, and beyond. Given the excellent collaboration which has existed between USAID and the GRC since the early stages of this Project, and in light of the active role played by MOH in this design effort, the project designers are confident that the GRC will continue to support the Project and assume leadership in its implementation by committing needed human and material resources in a timely fashion.

VI. WOMEN IN DEVELOPMENT

By improving the access and quality of the health services being provided by the GRC health system to the women and children of the South and Adamaoua provinces, the Project will contribute to saving women's time and energy as they will no longer have to walk long distances away from their villages to seek medical treatment in frequently distant dispensaries or hospitals with adequate drug supply. It is assumed that improvements in the delivery of needed health services to women in their reproductive years will ultimately lead to a reduction in maternal morbidity and mortality. As a result, women will be able to utilize the freed time in other productive ways. This could lead to an increase in agricultural production and productivity, particularly in food crops.

The same argument can be applied to child spacing services. Providing women with the information and appropriate child spacing services will allow them to adequately space their children and engage in other income generating and social activities between births.

Although it is difficult to determine the actual impact over time on the family budget and on the mother's health of her repeated illnesses and those of her children, it is unquestionable that the healthier a mother and her children are, the more inclined she would be to participate in development activities in her community. These activities will in turn provide her with the needed additional income and social recognition so essential to her and her family's welfare.

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ANNEX G. 6.

Potential for Peace Corps Role

6.1 Rationale for Use of Peace Corps

Background

Worldwide, the Peace Corps has a broad and growing base of experience in support of national Child Survival initiatives. As host countries establish their plans for strengthening health systems to provide universal access by the end of this century, the Peace Corps has taken advantage of the opportunity to move away from volunteer placement in small isolated projects and increasingly toward well-defined roles for volunteers within national development plans of the Ministry of Health. In this way the Peace Corps can place its volunteers, with their strengths in grass-roots development, to work with and through host-country counterparts, toward nationally defined goals for health. The resulting increased community participation in their own health care is thus supported in the long-term by a developing health system and continuing supervision by the volunteer's counterpart.

Experience in other countries has demonstrated a very effective role for volunteers in the health sector at the level just above the immediate community level--working as counterpart to personnel involved with the organization, training, and supervision of community and health center activities. Volunteers with previous supervisory and management experience and intensive training in primary health care work with a counterpart (ex: the primary health care coordinator), who is part of the existing health infrastructure and understands the local culture and traditions, but who generally has little or no training in management or supervision. If the counterpart is not transferred abruptly to another post, by the end of four to six years (i.e. two to three successive volunteer tours), volunteer input can be totally phased out. Rather than creating a need for continued volunteer input, the volunteer will have assisted the coordinator in speeding up the process of area-wide (division or sub-division) participation in the health system to a point where the coordinator can effectively carry out all training and supervisory responsibilities for his/her area.

Peace Corps and MCH Project

There exist both good potential and expressed interest for Peace Corps participation in the Project. At present the Peace Corps has only three volunteers in a health-related Community Development project and has no collaborative agreement with the MOH. The organization is not at liberty to pursue new programming commitments at this time. However it is appropriate

that Peace Corps consider further discussions with Ministry officials as soon as is feasible.

If Peace Corps were to make programming commitments with the Project, volunteers (PCVs) could be officially assigned to the Ministry of Health and would work under the direct supervision of GRC health personnel in the two provinces. Given the significant differences in the two provinces vis. a vis. priority health problems, current level of health sector development and staffing, and sector development plans, volunteer roles would vary according to directions of the provincial medical officer. In the Adamaoua Province, volunteers would work at the division level, supervised by the divisional chief of preventive medicine, and as counterpart to the divisional primary health care coordinator (PHC coordinator). In the South, where facilities and health villages are more numerous, volunteers would work at the sub-divisional level with the sub-divisional PHC coordinator. They would be supervised on a daily basis by the sub-divisional chief medical officer, but report on a regular (monthly) basis to the chief of preventive medicine at the divisional level.

Though most health officials were enthusiastic about the potential for PCV support of primary health care development in the provinces, a few expressed concern that outside personnel assistance (i.e. volunteers) might create a dependence on continued support. In reviewing the potential for Peace Corps involvement in the Project depends on Peace Corps volunteer input. In addition, all Peace Corps programming is bound to the following principles:

1) the project must increase local capacities, encourage the transfer of skills;
2) the project seeks a lasting solution;
3) the project uses locally available resources;
4) volunteers do not displace qualified and available local workers.

If volunteers are posted with the Project, they will serve as catalysts for the mobilization of local resources in the early stages of PHC development. Peace Corps volunteers work with and through clearly identified counterparts, who are employees of the Ministry of Health. They assist their counterparts to broaden the activity base that the counterpart will continue to supervise after Peace Corps input ends. A carefully-structured and well-defined PCV job description, solid volunteer training, and supervision in the field by the chief of preventive medicine combine to assure that the volunteer will strictly enhance the work in the field and not create any dependence on a continuing volunteer presence.

6.2 Role of Prospective Volunteers

Health personnel at all levels have enthusiastically contributed their views on the potential role of volunteers in the two provinces covered by the Project. Their general

consensus supports the placement of volunteers in the Project area. Volunteers posted in the two provinces would work with the PHC coordinator at the divisional (Adamaoua) or sub-divisional (South) level. In the case of the South Province, where some adjacent subdivisions are smaller, geography and existing health infrastructure may lend itself to coverage of two sub-divisional (i.e. work with two PHC coordinators) from a single post. The Peace Corps would study this issue with Project personnel and health personnel at the divisional level. In the Adamaoua, working at the divisional level, PCVs would emphasize implementation of the activities through the sub-divisional coordinators.

Volunteers assigned to work in the Project area could contribute significantly to assisting the PHC coordinator with the increased workload inherent in setting up health services and could help to develop systems and improve the coordinator's overall managerial skills and supervisory techniques. Both the volunteer and coordinator would benefit from and build upon the technical direction provided by provincial and Project personnel. The potential role for PCVs in the two provinces is described below under the following categories: management--supervision, financial management, and management information systems; training; community organization; and nutrition/health promotion.

6.2.1 Supervision

The supervision of community health workers (CHWs) and of the health center personnel for PHC activities is a critical element of the PHC coordinator's job. The Project will concentrate on improvements in supervision and on systematizing supervisory schedules and methods. Volunteers with previous supervisory experience, working closely with the coordinator (PCV counterpart), can help to strengthen his supervisory techniques, can facilitate regular supervision by the coordinator, and help to develop and implement the use of regular supervision tools. As the number of health posts, health center MCH activities, and fixed vaccination sites increases, so will the coordinator's supervisory load. Assistance early on (when frequency of supervisory visits will also be greater), with developing a smoother more effective system of supervision can boost motivation for this essential task and contribute to more beneficial supervision for both the coordinator and for those he supervises.

6.2.2 Financial management

The Project emphasizes the need for improved and decentralized financial management systems. At the divisional and sub-divisional levels, the coordinator will be responsible for assuring the smooth introduction of financial decision-making

and systems of accountability. He will also need to supervise community management of pharmaceutical receipts. Though in-service training will address these issues with coordinators and health center personnel, many skills will need to be reinforced on the job. Volunteers can help to train their counterparts in this new responsibility of cash-management and accountability. They can also develop together on-site sessions to instruct health committee members in basic record-keeping and management of pharmacy receipts, and can help assure smooth implementation of financial management systems.

If Peace Corps volunteers arrive early in the Project, recruitment for the first group of volunteers should seek at least two people with strong economics or business backgrounds. One could be placed in each province where they would help direct operations research at the local level for cost-recovery systems. In their second year, they could train fellow volunteers to help track the information necessary for this research.
(Though these volunteers would have additional skills for work with cost-recovery operations research, their postings and overall job description would be the same as for other volunteers in the Project area.)

6.2.3 Management information systems

The Project will study report forms and record systems currently used to provide management information in order to simplify forms and gather the most appropriate and useful information. It is critical to improved management information systems, once forms and other formats are developed, to assure that they are filled out, regularly and correctly, and that health workers on the lowest level of the chain of command receive feedback on the information collected. This task also falls to the coordinator, as supervisor of CHWs and health center personnel. Peace Corps volunteers can sensitize their counterparts to the importance of regular feedback during supervision. They can assist with on-the-job training for CHWs on the correct utilization of administrative forms, helping the coordinator to improve general motivation for use of the forms. Working together they can assure the timely flow of relevant and reliable information as well as its utilization for decision-making and accountability. As new systems are developed, volunteers and their counterparts, working with CHWs who are often semi-literate, would be best-placed to provide feedback to the central (provincial or divisional) level on appropriateness and ease of use.

Volunteers could help coordinate the repeat KAP and mortality/morbidity studies in their area. Again they can play a critical role in helping the coordinator to utilize the results and provide feedback to appropriate people.

6.2.4 Training

The Project sets a rigorous training schedule to orient health personnel at all levels to their work in primary health care and particularly maternal and child health. Participants from each level trained will be groomed to assist with the training of health workers at the level below--in the case of coordinators, to train those they supervise regularly--CHWs and health center personnel. The volunteers and their counterparts should attend training sessions together. They should also attend the divisional training session for CHWs.

Outside of formal training sessions (i.e. during supervision), coordinators will be directly responsible for a great deal of on-the-job training. Volunteers can help the coordinators design and, if appropriate, conduct training for health workers at the local level. They will need to train health center nurses and CHWs in such areas as maternal and child nutrition, the preparation and use of ORS and appropriate home-treatments for mild diarrhea (the latter as identified through operations research). They can train health committees in financial and pharmacy management and orient them in their overall responsibilities for village health. Above all the volunteer, in working closely with the coordinator on supervision and management information and feedback, can help identify specific areas of need for on-the-job training. Eventually, the coordinator will become habituated to regularly drawing on his own supervisory activities to plan long-term training needs.

6.2.5 Organization of health services at the community level--"village sante"

It is a basic requirement for primary health care that the population participate actively in its own health care. In addition, community health workers, chosen by their village, are at the base of MOH plans for health services delivery in Cameroon. For Adamaoua Province, with a relatively low current level of health centers per population ( ) to training CHWs and organized "health villages" (health posts) will be critical to increasing access of the population to health services.

The PHC coordinator has the task of rallying communities to take an interest in their health, organize a health committee, select and support their own CHWs, and eventually construct a health post. The start-up requires many contacts and a great deal of effort. Volunteers can assist the coordinator with this most time-consuming phase and at the same time help to multiply the population base reached. During trips to the South, many officials remarked on Peace Corps' experience to date with similar activities of community organization in the Community Development program.

The PCV can help program village sensitization and initial orientation meetings (by the coordinator) with the community and

health committees--helping to create an awareness of the importance of active health villages. The volunteer can assist the coordinator in his work with villagers to establish their village pharmacy. They would work together (PCV and coordinator) to establish and monitor systems of pharmacy management by the villagers as well as to assist the CHWs in preparing the population for regular vaccination sessions, establishing regular pre-natal clinics and growth monitoring with nutrition counseling around the vaccination sessions.

Given the magnitude of the coordinator's workload for the start-up of health village and CHW activities, volunteers can make a positive contribution early on a level where they work well (the village) and help the coordinator move beyond the organizational phase to a more encouraging situation of active community participation in support of his efforts.

6.2.6 Nutrition/health promotion

At present few health education activities are carried out in the health centers during MCH sessions or in the health villages. The health promotion aspect of the Project, in addition to the use of mass media, emphasizes the involvement of clinic personnel and CHWs in dissemination and support of key promotional messages for maternal and child health, through regular and appropriate health education. Volunteers can help to train personnel and CHWs in techniques of "animation" and in the use of newly produced health promotion materials. They can reinforce the importance of maternal education. They can help the coordinator to program health education topics to respond to seasonal health priorities and to address problems observed frequently during supervision and in reports as well as to complement mass media efforts. As appropriate, they would assist with materials design and/or field-testing of newly developed graphics materials.

Volunteers could help coordinators develop nutrition activities at the local (village or health center) level. Nutrition counseling based on a growth chart and cooking demonstrations are key activities that need to be set up. PCVs can contribute to training and encouraging personnel to run these activities. Officials in the Adamaoua Province have placed priority on the establishment of divisional nutrition centers. Volunteers would be used to help set up the system and train center staff. Volunteers could also assist with any operational research in nutrition.

The health communications component of the Project calls for improvements in the graphic arts production capabilities of the national health education unit. The unit has a graphic artist who has been unable to function fully for lack of equipment. The Project will equip the studio. The Peace Corps has provided experienced graphic artists in three countries (Malawi, Liberia, Lesotho) in support of graphic arts production for CCCD projects.

A Peace Corps graphic artist, recruited for a two-year period, could work with his/her Cameroonian counterpart at the national unit and with Project-supplied equipment to establish a working studio. The PCV would provide needed in-service training for the national graphic artists. As part of their work, they would produce health communications materials appropriate to the South and Adamaoua provinces, where PCVs and coordinators would provide the necessary link for dissemination of materials in the field.

6.3 Projections for Volunteer Placements

Year One:

Since the Peace Corps has no current involvement with MOH Projects in Cameroon, the first year would need to be devoted to preparation for work in the health sector. Once appropriate agreements are negotiated and concluded with the Ministry of Health, the process of volunteer recruitment, invitation, and training in-country could take place. Recruitment should seek volunteers who have previous supervisory experience and managerial skills. All will have completed a university degree (BS/BA) either in health systems development or in any subject, with at least three to six months experience working in a health-related area. The graphic arts PCV, proposed to assist the national health education unit for a period of two years, would be recruited and posted as soon as possible after the start of the Project.

Year Two through Seven:

The first group of eight to ten volunteers would be posted early in the second year of the Project. Successive groups would arrive and be trained in country at yearly intervals. The table that follows projects volunteer postings in the two provinces. The actual order of entry into sub-divisions in the South province may change as provincial, divisional, and Project personnel deem appropriate. Volunteer input over sic years (Year two through seven of the Project) is proposed for coverage of the Project area. Given the extensiveness of territory to be developed at the divisional level in the Adamaoua, three full volunteer tours would be needed to assist the coordinator with service expansions. Each sub-division in the South would have two PCVs for a total of four years.

6.4 Accountability and Volunteer Support

Supervision of volunteers in the Project area is critical, especially during the first year, when adjustments in job description and programming priorities may be needed. Health volunteers would report directly to the divisional chief of preventive medicine, in addition to regular contact with the sub-

divisional chief medical officer, as does the PHC coordinator at that level.

Project personnel would have no direct supervisory responsibility for volunteers though they would be an important technical contact and could assist with volunteer training. The French volunteer, currently working in Vina division, Adamaoua, is also a potential resource person for PCV training.

Under the conditions of Peace Corps' convention with the Government of Cameroon, volunteers affiliated with the MOH would be provided housing by the GRC.

Volunteers working in an extension role, as described above, require transportation and support fuel. A motorcycle similar to that planned for sub-divisional coordinators would be adequate. Before the Peace Corps could assign volunteers to the MOH in relation to this Project, it would have to secure funding for volunteer transportation, fuel, and spare parts, as detailed:

average annual cost= $1700 per volunteer-year
($2400/motorcycle--3-year lifespan)
($500/year for fuel)
($300/year parts & maintenance)
($200/helmet, goggles--2-year lifespan)

projected volunteer-years, life of project= 88

Total support required= 88 x $1700= $149,600

6.5 Summary

The addition of Peace Corps volunteers could enhance the pace and quality of health systems development in the two provinces of Project impact, particularly in the areas of management and supervision. There exists a viable and potentially satisfying role for PCVs. However the Peace Corps will be unable to consider such postings for several months. If programming decisions lead Peace Corps to a commitment to work with primary health care and MOH, at that time specific agreements with the Ministry can be negotiated. In addition, volunteer assignment to work with the MOH is contingent upon obtaining funding for transportation and related costs.

TABLE G.7.1 - VOLUNTEER POSTINGS

Year of Project	2	3	4	5	6	7	
Ntem:							
Ebulowa	X-	->	X-	->			
Ngoulemakong		X-	->	X-	->		
Ambam		X-	->	X-	->		
Ma'an		X-	->	X-	->		
Mvangane		X-	->	X-	->		
Dja&Lobo							
Sangmelima	X-	->	X-	->			
Zoetele		X-	->	X-	->		
Bengbis		X-	->	X-	->		
Djoum		X-	->	X-	->		
Ocean							
Kribi	X-	->	X-	->			
Campo		X-	->	X-	->		
AkomII		X-	->	X-	->		
Lolodorf		X-	->	X-	->		
Mvengue	X-	->	X-	->			
Vina	X-	->	X-	->	X-	->	
Mbere	X-	->	X-	->	X-	->	
Djerem	X-	->	X-	->	X-	->	
Faro&Deo	X-	->	X-	->	X-	->	
Mayo-Banyo	X-	->	X-	->	X-	->	
Younde (graphic artist)	X-	->					
Volunteer input	10	10	9	10	5	0	
Total Volunteer Presence	10	20	19	19	15	5	= 88 Volunte Years

ANNEX G.7

ENVIRONMENTAL EXAMINATION

The Initial Environmental Examination Statement submitted as part of the PID determined that this project met the criteria for Categorical Exclusion in accordance with Section 216. 2(1)i and (viii) and is excluded from further review. The inputs of the project are technical assistance, training and commodities. The commodities to be distributed will follow established and standard guidelines. There will be no construction under this project.

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ANNEX H.

CHILD SURVIVAL COMPONENT PLANS

The following five sections of the Project Paper deal with specific child survival services which have been selected for strengthening during the implementation phase of the Project. Each of these services is discussed from an almost vertical perspective, ie in isolation from the others; however, they will be strengthened as priority elements of integrated maternal and child health services.

The priority child survival services, chosen because they deliver the most benefit per unit of investment, are:

1. MCH Promotion Plan.
2. Malaria Control
3. Immunization
4. Growth Monitoring and Nutrition Education
5. Oral Rehydration Therapy
6. Child Spacing

It is expected that a well-managed rural health services system which emphasizes the above intervention areas will be able to make the best use of the scarce resources available to the health sector in Cameroon.

Although the child survival component plans include discussions of clinical technologies, these services will be strengthened primarily through the management training which will be given to all rural health services providers. Thus, the child survival services components describe elements of the rural health services system which will be integrated into an effective maternal and child health services program.

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ANNEX H.1.

MCH PROMOTION PLAN

I. Background.

A. Policy Setting

The Sixth Five Year Plan for the Government of Cameroon clearly stresses the importance of community participation with the delivery of primary health care services, particularly through the development of local primary health care committees. The education of mothers in appropriate preventive health care practices is highlighted in the Plan as a priority primary health care activity.

B. Need - Goals

The low levels of accessibility of the rural populations to health services in large areas of Cameroon have prompted the development of the primary health care system as a means of enhancing accessibility to adequate health care services. The use of community health care committees underlines the significance of self-determination in organizing local resources to address the conditions within the communities affecting the health status of the residents.

The role that preventive health care practices assume in community level primary health care services is prominent: environmental sanitation, water supply, preventive health care practices such as oral rehydration and immunizations, etc.; all of these components of the primary health care system are dependent upon the individual assuming an active role in the protection of his or her health status. The health promotion component of the primary health care system becomes a cornerstone activity.

C. Administration/Organization

Three basic components are incorporated into this discussion of the health promotion activities of the Project, reflecting the three channels of communication which are employed in the diffusion of health education messages in the Cameroonian primary health care system: interpersonal, mass media, and print media.

1.Community Health Workers.

The health workers who are responsible for health promotion work, (ie; 'animation' activities), fall basically into two types: those who are based in a clinic and those private individuals who live and work in the communities. The health

promotion/communication component of the MCH project will work with both of these broad cadres.

Within most rural health facilities there is one designated health worker who is responsible for conducting health education and promotion activities within the center. These education activities may involve the use of visual aids, such as a flip chart or flannelgraph, or may simply be a spirited discussion of activities which the mothers may undertake to promote their families' health. The local Coordinator of Primary Health Care is the key person in the rural health promotion activities.

Outside of the health center there is a great amount of health promotion and 'animation' activities centered around the role of the mother in the rural household. The level of activity is uneven within any given department, and the variety of governmental and non-governmental organizations which are involved in the organization of these activities is vast. Clearly there are several important national and provincial level organizations which are involved in the rural 'animation' activities: the Ministry of Social Affairs and their 'Animatrice Sociale', the Ministry of Women's Affairs' Condition Feminine organization, the Catholic and Protestant missions, the Ministry of Agriculture's Community Development Agents, and the Ministry of Health's Community Health Workers who are part of a village health committee. The sixth Five Year Plan of Cameroon has also stressed the role of Traditional Healers in these committees.

2. Mass Media.

(a) Radio.

The national radio station is based in Yaounde. There are two weekly programs for health on the national radio station: "You and Your Health", a five minute program, and then a longer, eight to ten minutes program titled "Prevention is Better Than Cure". Both of these programs are developed by the Ministry of Health with close assistance and supervision of the radio station staff. The national strategy for radio program development in Cameroon is to promote programming by local radio stations. Thus provincial radio stations are incorporated into the structure of the national radio system.

The Southern Province has had a local radio station for one year which is open for broadcasting on an FM channel during the following hours: Monday - Saturday from 0600 to 0930, 1200 to 1530, and from 1830 to 2130; Sunday from 0600 until 2130 without interruption. All of the Southern Province is covered by the transmissions, except the Kribi department, which receives transmissions from Douala.

Adamaoua Province's radio station is newer, and less fully developed, with its FM transmission coverage extended only to a fifty kilometer radius of Ngoundere in the department of Vina. This is the most densely populated portion of the province, containing approximately 35% of the total provincial population. The transmission power of the radio station in Garoua in the next province to the north (which broadcasts in the local language of Adamaoua Province) covers the entire Adamaoua Province, and is very well developed in its programming and broadcasting hours. The studio in the Ngoundere radio station is suitable for the development of local radio programs which could then be broadcast over the neighboring province's airways.

(b) Television.

Cameroon has a dynamic and growing television station, with transmission coverage over the entire country. Clearly the target audience of this medium are the urban middle and upper class segments of Cameroonian society who are the key decision makers and community leaders. However, the power of this medium has been employed very often by the Ministry of Health for the diffusion of health promotion messages relevant to all segments of the society: recently two informational shorts were broadcast on the Cameroonian Oral Rehydration Therapy Conference which received sponsorship by the USAID funded PRITECH project.

3. Print Media.

The Ministry of Health in Yaounde currently relies upon the services of the "Atelier de Materiel Audio Visuel" (AMA) for the design, development and production of its graphic arts. The AMA is an NGO which produces graphic arts on contract, and sells prepared instructional material for health worker training and community animation. It is supported by the Catholic Church, and is capable of producing good materials, at a low cost. There is also a National Printing Press in Yaounde which is often employed by the Ministry of Health in the production of brochures and other documents. Graphic arts within the Health Education Department are conceptualized and sketched out by resident MOH artists, and then these very preliminary drafts are delivered to either the AMA or the National Printing Press for development into a final piece.

A national newspaper exists, the Tribune, and is distributed widely within Yaounde, Douala, and less so within the Provincial.

D. Level of Training

1. Community Health Workers.

There is no single national approach to the recruitment and training of community health workers. In general, the selection

of a community health worker occurs after a village has formed a village health committee, and a consensus is reached about the role of the primary health care system within their community. The pre-service training of the community health workers can be from ten days to three weeks with or without regularly scheduled retraining/refresher courses in the technical skills and knowledge.

2. Mass Media: Radio.

The national radio station is staffed by a diverse group of personnel, representing a wide range of skills and knowledge. Generally the technical qualifications of the journalists and technical staff are well developed.

The radio station in the Southern Province is staffed by three journalists, a Program Director and Chef de Station, and four technicians. Adamaoua Province radio station is newer, smaller, and presently understaffed.

The development of the radio programs for health promotion, including the content briefs or scripts of interviews, stories, etc.. is the responsibility of the Ministry of Health personnel, working in the Health Education Department in Yaounde, or under the direction of the Health Delegate on the Provincial Level. In Yaounde, the personnel are working without any training in basic radio programming skills (ie; scripting, field recording, and simple studio procedures such as editing and mixing). As there is no health education person in Adamaoua Province, and the radio station is so underdeveloped, there is currently no radio scripting being produced locally there. In the Southern Province the health educator is an MPH degree holder, yet has not had training in basic radio production skills.

3. Print.

The Health Education Department's graphic artists have not been formally trained, yet do possess talent in the conception of graphic arts. Their development has been hampered by a lack of drawing material, and the reliance upon expensive professional studios. The AMA has several well qualified graphic artists.

E.Supplies

1. Radio.

The national radio station is under-equipped in functioning studios; regional level radio stations are better equipped for the level of activity they undertake. The Ministry of Health in Yaounde has a complete mini-studio, including a sound room; in both of the two provinces the Health Education departments do not possess any recording equipment for field recording or editing.

2. Graphic Arts.

The AMA is a well stocked commercial graphic art studio. The Health Education Department does not possess a graphic art studio.

F. Supervision

The community health workers are supervised (within the Ministry of Health) by the local level coordinator of primary health care. On the administrative level of the Division, the 'Medicin Chef Departmental' is the responsible health official, supervising the PMI, hospitals and health centers in each subdivision of the division.

The provincial radio stations are supervised by the Information Delegate, and are immediately directed by a Director of Programs.

G. Activities

The community health workers are involved in all aspects of the primary health program of Cameroon on the community level, besides the community development activities which are being promoted by their individual organizations. In general, health promotion is a key component of their activities, involving individual counseling as well as group animation activities. These community health activities are supported by the radio programs which feature a health promotion topic, though coordination of messages through both of these communication channels in a concurrent fashion has not been undertaken--except during the extra-ordinary national immunization campaign.

II. Goal

To improve the health status of mothers and children in Cameroon.

In support of the overall project goal, the goal of the health promotion/communication component of the project is to provide a dynamic and integrated mass communications activity as part of the MCH program in the two provinces.

III. Purposes

To strengthen the existing GRC health services system in such a way that it operates more effectively and efficiently in providing needed services to women and children in the South and Adamaoua Provinces.

The purpose of the communication/health promotion component is to enable the Ministry of Health to provide health promotion activities on a regular on-going basis to the communities served through the use of mass media, graphic arts and trained health promotion personnel.

Strategy

The basic strategy that the Project will employ to promote greater utilization of rural health services by the women and children of Cameroon is to use a combination of mass media, printed matter and personal contact approaches such as the use of radio, posters and health education efforts by health workers. Underlying these approaches will be the use of modern methods of community survey to develop effective, popular messages for the promotion of the use of rural health services.

The Project's promotion campaign will develop a central, recurring theme that the government health service sites are the best places to go for access to the most important services for the preservation of maternal and child health. In addition to this central theme, the Project will develop specific promotion campaigns for four of the child survival service foci of the Project: malaria control, immunization, ORT and growth monitoring with nutrition education.

The steps taken to develop culturally appropriate campaigns will be similar from one campaign to the next and will include:

- Formative Research
- Message Development
- Materials Development
- Communication Training
- Message Diffusion
    - Radio (and Television if appropriate)
    - printed matter
    - direct contact

Although the health promotion activities will often emphasize one of the five specific child survival services being developed in the Provinces, there will always be reinforcement of the central theme that the health centers are the source of valuable services and sound advice. The objective of the promotion program is to increase facilities utilization.

IV. End Of Project Status

1. The capability to design a comprehensive health communications activity in support of an integrated Maternal and Child Health care program on a provincial

level will be fully developed in the national Health Education Department, in conjunction with provincial Health Educators when these exist.

2. The use of formative research methods for the development of health promotion materials and the monitoring of the reception of these materials by the target audience will be a regular procedure in the Health Education Department.

3. The production capabilities of the Health Education Department for radio and graphic arts will be significantly enhanced.

4. 80% of all health facilities in both provinces will have received and used a series of health promotion graphic materials, and will be conducting health promotion activities as part of their on-going MCH services.

5. 80% of the existing community health workers in both provinces will be using cultural specific graphic arts and be supported by locally produced radio programs in their MCH health promotion activities.

"Flag Volunteers" could be used to extend the contact by CHWs:

> During the one of the communications campaigns a sign (in the form of flag) can be distributed to each of the community health workers (CHW) to enable the radio to easily make reference to them; each CHW can then orient 5 to 10 other community members to post a flag, and distribute the graphic arts provided to them.

6. 80% of the mothers of children under five years of age who listen to the radio will have heard the radio programs which were broadcast as part of the health communications campaigns.

7. 80% of the mothers who have access to the health facility will have attended a health promotion activity in a health facility, and in their communities which employed the communications materials which were developed.

V. Outputs (indicative quantities only)

A. Graphic Arts/Printed Materials.

1. 2,000 large format poster for use in health facilities as a reference for malaria treatment dosages.

2. 1,000 small format posters for use by community health workers in explaining the malaria treatment dosages.

3. 1,500 Guides to the use of the community level dosage poster.

4. 1,000 'T' Shirts presenting the MCH logo, and communication theme.

5. 300,000 handbills on the Oral Rehydration Home Based formula.

6. 3,000 flags with the MCH logo for use by community health workers and volunteers.

7. 2,000 Large format posters on complete diarrheal disease treatment plans.

8. 3,000 medium format "Diet for Diarrhea" posters for use by community health workers, flag volunteers, and clinic based personnel.

9. 3,000 Guides to the Use of the Handbill, Flag and Diet for Diarrhea posters.

10. 1,500 Immunization Schedule Instructional Posters for community level health workers.

11. 2,000 Guides to the Use of the Immunization Schedule Instruction Poster.

12. 3,000 Awareness Posters on Growth Monitoring for community health workers.

B. Radio Programs.

1. A 24 week broadcast schedule on malaria prevention and treatment:

(a) 168 flash announcements (daily)
(b) 48 five minute programs x 2 provinces = 96 five minute programs.
(c) 48 ten minute programs x 2 provinces = 96 ten minute programs.

2. A 36 week broadcast schedule on immunization:

   (a) 252 flash announcements (daily)
   (b) 92 five minute programs x 2 provinces = 184 five minute programs.
   (c) 92 ten minute programs x 2 provinces = 184 ten minute programs.

3. A 36 week broadcast schedule on diarrhea disease:

   (a) 252 flash announcements (daily)
   (b) 92 five minute programs x 2 provinces = 184 five minute programs.
   (c) 92 ten minute programs x 2 provinces = 184 ten minute programs.

4. A 36 week broadcast schedule on growth monitoring:

   (a) 252 flash announcements (daily)
   (b) 92 five minute programs x 2 provinces = 184 five minute programs.
   (c) 92 ten minute programs x 2 provinces = 184 ten minute programs.

5. It is not expected that the child spacing program will have reached the stage at which a mass media campaign will be appropriate by the end of this Project, but promotion of child spacing remains an activity that the Project might undertake in time if the MOH deems that it would be effective.

C. Participatory training in individual and community health promotion activities for the community health workers and health facility staff in malaria, oral rehydration and diarrheal diseases control, childhood immunizations, nutrition and growth monitoring:

   (a) 200 community health workers.
   (b) 800 health facility staff
   (c) and up to 3,000 flag volunteers.

VI. Inputs

1. Technical assistance and financial support to conduct an in-service training program in radio production techniques for MOPH and other key radio program producers in the government and NGO's which target their programs to women. The training program is fully described under the implementation section of this annex.

2. Material support for developing local radio program production capabilities: Three portable recorders and support supplies as described more fully under the Procurement section of this annex.

3. Technical assistance and financial support for the development and field production of radio programs in support of MCH program activities.

4. Technical assistance and financial support for four extensive formative research surveys in each province (provided by the resident technical advisor for training/communications).

5. Technical assistance and financial support for the development of posters, handbills, training brochures, including training in pretesting and graphic art supplies for the establishment of a small graphic arts studio in the Health Education Department (provided by the resident technical advisor for training/communications).

VII. Illustrative Budget Items

A. Radio Program Production
   1. Local production: travel per-diem.
      25 days/campaign x 4 campaigns x $33/day = $6,000.
   2. Materials: three portable recorders, tape, etc. $5,000
   3. Technical Assistance: 3 person months $45,000
   4. Misc. Production expenses = $3,000

   Total Radio Program Costs = $59,000.

B. Formative Research
   35 days/campaign x 4 campaigns x 2 provinces x $33/day $9,240

C. Graphic Arts local production

   1. 2,000 large format poster for use in health facilities as a reference for malaria treatment dosages.
      $1.50 per unit = $3,000

   2. 1,000 small format posters for use by community health workers in explaining the malaria treatment dosages.
      $1.00 per unit = $1,000

3. 1,500 Guides to the use of the community level dosage poster.
   $0.50 per unit = $750

4. 1,000 'T' Shirts presenting the MCH logo, and communication theme.
   $5.00 per unit = $5,000

5. 300,000 handbills on the Oral Rehydration Home Based formula.
   $0.08 per unit = $24,000

6. 3,000 flags with the MCH logo for use by community health workers and volunteers.
   $1.50 per unit = $4,500

7. 2,000 Large format posters on complete diarrheal disease treatment plans.
   $1.50 per unit = $3,000

8. 3,000 medium format "Diet for Diarrhea" posters for use by community health workers, flag volunteers, and clinic based personnel.
   $1.00 per unit = $3,000

9. 3,000 Guides to the Use of the Handbill, Flag and Diet for Diarrhea posters.
   $0.50 per unit = $1,500

10. 1,500 Immunization Schedule Instructional Posters for community level health workers.
    $1.50 per unit = $2,250

11. 2,000 Guides to the Use of the Immunization Schedule Instruction Poster.
    $0.50 per unit = $1,000

12. 3,000 Awareness Posters on Growth Monitoring for community health workers.
    $1.50 per unit = $4,500

13. Graphic art supplies for mini-studio in the Health Education Department in Yaounde.
    $8,000

14. Misc. Graphic Arts Production expenses:
    $3,000

VIII. Procurement Plan

A. Commodities from the USA.

The following commodities will be purchased by the contractor.

1. 3 Nagra hand held recorders including: 3 battery packs, 3 carrying cases, 3 omni directional microphones, 3 uni directional microphones, six editing blocks with editing tape, and ten dozen five inch recording tapes.

2. Basic graphic art supplies: paper, pens, ink, etc.

B. Many other materials will be procured locally.

IX. Recurrent Cost Analysis

The proposed health communications activity is a heightened level of use of health promotion tools which are already being employed by the Ministry of Health's central health education office. The provincial level health education activities will be a new expense for the Ministry of Health, as there is currently no budget for provincial health education material development, or diffusion activities.

Intensive use of graphic arts in communication campaigns will be a new expense to maintain for the Ministry of Health, particularly the mass distribution of handbills. The material support provided by the MCH project for Graphic Arts production will actually lower the future production costs of the Ministry of Health by enhancing its capabilities to produce its own draft materials to a 'camera ready copy'.

- Average annual cost for graphic arts = $12,900
- Average annual cost for graphic arts without mass distribution of a handbill = $8,100

Repeated monitoring of mothers' reception of the health promotion messages, and extensive use of pre-program formative research also represents a new level of activity for the Health Education Department on both the national and provincial level offices, and as such imply recurrent costs.

- Average annual cost of repeated formative research including the field production of radio programs = $4,048

These expenses appear reasonable expenses for the MOH to assume for the long term health education activities in each

province, and they are discussed again in the Financial Analysis Section.

X. Administrative Plan, Management, and Implementation

A. Introduction: The Methodology.

The promotion of preventive health care practices to a largely illiterate rural target population is addressed by a communication methodology which features the following key elements:

1. Extensive formative research utilizing qualitative research methods for message development and program monitoring.

2. Actionable messages developed explicitly out of the formative research which incorporate elements of behavior modification principals (eg; reinforcement of positive behaviors).

3. Emphasis on one content area at a time through a series of media campaigns that flow through a phased sequence of increasing awareness, a call to action, and reinforcement of previous messages.

4. The use of a touchstone theme and repeated emphasis on increasing the use of government health services as part of each communication campaign to promote a sense of cohesion across each of the communication campaigns and integration of the MCH service components.

5. A highly orchestrated communication program that employs radio, mass distribution of graphic print material and interpersonal contact by trained personnel.

6. An orientation towards principals of social marketing in the conception of the communication strategy.

The communications component of the Project will increase community participation in child survival service programs through a series of four health promotion campaigns. Each campaign will follow the same sequence of activities. They are:

* Formative Research
* Message Development
* Material Development
* Communications Training for Health Personnel
* Message Diffusion
    - Radio broadcasts (and television)
    - Print Material Distribution
    - Community Animation

These steps are described in detail for the first campaign in part F of this section.

B. Management and Administration Overview of the Health Communications Component

1. General Health Communications Management

General management and supervision of health communications activities are the responsibility of the Health Education Department in Yaounde. Because several components of the communication program will involve other governmental offices (eg; radio station personnel, Ministry of Social Affairs) and non-governmental organizations (eg; Red Cross), there will need to be a significant amount of networking done within these various organizations.

Within each Province there will be a health official who is responsible for all of the communications activities. In the Southern Province there is a resident Health Education Official who will fill this role. In Adamaoua Province it will be necessary to assign this responsibility to one of the Provincial health officials with back-stopping from the Health Education staff in the Yaounde office.

2. Management of Formative Research.

The formative research activities, (eg; focus group interviews on the provincial level and in-depth interviews with University anthropologists and sociologists in Yaounde) will be managed by the Health Education Unit of the MOH in Yaounde for the activities in that city, and by the provincial health educator for the field activities. The resident technical advisor for management training and communications will assist in all stages of this activity. The possibility of CUSS students also assisting in this activity will be explored.

3. Management of Message Development.

Development of the core messages from the formative research results will be done in working group sessions: technical experts from the specific content area and the Health Education Department staff will participate in these meetings. This will assist in the interpretation of the technical information that will form a vital component to the behavioral messages which emerge from the research. The Deputy Health Education Department Director in Yaounde will chair these meetings, with assistance from the regional health education officials. The resident technical advisor's input into this phase of the communications campaign will be critical until the exercise becomes a part of the standard practice of the Health Education Department (ie; by the end of the project).

4. Management of Material Production: Radio and Television

An in-service training program will be organized in the first campaign that will increase the skill levels of the radio producers in the Ministry of Health, and will also form the working group for each region's radio production. This group will involve key producers from other Ministries and NGO's; primary responsibility for the production of the campaigns' radio programs will be assumed by the provincial health educators, however.

The field production of the radio programs will be done in the Provinces by the provincial level health educator, and other members of the radio production group which has come together through the in service training program. Final production stages will be processed in the Yaounde Health Education studio.

Contacts will be established by the resident technical advisor for management training/communications with University's drama department to explore the possibilities of producing scripts with them. Options for the hiring of local actors, and contracting the development of an MCH jingle by local professional producers will be explored by the resident advisor, and Deputy Director of Health Education in Yaounde.

The use of television will also be explored as it becomes a more available medium for reaching rural households.

5. Management of Production: Graphic Arts

The production of the graphic arts for each of the communication campaigns will be developed through the pretesting stage by the graphic artist in the Yaounde Health Education Department and the provincial health educators. The final production design and layout will be produced by the AMA studio artists.

6. Management of Communications Training for Health Workers

The communications training for all levels of health workers will ideally proceed at the same time as their technical training; the provincial health education officer will provide the training plan with the support of the resident technical advisor for training/communication.

If technical training in the content area of the campaign has preceded this phase of the actual communications campaign, then the provincial health education officer, the provincial project supervisor, and the technical advisor for training/communications will organize a brief schedule of orientations for the health personnel. For clinic personnel this will be arranged through the regular supervisory visits; for community health workers the local level coordinators of primary health care will group them together for a one half day session of presentations and practice with the graphic arts.

7. Management of Message Diffusion

The provincial health educators will be responsible for the diffusion of the messages through the radio, distribution of print material and monitoring the community health workers' animation activities. The provincial project coordinator will provide timely support and assistance in this activity.

C. Resident Technical Advisor Job Description

See Annex J for the job description of the Management Training Technical Advisor.

D. Implementation Schedule

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Activity                Year I      Year II     Year III   Year IV & V
                        1 3 6 9 12  1 3 6 9 12  1 3 6 9 12  1 3 6 9 12
-------------------------------------------------------------------------
Phase I: Malaria
Formative Research:     x----x
  Theme and all
  Technical areas
Message Development         x
Material Development        x-x
Community Training            x-x
Diffusion
     Radio                      x---x
     Print                      x
     Personnel                  x---x
-------------------------------------------------------------------------
Phase II: EPI
Formative Research:              x
 Program Monitoring
Message Development              x
Material Development             x-x
Community Training                 x-x
Diffusion
     Radio                           x------x
     Print                           x-x
     Personal                        x------x
-------------------------------------------------------------------------
Phase III: ORT
Formative Research                     x-x
 Program Monitoring
Message Development                      x
Material Development                     x-x
Community Training                          x-x
Diffusion
     Radio                                     x-------x
     Print                                     x-x
     Personnel                                 x-------x
-------------------------------------------------------------------------
Phase IV: Growth Monitoring
Formative Research:                                     x-x
Program Monitoring
Message Development                                        x
Material Development                                       x--x
Community Training                                           x-x
Diffusion
     Radio                                                       x------
     Print                                                       x------
     Personnel                                                  x------
```

Note: The Phase V Campaign is a nine month activity, with a formative research activity for monitoring occurring at intervals throughout.

The schedule above is indicative of the desired order of the campaigns and the need to sequence them so major emphasis is given to one at a time in order to achieve maximum impact. It may prove possible to schedule the campaigns in such a way that they can be initiated over a shorter period of time, however. Their order follows the relative preparedness of the target audience to respond to the messages and the ability of the health system to respond to the increased demand for health services which will result from promotion

E. Yearly Activity Schedule

Year I.

1. Formative Research:
   A series of focus group interviews to explore cultural bound behaviors, and the beliefs and attitudes which generate those behaviors for each of the technical areas of the MCH service system. This will assist in the technical training of community health workers, as well as reduce the 'slack' periods between communications campaigns.

2. Message Development: Theme, Malaria and Nutrition.

3. Material Development:

   Two posters, One community level guide,'T' Shirt, 168 flash announcements for radio, 96 five minute programs and 96 ten minute programs.

4. Training of health personnel (clinic based and community health workers) in the use of malaria health promotion materials.

5. Distribution of print material, and monitoring of radio program broadcast schedule and community animation activities.

6. Formative Research for EPI communication campaign: monitoring malaria program messages and selected target issues of the EPI formative research results.

7. Message Development for EPI campaign.

8. Begin Material Development for EPI campaign.

Year II.

1. Continue Material Development for the EPI communications campaign:

   Two posters: Immunization schedule for health facilities and community health workers.
   Guide to the use of the instructional posters.
   252 flash announcements for radio, 184 five minute and 184 ten minute radio programs.

2. Training in the use of the health promotion materials for clinic based personnel and community health workers.

3. Distribution of print material and monitoring of radio program broadcast schedule.

4. Formative research for the ORT communications campaign: Monitoring of EPI communications campaigns and selected messages of ORT.

5. Message Development for the ORT communications campaign.

6. Begin Material Development for ORT communications campaign:

   One treatment plan instructional poster for clinic personnel.
   One 'Diet for Diarrhea' instructional poster for community health workers.
   Handbill on the home-based treatment plan for mothers.
   Flag with MCH program logo.
   Guide for the use of the Flag, Handbill and 'Diet for Diarrhea' poster.
   252 flash announcements for the radio.
   184 five minute and 184 ten minute radio programs.

Year III.

1. Continue and finish material development for the ORT campaign.

2. Training in the use of the health promotion materials for clinic based personnel and community health workers.

3. Distribution of print material and monitoring of the radio program broadcast schedule.

4. Formative Research: ORT communications program monitoring and selected messages on Growth Monitoring communications campaign.

5. Message development for the Growth Monitoring communications campaign.

6. Material development for the Growth Monitoring communications communications campaign:
   One awareness poster on growth monitoring
   252 flash announcements for the radio.
   184 five minute and 184 ten minute radio programs.

Year IV

1. Training in the use of the health promotion materials for clinic based personnel and community health workers.

2. Distribution of print material and monitoring of the radio program broadcast schedule.

Year V

1. Finish the diffusion of the Growth Monitoring campaign.

2. Monitoring the growth monitoring communications campaign.

3. Summative evaluation of the communications activities.

4. Planning for the continuation of the MCH communications component after the end of the project.

F. Detailed Description of the First Communications Campaign on Malaria

The following is a detailed description of the communications campaign for the malaria control program; most of the technical issues presented in this description are generic to the model which will be used in each of the other three campaigns.

1. Formative Research.

(a) Ethnographic Literature.

Basic ethnographic research on disease causality, general notions of protection and transmission, and malaria specific knowledge, attitudes and practices will be the first activity of the communication program. These studies may yield different sets of findings, unique to each of the project areas. Detailed interviews with anthropologists and sociologists at the University of Cameroon will launch this activity. Topics for

exploration in the field will be identified through these discussions and literature reviews: a discussion guide/questionnaire for use in focus group interviews will be designed.

(b) Focus Group Interviews.

A sampling method will be developed following a stratified cluster design (eg; radio coverage: one district with good coverage, one district with poor; accessibility to a health care facility: one subdivision with easy access and one subdivision with poor access). The Health Education Department staff in Yaounde and the Health Educator based in the Southern Province will develop the sampling plan and the survey instrument with the technical advise of the project's communication/training advisor and Chief of Party.

The basic thrust of this first formative research activity is twofold. First it will develop a theme of increased use of maternal and child health services for use in each region. This theme will be the touchstone for all program messages thereby lending a sense of cohesiveness and continuity to all health promotion advice promulgated by the program over the next five years. The theme may take the form of a symbolic metaphor which is cultural specific to the major ethnic group of each province. From this theme one or two logos for the MCH program may emerge, slogan phrases for radio jingles, etc.. The use of this touchstone theme will also lend a note of integration of services to the communication that highlight one technical area at a time.

The second objective of the formative research is to explore maternal knowledge, attitudes and practices which will directly assist in the definition of program messages for all of the technical areas of the MCH services. A series of focus group interviews are scheduled to target each topic. This is done in order to provide the in-service technical training of the community health workers with pertinent information of the animation activities that they will be undertaking throughout the life of the project. It will also assist in cutting down the lead time in the development of each communications campaign, and hence will permit a tighter diffusion schedule for the overall communications program.

Each communications campaign will be preceded by a short formative research exercise which will provide for two things:

1. Message reception monitoring

2. Target message content may be explored whenever a lack of adequate information transfer is found.

The exploration of feeding practices and beliefs of children will be a recurrent subject of the formative research activities in each of the communication campaigns: this information will figure into the presentation of messages during each of the communication campaigns (and will be highlighted in a concentrated fashion during the fourth campaign).

Formative research will be undertaken by the Health Education Department staff in each of the two Provinces. It is not expected to be necessary to employ interviewers for this initial formative research activity.

2. Message Development.

The results of the formative research will be analyzed in such a manner that specific malaria, and nutritional messages will be developed. These messages will be phrased in a "core message" form, and will range across the categories of increasing awareness, action, and reinforcement. The core messages will be reviewed by malaria experts in Cameroon for definition of the technical information which these messages will transmit to the rural mothers. These core messages will next be elaborated into forms appropriate to each of the three communication channels which the program will employ: radio, graphic arts, and trained personal.

The message development activity will precede the material development activity for each communications campaign: that is to say that even though the formative research is scheduled at the beginning of the program, actual definition of the messages will occur in sequence with the other activities for the communications campaign.

3. Material Development.

(a) Radio.

The organization of an in-service training program in the field production of radio programs using a portable recorder is programed into this phase of the communication component: the participation of the Ministry of Health, Social Affairs, and various Non-Government Organizations which are active in the use of rural radio for community development programs is foreseen. This will permit the development of multi-sectoral cooperation which will assist in the development of quality radio programs in all development radio programs (an objective of the national radio station), as well as in the coordination of health promotion messages. Senior program producers of the national radio station will assist in this training program.

A radio broadcasting schedule will be developed during the training program, listing specific program topics (based upon the elaborated messages from the formative research and message development phase) in an ordered presentation. Explicit recognition of the distribution of graphic arts to community level health workers, and their training in the health promotion messages for malaria control will be incorporated into the broadcast schedule. Scripting responsibilities will be delegated to the Health Education Department staff in both Yaounde, and the two Provinces. Other members of the multi-sector group who participated in the radio production training program will be asked to prepare programs on malaria for use during their radio programs as part of the broadcasting schedule.

Recording of programs using field recorders will be done in the two Provinces, with final editing and production of program tapes occurring in either the Provincial radio stations, or the national station in Yaounde. Spot announcements will be developed in Yaounde at the Health Education Department's studio by staff there. A jingle/theme music signature tune will be developed at this time, possibly by a contracted producer, or by the Yaounde radio station staff. The University of Cameroon's drama department will be contacted about their possible involvement in the production of scripts and recordings for the campaign by the resident technical advisor for training/communications and the Deputy Director of the Health Education Department in Yaounde.

(b) Graphic Art.

Based upon the results of the formative research, a large format poster for use by clinic personnel, and a smaller village level instructional poster will be developed. Preliminary indications are that the content of these posters will target appropriate dosages of chloroquine. A 'T' shirt with the MCH program logo and slogan/theme will be designed for use as a promotional and incentive device to bring all health workers in the two provinces on board the MCH program's activities.

Pretesting of the graphic arts will be conducted in each province by the provincial health educator, provincial project supervisor, and the resident technical advisor for management training/communications.

(c) Training

Communications training will be an important element of the Project's in-service training program, as described in Section IX.

A short participatory training module for use in orienting the health facility personnel and the community health workers will be developed by the Yaounde Health Education Department

staff and the resident technical advisor for training/communications.

A printed guide to the community level instructional poster will be developed for use in training the community level health workers. This guide will be left with the community level health volunteer for his/her use in explaining the instructional poster.

4. Training of Community Level Personnel.

The basic strategy for the training of health personnel in the communications program's activities has been explained in the preceding section on the component's management and administration.

5. Message Diffusion.

A six month intense communication campaign against malaria will launch the MCH health promotion activities in the first year of the project. Using the materials developed as a result of the formative research, radio programs will open the campaign by increasing awareness of malaria, and the role which the community health worker and the health personnel in health facilities can play in assisting mothers to protect their family's health against this disease.

The second phase will begin the call to action, encouraging mothers to seek out their community health workers and health facility personnel for more information about the prevention and treatment of malaria. The programs will next move into an explanation of the practices which mothers can take themselves to protect their family's health, and to repeat messages which the health workers transmitted to the mothers.

The third phase will feature reinforcement of previous messages, and an expansion of topics to highlight the need for good nutritional practices.

G. Preview of Elements of the Three Other Campaigns:

2. Expanded Program of Immunizations.

In order to capture the momentum of the EPI program which was launched by the national immunization campaign, the second communications phase will target childhood immunizations. It will involve a reinforcement of malaria messages, and incorporate the use of the general MCH theme for the overall promotion of MCH services, but will feature key messages central to increasing EPI participation by the rural mothers in the two provinces.

(a) Formative Research

- notions of health protection
- missed appointments
- fear of side effects
- belief in vaccine efficacy
- traditional immunizations

(b) Message Development

- national and provincial level EPI officials involved in reviewing the results of the formative research, and phrasing core messages

(c) Material Development

1. Radio

- A seminar/workshop chaired by the resident technical advisor for training/communications will be organized to:
  (a) review the in-service training program of the previous campaign,
  (b) design the broadcast production schedule for the EPI communications campaign.

2. Graphic Arts

- Community Health Worker instructional poster on the immunization schedule.

3. Training

- A guide for use in the training of community health workers in the meaning and use of the instructional poster will be developed.

(d) Message Diffusion

- Nine month broadcast schedule and community level animation activities continually monitored by formative research for fine tuning.

3. Oral Rehydration Therapy and the Control of Diarrheal Diseases

The third communications campaign targets the CDD program and the role of ORT as the key treatment for acute childhood diarrhea. It is scheduled to occur after a sufficient amount of time has elapsed for the CDD program development in the health

delivery system, and to also coincide the diarrhea/measles season.

(a) Formative Research

- causes of diarrhea, and traditional treatments
- notions of dehydration and means of explaining it
- feeding practices during and after diarrhea
- environmental sanitation
- home based solution:
  * explore cereal base rehydration formula

(b) Message Development

- National and Provincial CDD program coordinators and managers involved with Health Education Department staff.

(c) Material Development

1. Radio

- Brief seminar/workshop chaired by the resident technical advisor for training/communications to design the radio broadcast and production schedule.

2. Graphic Arts

- Mass distribution of handbill: 300,00 copies
- Brightly colored flag for community health workers and campaign volunteers
- Comprehensive Treatment Plan Poster for ORT Training Centers and ORT Corners
- Diet for Diarrhea Poster for Community Health Workers

3. Training

- Training in the use of the handbill, flag and Diet for Diarrhea Poster, as well as how to instruct the lay Flag Volunteers in the distribution and explanation of the handbill (underlining the role of the radio programs).
- Orientation for health facility personnel in all of the campaigns graphic arts and messages.

(c) Training of Community Level Health Workers

- Participatory training sessions centered around the use of the graphic arts, and radio programs.

(d) Message Diffusion

- Nine month broadcast schedule featuring the radio programs as a motivating device for the mothers to seek out the nearby Flag Volunteer where she will receive the handbill on the home-based ORS, which the radio will then explain and reinforce in a series of diverse programs (interviews, stories, dramas and talks).

4. Growth Monitoring and Comprehensive MCH Services

The fourth communications campaign will target increasing the rural mothers' awareness of growth monitoring and the need for well child visits to the health clinic, as well as addressing any of the specific nutritional advice not touched upon in the previous campaigns (eg; weaning foods).

(a) Formative Research

- Nutrition: weaning foods
- Well Child visits to the Health Facility
- Growth Monitoring

(b) Message Development

- Provincial Coordinating Committees for the MCH program involved in review of formative research and composition of messages.

(c) Material Development

1. Radio

- Seminar/Workshop for the design of the radio broadcast and production schedule, chaired by the Health Education Department's radio program producer staff.

2. Graphic Arts

- Instructional poster for community level animation sessions on Growth Monitoring.

(c) Training

- Participatory training in the use of the campaign's graphic arts and radio programs.

(d) Message Diffusion

- Nine month broadcast schedule featuring a wide variety of program formats.

XI. Administrative Analysis

The role of the provincial health educator is central to all of the communications activities. The Health Educator in the Southern Province assisted in the design of this annex, and is ready and willing to begin the work: the role of the technical advisor will be key to assuring that the MOH personnel are capable of implementing the component's activities.

Adamaoua province does not have a full time health educator assigned to the SPMPR: it is of central importance that this position be filled. Discussions are underway as a result of the development of the work-plan, and potential candidates have been identified.

Presently there are very few health education activities initiated on the provincial level: the MCH project's communications component will launch the creation of locally produced and implemented health promotion activities. The role of the project's material resources and technical advice in the first three communication campaigns will be very important for the sustainability of the activities.

XII. Technical Analysis

A. Formative Research

Use of the qualitative research methods of focus groups is not entirely new in Cameroon: in 1986 the Ministry of Social Affairs implemented a survey on family life which employed 142 focus groups. The Ministry of Health's, Health Education Department has not actually used this method before, but due to the Ministry of Social Affairs' experience, they are familiar with the method, and convinced of its value.

The regional health educator in the Southern Province, and the designated health educator from the Yaounde office for Adamaoua Province will conduct all of the focus group interviews, with assistance from a Provincial level official within the preventive medicine division. The resident technical advisor will play a key role in developing the sampling frame, the discussion guide for the interviews, training the interviewers, and assisting in the actual group interviewing.

B. Radio

An eight week consultancy is programmed into the first communication campaign on malaria for the development of radio program producing skills in the Ministry of Health, and other key radio producers who will form a multi-sectoral team in the development of radio programs. The training will develop the radio program producers' skills in writing scripts of various formats (eg; talks, interviews, magazine, drama, stories, etc.), recording techniques using a hand held portable recorder, editing techniques, and broadcast schedule design. The workshop will be organized with the direct assistance of the national radio station's staff, and will involve sessions which are lead by senior program producers from the radio station.

It is necessary to supply a Nagra portable recorder with adequate accessory equipment (battery pack, two microphones, carrying case, recording tape, editing blocks and tape, headsets) for each province and the national Health Education Office to facilitate the local production capacities of the Ministry of Health.

Each of the provincial radio stations will be used to the full extent possible. However, due to incomplete broadcast coverage both provinces will have to be supplemented by the use of neighboring provincial stations. This is particularly the case in Adamaoua where the radio station in Garoua will be called upon to broadcast the communications campaigns' programs. This diffusion strategy will not alter the local production strategy outlined above: once the tapes are recorded and polished using MCH provincial radio stations' equipment and that of the Yaounde Health Education Department, duplicate copies will be made and delivered to the appropriate radio station for broadcast.

C. Graphic Arts

A basic set of graphic art supplies will be purchased by the MCH project to assist in the development of graphic arts.

The Health Education Department's graphic artist has not had an opportunity to demonstrate his capabilities, due to a lack of equipment. It is proposed that Peace Corps explore the

possibility of recruiting an additional graphic artist for assignment to the health education office for the establishment of a graphic arts studio and in-service training of the MOH graphic artist. This has been done in other countries by Peace Corps (eg; Malawi) and by WHO/UNFPA (eg; Swaziland) with great success.

XIII. Social Soundness Analysis

The extensive use of qualitative research methods in the formative research phase which precedes each of the communication campaigns is explicitly designed to ensure the cultural relevance of the health promotion advice. The behavioral analysis which is incorporated in the development of the core messages (using the results of the formative research) targets the reinforcement of salutary behaviors, and the discouragement of negative health practices. Both of these elements of the MCH project communications component are strong indicators of the social soundness of the approach taken to the development of messages.

The reliance upon local radio stations and locally produced programs (field produced) will assure the social soundness of the mass communication channels health promotion format. The graphic arts will be designed for use in educating illiterate mothers (both illiterate for the written word and graphic image): extensive pretesting of all materials will be a 'built in' feature of the material development and production phase of each communication campaign.

The design of regular and on-going monitoring of message diffusion activities through the use of focus groups will assure that the communications component will pick up early on any particularly difficult messages.

The mass communications component which has been designed for use in the MCH project represents an advanced state of public health communications programs which have had their methodology developed and proven in several African countries through the USAID centrally funded Health Communications for Child Survival project. It represents and adaptation of this methodology to the particular needs of the Cameroon MCH project in the two provinces. As such, the communication component's social soundness has been shown both by design and test.

XIV. Evaluation Plan

A base line Knowledge, Attitudes and Practices survey for each of the technical components has been scheduled into the MCH project.

One KAP study can respond to these areas, and it can be implemented in the first quarter of the project. The Centers for Disease Control's CCCD project has been developing standardized modules for KAP studies in Africa which respond to the areas of intervention of the MCH project. These modules will be explored for use in this project. The unique cultural elements of maternal beliefs and attitudes in each of the two regions will prohibit the direct use of a generic instrument, and a period for exploratory qualitative research, first using the resources at the University of Cameroon, and then in extensive pretesting of the instrument be programmed into the KAP study design.

For communication purposes, the marginal costs of repeating the KAP after each of the communication campaigns should be explored: multiple measures of the KAP study with specific indicators on each communication channel's message reception added into the instrument would provide a comprehensive evaluation. The use of CUSS students as field supervisors and/or as interviewers will be explored. A KAP with repeated measures in Year II/III and a final measure in Year V should be considered as a minimum.

The extensive reliance on repeated qualitative research surveys will provide a significant amount of complimentary information to the baseline KAP studies. In addition, their repeated monitoring of the message diffusion through the four communication campaigns will provide qualitative tracking of message reception for purposes of an on-going evaluation.

XV. Training Plan

A. Objective

The objective of most of the training in the communication component of the MCH project is to develop the health education capabilities of the Ministry of Health's personnel working in health facilities and in the rural communities. Other training will directed toward mass media producers.

The technical training of the health personnel must take place prior to or at the same time as their training in health communications. The creation of the demand for a service must not precede the development of the delivery of the service. The anticipated programming of two in-service training session per year in each of the provinces will enhance the possibilities for an overlap of technical and health promotion training in the same session, and ensure the assumption of technical skills preceding the development of the health promotion/communication program.

B. Health Facility Staff

The health facilities staff's communication training will be primarily an orientation to the graphic arts which they receive at the time when they actually receive it: this training may be done individual sessions. The content, the use, and the distribution/placement of the posters and handbills will be presented by the provincial health educator, or the clinic supervisor (who has previously received an orientation by the health educator). In each communications campaign a simple 'Guide to the Use of the Graphic Arts' will be produced and distributed with the materials. Attention will be drawn to the radio program broadcast schedule as a form of in-service training on appropriate health education messages to adopt for use in the health center.

If there are in-service training programs organized during the same period as the material distribution, the orientation will take a more developed form, including role playing of an 'animation' session. It is anticipated that this will occur at least once for each department's health facility staff during the first two and one half years of the MCH project: ideally it will occur during the initial communications campaign on malaria. This will have to be developed as the actual in-service training plan and material production schedule of the communication component become evident in each region.

C. Community Health Workers

The basic strategy for the orientation of the community health workers involves an explicit recognition of their capabilities as community change agents: these individuals have led group community development/health promotion sessions before. The use of the graphic art and the radio programs will be a new element to be added to their repertoire of 'animation' skills. Training thus becomes orientation, with an opportunity for discussion of the meaning of the poster or handbill or flag, and a chance to role play the use of these materials. This can be done locally (ie; on the arrondissement level) in a mid morning to mid-afternoon session during which a cold lunch is served.

The provincial health educator will work with the 'Medicin Chef du Department' and the 'Section Departmental de la Medicine Preventive Rurale' to establish a detailed work-plan for the orientation sessions for the 'Agent de Sante Communitaire' in each subdivision in the province. The coordinator of the primary health care in the subdivision, health centers and PMI will be a key individual for the development of the training strategy for health promotion/communications at this level. The overlap with the technical in-service training component is underlined again.

Key personnel to be involved in the training of community health workers in health promotion/communications are summarized as follows:

Province:	'Medicin Chef de la Province'
Division:	'Medicin Chef du Department'
	'Section Departmental de la Medicine Preventive Rurale'
	'Adjoint Infirmier'
	Staff in the PMI, CSD and CSE
Subdivision:	Coordinator of Primary Health Care

The community health workers who are working through the mission sector will have to be explored on a divisional level: there participation in the health promotion/communication activities is made into an explicit objective.

XVI. Operational Research

The operations research needs of the communications program, as yet undefined, will be studied during the early stages of the Project. The research will aimed at finding the most effective means of getting the messages understood by the target audiences.

ANNEX H.2. MALARIA CONTROL COMPONENT

I. BACKGROUND

Malaria is the single most important cause of morbidity in Cameroon. It is particularly severe in children under five years of age and pregnant women, particularly first pregnancies. The incidence of malaria in Cameroon has been reported by the Ministry of Health (cases diagnosed and treated) to be 81 per 1000 population in 1986, however the exact incidence is unknown since many, if not most, cases are treated without recourse to the government's health services.

Numerous studies have demonstrated that in Cameroon the overwhelming majority of cases of malaria -- 100% in some of the studies -- are due to Plasmodium falciparum. Some P. ovale and P. malariae occur. Since they are uncommon, relatively benign, and respond to the same treatment, control efforts in Cameroon are focused on the severe falciparum malaria.

A. History of malaria control in Cameroon. A variety of control measures have been practiced in Cameroon. The mainstay of the malaria strategy has always been prompt treatment of all diagnosed and suspected cases using chloroquine or quinine salts. Drugs have been provided free of charge at government health facilities and at modest cost through private health service and pharmacies.

From the 1960s until late in the 1970s insecticides were used for vector control in accordance with the WHO malaria eradication strategy. Malaria incidence and prevalence fell dramatically, but by the 1970s they had returned to previous levels as the anopheline mosquito vector became resistant to DDT and began to develop resistance to the other, more costly alternatives. Vector control, except for limited elimination of breeding sites, was abandoned as it became clear that eradication through vector control was impossible. The emphasis turned back to drug treatment.

A third approach that has been widely applied in Cameroon is chloroquine chemoprophylaxis. This approach has been promoted for infants, pregnant women, school children, and non-immune visitors to Cameroon. As chloroquine resistance has gradually developed, the possibility that large numbers of people with low blood levels of chloroquine may be exerting selective pressure for chloroquine resistance has called into question the advisability of this approach.

B. Organization of malaria control services in Cameroon. Within the Directorate of Preventive Medicine and Public Hygiene of the MOH, the Service of Epidemiology and Malaria is responsible for

malaria control activities. One bureau within the Service of Epidemiology and Malaria, the Malaria Bureau, is particularly concerned with these activities. The Malaria Bureau operates a clinic and laboratory in Yaounde, monitors malaria statistics, carries out field studies as funding permits, coordinates with OCEAC and other organizations engaged in malaria research, and advises on malaria treatment and control policies. An important current function of the Bureau is to monitor the development of chloroquine resistance.

Below the national level malaria control is the responsibility of the preventive medical services, although curative health staff at all levels diagnose and treat the disease.

C. Training and supervision. Training in malaria diagnosis and treatment is incorporated in the pre-service training of all curative health workers. No systematic evaluation of their competence has been done, and no systematic in-service training has been carried out. Supervision of malaria services is part of the general supervision of health services. No clear guidelines for supervision are available.

D. Antimalarial drug supplies. Ministry of Health policy is to make oral chloroquine available at all levels of the health care system, including the village health worker level, and to make injectable quinine available at hospital and health center level. Periodic resupply, even when it occurs as scheduled, is not based upon actual cases treated or quantities of chloroquine required. Different categories of health facilities receive different fixed quantities. The result is that drugs, and chloroquine in particular, are frequently out of stock. Patients must then buy their treatment somewhere, often resulting in an inappropriate parental therapy.

The national pharmacy system is currently being reorganized into the new ONAPHARM system. Other attempts to deal with the drug supply problem include propharmacies and the revolving fund system at VHW level.

Chloroquine and other antimalarial drugs widely available in the marketplace with no real restraint on its distribution, and as many as 90% of cases in major cities are self-treated using chloroquine purchased without prescription.

E. Malaria control strategy. A wide variety of treatment strategies have evolved, and no consensus as to the treatment of choice exists. Several of the clinicians visited by the project design team in South and Adamaoua Provinces expressed a preference for beginning treatment of uncomplicated malaria with intravenous quinine, even when oral chloroquine is available. The Malaria Bureau recommends that oral chloroquine be used

except for severe cases and those that fail to respond to chloroquine. It is obvious that a national policy has not been communicated to the health workers in the field or to their supervisors.

With assistance from WHO, a draft of a new national control strategy was elaborated in early 1987 for integration within the primary health care program. It is based on WHO Technical Variant I for malaria control. The essential elements of that strategy include:

1. adoption and implementation of a national strategy for the use of antimalarial drugs at all levels;

2. establishment of a working group to monitor drug resistance and to recommend policy;

3. development and testing of strategies for malaria control at primary health care level;

4. improvement of the drug procurement, supply, and distribution system to assure availability of drugs to fixed centers as well as to village health workers;

5. Initiation of a nationwide health education campaign to inform the public of the correct doses of chloroquine for self medication;

6. inclusion of updated malaria treatment and control guidelines in all health sector training programs;

7. study of antimalarial drug utilization patterns;

8. development of a surveillance system to detect and manage drug resistant malaria;

9. testing the feasibility of various personal protection methods;

10. Establishment of appropriate malaria treatment and chemoprophylaxis for pregnant women attending antenatal clinics;

11. discouragement of the use of all other routine antimalarial prophylaxis;

This approach is consistent with the most recent recommendations of experts on malaria in Africa and provides an excellent framework for the malaria control component of this project.

The draft national strategy calls for the identification of division-level pilot areas where the various elements of the strategy can be developed and tested. It would be advantageous if divisions in Adamaoua and South Provinces were selected to be such pilot zones.

II. Goal

Improve the health status of mothers and children in Cameroon.

III. Purpose

Strengthen the MCH services provided to the people of South and Adamaoua Provinces, particularly in the public sector, to decrease morbidity and mortality in women and children.

IV. End of Project Status

A. By EOP 80% of all government health facilities and 60% of CHWs in South and Adamaoua Provinces will provide prompt and appropriate management of all cases of presumed malaria which present to fixed health facilities. Presumptive treatment with curative doses of chloroquine will be provided; severe and complicated cases and treatment failures will be referred and treated appropriately.

B. By EOP 80% of all government health facilities and 60% of all CHWs in South and Adamaoua Provinces will have the recommended antimalarial drugs in stock at any given time. Such drugs will be provided through the same supply system as all other essential drugs of the peripheral health care system. A system employing revolving drug funds and financed by cost recovery methods will have been tested and implemented.

C. By EOP at least 60% of all fever cases presumed to be malaria occurring in children and pregnant women in South and Adamaoua Provinces will be treated appropriately with chloroquine. Since a large proportion of fever cases will continue to be self-treated outside the existing health system, the population will have been educated in the correct treatment of malaria and assured supplies of chloroquine made accessible to them.

D. By EOP weekly antimalarial chemoprophylaxis will be used by 50% of all primigravida (first pregnancy) women attending antenatal clinics of the government health services in South and Adamaoua Provinces. Chemoprophylaxis for second-gravida women will also be encouraged, but the regular use of chemoprophylaxis by other sectors of the population will be discouraged in an

effort to reduce pressure for the development of chloroquine resistant malaria.

E. By EOP sentinel site surveillance for malaria control and the monitoring of resistance will be operational in all divisions of South and Adamaoua Provinces. This surveillance network at division (department) level will be coordinated with and contribute to the national system of malaria control surveillance.

F. By EOP the project, in coordination with the central MOH and the various organizations concerned with malaria control in Cameroon, will have tested the feasibility of other methods of personal protection and source reduction and developed strategies for their use, in South and Adamaoua Provinces. The feasibility of promoting screening of houses, the use of bed-nets (both insecticide-impregnated and not), the elimination of vector breeding sites, and perhaps other modalities, will have been tested. Strategies to implement those protective measures that appear promising will have been developed.

V. OUTPUTS- MALARIA COMPONENT

A. National malarial control guidelines will be disseminated to the 201 government-supervised health facilities (hospitals and health centers) in Adamaoua and South Provinces.

B. Malaria implementation strategies (plans for training, supervision, monitoring, and drug supply) decided at provincial level will be communicated to 800 clinical health workers in Adamaoua and South Provinces.

C. Eight hundred clinical health workers in 201 health facilities in Adamaoua and South Provinces will have been trained in the correct management of malaria.

D. One staff member from each of the 300 health facilities in Adamaoua and South Provinces will have been trained to manage a system at health facility level for essential drug supply.

E. Two laboratory workers will be trained in the laboratory aspects of the malaria surveillance system in each of the eight divisions of Adamaoua and South Provinces.

F. One KAP survey completed each year in each Province to monitor home malaria treatment and prophylaxis.

G. One intensive media communications campaign will have been mounted in each province to promote improved home malaria treatment.

VI. INPUTS - MALARIA COMPONENT

A. Technical assistance:
- -long term and short term TA to supervise education campaign.
- -6 pm long term TA to supervise KAP surveys.
- -6 pm of short term TA to design and supervise cost recovery drug system.
- -3 pm long term TA to plan and implement monitoring and surveillance systems.

B. Training:
- -2 days of in-service training in malaria treatment and management for 800 health workers, including 2 1-day seminars for 50 doctors in the 2 provinces.
- -2 5-day training courses for laboratory workers in each province.

C. Commodities:
- -2000 malaria treatment and management guides printed.
- -10,000,000 chloroquine tabs, 100mg base.
- -laboratory supplies for malaria microscopy.
- -8 4WD vehicles for the division, 25 motorcycles for the sub-division.

D. Operations research
- -Mass communications campaign.

VII BUDGET- MALARIA COMPONENT

A. Commodities:

10,000,000 chloroquine tabs, 100mg	$95,000
Laboratory supplies and equipment	4,000
Printed materials:	
Malaria Treatment Guides	5,000
Posters, flyers	10,000
Vehicles, fuel	}INCLUDED ELSEWHERE
Vehicles repair	

B. Services:

Mass communication campaign

Training:	in-service	850 X 65	55,250
	for surveillance	16 X 2 X 65	2,080
	for surveys	20 X 65	1,300
	for management,etc	240 X 65	15,600

C. Technical assistance:

__ pm ST TA to supervise education campaign

6 pm LT TA to supervise KAP surveys

6 pm ST TA to design and implement drug system

3 pm LT TA to plan and implement surveillance system

VIII. RECURRENT COST ANALYSIS

The major recurrent cost issues raised by the malaria control component of the project concern the willingness and the ability of the Ministry of Health to maintain systems of regular in-service training and supervision (including transport). The willingness to do so is apparent at the Provincial level. The national level will have to give higher priority to this vital activity.

The improved drug supply system envisioned by the Project is expected to be self-financing once started. It can even be designed to reduce recurrent costs in the health sector by developing a fee-for-service system. The surveillance system envisioned should entail almost negligible recurrent costs.

IX. IMPLEMENTATION PLAN

A. Establishment of an agreed malaria strategy

The first step in the malaria component will be the establishment of a national level committee that will meet regularly to review available information on malaria and set policy guidelines for the malaria control activities of the project. An initial organizational meeting in the first month of the project will lead to a series of meetings in month three which will agree on the basic treatment and case management guidelines, in-service training plans, and preliminary plans for a mass media communications campaign to educate the public in home treatment for malaria. Preliminary agreement on the

development of a surveillance system, drug resupply systems, and regular supervision and monitoring will also result from these meetings.

After the first few months of the project the malaria steering committee will meet every six months to review project progress and to make policy changes if indicated. The project will provide additional assistance to this working group as requested and within the resources of the project. Included may be technical assistance, information processing, and assistance in testing and evaluating the control strategy.

The malaria steering committee will be organized and chaired by the Director of Preventive Medical Services and should have representation from the Division of Epidemiology and Malaria, the Malaria Bureau, Primary Health Care Services, OCEAC, the Project staff, Preventive Medical Services in Adamaoua and South Provinces, and such other members as determined by the chairman.

The steering committee will be expected to establish national guidelines concerning:

1. preferred malaria treatment and chemoprophylaxis strategies, including recommended drugs and dosages,
2. referral plans for severe and complicated cases, with recommendation for use of second line drugs,
3. management of drug-resistance cases,
4. training and IST plans,
5. monitoring and supervision procedures,
6. surveillance strategies,
7. evaluation strategies,
8. health education/promotion messages and approaches,
9. operations research.

B. Provincial level implementation plans

Two committees will be established within Adamaoua and South Provinces to translate the national guidelines into operational plans within the provinces. The committees will be chaired by the Provincial Chiefs of Preventive Medical Services and will include representatives from the various divisions, the hospitals, the health center system, the primary health care (CHW) system, private organizations involved in MCH/PHC activities, provincial project staff, and others as determined by the chairman.

The provincial committees will meet at least every six months and will oversee and coordinate the malaria control activities in the province.

C. In-service training and treatment guides

With project assistance, provincial health authorities will develop in-service training plans to communicate the national strategy to all health workers who treat patients for malaria. Following a training of trainers session sponsored by the

Project, in-service training will be organized at division level to train all such clinical workers in proper diagnosis, treatment, referral, and prophylaxis. Training will be carried out in groups of 15-20 health workers, with the usual supervisors of the health workers assisting in the training. Approximately two days will be devoted to malaria in the first of what will become regular twice yearly division level retraining programs. Each session should last no more than five days. Other subjects can be combined with the malaria training. The Project training advisor will assure that IST programs remain focused and effective.

Future IST will reinforce the messages of previous sessions and add new topics in a sequence timed to precede Project interventions. IST will also respond to the findings of supervisors as they follow up on the application by health workers of previous topics.

During the IST focused on malaria, treatment guides printed by the Project, will be distributed. Two thousand copies will be printed, one thousand for nursing level staff, one thousand for community health worker level. The guides for CHWs will provide detailed recommendations for treatment with chloroquine and for proper referral. The guides for health center and higher levels will address the correct management of complicated cases and may include parenteral treatment and second line drugs. All levels will receive guides for chloroquine chemoprophylaxis of women during their first two pregnancies.

D. Regular supervision

The Project will facilitate regular supervision to follow-up on the recommended malaria control strategies. The project will explore the development of simple supervisor check list to facilitate effective supervision of malaria control os well as other PHC activities. Supervision of each health unit, including CHWs, should take place at least once a quarter and should be integrated with the overall PHC activities. The project will assist division level staff to plan and carry out regular supervision. One four-wheel drive vehicle per division is anticipated as well as one motorcycle per sub-division.

E. Updated training programs

The Project will assist the ministry as needed to update the malaria control portions of existing health worker training curricula in Adamaoua and South Provinces to conform to the national guidelines.

F. Regular reporting

To monitor the application and effectiveness of malaria control activities, periodic reports should be received

and analyzed at division and Province levels. The portion relating to malaria should detail:

1) numbers of cases diagnosed and treated each month by age, sex, and pregnancy.
2) numbers of malaria cases referred and reasons.
3) chloroquine stock at end of month and any shortage during the month.
4) number of doses of any other antimalarial used, type, dose, and reason for each.
5) number of first and second gravida pregnant women seen during the month and number taking chemoprophylaxis weekly.
6) any observations concerning malaria: any deaths, problems with resistance, etc.

The supervisor's report on each unit should note any problems observed and actions planned or taken. the project will assist the health authorities at division and province level to collect, analyze, and use the information regularly available.

G. Home treatment of malaria

Because the majority of the population of Adamaoua and South Provinces lack ready access to any health facility and often treat themselves and their children for malaria without presenting to any health facility, it is important to find out what they usually do when they have a fever or suspect malaria. Where their response is inappropriate, the project will attempt through health education, health education in the schools, and promotion of health messages using posters and mass media to influence them to respond appropriately. Such health education and promotion interventions will be developed, tested, and implemented by the project.

To guide this activity and later to monitor its impact, surveys of knowledge, attitudes, and practice (KAP) regarding malaria will be carried out in Adamaoua and South Provinces.

H. Surveillance for drug resistance

In conformity with the draft national strategy and current WHO recommendations, chloroquine will be the drug of choice for malaria treatment and chemoprophylaxis. However, because of the growing problem of chloroquine resistance in Cameroon, it is essential to monitor this problem in a regular and systematic fashion. The project will assist the Ministry to plan, implement, and operate a simple chloroquine resistance surveillance system at one hospital in each of the 8 divisions in which the project will be active. Testing for in vivo resistance can be carried out using existing laboratory facilities and a modification of the WHO protocol for such surveillance. The project will provide assistance in selecting the protocol,

training existing staff, collecting and processing information to be shared for analysis with Yaounde, and providing reagents and laboratory equipment as needed.

I. Improved drug supply/resupply system

If health workers are to comply with the treatment and chemoprophylaxis recommendations of the national guidelines, an assured supply of chloroquine must be available at all health facilities at all times. Because of the inability of the existing system to accomplish that, the Project will assist in the development of an improved drug supply/resupply system. To assure adequate quantities of chloroquine the Project will procure an initial one year stock for Adamaoua and South Provinces, and a cost recovery system will be designed to assure continued resupply.

The Project will assist the Ministry to design such a self-financing drug resupply system to provide chloroquine, ORS, and all essential drugs and supply. Once basic agreement is obtained, the system will be tested, adjusted, and if acceptable introduced in a phased manner to cover the health facilities of Adamaoua and South Provinces.

In addition to initial drug stocks the Project will provide assistance in the form of short-term technical assistance for the development of the drug supply system.

J. Sequence of activities

The attached GANTT chart indicates a proposed sequence of malaria control activities during the Project's five years.

ACTIVITY	Year 1 Q1	Year 1 Q2	Year 1 Q3	Year 1 Q4	Year 2 Q1	Year 2 Q2	Year 2 Q3	Year 2 Q4	Year 3 Q1	Year 3 Q2	Year 3 Q3	Year 3 Q4	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5 Q1	Year 5 Q2	Year 5 Q3	Year 5 Q4
1. Arrive at concensus with MOH Bureau of Malaria on treatment recommendations, surveillance protocol, other policy.	XXX	XXX																		
2. Strategy planning/review with officials at provincial level.	X		X		X		X		X		X		X		X		X		X	
3. Periodic policy review with Bureau of Malaria.				X	X		X		X		X		X		X		X		X	
4. Survey community knowledge, attitudes, and practices (KAP) relating to malaria treatment and control.			XXX								XXX								XXX	
5. In-service training of health workers.				XXX		XXX				XXX				XXX				XXX		
6. Surveillance system to monitor drug resistance.				XXX	XXX	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
7. Functioning drug distribution system to assure availability of chloroquine at health facilities.					XXX	XXX	XXX	XXX	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
8. Promotion of personal malaria control methods and correct self-treatment.						XXX	XXX	XXX	xxx	xxx	xxx	xxx	xxx	XXX	xxx	xxx	xxx	XXX	xxx	xxx

X. ADMINISTRATIVE ANALYSIS

The health services of Cameroon are seriously concerned about the continuing problem of malaria and the development of resistance. The struggle to control malaria has never stopped. There is no doubt that the Ministry of Health will continue to support malaria control.

The methods proposed by this project are, with the possible exception of the communications component, not new to Cameroon. Prompt diagnosis and treatment have always been part of the malaria strategy. The difference now is that the recommended dosage has increased, and the gradual development of P. falciparum resistance to chloroquine makes a more alert surveillance system imperative.

The communications methods are expected to use mass media and social marketing techniques in ways that are new to Cameroon. The radio authorities who have been approached are very interested in cooperating with the MOH on health messages.

Trainers will sharpen their skills with project assistance, but no new personnel should be required, and the new skills will build upon a foundation of training experiences. The existing ministry establishment will be pleased to support additional training. Indeed there is precedent elsewhere in Cameroon for the Ministry to assume increasing financial support of the training elements. It is hoped that the same can be accomplished in Adamaoua and South Provinces as the project develops.

The type of supervision needed to support the activities envisioned will require more frequent contact between the health worker and the supervisor and more focused and supportive supervision. This too is desired by the Ministry.

The system of drug supply to the peripheral health workers will need improvement. Changes will be required. By creating ONAPHARM the Ministry has demonstrated its intention to reorganize the drug supply system. Given the demand for drugs to reach the periphery of the system, our efforts in drug supply will be welcomed.

In summary, the Ministry of Health is expected to welcome any administrative changes required by this malaria control component and is in a position to provide the necessary support during the life of the project and to maintain the momentum afterwards.

XI. ANALYSIS OF TECHNICAL FEASIBILITY

The main thrust of the malaria component of the project requires adjustment in malaria treatment practices, but no new technology is required. The surveillance strategy depends largely on the organized use of laboratory equipment, techniques, and personnel that are already in place. Blood drawing equipment, slides, reagents, microscopes, and the expertise to use them are located in the eight surveillance hospitals. The

project can help to develop surveillance protocols and to provide additional supplies as needed, for the surveillance element.

The information needs of the project may exceed the present capability of the Ministry, but the microcomputers to be provided by the project should go far towards overcoming that problem. Transport demands, particularly for regular supervision, may also exceed existing capabilities. The vehicles provided by the project are expected to diminish that problem as well.

From the perspective of the malaria control component the project is technically feasible.

XII. SOCIAL SOUNDNESS ANALYSIS

Traditional methods for treating febrile illness (presumed malaria) are ubiquitous in Cameroon. Modern methods of chemotherapy are simply an important addition to those methods. That they are valued and accepted is reflected by the extent to which self-medication is employed for malaria. Improved chemotherapy should meet no obstacles. In fact, the desire for effective malaria control can be used to gain access to the population for other public health messages and interventions that are not as well accepted. ORT is an obvious example.

Chemoprophylaxis, particularly for children, has become acceptable in Cameroon. Its application has been determined more by drug availability than policy. Among pregnant women, however, particularly in rural areas, there is little to show that the concept has taken hold, and the experience of several neighboring African countries shows that this is a difficult practice to introduce. The problem seems to be practical rather than social acceptability.

Research, including drawing blood samples, is socially acceptable in Cameroon. A potential problem is the acceptability of requiring people to pay for drugs in a system where government-supplied drugs have traditionally been free of charge. The Ministry will not be in a position to supply sufficient free drugs-indeed the existing system of free drug distribution is very weak. The antimalarial drugs required to achieve the malaria control objectives of the project will be provided through cost-recovery methods. The large majority of antimalarials are now purchased, so that the ordinary Cameroonian in Adamaoua or South Province will note little change, except perhaps a reduction in price. In discussing this question with health personnel in both Provinces, no resistance to the concept of paying for treatments was encountered.

Other malaria control methods such as screening houses, draining malaria vector breeding sites, and the use of mosquito nets are expected to pose practical and financial difficulties, but almost any activity which reduces malaria incidence will be socially acceptable.

Some resistance, more cultural than scientific in origin, may be encountered as the project attempts to discourage the use of

injectable antimalarials where oral drugs are effective, safer, and cheaper. Since most self-treatment is with oral drugs, however, such resistance will probably prove to be greater within the health care establishment than among the Cameroonian people.

XIII. EVALUATION PLAN

Improved malaria control will result in decreased morbidity and mortality in Adamaoua and South Provinces. This will be reflected in the routine health and vital statistics collected by the Cameroonian government. The project may contribute selected improvements to the health information system, but the overall system is considered to be beyond the scope of the project.

The project will focus instead on the collection, analysis, and application of information needed for management purposes at provincial, divisional, and more peripheral levels. Regularity of training and supervision will be monitored. KAP surveys will reflect changes in malaria control practices by the community. Drug supply system records will indicate to what extent an adequate supply of antimalarials can be maintained and whether the cost-recovery mechanism is operable in Adamaoua and South Provinces.

The surveillance system is, in itself, a method for ongoing evaluation of the efficacy of treatment practices. Studies in greater depth will be accomplished with assistance from OCEAC, the Malaria Bureau, or CUSS.

XIV. TRAINING PLAN

The training requirements for the implementation of the malaria control components of the project include retraining of clinical health workers at all levels, review of standard pre-service training courses to insure that the malaria components conform to current national strategies, and specialized training of selected personnel for surveillance, health education/promotion/communications, and special studies.

A. Regular in service training (IST)

An important activity early in the project will be the establishment of regular in-service training will be conducted twice a year during which health workers of all levels are retrained in the appropriate management of malaria and other MCH/PHC interventions. Through such training, changes in recommended practices will be introduced. IST will be conducted at division or sub-division level by bringing together groups of health workers who work together or at similar technical levels. Modern adult training techniques will be employed. Training will be conducted by trained trainers, assisted by the normal supervisors of the trainees.

The first training session will focus on prompt diagnosis and correct treatment of presumed cases of malaria, management and referral of difficult cases, and treatment and prophylaxis of pregnant women during their first and second pregnancies. A limited number of other PHC/MCH topics may be included at the discretion of the training coordinators. Subsequent IST sessions will review previous topics and add new topics such as identification and management of drug-resistant cases, promotion of personal protection methods, vector control techniques, improved reporting and surveillance techniques, and health education messages to promote appropriate malaria control actions on the part of the population.

B. Regular supervision

A system of regular supervision will be required to reinforce the various interventions recommended at the health facility level. The importance of frequent and regular supervision is well recognized by the ministry, but various constraints, particularly in logistics, have prevented the development of such a system. The project will contribute resources and management assistance to assure that such supervision occurs at least quarterly for all health workers.

At each supervisor's visit the content of the previous in-service training will be reinforced by the supervisor. He will be in a good position to do so since he was part of the training team. He will also note any points of confusion or difficulty that should be addressed in future IST.

Finally, a limited training objective will be selected each quarter for inclusion in the supervisor's visit or whenever contact between the health worker and his supervisor occurs.

C. Review of training courses

The regular pre-service training courses conducted for nurses, nurse's aids, and community health workers will be reviewed periodically to ensure that they conform to national malaria control strategies. The project will be prepared to assist in redesigning curriculum and training materials to facilitate such a coordinated approach.

D. Specialized training

Selected hospital staff at division level will be trained to asses the efficacy of the treatment strategies employed in malaria control. Division level personnel will be trained, with

assistance from national level malaria experts, to follow standard protocols to monitor drug efficacy for malaria control.

Selected staff will be trained in survey techniques to perform the various KAP and other community studies needed for the project. Selected staff will be trained in communications techniques, their development and application. They will be expected to address malaria control among the various messages they develop.

Training will be required to implement an improved drug supply system. At the peripheral level, such training will be incorporated in the regular IST and supervision system, but specialized training at division and provincial level is anticipated.

XV. OPERATIONAL RESEARCH

The malaria component of the project will require several types of operational research to plan and manage the activities proposed. Most of these are not restricted to malaria control, however, but relate to the intervention methods employed. As such, they will be approached in an integrated fashion. Operational research is expected to include:

- development of improved training methods,
- development of improved supervision techniques,
- development of improved health education/communications techniques,
- development of improved drug supply, distribution, and resupply techniques,
- development of improved systems for monitoring and managing drug resistance as it changes.

It is hoped that the project can cooperate with medical school students from CUSS when they do research for their theses. Many of them will select topics of operations research germane to this project. Coordination and support for such research will be offered.

XVI. PROCUREMENT PLAN

Items to be procured specifically for the malaria control component of the project include limited laboratory support and sufficient quantities of chloroquine to provide an initial stock for the first year of operations. After that reorders can be purchased prepaid via UNICEF with a lead time of seven or eight months.

Items to be shared by multiple components of the project include transport, stationery and office supplies and equipment, training materials and supplies, and health

education/communications materials and supplies, Procurement for such shared commodities will be described elsewhere.

Chloroquine requirements for one year, Adamaoua and South Provinces

Since government chloroquine stocks have been grossly inadequate in recent years, and the amount of chloroquine taken has generally been significantly less than that recommended, it is not possible to use government supply records to estimate the quantities actually needed. That amount can be estimated using the following facts and assumptions:

1. The recommended treatment dose is 25 mg/Kg.
2. The average adult weighs 60Kg and is subject to one episode of malaria per year.
3. The average child weighs 30Kg and is subject to three episodes of malaria per year.
4. The populations of Adamaoua and South Provinces are 425,000 and 410,000 respectively. Of these approximately 60% are adults (age 15 and above) and 40% are children.
5. It is assumed that no more than 60% of those requiring chloroquine the first year will obtain it through the government/project supply system.
6. Pregnant women will use 300mg/wk during 26 weeks of their first and second pregnancies. Assume 1/3 of pregnancies are first or second pregnancies.

The quantities to be provided the first year are therefore:

for Adamaoua Province:

425,000 X .6 adults X 1case/yr X 60Kg/adult X 25mg/Kg X 1tab/100mg base X 60% of total need = 2,295,000 tabs

425,000 X .4 children X 3cases/yr X 30Kg/child X 25mg/Kg X 1tab/100mg base X 60% of total need = 2,295,000 tabs

425,000 X 50preg/1000pop/yr X 300mg/wk X 26wks X 1/3 X 1tab/100mg = 552,500 tabs

Total= 5,142,500 tabs

for South Province:

410,000 = 425,000 X = 4,961,000

X 5,142,500 TOTAL = 10,103,500 tbs needed

If ordered through UNICEF, 1000 tablets cost $7.865 + 15% sea freight = $9.05

Ten million would therefore cost $90,500. In addition there will be transport and handling charges in Cameroon.

Laboratory supplies available from scientific supplies houses:

Miscellaneous supplies (slides, cover slips, reagents, lamps) as needed for 8 departmental laboratories:

$500 each X 8 = $4000

Malaria treatment and management guides, printing costs:

1000 guides for CHW level	$2000
1000 guides for nursing level	$3000
TOTAL	$5000

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ANNEX H.3 EXPANDED PROGRAM IN IMMUNIZATION (EPI)

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EXPANDED PROGRAM IN IMMUNIZATION (EPI)

I. BACKGROUND

A. EPI IN CAMEROON:

The Expanded Program in Immunization (EPI) is a priority of the leadership of Cameroon and is addressed in the National Development five-year Plan. A significant commitment of resources and personnel - both from the MOH and international organizations - has been made to the national EPI effort.

EPI began in Cameroon in 1975 with the formation of a Vaccination Team in Yaounde through a collaboration between OCEAC, CDC, and the MOH. That successful demonstration was expanded to other urban centers in 1977, to include Eseka, Bamenda and Bafoussam.

In 1978, WHO conducted an evaluation of the Yaoundé EPI program. The evaluation focused on logistics and management. Major recommendations included:

- Establish a well defined EPI management structure and appoint a National EPI Operations Officer, to replace the CDC/SHDS technical assistance officer assigned for two years;
- Send key managers to WHO EPI training programs;
- Update and review the national EPI plan, in collaboration with WHO and other international organizations;
- Strengthen the cold chain at all levels with new equipment, better management, and training of personnel;
- Strengthen the surveillance and evaluation components of the program;
- Expand EPI from Yaounde to the rest of Cameroon by gradually shifting the program base from OCEAC to the MOH.

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In 1981, the National Coordination Committee for EPI met and made the following recommendations:

- Extend EPI to the entire country;
- Train all health personnel in EPI;
- Promote coordination of EPI with other public health services;
- Integrate EPI into the primary health care program and train village health workers over the long term;
- Reinforce cooperation with international organizations; and
- Create fixed vaccination centers in Yaounde.

During the same year, a second evaluation of the Cameroon EPI program was carried out by a team of experts from WHO, OCEAC, CDC and the MOH. This evaluation was more comprehensive than the first one. The evaluation team concluded that considerable progress had been made toward achieving EPI goals. However, they suggested the following improvements:

- Reinforce the National Coordination Committee for EPI and create a Technical Advisory Group;
- The Director should spend at least 50 percent of his time on the EPI program;
- Revise the former strategy of mobile EPI teams and adopt a fixed vaccination center approach;
- Institute a regular program of supervision at the provincial and peripheral levels;
- Develop a simplified and standardized system of information gathering and analysis and disseminate reports to all levels. This requires standardization of a vaccination card for the entire country;
- Increase public understanding and participation in EPI by using school children as motivators and educators of their parents;
- Other recommendations related to the development, management and maintenance of the cold chain, as well as to staffing, training and budgetary requirements of the EPI program.

The early 1980s saw the expansion of EPI along the lines suggested by this major evaluation effort. Several smaller evaluations of EPI were carried out during this period and focussed on selected aspects of the program (e.g. vaccination coverage and program management at the provincial and local levels). A consistent finding of these various evaluations was that vaccination coverage had reached a plateau.

In November 1986 Cameroon launched a national EPI campaign, designed to raise immunization coverage from an estimated 30 percent of children under five to 60 percent. To achieve that objective, 535,900 children and 156,696 pregnant women needed to be vaccinated. This national vaccination campaign, officially called "Journées Africaines de Vaccination" (JAV), comprised the following program activities:

- Three Special vaccination days were set in the major cities of Yaoundé, Kumba, Bafia, Sangmelima, Ngaounderé and Garoua. These days were November 9, 1986, December 14, 1986 and January 11, 1987.
- "The African year of Vaccination" was celebrated at the beginning of 1986 and was marked by the vaccination of a child by Mme Jeanne Irene BIYA, wife of the Head of State;
- In April 1986 a seminar for all the local EPI directors was held in Yaoundé;
- A UNICEF/PEV mission carried out a needs assessment around the country;
- In June 1986, OCEAC and the MOH carried out some baseline vaccination coverage surveys in urban and rural areas;
- A national health education seminar was held in July 1986.
- In September and October 1986, supervisors touries in all the provinces to finalize arrangements for the campaign; during the same period, meetings were held with various donors (including USAID) to enlist their support and solicit specific commitments from them.

The approach used was multisectoral, under the leadership of a National Coordinating Committee chaired by the Minister of Public Health. 10 provincial, 49 divisional and 182 sub-divisional committees and various sub-committees were formed to work on the following issues: coordination, finance, campaign promotion and publicity, logistics, feeding and lodging of vaccination teams.

The following immunization schedule was used:

Vaccine	Target Group	Age of Vaccination	Dose	Interval
B.C.G.	0 - 5 years	From birth	0.1ml	-
D.T.P.	2 mos - 5 yrs	From 6 weeks	0.5ml	1 month
POLIO	2 mos - 5 yrs	From 6 weeks	2 drops	1 month
MEASLES	9 mos - 5 yrs	From 9 mos	0.5ml	-
TETANUS	9 mos - 5 yrs	First mo. pregnancy	0.5ml	1 month

More than 2000 vaccination posts were established in health facilities, schools, political party halls, and other sites. Mobile teams were formed to make circuits of these sites. Only reusable needles and syringes were used. Pressure cookers were available but generally not used for sterilization. Boiling was the preferred method of sterilization.

Vaccination teams comprised a minimum of eight staff, including health personnel, staff from other ministries, students, army officers and others. It is estimated that more than 11,000 persons participated in this national campaign.

Vaccines received for the campaign and their sources are presented in TABLE H.2.1.:

TABLE H2.1: Vaccines supplied during the campaign and their sources

Vaccine	Quantities received	Source
BCG	1,319,000 doses	MOH
DTP	2,867,000 doses	MOH
POLIO	2,917,000 doses	UNICEF, Rotary Club
MEASLES	1,232,200 doses	USAID, SCF/CDF, MOH
TETANUS	1,494,000 doses	MOH, OCEAC

UNICEF provided reusable needles and syringes and health education materials. Vehicles were provided by the MOH and many other institutions (both public and private). Gasoline was provided by the MOH. Direct costs which were incurred during the campaign have been estimated as follows:

Activity	Responsible Agent	Estimated Cost (in cfa francs)
Training	WHO, UNICEF, PNUD, MOH	29,774,140
Publicity	UNICEF, MOH	17,426,173
Cold Chain	UNICEF, MOH	65,763,284
Materials	UNICEF, MOH	51,886,913
Vaccines	All sources	311,948,639
Gasoline	MOH	30,614,783
Miscellaneous (e.g. food)	MOH	17,162,178
TOTAL		524,576,112 or $1.75 million

Clearly these direct costs represent a gross underestimation of the true cost of this national campaign. They do not include the time of MOH personnel and other civil servants, donated resources, logistical assistance provided by the military and local administration, and perdiem during travel of MOH personnel.

Data collected on the numbers of children and pregnant women vaccinated indicates the following:

- 1,811,510 women and children were vaccinated (duplicated);
- 704,943 were vaccinated for the first time;
- An appreciable decrease was observed for children receiving second and third doses of DTP; 741,294 for the first dose, 557,664 (89 percent) for the second dose and 338,229 (46 percent) for the third dose.

- There was also a decline in the number of children seen between the first and second as well as the second and third passages - 630,123 during the first passage, 559,969 (89 percent) during the second and 418,428 (66 percent) during the third passage.

- Of the 383,551 children given measles vaccine, 237,984 (62 percent) were older than 24 months and 150,311 (39 percent) were older than 36 months.
- The number of children vaccinated during the three days was double the number served by the EPI during the preceding eleven months.
- 188,649 children were completely vaccinated (2775 CFA francs per child completely vaccinated).

A synthesis report prepared in Yaoundé on the basis of provincial reports, provides specific figures on the number of vaccinations administered

in the Adamaoua and South provinces. These figures are presented in Table H.2.2. below:

TABLE H.2.2: Vaccinations given in the Adamaoua and South Provinces

Vaccination	Adamaoua	South
First visit	41,545	28,762
Repeat attendance	67,029	43,950
BCG	41,598	22,797
DTP 1	42,135	26,865
2	34,240	35,934 (sic)
3	22,971	31,195 (sic)
Polio 1	40,879	26,967
2	31,592	22,355
3	22,886	13,273
Measles	35,075	14,513
Complete Vaccination	5,743	5,550
Tetanus 1	5,866	4,132
2	2,864	2,421

An evaluation of this national vaccination campaign was carried out by a team of WHO, UNICEF and OCEAC experts in February and March 1987, using an immunization coverage survey technique. The survey was carried out on children born in 1985 who were therefore 11-23 months old during the campaign.

The investigators used the vaccination cards to determine the date of vaccination. It is therefore possible to use the survey to assess vaccination levels before and after the campaign.

The evaluation survey yielded the following findings:

Vaccinations	% Urban Sample	% Rural Sample
Completely vaccinated	49.7 +/- 6.01	45.9 +/- 7.7
Children with vacc cards	77.7	81
BCC	89.2	86.7
DTP 1	76.9	79.0
DTP 2	70.1	69.5
DTP 3	65.2	57.0
Polio 1	76.9	78.5
Polio 2	69.5	69.1
Polio 3	63.7	55.5
Measles	58.4	64.1

The before and after results are interesting because they demonstrate a smaller increase in coverage in urban areas compared to the major gains made in the rural parts of the country. (See TABLE H.2.3 below)

TABLE H.2.3: Vaccination coverage in rural and urban areas before and after the campaign

Area	Coverage Before Campaign	Coverage After Campaign
URBAN		
Complete Series	36.3%	49.7%
Measles Only	41.8%	58.5%
RURAL		
Complete Series	15.1%	45.9%
Measles Only	25.6%	64.1%

Thus, Cameroon has achieved a significant level of EPI coverage with a major commitment of inputs. A study of the costs and logistics of the campaign by UNICEF and the REACH project was recently completed and will provide data on the cost effectiveness of the campaign strategy.

B. POLICY SETTING AND GRC PRIORITIES

The sixth five-year National Development Plan (1986-1991) proposed a reduction in infant mortality in Cameroon from 105 per 1000 live births to 78. To achieve that reduction, the Plan proposed, among other interventions, to increase vaccination coverage to 85 percent of all children under 5 years of age by the end of the period.

It is in that context that a seminar for provincial and divisional chiefs of Preventive Medicine is planned for July 1987, to plan the post-campaign strategy for the country. Major elements which will form the basis of this strategy include:

- Preventing a fall in coverage rates;
- Adequately staffing the provinces;
- Increasing fixed vaccination points from 400 to 1200;
- Using the fixed center as a focus for reaching the surrounding population;
- Assuring adequate supervision of EPI;
- Fully utilizing the private, missionary system;
- Reinforcing EPI training including use of pressure cookers;
- Adequately equipping health centers with cold chain;
- Providing adequate means of transport (vehicles, motorcycles) for EPI.

C. ADMINISTRATIVE ORGANIZATION OF THE EPI PROGRAM

The formal organization of EPI within the Ministry of Health consists at the national level, of the Directorate of Preventive Medicine and Public Hygiene which includes the Service of Epidemiology and Malaria, under which the EPI is administered.

In actual practice, the EPI Program Manager at the central level reports directly to the Director of Preventive Medicine.

At the provincial level, the Provincial Chief Medical, Officer (PCMO) of Preventive Medicine and Public Hygiene is based in the provincial capital and reports directly to the Provincial Delegate of Health, the Minister's representative in the Province. The Provincial Service of Preventive Medicine and Public Hygiene (PSPMPH) generally has a highly trained Epidemiologist who heads the EPI program. No other EPI staff are available.

The PCMO for Preventive Medicine and Public Hygiene is also the Divisional Chief Medical Officer (DCMO) for Preventive and Rural Medicine for the division in which the provincial capital is located. The Divisional Service of Preventive Medicine and Rural Health (DSPRM) generally has more staff and resources for EPI than the PSPMPH because it has direct implementation responsibility.

In the other divisions outside of the provincial capital, the EPI is managed by the DCMO for Preventive and Rural Medicine who reports directly to the Divisional Chief Medical Officer for Health who is usually the head of the Divisional hospital. However, the DCMOs for Preventive and Rural Medicine are directly responsible for EPI activities in their respective divisions and obtain support from their Provincial Service of Preventive Medicine and Public Health.

It is also important to note that the Divisional Services of Preventive and Rural Medicine are responsible for the primary health care program of their divisions and accordingly, for supervising village health workers. In the South Province, this supervision has been assigned to PHC coordinators who are employees of the division service and are based in the divisions and sub-divisions. In Adamaoua the PHC coordinators are usually health center staff who only supervise on a part-time basis.

D. TRAINING AND SUPERVISION OF EPI PERSONNEL

EPI training is said to be a part of the preparation of physicians, graduate nurses, assistant nurses, and nurses aides. The earliest national training for EPI personnel was a WHO course held in Abidjan in 1982. Several Cameroonians, including the current head of EPI program, attended the course. During the same year, an OCEAC/MOH team conducted inservice training on a national level, with sessions held around the country. A large nationwide effort of EPI in service training was carried out again in 1986 in preparation for the national vaccination campaign described earlier. All these inservice training courses/workshops have been funded and organized by the Directorate of Preventive Medicine and Public Hygiene.

Little supervision appears to take place at the national level. At the provincial level, the PCMO for Preventive Medicine and Public Hygiene may tour the Province to monitor EPI activities; however in reality he does little direct supervision. The DCMO for Preventive and Rural Medicine is more directly involved in supervision of his staff. However, there seems to be little formal supervision and no use of standardized supervisory and performance evaluation methods. Vaccinations are generally administered by health personnel with the lowest level of formal training, (e.g. nurses aides) and even by local support personnel ("Agents de l'Etat") who have been trained on the job. There seems to be little systematic supervision of their work.

E. EPI ACTIVITIES

At the national level, EPI is primarily concerned with the planning of a national strategy and plan of action, organization and execution of in-service training, the purchase and distribution of vaccines, maintenance of the central cold chain and stocking of materials, collection of surveillance data, and preparation of reports.

Current estimates of vaccine needs and stocks are as follows:

Vaccine	Needs (1987)	Stock
BCG	900,000	108,000
DTP	1,200,000	213,000
POLIO	1,200,000	100,000
MEASLES	430,000	315,000
TETANUS	500,000	393,000

Activities at the provincial and divisional levels are essentially organized under the following program concerns: planning and strategy, organization and management, personnel, vaccine management, cold chain, materials and equipment, information and surveillance, and implementation. A detailed description of these activities in the two provinces follows:

1. EPI IN ADAMAOUA PROVINCE

1.1. Planning and Strategy

There appears to be no formal provincial plan for EPI. Each year a Project is prepared on the basis of the previous year's activities and of a individual of plans submitted by each division.

No surveys of vaccination coverage have been performed to date in Adamaoua. A vaccination coverage survey is being planned for this year as part of the post-campaign evaluation.

Vaccination strategies for each division seem to be developed independently and are significantly dependent on the availability of personnel, and the number of fixed health facilities and vehicles. Thus, there is a dramatic disparity between the divisions in the province, with Vina Division commanding most resources and performing most vaccinations. (as indicated by TABLE H.2.4).

Vina uses a mixed strategy of regular vaccinations in fixed centers (both urban and rural), as well as a mobile team which covers the outskirts of Ngaoundere (in a vehicle) to vaccinate at fixed posts in small rural centers and health villages ("Villages santé).

TABLE H.2.4: Vaccination sessions by vaccination site and by division in the Adamaoua Province

Division	DSPRM	MCH/Center!	EHC/DHC	VHP	Other
VINA	0	6	7	22	15
MBERE	3	0	1	0	0
MAYO-BANYO	1	0	0	0	0
DJEREM	0	1	0	0	0
FARO-ET-DEO	4	0	2	0	0
TOTAL	7	7	10	22	15

DSPRM: Divisional Service of Preventive and Rural Medicine.
MCH: Maternal and Child Health Centers (PMI).
EHC/DHC: Elementary and Developed Health Center.
VHP: Village Health Posts.
Other: Other site.

1.2. Organization and management

The current PCMO for Preventive Medicine and Public Hygiene for the Adamaoua, who is also the DCMO for Preventive and Rural Medicine for Vina division, does not supervise the other DCMOs for Preventive and

Rural Medicine. He recently completed a tour of the province to assess the EPI and is preparing a report which will provide a lot of information on the management and organization of EPI in the Adamaoua.

1.3. Personnel

TABLE H.2.5 shows the number and types of personnel available for EPI at the provincial and divisional levels in Adamaoua. Most of these staff carry out other preventive medicine activities like control of tuberculosis and leprosy.

TABLE H.2.5: Distribution of EPI Personnel in the Adamaoua Province

Division	Physicians	Graduate Nurse	Assistant Nurses	Nures Aides
VINA	1	1	0	2
MBERE	1	0	1	0
MAYO-BANYO	0	1	1	0
DJEREM	0	0	1	1
FARO-ET-DEO	1	0	1	0
TOTAL	3	2	4	3

1.4. Vaccine management

The provincial epidemiologist orders vaccines every three months from the central office in Yaounde and travels to Yaounde by train with cold boxes to pick up the vaccines. His orders are based on reports from the DCMOs about vaccinations given and current stocks.

As a common practice needs are overestimated at the divisional levels and requests are generally reduced each next level up. Large stocks of some vaccines at the last campaign remain in some divisions, whereas other vaccines, (e.g., polio) are in short supply. Standard EPI forms are used to report vaccine usage and stocks.

1.5. Cold chain

At the provincial level there is a cold room (built in 1986) which keeps temperatures at -8. During the visit of the design team, there was no thermometer; 3M Monitor Marks were being used to monitor temperature and were in good state. No records of temperature and no vaccine cards were being kept. Freezers were being used to freeze cold packs.

At the divisional level, freezers are available in each center for cold packs and refrigerators for vaccine. The distribution of cold chain materials is shown on TABLE H.2.6 below.

TABLE H.2.6: Distribution of cold chain material in the Adamaoua province

Division	Cold room	Freezer	Refrigerator	Ice Box	Thermos
VINA	0	1	X	X	X
MBERE	0	1	2	5	27
MAYO-BANYO	0	1	2	2	20
DJEREM	0	1	2	2	14
FARO-ET-DEO	0	1	3	4	14

X exact numbers were not available

1.6. Materials

All vaccinations are currently administered with a needle and syringe. The quantity of needles and syringes provided during the last vaccination campaign was inadequate. Pedojets are no longer used.

Sterilization is generally done by boiling in a pot. Pressure cookers were supplied during the national vaccination campaign but the team saw none being used. Furthermore, it was not clear that sterile techniques were being applied systematically.

Transportation is a major problem in Adamaoua; vehicles are needed because of the long distances between centers and facilities. An inventory of vehicles available for preventive health activities indicates that there is a Chevrolet van in Vina division (mostly for use by the Divisional Service of Preventive and Rural Medicine), one Suzuki in Mbere, one Suzuki in the divisional hospital, one Toyota pick up truck in Faro-et-Deo and one inoperative Land Rover in Djerem.

1.7. Information and surveillance

The MOH EPI forms for recording vaccinations given, and those for reporting vaccine stocks are centralized at the provincial EPI level, where they are used.

Reports on morbidity and mortality are part of the larger MOH surveillance system which includes 70 to 80 reportable diseases and a lengthy, impractical reporting form that must be completed at all levels, and is processed on an irregular basis at the provincial level.

1.8. Implementation

Implementation of EPI in Adamaoua will be assessed fully under the Project. Nevertheless it was the design team's impression that an extensive program using the full range of health facilities, including village level primary health care sites, is being carried out in the Vina Division. Outside of Vina there is a great fall in the availability of vaccination services and even health facilities for their delivery.

2. EPI IN THE SOUTH PROVINCE

2.1. Planning and Strategy

A survey of vaccination coverage of children 12-16 months old, was carried out in Ebolowa, the provincial capital, in March 1986, i.e. six months before the national campaign. The survey indicated that: 29

percent were completely vaccinated; 66 percent had vaccination cards; 49 percent had three doses of DTP and Polio; 43 percent had received measles vaccine and 5 percent had had the disease.

The survey also examined the reasons for not being vaccinated. The major reasons given by the populations were, by order of frequency: 43 percent not motivated; 25 percent obstacles; 22 percent not informed; and 9 percent others reasons.

There is no overall plan for the implementation of the vaccination strategy in the South Province. Like in the Adamaoua province, vaccine requirements and materials orders are calculated from the previous year's requirements.

The overall approach to maintenance phase immunization has been to establish vaccination sessions in existing, fixed health centers, both in the private and public sectors. Unfortunately this strategy has not been extended, to all health centers to maximize vaccination coverage. For instance in Ntem, ten health centers have refrigerators but no EPI, and in Ocean, seven centers with refrigerators are not being used.

2.2 Organization and Management

Since the present provincial leadership of EPI is relatively new in the region, they have had little direct management or evaluation of the existing system. Nevertheless, logistical support means presently available appear inadequate to achieve national EPI targets.

2.3 Personnel

The structure of EPI personnel in the South is similar to the one described for the Adamaoua Province. The EPI personnel in the South Province includes the PCMO for Preventive Medicine and Public Hygiene who also cumulates the functions of DCMO for Preventive and Rural Health for Ntem; an experienced provincial epidemiologist; two DCMOs for Preventive and Rural Health (for Ocean and Dja-et-Lobo divisions

respectively), and an EPI manager, in Ocean. According to the PCMO, the number of staff assigned to EPI in the Department of Ntem is adequate but their current level of training and skills need to be improved.

2.4 Vaccine management

Vaccine management is a provincial level function. There appears to be relatively large stocks of vaccines available at all levels of the system, primarily because of the low level of immunization coverage.

2.5 Cold chain

The cold chain does not seem to be well developed in the South. Thus, despite the presence of a relatively large number of health centers, only few hold immunization sessions. Table H.2.7 below shows the distribution of cold chain equipment by division.

TABLE H.2.7: Distribution of cold chain equipment by Division in the South Province.

Division	Cold Room	Freezers	Refrigerators Electric	Refrigerators Kerosene	Ice Boxes
NTEM	0*	3	4	16	20
DJA&LOBO		4	4	5	25
OCEAN		6	0	0	16
TOTAL	0	13	8	21	61

* Awaiting the construction of a cold room at provincial headquarters in Ebolowa.

2.6 Materials

Stocks of needles, syringes, and pressure cookers available in the provincial and divisional centers seem to be adequate primarily because of the low level of activity. However, few vehicles are available for immunization.

2.7 Information and Surveillance

The information system is identical to that described for Adamaoua. Th level and quality of reporting seems to be extremely low. For instance it is interesting to note that with the same number of centers reportin in Ntem, there were about 600 cases of measles reported in 1986 for the month of March and only 20 in 1987.

2.8 Implementation

The immunization approach used in the South concentrates on the development of fixed centers. No vaccination sessions are held in the health villages. However the mobile program of the EPC missionary system (comprising 10 dispensaries) goes out to vaccinate in small health centers albeit but on an irregular basis.

TABLE H.2.8: Vaccination sites and sessions in the South Province.

Divisions	DSPRM/MCH Centers	Subdivisional Hospitals	EHC/DHC	OTHER
OCEAN	1	2	2	0
NTEM	12	4	5	20 (irreg. basis
DJA ET LOBO	0	0	7	0
TOTAL	13	6	14	20

2.9 TABLE VII.3 of Section VII of the Project Paper provides a listing of all health facilities (both public and private) in the Adamaoua and South Provinces. According to that table, the Adamaoua Province has 13 hospitals o which 2 are private, and 63 health centers, 13 of which private and 14 are still under construction. In the South Province, there are 18 hospitals, 3 o which are private, and 107 health centers. It was unclear how many health centers are private and how many are still under construction.

Since the focus of this Project is on health services delivery, these figures must be examined in relation to the population to be served.

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TABLE H.2.9: Population estimates (1986 estimates) for Adamaoua and South Provinces.

P O P U L A T I O N			
ADAMAOUA		SOUTH	
Vina	160,000	Ntem	185,433
Mbere	140,000	Dja et Lobo	144,377
M-Banyo	80,000	Ocean	98,016
Djerem	45,000		
Faro et Deo	40,000		
Total Adamaoua	465,000	Total South	427,826

Based on an estimated national gross birth rate of 45.4 per 1000, one would expect 19,423 births each year in South Province and 21,111 births in the Adamaoua Province.

II. PROJECT GOAL

To improve the health status of mothers and children in Cameroon.

III. PROJECT PURPOSE

To strengthen the existing government health services system in such a way that it operates more efficiently and effectively in providing needed services to women and children in the South and Adamaoua Provinces.

IV. END OF PROJECT STATUS

A. Planning

A maintenance phase immunization strategy and plan will have been established in the two provinces. Major policy issues to be addressed include a determination of the optimal mix of fixed centers and mobile

teams, technical requirements of the maintenance phase strategy, integration of EPI with other components and technical issues related to the expansion of the program from urban less populated areas.

B. Vaccination, coverage

1. Children Coverage.

85 percent of children with access to health facilities will be fully vaccinated by 12 months of age.

This EOP is based on the assumptions that:

- By November, 1987 the coverage level will have fallen to about 25 percent;
- 50 percent of children now have access to vaccination services;
- Access to vaccination services will increase by about 10 percent per year based on MOH plans for expansion of the primary health care system; and
- that in the first year the Project will "catch up" by vaccinating all unvaccinated children through age 36 months and thereafter focus children under 24 month of age.

Assuming a total population of 900,000 for both provinces, and a birthrate of 0.035, 32,000 births would be expected per year, which would give 150,000 children under 5.

2 Women coverage

95 percent of women receiving prenatal care at health facilities will receive two doses of Tetanus vaccine.

This EOP is based on the assumptions that 20 percent of pregnant women receive prenatal care in year 1, increasing to 50 percent in year 5. Thus it is expected that about 32,000 pregnant women will be covered per year in the two provinces.

C. Integration of EPI

Vaccination services will be available on a regular basis in 100 percent of health facilities - at least once a month in each health center and MCH Center (PMI) and at least once every 3 months in each village health post.

This EOP assumes that there are 170 health centers and 64 village health posts in the two provinces. Some growth in the system can be expected in the order of a 10 percent increase in the number of health villages per year which would result in 70 village health posts in the second year, 80 in the third, 90 in the fourth and 100 in the fifth year.

C. Effectiveness of cold chain

95 percent of vaccine will be kept effective from the central level procurement point up to the time of administration through an effective cold chain.

The achievement of this EOP requires that systems for cold chain control and management be in place that an inventory of cold chain equipment be made, existing cold chain equipment be replaced with appropriate size freezers and refrigerators (to keep vaccine and cold packs) and that measurements of vaccine efficacy be carried out through sociological surveys and surveillance of measles cases.

5. Information/surveillance system

A simplified information system which is adapted to local conditions will have been developed to provide data on 95 percent of vaccinations administered and 80 percent of cases of selected vaccine-preventable diseases (e.g. measles, paralytic poliomyelitis, whooping cough, and neonatal tetanus) from designated centers. The system will include reporting by the private sector.

To achieve that EOP, the following steps will be required:

- simplify disease reporting in year 1;
- implement the new system on trial basis in year 2;
- analyse data locally with support from the provinces and feedback the results to the local level. The data obtained must be used for planning, policy development, and evaluation.
- locate responsibility for the collection of statistical data at the divisional or sub divisional level.

F. Changes in knowledge, attitudes and practices

- 80 percent of mothers will know about vaccinations, identify locations where they are available and have taken their child for a complete series by age 12 months.

- Initial KAP surveys will be carried out on the population and health workers and differences (in language and cultural beliefs) which are identified will be used in the design of the educational campaign.

G. Competency - Based Training

- 90 percent of health center staff and 100 percent of EPI staff will have adequate knowledge of EPI and will be competent in EPI techniques. They will be able to correctly inform parents, will have complete understanding of and skills in sterile techniques, and excellent vaccine handling skills.

- 100 percent of EPI staff at national, provincial, divisional, and sub divisional levels and 90 percent of health center staff will have received at least one inservice training on EPI each year, and 95 percent of new staff will have been trained.

H. Availability of supplies and materials

- The EPI services will have 100 percent of the needed supplies of reusable needles and syringes, pressure cookers, vaccination cards and other materials.

- The USAID policy of a single sterile needle and syringe for each vaccinee will be consistently observed through appropriate sterilization techniques.

I. Management

- 100 percent of EPI staff and health center staff will be supervised at least twice a year using an assessment instrument that includes observation of vaccination practices.

- 100 percent of health facilities will have integrated EPI sessions with other MCH services.

- A financing scheme will be in place in both provinces to recover some fraction of the cost of EPI services. This scheme will be part of an integrated experiment in cost recovery developed under the Project, which will include all components.

J. Evaluation

- An evaluation plan will have been carried out that is built upon baseline information, regularly collected program information, periodic KAP surveys and a final evaluation. This plan must be realistic in terms of its complexity and cost.

- Baseline coverage surveys will be integrated with KAP and other surveys for all technical components of the Project. Mid-course adjustments will be made based on evaluation findings. A capacity to carry out regular vaccination coverage surveys will be developed at the provincial level.

V. OUTPUTS

A. The following numbers of children will be fully vaccinated in each of the Project years:

- Year 1 = 25,500 under 36 months
- Year 2 = 16,300 under 12 months
- Year 3 = 19,200 under 12 months
- Year 4 = 21,700 under 12 months
- Year 5 = 23,120 under 12 months

These numbers were estimated as follows:

Year 1. 90,000 (children under 36 months) - 30,000 (already vaccinated) X .50 access to EPI X .85 coverage

Year 2. 32,000 births X .60 access to EPI x .85 coverage

Year 3. 32,000 births X .70 access to EPI x .85 coverage

Year 4. 32,000 births X .80 access to EPI x .85 coverage

Year 5. 32,000 births X .85 access to EPI x .85 coverage

B. The following number of pregnant women will receive 2 doses of Tetanus vaccine during prenatal care in each project year:

- Year 1 = 6,000 pregnant women
- Year 2 = 8,000 pregnant women
- Year 3 = 9,000 pregnant women
- Year 4 =12,000 pregnant women
- Year 5 =15,000 pregnant women

These numbers were estimated on the basis of 32 pregnancies per year with access to prenatal care at health facilities, with an expected increase from .20 in year 1 to .25 in year 2, .30 in year 3, .40 in year 4, .50 in year 5 and a .95 coverage factor.

C. The following numbers of vaccination sessions will be held:

Year	Health Centers (monthly)	Health Villages (every 3 months)
1	60	22
2	90	40
3	120	60
4	150	90
5	170	150

D. Cold Chain Outputs

- 170 small refrigerators will be in place in all developed and elementary health centers in the Provinces.

- About one-third of these sites already have some cold chain, the exact nature and quality will need assessment. Other levels of the cold chain are probably adequate, but will need to be reassessed.

E. Information/surveillance outputs

A simplified, functioning, and affordable information system with surveillance of target EPI diseases and EPI activities will be in place. New simplified forms will be developed. Standardized procedures for collection, computerized data processing and analysis, and for reporting will be in place.

F. KAP outputs

An integrated maternal and child health KAP survey covering EPI, nutrition, oral rehydration, and malaria/fever will have been developed and implemented during each of the 5 years.

G. Training outputs

- 849 health workers trained in EPI, and receiving continuing education each year, on the following topics:

  - EPI planning and strategy development;
  - disease diagnosis and prevention;
  - sterile techniques and vaccination procedures;
  - management, including supervision & cold chain;
  - health education;
  - surveillance and data use.

- 100 community health workers trained to integrate EPI into their maternal and child health activities.

H. Management outputs

A management system for vaccines and EPI equipment in place.

An instrument developed for use in the supervision of EPI activities in the context of integrated MCH service delivery.

I. Planning outputs

A provincial plan for maintenance phase EPI activities integrated into maternal and child health activities at the health center and village health post levels.

J. Evaluation output

An internal review of the EPI component each year and final external evaluation of the Program in the fourth year.

VI. INPUTS

A. Vaccination inputs

No additional inputs of vaccine is anticipated under the Project as the Ministry of Health will continue to supply the needed vaccines as part of its ongoing support to the EPI program.

B. Cold chain inputs

- 100 small refrigerators with adequate freezer space for freezing cold packs. They may be electric or kerosene;
- 25 gasoline generators, only where necessary;
- 500 ice packs;
- 200 EPI thermometers and 200 3M temperature indicators.

C. Information/surveillance inputs

- 3 personal computers for surveillance and epidemiology;
- 2 mimeograph machines (one for each province);
- 1 photocopier for the office in Yaoundé;

D. Technical Assistance

- 10 person-months of short-term technical assistance for KAP studies;
- 5 persons-months of short-term T.A. in planning;
- 10 person-months of short-term T.A. for training activities;
- 15 person-months of short-term T.A. in the area of management.
- 5 person-months of short-term technical assistance for evaluation and operational research.

E. Supplies and materials inputs

- 10 4X4 vehicles and 25 motorcyles will be provided under the Project for use in supervision, and to strengthen the logistical support base of the MOH at the divisional, subdivisional and village level.

- Appropriate sterilization equipment will be provided - 170 pressure cookers (one in each health center).

- Sterile, reusable needles and syringes will be provided to each health center and village health post for immunization sessions (estimated at 10,000 in total).

F. Training materials

- 850 copies of WHO/EPI training materials (in French) adapted to Cameroon, will be purchased.

VII. BUDGET

A. Technical assistance

KAP studies:	10	P.M: Harvard SPH Graduate students
Training:	2.5	P.M: HIID (Guyer).
	2.5	P-M: WHO/EPI/CCCD trainer
Planning/Management:	2.5	P.M: HIID (Guyer) WHO/EPI/CCCD operation officer
Evaluation/Operation Research:	10	P.M: CUSS students and faculty
	10	P-M: Harvard SPH Graduate students
	5	P-M: Harvard SPH faculty

B. Training materials

850 WHO sets of training materials.

C. Commodities

- 100 small refrigerators
- 25 generators
- 2 mimeograph machines
- 1 photocopier
- 3 personal computers
- 10,000 reusable needles and syringes

- 500 ice packs
- 200 EPI thermometers
- 200 3M temperature indicators

VIII. RECURRENT COST ANALYSIS AND FINANCIAL PLAN

The Project will work with existing personnel and will not require the Cameroonian government to expand its EPI staff. The recurrent costs of the EPI component of the Project result essentially from an increase in the vaccination coverage of young children and in field supervision in the two provinces and finally from the additional expense of training existing health personnel and maintaining these trained personnel in GRC health facilities.

A. Need for additional vaccine

Indeed if this Project is successful in reaching its targets, 29,800 children under one year of age will be fully vaccinated each year. It is estimated that this is 23,000 more children of this age than are currently vaccinated. The MOH leadership will need to plan for the additional vaccine needs.

B. Training

Continuous on the job training of EPI personnel at all levels will also contribute significantly to higher costs for the delivery of MCH services in the two provinces than has heretofore for the case yet the magnitude of the impact of the total Project package unquestionably outweigh its costs.

Furthermore, inservice training may not need to be held as frequently after the end of this Project as preservice training. Other GRC/MOH efforts can also be tapped to improve the knowledge and skills of EPI health personnel. For instance, each Divisional Service of Preventive and Rural Medicine currently receives a modest amount of funds each year for inservice education. A portion of these funds could be allocated to MCH related training, and thus obirate the need for separate EPI training.

C. Supervision

The Provincial Service of Preventive Medicine and Public Hygiene and the Divisional Services of Preventive and Rural Medicine will need to assume the costs of adequate supervision of personnel at the end of this Project. These costs will include transportation for the active supervision of field personnel.

IX. ADMINISTRATIVE PLAN, MANAGEMENT, IMPLEMENTATION

YEAR 1:

A. Baseline analysis and inventory of health services, EPI and available equipment

These activities will be carried out at provincial and divisional levels by a team touring the divisions. The team will the include the Chief of Party, the DCMO for Preventive Medicine and Public Hygiene and the Provincial EPI Manager. They will be joined in each division by the DCMO and the divisional EPI coordinators. This team will work with Harvard faculty to develop the baseline survey scope and methodology. The following activities are proposed for inclusion in this assessment phase.

1. Identify all fixed centers for EPI - those in operation and potential sites;
   - Identify all health centers, MCH centers, dispensaries proposed and constructed;
   - Identify all health villages, village health posts (proposed and constructed) and village health workers.
   - Examine current vaccination sites, regularity of sessions, and attendance at sessions.
   - Identify primary health care coordinators who will be involved in the assessment.

2. Measure accessibility to these health facilities by:
   - examining utilization data by age, if available;
   - assessing which villages/ethnic groups are served; etc.
   - Factors such as distance and quality of roads will be examined;
   - Detailed maps of each Division with the patterns of usage will be prepared;
   - Previous vaccination sites will be used and new sites will be explored to serve populations currently without access.

3. Make an inventory of EPI materials, equipment, vehicles, and techniques currently in use. A standard WHO/EPI or CCCD assessment instrument will be used.

B. <u>Baseline surveys of population</u>

These could be integrated with other baseline KAP surveys to be carried out for other components of the project.

This activity comprises the following steps:

- Review existing baseline/KAP surveys used in Africa for their adaptability to the needs of this Project (e.g. EDUCATIONAL DIAGNOSIS FOR CCCD COUNTRIES, LESOTHO CCCD/EPI/MCH Baseline Survey, ADRA (Adventist) MALAWI Child Survival Project Survey Questionaire).

- Develop a process for finalizing a baseline survey/KAP that includes coordination with Cameroonians both at the central, provincial, divisional and lower levels.

- Adopt a cluster sample survey methodology to look at urban/rural differences and Division-specific patterns. It will be particularly important to include a lameness survey in the assessment of vaccination coverage.

C. Develop technical protocols and procedures

1. Develop provincial plans and strategies for maintenance phase EPI activities, with specific targets for coverage and expansion to meet national goals.

   - These provincial plans will be developed by a provincial planning committee comprising the Chief of Party, MOH/EPI Officials, the PCMO for Preventive Medicine and Public Hygiene, the Provincial Epidemiologist, the DCMO for Preventive Medicine and Rural Health and some faculty members from Harvard.

   - The Adamaoua plan will aim at strengthening the provincial level EPI and expanding the model currently used in Vina division to the rest of the Province. The success of this strategy will depend heavily on integrating EPI/MCH into the primary health care activities at the village level and providing adequate transport for the PHC coordinators to support these services.

   - In the South the plan will aim at strengthening the provincial level EPI and expanding coverage through integration of the large network of health centers, both developed and elementary, public and private. This strategy will require extension of the cold chain to these facilities.

2. Establish a process with Cameroonian colleagues for the development of operating procedures for the EPI. These should include:

   - Calendars of vaccination;
   - Schedule of vaccination sessions by site which will be published and disseminated throughout the divisions;
   - Agreements on sterile technique, uses of needles and syringes;
   - Schedule of supervision;
   - Types of data to be collected, design of forms, analysis and reporting procedures and methods.

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D. Inservice training

The planning committee identified above will work with the provincial training officers, the heads of provincial training facilities, (public and private), and EPI consultants to develop a system of regular, biennial inservice training modules for all health personnel responsible for EPI. These training modules will be integrated into the overall MCH inservice training program. Training curricula and logistical plans will be developed in the first year for the duration of the Project. Specific target groups include:

1. EPI staff at the central level, DCMOs for Preventive Medicine and Public Hygiene, the Provincial Epidemiologists, and divisional level EPI program staff.

   - The focus of this group's training will be on EPI strategy, supervision, cold chain, vaccine management, vaccination techniques, especially sterilization, surveillance, analysis and presentation of data.

   - The emphasis here is on the training of trainers for the duration of the Project.

2. Health Center personnel (MCH centers, elementary and developed health centers).

   - The training content for this group will emphasize the integration of EPI into ongoing health programs, cold chain, sterile technique and injection technique, reporting, surveillance, and community education.

3. Primary health care workers (community health workers).

   - For this training level, it will be necessary to examine existing training materials (e.g. the new Save The Children's Manual for Training village Health Agents), to adapt these materials and develop a special course for this group.

- The PHC Coordinator will be actively involved in this training.

E. Management System

In the first year, management systems will be developed collaboratively by the Project staff, the MOH leadership, and provincial and divisional level officials with technical assistance from the contractor. These systems will cover the following areas:

1. Supervision

- Identify lines of authority and supervision;
- Develop a supervisory tool that will be used by supervisors in the field;
- Establish schedules for supervision;
- Develop measures of productivity and efficiency (e.g. number of doses of vaccine administered by age groups, number of children completely vaccinated by 12 months of age, vaccination doses per population base, vaccination sessions held on pre-assigned date, cold chain temperature charts).

2. Data Management

Surveillance and operations data will be managed at several levels using personal computers to be located at the provincial and central levels. Data management procedures and forms, and systems for efficient flow of information and feedback will be developed for use in program planning and redesign.

3. Communication

Communications will be coordinated with the communications aspects of the overall Project.

4. Logistics support

Operational procedures for the Project will be a priority of year 1. These include, among others:

- Use of vehicles and procedures for control, maintenance, repair, etc.
- Vaccine management and cold chain.

6. Resource recovery

A self-financing system for MCH services will be developed as an integrated plan for the entire Project of which the EPI component is a part.

F. Surveillance/epidemiology

As described earlier, the information system will be developed in the first year by a provincial committee with the technical assistance from the contractor. First year tasks will include:

1. Design of simplified forms to be implemented in Year 2 of the Project.
2. Simplify flow of information with simple procedures for collection of data by supervisory personnel.
3. Involvement of the private sector in information system development.
4. Analysis, reporting and feedback, beginning with use of the data at the local level and progressing to utilization of data for evaluation and policy making at provincial and central levels.
5. Use of computers for management and analysis of surveillance and program operations data.

G. Design of Evaluation/operations research

In the first year the Project staff, MOH leadership, and the T.A. contractors must design the overall evaluation strategy. This evaluation and research component of EPI will provide an opportunity for collaborative research between the MOH, CUSS faculty and students, OCEAC, Harvard faculty and students and other participating institutions. Specific plans for operations research and evaluation are included in Sections XIII and XV of this Annex.

H. Vaccination sessions

Will begin in the Project at the earliest stage of project implementation, building upon the EPI services already present in the two Provinces, based on the schedule and initial targets (for population and sites) described in Section V.

YEAR 2

A. Health Promotion and Health Education

The plan for the promotion of EPI within the MCH program will be integrated within the overall health education plan. EPI will become the primary focus of year 2, and will include the following phases of information development:

1. formative research using focus group discussions to evaluate current understanding and ideas; concentration will be on protection, problems in obtaining vaccinations, measles; review of existing studies of vaccination practices;
2. Message developement
3. Materials development
4. Materials production
5. EPI training around information, publicity and health education.
6. Diffusion of messages through radio, health personnel print media including posters.

B. Second cycle of inservice training

To be planned at the beginning of the Project.

C. Expansion of vaccination coverage

In year 2, vaccination coverage will be expanded by increasing the number of vaccination sites, the proportion of the population with access to these sites, and by increased coverage of children attending these sites. The targets for population and sites are shown in Section V.

D. Evaluation

KAP and coverage surveys will be carried out in year 2 and integrated with special studies as decided by program staff and technical consultants.

YEAR 3

A. Third cycle of inservice training

To be planned at the beginning of the Project; and updated in second year.

B. Integrate EPI into MCH promotional campaigns

EPI promotional materials developed in year 2 become part of the ongoing promotional program and health education effort.

C. Expansion of vaccination coverage through the primary health care system

As in previous years according to the targets outlined in section V.

D. Evaluation

To be developed at the beginning of Project.

YEAR 4

A. Fourth cycle of training

To be planned at beginning of Project, and updated in subsequent years.

B. Integrate EPI into MCH promotional campaigns

As in previous years.

C. Expansion of vaccination coverage through the primary health care system

As in previous years based on targets presented in Section V.

D. Fourth year evaluation

To be developed at the beginning of the project.

YEAR 5

A. Fifth cycle of training

To be planned at the beginning of the Project.

B. Expansion of vaccination coverage

To meet final targets as identified in Section V of this Annex.

C. Final evaluation

To be planned at the outset of the Project.

IMPLEMENTATION:

	YEAR OF PROJECT																			
	YR 1				YR 2				YR 3				YR 4				YR 5			
	1	3	7	10	1	3	7	10	1	3	7	10	1	3	7	10	1	3	7	10
1. Baseline analysis and inventory	X																			
2. Baseline surveys of population; KAP	X	X						X				X				X				X
3. Inservice Training		X	X		X				X				X				X			
4. Management System	X	X																		
5. Surveillance epidemiology	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6. Publicity and Health Education				X	X	X	X	X				X				X				X
7. Begin regular vaccination schedule			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8. Expansion of vaccine coverage				X				X				X				X				X

X. ADMINISTRATIVE ANALYSIS

The Expanded Programme in Immunization is well established within the Cameroonian Ministry of Health and is a clear national priority. The recent national immunization campaign is an indication of the commitment of Cameroonian leaders to child survival.

The leadership of the Preventive Medicine Service of the MOH recognizes that it must build upon the successes of the national campaign to integrate the EPI services into the existing health institutions of the country and into the primary health care/village level services. This Project attempts to implement such an objective in the two provinces of Adamaoua and South.

The methods to be developed during the life of this Project will be partly borrowed from other areas of the country and partly developed through operational research and program activities. The evaluation will prove useful in facilitating expansion into other parts of Cameroon.

Sustainability of the effort is largely dependent on minimizing the input of expatriate personnel and materials, in emphasizing training, management systems improvement and development, integration of maternal child health with primary health care, and in developing cost recovery mechanisms.

Expansion of the effort to reach the target coverage (85 percent) proposed in the Sixth National Development Plan will require a significant expansion of the primary health care system, and with it, EPI. The Ministry of Health has committed itself to the required expansion of the primary health care system. The integration of effective EPI services into this expanded system will strengthen the services at a reasonable marginal cost. It should also be noted, however, that expansion of the primary health care system is dependent on an adequate, dependable drug supply. The importance of this latter component is discussed in Section VII of the Project Paper.

XI. TECHNICAL ANALYSIS

The technical aspects of the EPI component of this Project are based on the recommendations of the World Health Organization Expanded Programme in Immunization and will be adapted to the particular needs of the two provinces.

The vaccination technology to be used in this Project is not new and has been standardized throughout the world through WHO guidelines developed by an international expert advisory panel. Cameroonian health workers have proven to be capable of working with the relevant technology during the recent national vaccination campaign.

Every immunization will be given with an individual, clear and sterile needle and syringe thereby avoiding current concerns about the transmission of AIDS through vaccination activities.

The simplified and computerized information systems to be developed by t Project will prove particularly useful to the Ministry in strengthening its EPI and primary health care programs.

XII. SOCIAL SOUNDNESS ANALYSIS

All societies are concerned with the premature death of young children. The child survival strategies of immunization, oral rehydration, nutrition assessment, and breastfeeding have received worldwide recognition for their direct impact on the reduction of infant mortality.

In Cameroon, childhood immunization activities have been in place for mc than ten years. The success of the recent national immunization campaign ir mobilizing the political leadership of the country and reaching significant levels of rural populations never before served, indicates that EPI is socially acceptable.

Never the less, more research needs to be done on the populations that a not reached by EPI programs. Adapting EPI education and promotion to particular ethnic and cultural beliefs will be important in reaching these groups. The focus groups and KAP studies proposed herein will meet these needs. Adapting EPI schedules to the work patterns of urban and rural populations, and making families aware of the regular and predictable availability of vaccinations will also make the services more acceptable.

XIII. EVALUATION PLAN:

The evaluation of this Project as it relates to EPI provide an additiona opportunity for collaboration between the Ministry of Public Health, CUSS faculty and students, Harvard faculty and students and other organizations like OCEAC. The evaluation design will be completed in the first year and will be integrated with the data and information system and the ongoing KAP/coverage surveys.

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The evaluation plan must contain both process and outcome variables and be designed to measure the attainment of intermediate objectives as well as the final goals of the Project.

Finally, the evaluation must be both the opportunity for independent assessment of the impact of the Project and an opportunity to transfer to or improve evaluation skills in all of the collaborating institutions.

XIV. TRAINING PLAN:

A. Target Groups

1. The personnel to be trained in EPI/MCH is located at three levels of the MOH. It includes:

- At the provincial levels:	the Provincial Chief Medical Officer for Preventive Medicine and Public Health and the Provincial Epidemiologist;
At the divisional level:	the DCMOs for Preventive and Rural Medicine, other physicians within the division; health personnel from the Divisional Services of Preventive and Rural Medicine, and personnel from the MCH and health centers (both public and private).
At the subdivisional level:	Physicians, Nurses at health centers (public and private Coordinators of PHC and Village Health Workers

2. The location of this personnel in the Adamaoua and South Provinces by Division is presented in TABLE H.2.8

3. There will be a turnover of staff during the LOP so that training must anticipate new key personnel at any level that must be integrated into the program strategy and trained.

4. Special training programs will be needed for the village health workers as discussed in Section IX.D.3 of this Annex. This special training should be integrated with the primary health care training program.

TABLE ____: Distribution of Health Personnel to be provided in-service training by division and level of training.

	Physicians	Graduate Nurses and other highly trained technicians	Assistant Nurses	Nurses Aides	Village Health Agents	TOTAL
ADAMAOUA						
Vina	5	19	24	66	22	136
Faro & Deo	3	6	10	8	14	41
Djerem	5	6	18	20	2	51
Mayo Banyo	2	6	15	22	2	47
Mbere	3	6	13	30	18/36	70
Sub Total ADAMAOUA	18	43	80	146	58	345
SOUTH						
Ntem	7	17	25	55	64	168
Dja et Lobo	12	27	36	87	29	191
Ocean	13	14	35	59	24	145
Subtotal SOUTH	32	58	96	201	117	504
TOTAL ADAMAOUA & SOUTH	50	101	176	347	175	849

B. Training program components

The content of the training program must cover several aspects of EPI tl can be integrated into the overall MCH inservice training package. The: include:

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1. Technical aspects of vaccination with a focus on cold chain, sterilization procedures, age of vaccination, epidemiological principles, record keeping, surveillance and supervision.

2. Promotion of vaccination in the community including health education;

3. Integration of EPI with other health activities.

C. Schedule of training

1. At the beginning of the program, do introductory refresher course;
2. Inservice training every 6 months as part of integrated MCH training.
3. Special refresher courses for operations personnel in transport, cold chain, vaccine management, surveillance, etc.
4. Continuous inservice training on issues of supervision and use of supervision tools.

XV. OPERATIONAL RESEARCH

Like evaluation, the operational research components of the Project as they relate to EPI provide an opportunity for collaborative research between the Ministry of Public Health, CUSS faculty and students, Harvard faculty and students, and other organizations. Collaboration should include aspects of planning, execution, analysis, and publication. Some specific ideas for research include:

1. Cost-effectiveness study of alternative strategies for delivering vaccinations within an integrated maternal and child health program in rural areas. Alternative methods could include:

   a. A two-dose schedule of vaccination with BCG, DTP, Polio given at 1 month and DTP, Polio, and measles given at 6-9 months. This strategy would involve vaccination every 6 months in small villages.

b. The same schedule but using "Tetracoq" vaccine from Merieux Institute.

c. A mobile team approach in which only one nurse uses a "mobylette" to carry enough vaccine for a small village session. Compare to the larger mobile teams using vehicles.

2. Utilization study of rural health services including all health centers, MCH centers, clinics and village health posts. This study could examine the relationship between utilization patterns of a population and factors like availability of drugs, charges for services, availability of regular EPI services, hours of operation, attitudes of the personnel, etc.

3. Observational study of procedures, use of time, and organization of services in small rural health facilities. This type of study could be expected to accurately define how effectively rural health center personnel use their time as well as identifying excess capacity, tha is unused time, that could be devoted to MCH activities.

XVI. PROCUREMENT PLAN

Items to be procured under the project for EPI in include:

1. Small refrigerators and generators to be identified from the UNICED/EPI catalog; the Project should select a brand which is compatible with Cameroon's other cold chain equipment so that parts can be stocked and repairs easily made;

2. Needles and syringes should be ordered from the UNICEF/EPI catalog;

3. Thermometers and 3M temperature strips will be ordered from the UNICEF/EPI catalog;

4. Mimeograph machines using stencils will be of a brand readily available in Cameroon.

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II. BASELINE QUESTIONAIRES AND SURVEY INSTRUMENTS

Educational Diagnoses for CCCD Countries; developed by the University of South Carolina for CCCD. The version currently available has preliminary forms for the following units:

Module 1. Sociodemographics
Module 2. Fever-use of health care
Module 3. Fever-KAP
Module 4. Diarrhea-use of health care and treatment
Module 5. Diarrhea-KAP
Module 6. Measles/vaccination

A section on qualitative methods describes focus group discussions.

Lesotho CCCD/EPI/MCH Baseline Survey Questionaire; contains several instruments, including:

Annex B. Immunization coverage survey-cluster sample
Annex C. Diarrheal disease survey-sibs of cluster kids
Annex D. Health center questionaire

Annex E. Queen Eliz II Hospital, Maseru: Oral Rehydration Therapy Unit Assessment Form.

ADRA (Adventist) Malawi. Child Survival Project Survey Questionaire. Includes Questionaire (40 items); coding sheet; and computer formulas for calculation of health status and health service indicators.

ANNEX H.4.

GROWTH MONITORING AND NUTRITION EDUCATION IN THE INTEGRATED MATERNAL AND CHILD HEALTH PROJECT

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ANNEX H.4

GROWTH MONITORING AND NUTRITION EDUCATION IN THE INTEGRATED MATERNAL AND CHILD HEALTH PROJECT

I. BACKGROUND

A. Nutrition status of infants and young children

Malnutrition is one of the serious health problems affecting the Cameroonian child. In the National Nutrition Survey of 1978 (1), 22.1% of children 3-59 months old were found to have chronic undernutrition (defined as less than 90% of the expected height of a reference child of the same age). The rates for severe and moderate malnutrition were 1% and 4.7% respectively (less than 80% and less than 85% respectively of the expected weight of a reference child of the same height). Children from rural areas had higher malnutrition rates than those in the urban areas. Highest rates for chronic malnutrition were in children aged 6 to 24 months. The lower rate of acute malnutrition (1.0% nationally) is probably explained by the fact that the survey, conducted in January to March of 1978, was less likely to show acute malnutrition which would be more evident after the dry season. Table 1 shows the geographical distribution of malnutrition revealed by the survey. Adamaoua was part of the North Province and the South Province was part of Center-South at the time of the Survey. Anemia rate was 38.1%.

A recent study in the Extreme-North Province, Study of Infant Feeding Practices (2) conducted in Northern Cameroon by the Center for Nutrition showed malnutrition to be a continuing problem. 28% of children examined had chronic malnutrition, 7% were marasmic.

B. Infant feeding practices

An ethnographic study in northern Cameroon in 1983 (3) concluded among other findings, that "practices with regard to giving of complementary foods and breastfeeding vary considerably from one community to another, and

especially within communities". The practical implication of this observation is the necessity to study the patterns of behavior and beliefs of a region before seeking solutions to the problem of childhood malnutrition.

Factors, identified that influence infant feeding practices include: lack of knowledge concerning what is appropriate food; seasonal variation in food availability; intrafamilial distribution of food that favors adults, especially men; workload and time constraints of mothers; duration of breastfeeding; timing of introduction of solid foods; type of weaning foods; frequent infections and diarrhea. The combination and relative importance of these factors in a child's environment have important consequences for his/her nutritional status.

1. Breastfeeding

Almost all Cameroonian children are breastfed (98% of all infants up to 11 months). After the first few months, breastfeeding rates differ widely from province to province with bottle-feeding more likely in the urban areas. In some areas, prolonged breastfeeding is the rule. In the northern part of the country, 71% of the children are breastfed even at 21 months compared to 15% in Center-South. Breastfeeding itself comes with its beliefs and practices: a recent AID-sponsered study of infant feeding practices in the Extreme-North Province (4) revealed that even though breastfeedng was universal, almost all mothers give water in the first days while refusing to give colostrum. When breastmilk becomes inadequate at 4-6 months, the growth of Cameroon infants as in many other developing countries, begin to falter.

2. Food other than breastmilk

Studies of food habits from different parts of the country have documented the inadequacy of children's diet (3, 4, 5, 6, 7). In the South, the staples are plantain and cassava, both relatively low in protein. In Adamaoua, sorghum and maize are the staples. Although these cereals are

higher in protein, they need to be eaten with animal or vegetable protein for maximum utilization. Bush animals are considered to be an important source of animal protein in the South, while domestic animals are mainly reserved for celebrations. Beef is the meat most commonly eaten in Adamaoua. Children, however, often are not fed any kind of meat.

Although the per capita calorie intake of Cameroonians is described as being 2,271 Cals per day (WHO-recommended intake 2,455 Cals per capita per day) (8), most Cameroonian families are believed to have adequate food resources to be able to feed their young children well. As shown by the National Nutrition Survey and confirmed by The Improved Weaning Practices (4) in the Extreme-North Province, the better-nourished children are more likely to be fed a wider variety of foods. The survey found that across the country infants and young children are less likely to be fed the whole variety of foods eaten by the rest of the household. The foods that are least likely to be given to young children are protein foods, green leaves, fruits and vegetables.

TABLE 1

PREVALENCE OF MALNUTRITION IN CHILDREN AGED 3-59 MONTHS, 1978

PROVINCE	CHRONIC UNDERNUTRITION %CHN.	ACUTE UNDERNUTRITION %CHN.	MODERATE UNDERNUTRITION %CHN
Center/South*	18.8	0.7	3.7
East	26.7	0.8	3.0
North**	21.1	1.4	7.5
North-west	24.2	0.7	1.8
West	31.0	0.7	2.7
South-west	20.1	0.8	3.0
Littoral***	24.0	0.8	2.0
Yaounde/Douala	11.8	0.7	1.5
Special Group	4.2	0.0	0.6
TOTAL	21.2	1.0	4.7

* Includes what is now South Province, but excludes Yaounde.

** Includes what is now Adamaoua Province.

*** Excludes Douala.

B. Policy

According to the Sixthth Five-Year (1986-1991) National Development Plan, priority actions to be undertaken include: improvement of the nutritional status of the population and the study and application of appropriate ways of combatting the different causes of malnutrition to assure that all levels of Cameroonian population receive adequate nutrition.

Within this policy framework and the objective of extending health care to all in the country by year 2000, the maternal and child health care and the rural health services are charged with the improvement of the nutritional status of children and their mothers.

Since it can be inferred from the lower rates of malnutrition in the urban versus rural areas and even lower rate in a special group of children from high socio-economic households (4.2% National Nutrition Survey), changes in childfeeding practices have the potential to improve the nutritional status of children. Within the health service, the strategy chosen to change behavior is growth-monitoring accompanied with nutrition education. These activities form part of the internationally-accepted strategy for child survival and will be carried out using the maternal and child health services of the rural health care system.

C. The goal of growth monitoring and nutrition education is to reduce morbidity and mortality associated with malnutrition.

D. Administration and Organization

Although there is a Nutrition Service within the Ministry of Health, it does not direct the nutrition related activities within the public health system. Nutrition activities take place within the maternal and child health care system. The Directorate of Preventive Medicine is responsible for maternal and child health care (MCH) services rural health

care services based at the health centers and the village-based health care system. (Village health services are established and run by village health committees but supervised by the Ministry of Health. See the organigram of the Ministry of Health in main text.)

There is an administrative (and supervisory) chain of authority from the central ministry level to the province, division and sub division levels. There are primary health care coordinators at all the administrative levels responsible for the supervision of village health care in their geographical areas.

1. The Nutrition Service

The Nutrition Service, a division of the Ministry of Health, has two main functions: Surveys; and Nutrition Information and Dietetics. The Nutrition Service is staffed by a Chief of Service, his assistant and 12 dietitians, graduates of the Ecole Nationale Superieure Industrielle Agro-Alimentatire in Ngaoundere, Adamaoua. These dietitians are all stationed in Yaounde where they work mostly in hospitals. Though they are supposed to work in the MCH centers as well, their access to the centers is limited and they appear to be underutilized. The Chief of the Nutrition Service is planning to post some of the dietitians in the provinces, but this has not yet been done.

2. Personnel

Growth monitoring and nutrition education activities take place mostly at the MCH and the rural health centers. The staff found at these health facilities are: doctors at some MCH centers, state registered nurses assistant nurses nurses aides nurse auxilaries and village health workers. (See section on health workers in project paper.) All levels of health workers receive some instruction in nutrition during their training.

At a developed health center level, the person in charge may be a state registered nurse or an assistant nurse. At the elementary health center, the person in charge is more likely to be a nurse's aide. All these grades of health workers receive some nutrition training in their basic training and are expected to weigh children during well-baby clinic sessions. Nutrition education is an important component of the health education expected to take place at the health care facilities.

The nurse auxilaries found at the MCH and health centers are untrained helpers who acquire some skills on the job. It is not unusual for a health center staff to consist of a nurse's aide and nurse auxilary.

At the village level, community health workers are village residents selected by the village and given a short training course (commonly 6 days) to take care of simple health problems in the village. They are also expected to conduct preventive health activities including nutrition education.

E. Administration and Organization

MCH and health centers are generally equipped with scales for pregnant women and infants. Although the use of growth charts is taught in the health training schools, the charts are generally not available in the public health system, so when children do get weighed, their weights, are recorded in notebooks. In centers where mothers are encouraged to have their children weighed, a half day per week is usually set aside for weighing.

Nutrition education is generally conducted en masse, mothers sometimes being invited to assemble especially for that purpose. More often the health and nutrition education is conducted when mothers assemble for other services. It appears that, unless a child is obviously malnourished, individual nutrition counseling is usually not

given. There often is an expressed desire on the part of the health workers to conduct cooking demonstrations, but this hardly ever occurs because of lack of space, utensils or other supplies.

Last year, in an exercise to sensitize communities to the principles of primary health care, a team of health workers, nutritionists and journalists toured several villages in the South and Adamaoua Provinces informing communities about primary health care. They also conducted cooking demonstrations on weaning foods. This year a second team toured the same provinces to evaluate last year's efforts. Their report is pending.

In Adamaoua, some village health workers have been trained to monitor the growth of children in their villages.

F. Supervision

While in principle supervision is directed from the central ministry, through the provincial, divisional, sub divisional and health centers to the village level, in reality very little supervision is conducted in the field. There are two main chains of supervisory authority in the ministry: curative (hospitals), and preventive medicine. Under the Division of Preventive Medicine, where the project will be located, coordinators are assigned at all administrative levels to be in charge of village-level health care. At the national level, the Deputy Director of Preventive Medicine has special responsibility for village-based health care. The other coordinators are at the at the provincial, divisional and sometimes sub divisional levels.

At the periphery, the nearest health center is supposed to be a referral point for the village health worker. A primary health care coordinator at the sub divisional level also supervises the community health workers in his area. The Divisional Chief of Preventive Medicine, usually a medical doctor, is responsible for supervision of the health

centers in his division. The Provincial Chief of Preventive Medicine supervises the divisional chiefs and is the divisional supervisor for the department in which the provincial administrative seat is located.

Lack of supervision is a severe shortcoming in the entire public health care system. Supervisory visits are generally infrequent. Many health facilities are visited only once a year or not at all, especially those in remote areas. The reasons given for this low level of supervision are lack of transportation, gas, and the bad state of many of the roads. In Adamaoua, the Provincial Coordinator for Primary Health Care eases the problem by sending the provincial vehicle for a few days each month to supervisors so they can visit health centers in their areas.

II. GOAL OF PROJECT

The goal of the Integrated Maternal and Child Health Project is to improve the health of mothers and children in Cameroon.

III. PURPOSE

To strengthen the existing GRC health services system in such a way that it operates more effectively and efficiently in providing needed services to women and children in the South and Adamoua Provinces.

IV. END OF PROJECT STATUS OF THE GROWTH MONITORING AND NUTRITION EDUCATION COMPONENT.

- Standardized growth charts adopted.

- 80% of children under 5 years old presenting at a health care facility are weighed and their growth followed on a standardized growth chart;

- At least 50% of village health workers conduct growth monitoring activities;

- 50% percent of the mothers or the children's caretakers presenting to health centers receive clear age-specific, locally-appropriate nutritional instruction;

- Cooking demonstrations occuring in 50% of health villages at least cone a month;

- Health centers and village-based health services receive supportive supervisory visits at least 4 times a year;

- 50% of mothers feed children appropriately in case of diarrhea;

- 50% of mothers give oral rehydration solution to children in cases of diarrhea.

V. OUTPUTS

- 40 trainers trained;

- 60 supervisors trained;

- 800 health workers trained to measure children, to use growth charts, to deliver of nutrition education and to keep growth monitoring.

- 90 villages health workers trained in growth monitoring and nutrition education;

- 100,000 mothers trained in the use of the "road to health chart";

- 20 traditional birth attendants trained in the use of growth charts.

VI. INPUTS

Short-term technical assistance (ethnographer)	-- 1 months
Short-term technical assistance (nutritionist)	-- 1 months
Short-term technical assistance (message development and testing)	-- 2 months

Scales
Growth charts
Length/height boards

VII. RECURRENT COSTS ANALYSIS

Recurrent costs specific to the growth monitoring and nutrition education activities will involve the following:

Growth charts for new entrants and replacements .....
Repair/replacement of scales .....
Messages dissemination (radio, community contacts etc.) .....
Nutrition demonstration .....
Other recurrent costs such as for supervision, transportation, maintenance of vehicles will be common to the whole project and is expected to be provided by the GRC.

The project will explore ways of financing recurrent costs in the following ways: direct village support of village-level activities; propharmacies and charging of consultation fees at health facilities.

VIII. ADMINISTRATIVE PLAN, MANAGEMENT AND IMPLEMENTATION

A. Administration

The growth monitoring and nutrition education activity will be conducted within the existing system of MCH and rural health centers as part of an integrated delivery of maternal and child health services. The overall management of the project will reside in the Ministry of Health. The Minister of Health will act through the Secretary of State for Health who is charged with the overall responsibility for maternal and child health. Working under the Secretary of State, the Director and Deputy Director of Preventive Medicine and the Project Director will work closely with the project Chief of Party stationed in Yaounde. At this central level, the project will coordinate with other ministries such as Ministry of Plan, Radio and Telecommunications, Ministry of Education, Ministry of Social Affairs, Ministry of Women's Affairs and international and private organizations that work in the field of nutrition. There will be a special effort to maintain links with the Nutrition Center at MESRES which is involved in research of locally produced weaning foods. (See Appendix for a list of organizations conducting nutrition activities.)

At the provincial level the Chief of Preventive Medicine will work closely with the Provincial Project Coordinator and report to the Provincial Delegate of the Ministry.

On the divisional level, the chain of command will be from the divisional Preventive Medicine Officer to the Coordinator of Primary Health Care who will be responsible for the health centers and the

village-based services. The Chief of Health Services on the sub divisional level will be responsible for the rural health services in his area.

B. Supervision and in-service training

The overall supervision of the project will be the responsibility of the Ministry of Health acting through the Project Director.

At the beginning of every fiscal year, a plan and schedule for the supervision of the divisional services will be made by the Divisional Preventive Medicine Officer in consultation with the sub divisional level staff. Coordinators at the divisional and sub divisional levels will supervise activities within their areas. A schedule will be set up for four visits a year to the centers by the Divisional Chief of Preventive Medicine. The sub divisional community health care coordinator will visit village posts at least 4 times a year and the divisional coordinator at least once a year.

In-service training program and schedule will be planned at the provincial level. Each province will have a team of trainers who will conduct regular in-service training for all health workers and pre-service training of village health workers at the divisional headquarters. (see Training Plan Section XIV)

C. Health Center and Village-based Activity

The departmental staff, in consultation with sub divisional health center and village health committees will plan the management and the conduct of growth monitoring activities in their areas, taking into account local life style factors such as the time of day women are likely to be home and vaccination schedules. The guidelines for the planned activities are: Weight-for-age will be used for growth monitoring. Children under 5 years old will be weighed whether they are at the center for curative or preventive services. Their weights will be plotted on

the growth chart if they have not been weighed within the month and nutrition education will be given as indicated. In addition to focusing diet education for the mothers of children with faltering growth, dietary education with demonstration will be conducted with small groups of women. Special sessions will be held for growth monitoring. Growth-monitoring activities will be conducted in villages by the community health worker. Traditional birth attendants will be trained to give nutrition education and conduct growth monitoring when possible.

D. Logistical Support

The national level ministry will manage the overall logistical support assuring the timely provision of equipment to the provinces. Growth charts will be stocked at all health care delivery points in accordance with anticipated annual demand and will be restocked every six months or earlier if indicated.

E. Implementation

The implementation of the growth monitoring and nutrition education will be integrated with the implementation of the whole project and will involve the following activities: (1) the adoption of a clinic card that includes a weight curve; (2) training of health workers in growth monitoring and nutrition education; (3) baseline studies to assess the nutritional status of children and the extent and type of malnutrition, (studies will also serve as basis for evaluation); (4) baseline assessment of knowledge, attitudes and practices of infant feeding; (5) development of weaning diets based on locally available and acceptable foods (6) development of nutritional messages; and (7) development of a popular nutrition education program.

For a schedule of Activities (see Gantt chart)

YEAR I

Task: Adoption of health cards for children. The Ministry of Health has recently (May 1987) proposed a health card for adoption throughout the health system. Before ordering large numbers of the proposed health card, one of the first activities for the Project Director and the Director of Preventive Medicine is to consult with the Secretary of State for Health to organize testing of the proposed card in the field. If necessary modifications will then be made. This process will start as soon as the project begins and will take 2 months.

Task: Commodities, inventory and ordering. An inventory of the scales will be made by the chief preventive medicine officer of each department and the information provided to the Project Director. Sufficient number of scales to furnish all health centers, MCH centers and village health posts will be ordered. Ordering of scales will be completed by the end of the third month.

Task: Assessment of knowledge, attitudes, beliefs, and practices. Under the direction of an ethnographer, focus group discussions will be held in the villages in order to obtain information on feeding practices in health and disease. This activity will be combined with information gathering for oral rehydration therapy. After training of field staff, possibly university students, the information gathering could take place simultaneously in both provinces.

Task: Nutritional assessment of the children (using heights and weights) and their mothers will be done within the same time period. The

execution and analysis of these activities will take about 4 months. Information collected at this time will also serve as basis for evaluation.

Task: Analysis of training needs. The training specialist will assess the training needs through interviews and review of existing curriculum. The possibility of using some supervisors as trainers will be explored.

Task: Development of trainer curriculum. Based on the information gathered from the previous task, the trainer will develop a curriculum for trainers.

Task: Training of trainers/supervisors (See Training Plan section XIV)

YEAR 2

Task: Training begins for health workers. The trainers will develop a curriculum for use in training the workers who will implement the growth monitoring and nutrition education (5 day sessions).

Task: Growth monitoring activity will begin after the first training sessions and continue throughout the project. As health workers are trained, the activity will be incorporated into their duties.

Task: Household diet trials. Based on the findings of the study, a nutritionist will formulate a nutritious diet using foods available in the community. Mothers will be asked to try the new diets and their suggestions and comments will be used to make any necessary modifications in the suggested diets. The resulting diet from this testing will form the basis for educational activities. (2 months)

Task: Development and testing of nutritional messages.

YEAR 3

Task: In-service training of health workers continues.

Task: Development and testing of audio-visual materials. Educational materials in the form of posters, flip charts and radio spots will be developed.

Task: Dissemination of mass educational materials. This activity will go on throughout the project.

YEAR 4

Task: In-service training continues.

Task: Message dissemination through traditional birth attendants and women's groups. Nutrition education activities will be coordinated with other sectors.

YEAR 5

Task: In-service training continues.

IMPLEMENTATION SCHEDULE

Activity	Year 1				Year 2				Year 3				Year 4				Year 5			
	3	6	9	12	3	6	9	12	3	6	9	12	3	6	9	12	3	6	9	12
Adoption of growth chart		++																		
Commod. Inventory order		++																		
			++																	
Baseline KAP & Nut. assmt.	+++++++++																			
Training: Manpower analysis			+++																	
Develop trainer curric.				+																
Trainer Training		++++++																		
Message devlpt. & testing					+++++++++															
Evaluation													+++++++							
Promotion									++++											

IX. ADMINISTRATIVE ANALYSIS

The proposed administrative plan for the growth monitoring and nutrition education program builds on administrative structures already in place and is well within the capacity of the existing system. The placing of the responsibility at the divisional level for logistic maintenance and in-service training will reduce some of the logistical obstacles.

There are, however, risks to the success of the project if alternate means of financing recurrent costs are not explored. If management of supplies and health care delivery is improved, cost recovery measures are more likely to be accepted by the population.

X. TECHNICAL ANALYSIS

Growth monitoring is an accepted child survival strategy that is easy to implement and does not require a long period of training. The equipment is simple, long-lasting and simple to maintain. The proposed methodology for development of nutrition messages is one that has been tried with success in the Extreme-North Province of Cameroon and other parts of the world. Information is already available on the food value of many of the foods eaten in the country. The food analysis will therefore not require any complicated technology.

Workers appear to be aware of the high prevalence of childhood malnutrition and are likely to be motivated to prevent it. Though growth charts are not generally provided in the MCH and health centers, health workers are taught how to use them. Nutrition education is part of the duties they are expected to perform. Growth monitoring and nutrition education as proposed in this project should be easily accepted and mastered by the health workers.

XI. SOCIAL SOUNDNESS ANALYSIS

No negative social impact is expected from the project component. First, the vicious cycle of malnutrition and infection is well known. Both malnutrition and infections are known to occur with high frequency in Cameroonian children and contribute to high infant and childhood mortality. High child mortality in turn reinforces the traditional desire to have many children. If the nutrition of children can be improved, it will improve their chances of survival. Secondly, weighing of children is an activity that is well known and accepted by parents in this country. Thirdly, the method for developing the nutrition messages involves the participation of the parents and will thus ensure that appropriate dietary suggestions are offered. Lastly, positive practices like breastfeeding will be reinforced. The program will work through the existing social structure as it introduces practices that will improve nutrition.

XII. EVALUATION PLAN

The evaluation of the growth monitoring component will be conducted as part of the regular project evaluation. Data for evaluation will be collected throughout the life of the project. Evaluation will be made of the inputs and outputs, such as improvement in knowledge, attitudes and practices of the target population, nutritional status of the target children and, ultimately, the overall impact of the project on infant mortality.

Evaluation Schedule

Regular compilation of data from the field at a frequency not longer than quarterly will allow monitoring of the project. Sentinel sites will be selected and the personnel trained in data collection in order to improve the quality of the health information system. Annual assessment of the process, outputs and inputs will be performed to monitor the progress of the project. If adjustments are indicated by the evaluation, necessary action will be taken.

For the growth monitoring and nutrition education component, the data collected will include: number of children weighed and percentage who attended at least 50% of the expected number of times, number of children gaining, losing or remaining the same over a defined period of time, the number of mothers receiving nutrition education lessons, the number of referrals made for nutritional rehabilitation, the number of home visits made and their outcome and number of personnel trained in growth monitoring and nutrition education.

XIII. TRAINING PLAN

A. Goals of training in growth monitoring and nutrition education.

To promote belief in the benefits of growth monitoring with nutrition education so health workers will transmit similar attitudes to mothers and others in the community;

To impart knowledge and skills to health workers in growth monitoring techniques;

To help health workers learn to deliver appropriate nutrition messages;

To foster belief in the usefulness of record-keeping;

To teach health workers how to keep records.

B. Personnel to be trained

There will be a long-term training advisor for the project who will be responsible for arranging training. All training in growth monitoring and nutrition education will take place in-country.

Preparation for training of health workers in growth monitoring and nutrition education will be done in the first year. In-service training will be given for all levels of health workers: doctors, state

registered nurses, assistant nurses and nurses aides. Because of the importance of delivering the same message to the public to avoid confusion, the same basic training will be given to all levels of health workers. The acquisition of skills such as the graphing of weights and correct interpretation of a growth chart will be emphasized. The total number of workers to be trained will be 800 from both provinces (330 in Adamaoua, 470 in South). Different levels of health workers will participate in the same training session to foster the sense of team approach. Each health worker will have two in-service training sessions per year.

In-service training will be conducted for the personnel of each division at the divisional headquarters. Training sessions will last 5 days and will occur at 6 month intervals for each worker. Departments with relatively large numbers of people will have more frequent training sessions.

C. Training of trainers

40 trainers will be selected from among existing health workers and supervisors and, if possible, from the local health training schools. During their training, the trainers will develop a curriculum for the health workers they will train. Their training will last 2 weeks and they will be trained in groups of not more than 10. Each division will have a team of trainers who will conduct training sessions throughout the year.

60 supervisors will be trained in supportive supervision techniques. They will develop an instrument of supervision to help them perform their work effectively.

D. Training of implementers of growth monitoring nutrition education:

Training of the main body of health workers will begin when half of the trainers and supervisors have been trained. These workers will have 6-day sessions twice a year to be reinforced by supervision. Their training will be primarily practical and will include: the importance of nutrition to good

health; the growth chart, its use and interpretation; how to interview mothers; determination of child's age, measuring children, graphing measurement, interpretating measurement and delivering dietary advice and record-keeping.

IVX. PROCUREMENT PLAN

The commodities for the growth monitoring and nutrition education will consist of:

- Scales
- Health Record with Growth Chart
- Monthly Tally Sheets (may be combined with other HIS)
- Length/Height Measuring Boards (for surveys)

Source of Commodities

Weighing scales will be Salter hanging scales with 25kg., 100gm divisions. The possibility of obtaining these scales as well as 10 height/length boards from UNICEF will be explored.

The decision on the procurement and financing of health cards with growth charts will be further explored with the Secretary of State for Health.

Tally sheets for reporting growth monitoring results monthly will be designed and printed locally for selected sites.

Schedule of Procurement

The total number of weighing scales needed for the project will be ordered within three months of the start of the project. An annual inventory will be taken to determine if more scales are needed. The length measuring equipment will also be ordered at the beginning of the project.

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ANNEX

Below is a brief description of some of the organizations working in nutrition education:

1. Ministry of Agriculture Department of Community Development, Yaounde telephone 22-48-41, 22-48-84 contact persons: Mr. Minkoulou, Director, Mrs. Agatha Nji, Chief of Service, Women's Activities.

   One of the activities performed by this division is the organization women's groups in local communities to learn income generating activities, improvement of weaning diets, etc. Their trained extension workers conduct cooking classes for groups of women. In 1986, growth monitoring was introduced into their activities, but this was discontinued for lack of enthusiasm on the part of the animators. At the present time, the department is promoting the enrichment of cassava with soya beans in the cassava-eating areas like the South Province.

2. Centre de Nutrition

   Ministry of Higher Education and Scientific Research, Yaounde,
   Contact: Dr. Otto Njiky Pondi, Chief
   Dr. Sara Gwangwa'a, Assistant Chief

   This Center is a research body for investigating issues dealing with human nutrition. Research on "Food Studies" and "Studies of Nutritional Status". Studies in nutritional value of local foods, storage and preparation. Currently developing high protein yam as weaning food. Provided technical input for CARE's weaning Food Project in Extreme-North.

3. Ministry of Social Affairs, Provincial Service, Yaounde.
   Contact: Mr. Ekitike, Chief.

Trains "social assistants" who teach cooking techniques and at Social Centers in Yaounde.

4. Ministry of Women's Affairs, Yaounde.
   Contact: Mrs. Forment, Technical Advisor

   Maison des Femmes nationwide teach income-generating activities. Also undertake health care activities at neighborhood-based centers in growth monitoring, nutrition education and vaccination.

5. Radio Cameroon/CamTV, Yaounde.

   Contact: Mr. Paul Delon Mouyoutou

   Weekly nutrition education on radio, lecture format organized by Nutriti Service. CamTV occasional nutrition-related program.

6. Ministry of National Education, Yaounde
   Contact: Mr. Yakou, Inspector for Natural Sciences.

   Responsible for nutrition education in primary and secondary levels.

NGOs:

CARE.

ANNEX H.5. ORAL REHYDRATION THERAPY AND CONTROL OF DIARRHEAL DISEASES COMPONENT

I. Background

A. Policy Setting

The sixth five year plan for the government of Cameroon clearly stresses the need for primary health care and preventive medicine. There is a manifest interest in the CDD program as a key component in the primary health care system within the national offices of the Ministry of Health. The Secretary of State for Health has repeatedly voiced her support for CDD activities and demonstrated that support by naming as national coordinator to the program a physician with a demonstrated interest and experience in CDD activities. A national plan for the control of diarrheal diseases has been elaborated for the period of 1985 through 1989, and a national manager of the CDD program has been named to assist in the implementation of the plan. However, the placement of the CDD program within the complex hierarchical structure of the Ministry of Health has not been clearly defined.

Neither the role of the national coordinator nor manager is firmly established in the framework of an operational mechanism to ensure systematic coordination of activities of government and non-government health care and social service providers. Neither are the national coordinator nor manager assigned full time to the CDD program.

The Ministry of Health is currently formulating an approach to these issues through the technical and financial assistance of the USAID sponsored project PRITECH. Among the basic policy issues which are being addressed are the following:

- ORS packet size
- Size of the standard container for mixing ORS
- Type of home solution to promote
- Distribution system for the ORS packets
- Official case management standards for each level of the health care system, including the home
- Role of the private sector institutions in the CDD program

The definition of explicit operational steps for the realization of these areas of the national CDD program plan is currently being developed and steps taken in their implementation. To date, however, the current policy setting for the CDD program reflects its early developmental stage and no precise guidelines exist for the implementation of provincial

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level CDD programs to follow. The role of the PRITECH assistance in the resolution of several of these key areas is of key importance to the Ministry of Health's policy formulation.

B. Need

Diarrheal disease is a major cause of morbidity among children in Cameroon. Children under five years of age suffer from three to six episodes of diarrhea per year (the season from December through May is generally recognized as diarrhea and measles season). Diarrheal disease is the third highest cause of health services consultations and hospitalizations of under five year olds.

Diarrhea is also a leading cause of child mortality. Studies done in three zones of the country in 1983 and 1984 found that 57%, 49.4% and 42.6% respectively of infant deaths were diarrhea related. The national CDD plan estimates that acute diarrheas are the fourth highest cause of death among children under four years of age.

Measles, a major contributor to childhood diarrhea and associated dehydration and undernutrition, is the second highest cause of child morbidity and the highest cause of child mortality.

Up to 35% of all cases of childhood diarrhea in Cameroon are estimated to be associated with rotavirus infection, which often causes rapid fluid loss and dehydration but which is highly responsive to oral rehydration therapy.

Approximately 20% of Cameroonian children between the ages of zero to five years of age are chronically undernourished, exacerbating the toll of diarrheal diseases among these children.

C. Administrative/Organization

The principal constraint of the CDD program at the national policy level is the lack of an operating mechanism for the development of policy or CDD program activities on the national level; nor is there is current budget in the Ministry of Health for CDD activities.

The USAID funded PRITECH project has recently begun supporting the CDD program with technical assistance and financial resources for national policy development and implementation. A resident technical advisor is stationed in the Ministry of Health in Yaounde and is working closely with the national CDD program coordinator and manager.

D. Level of Training

There is currently no appropriate systematic training of health personnel in CDD occurring either in the numerous professional schools nor by means of in-service refresher courses. However, considerable potential exists for relatively rapid integration of CDD within the nursing school's curricula as well as through practical in-service training at a national ORT training unit.

While classroom teaching of diarrheal diseases appears to be adequately covered at CUSS, this is not the case in the training institutions for paramedics. Very few paramedical school teachers in the major institutions located in Yaounde are adequately informed concerning appropriate diarrheal disease case management. The training institution for these teachers, CESSI, does not provide adequate training in the area of CDD. Existing school curricula do not give appropriate emphasis to ORT nor do they provide for adequate experiential training in this area.

Practical training of both medical and nursing students as well as of currently practicing personnel (by means of refresher courses) is hampered by the absence of an adequate ORT training center. Currently the Ministry of Health, with the assistance of the PRITECH project, is addressing the lack of a national level ORT training center, and is in the process of furnishing a large rehydration room in the national PMI for use as a training center. A strategy is being developed for the development of provincial level ORT training centers.

A few doctors and senior health staff have so far been trained in the "National CDD Management" course organized by WHO. Six doctors have had a training in ORT units (Ethiopia, Egypt, Senegal). It appears, however, that these physicians have only seldom trained others after returning to their posts. No mid level management courses in CDD have been organized.

Despite the constraints mentioned above, the outlook for relatively rapid integration of CDD into nursing school curricula as well as the development of an in-service practical training capacity is very positive.

E. Supplies

While the current demand for ORS appears to be quite limited, existing ORS supplies are grossly inadequate to meet potential demand. Distribution systems on a national level are at present largely ineffectual.

UNICEF appears to be the single most important source of ORS salts in Cameroon. Theoretical need for ORS in Cameroon could attain over 6 million packets a year, assuming universal access, use and a maintenance of current levels of diarrheal morbidity. While this figure almost certainly far overestimates even the highest levels of future demand, it clearly demonstrates that the 100,000 packets per year currently provided by UNICEF fall short of the potential need.

Despite a current low level of consumer demand for the ORS salts due to a general lack of awareness of ORT by the public, those government health services requesting supplies of ORS packets are reportedly unable to obtain them in sufficient quantity or on a continuous basis.

The relatively new national pharmaceutical supply and distribution service, ONAPHARM, is in the process of reorganizing the existing national pharmacy system. Currently the MOPH pharmacists seconded to the Provincial Delegate of Health play an important role in the ordering, collecting, storage and distribution of drugs in the public health sector. The pharmacists working in this system have been trained in France and their professional education did not encompass ORS and the particular problems of ORS storage and handling which pertain to heat, humidity, length of storage and protection from insects and small animals. More generally, they have not been trained in estimating requirements for drugs and fine-tuning drug supplies to projected and actual demand.

The PRITECH project has scheduled technical assistance for a feasibility study on the possibility of establishing a local production facility for ORS salts, as well as to define more precisely national ORS needs and storage procedures.

F. Supervision

In Yaounde there is a national CDD program coordinator and a manager. No formal structure exists for the development and implementation of the CDD program presently. On the provincial level there has not been any experience with systematic in-service training for the development of ORT program.

On the provincial level the supervision of the ORT program falls under the direction of the 'Section Provincial de Medicin Preventive Rural' (SPMPR), and from there to the departmental level SDMPR. In effect, there are not many ORT activities to supervise presently on the provincial or departmental level.

G. Activities

1. Training.

The CDD program coordinator and manager, with assistance from the PRITECH project, are currently developing a national level ORT training center in Yaounde. A consultant has been to Yaounde once to advise on the organization of the center, and work is proceeding on its establishment. A strategy for the diffusion of the ORT training center approach from the national to the provincial levels is currently being developed. Before the end of the 1987 it is foreseen that several provinces will have established ORT training centers in the provincial hospital or PMI, and a training strategy for departmental level personnel will be under development.

A PRITECH consultancy for the design and development of ORT training materials for use in the ORT centers is scheduled to occur this year.

2. Health Communication.

Health education activities, primarily promoting the use of sugar-salt solutions, have been carried out by a wide variety of government and non-government agencies working at the community level. These efforts have been sporadic, localized, and unguided by national standards, resulting in the promotion of different home solutions, sometimes within the same province.

Limited numbers of CDD related health education materials, mostly print media, exist. These have been developed and printed in limited quantities by the Atelier des Materials Audio-Visuels (AMA), a local NGO working under the auspices of the Catholic church.

The national CDD program has scheduled a knowledge, attitudes and practices (KAP) survey for Cameroon, with the assistance of the PRITECH project in early 1988. This activity will launch the development of a national strategy for community level health promotion in support of ORT.

II. Goals

To improve the health status of mothers and children in Cameroon.

III. Purpose

To strengthen the maternal and child health services provided to the people of the South and Adamaoua Provinces, particularly in the public sector, to decrease morbidity and mortality in women and children.

In support of the overall project purpose, the purpose of the Control of Diarrheal Diseases component of the project is to develop a comprehensive CDD program which highlights the use of oral rehydration therapy and that is completely integrated within the overall MCH program in both provinces.

IV. End of Project Status

1. An integrated CDD program which employs ORT for the management of acute childhood diarrhea will have been established in each province as part of the overall MCH service delivery.

2. 100% of all government health facilities and 90% of all community health workers in each of the provinces will provide prompt and appropriate management of acute childhood diarrhea by using ORS salts for cases with no, or moderate dehydration.

3. A functioning pharmaceutical supply system will be operating in each province on all levels of the health care delivery system which provides regular and sufficient supplies of ORS salts.

4. 80% of the mothers living in each of the provinces who have access to a health facility will know about dehydration (its causes and risks), and will be using the appropriate home based ORS.

V. Outputs

1. The establishment of functioning ORT training centers:

   - two provincial level ORT centers
   - eight departmental level ORT centers
   - twenty six arrondissement level ORT centers

2. 92 ORT corners established in the local level CSE and CSD.

3. Mid-Level Management training for twenty five senior provincial and departmental level health facility personnel on integrated MCH service delivery, one aspect of which is the use of ORT for acute diarrheal disease, in each of the MCH project provinces.

4. Fifty physicians trained in the management of acute childhood diarrhea.

5. 850 health personnel trained in the management of acute childhood diarrhea using ORS.

6. A nine month intensive health communications campaign in each province on ORT and childhood diarrhea featuring:

   - mass distribution of 300,000 handbills,
   - daily radio broadcasts,
   - 3,000 'Diet for Diarrhea' instructional posters for community level health workers.

7. An improved and functioning ORS supply system in each province.

VI. Inputs

1. Provincial specific KAP study to supplement the national CDD KAP study with local CDD program baseline measurements, targeting ORT related issues in particular.

2. Technical assistance and material resources for the establishment of:

   - ORT training centers in provincial, departmental and arrondissement hospitals
   - ORT corners in local level health facilities (CSE and CSD)

3. One advanced seminar on the management of childhood diarrhea by oral rehydration therapy for the physicians in each province.

4. Training in Mid-Level Management of the MCH program (one aspect of which is ORT) for provincial and departmental senior health personnel.

5. A series of in-service training programs for all health center personnel on the management of acute diarrhea as part of an integrated MCH service delivery.

6. Technical assistance and material support to strengthen the ORS salts supply system in each province, and to explore the possibilities of local production of ORS salts.

7. An intensive nine month communications campaign on childhood diarrhea and ORT in each province.

VII. Budget

1. 36 ORT training centers in provincial, departmental and arrondissement hospitals: 36 x $1,200 = $43,200

2. 92 ORT corners in local level health facilities: 92 x $100 = $9,200

3. 50 physicians trained: 50 x $50/day x 1 day = $2,500

4. 25 MCH Mid Level Managers trained: 25 x $33/day x 3 days x 2 = $4,950

5. 850 health workers trained: 800 x $33/day x 2 days x 2 = $112,200

6. ORT health communications campaign: included under the communications component annex budget.

7. ORT supply and local production: $85,000.

TOTAL = $257,050

Sub Totals: Training = $119,650
ORT Centers = $52,400
Local Production and Supply = $85,000

VIII. Recurrent Cost Analysis

The in-service training costs will be the most significant recurrent cost of the CDD program component. The recurrent cost analysis of the training component annex will discuss the full ramifications of the in-service training costs for the MOPH. As part of the ORT annex, the recurrent costs annual average is $23,930. It is estimated that this figure should be a manageable amount for the MOPH to assume for two provinces.

The ORS salts supply system may involve a recurrent cost which is not presently being supported by the MOPH; the exact nature of the ORS supply system will be determined by the PRITECH consultancy. However, it is not foreseen for the MCH project to support the development of an ORS supply system which adds to the present provincial supply system budget for time. At present, all of the ORS salts are being supplied by UNICEF, and this project will continue to operate under these arrangements. Therefore, there does not appear to be any significant recurrent costs added to the ORS supply system by this project.

In summary, the strategy of an integrated MCH system will provide for the support of the ORT activities as part of the regular, on-going functioning of a health center.

IX. Administrative Plan, Management and Implementation

Year One.

1. Review of the national level KAP study on diarrheal diseases by the Chief of Party, Communications/Training technical advisor, the SPMPR, and provincial health education department personnel in order to determine its adequacy for use as a provincial baseline measurement for the MCH project's health promotion activities. In the event that supplemental information is needed, items will be developed by these individuals for use in the baseline KAP study which is programed into the MCH project.

2. Establishment of ORT training centers in the provincial hospital or PMI center, including the adaptation of national level training materials for use in the in-service training programs for provincial personnel. To be carried out by the provincial technical advisor and the SPMPR, with assistance from the Chief of Party and national level CDD program office personnel.

3. Baseline analysis and inventory of health services on the provincial and departmental levels to identify the appropriate cadre of health facility personnel to take part in CDD in-service training programs for
(a) supervisors and (b) clinic level personnel. To be carried out by the Chief of Party, provincial supervisor for the MCH project, the SPMPR and SDMPR.

4. The Chief of Party, provincial supervisors for the MCH project, SPMPR, Medecin Chef Provincial, and others designated by the provincial Health Delegate will review the existing pharmaceutical supply distribution system within the province. In conformity with the guidelines established by the national level CDD program coordinator's office and the overall MCH project pharmaceutical supply and management design, a strategy for the reinforcement of the existing ORS salts supply system will be clearly defined and its implementation begun.

5. The Chief of Party, after consulting with the national CDD program coordinator and manager, and the PRITECH representative, will work with each of the provincial Medicin Chef, SPMPR and project supervisors to establish an improved health information system which provides adequate data for the CDD program. This data system will be completely integrated within the overall MCH HIS, and will conform to the recommendations of the PRITECH HIS consultancy on this matter. The use of sentinel sites will be explored as a possible avenue for data collection pursuant to the PRITECH TA.

6. The provincial Health Delegate, Medicin Chef of the Province, the Chief of Party, and the training/communications technical advisor will organize a short seminar for the physicians in each of the provinces to launch the ORT training activities before the close of the first year of the project. The national CDD program coordinator and program manager, as well as other influential individuals within the medical community of Cameroon will participate in this seminar whose objective is to bring the provincial physicians on board the ORT program through a development of their awareness of the practice and theory of oral rehydration as a treatment for infant diarrhea.

Year Two

1. A training course for senior health facility personnel on the provincial and departmental levels be held in each province using the CCCD project Mid-Level Management training manuals for EPI, Malaria, ORT, supplemented by materials on Growth Monitoring and childhood nutrition to provide for an integrated MCH service delivery review. The technical advisor for training/communications will assume primary responsibility for the organization of this in-service training program, with local responsibilities being assumed by the SPMPR and the Medicin Chef.

2. The establishment of ORT training centers in each of the department level hospitals will occur subsequent to the mid-level management course at the provincial level. The departmental SDMPR will be primarily responsible for this activity, with assistance from the SPMPR.

3. An in-service training schedule for each of the departments within the two provinces will be designed by the training/communication technical advisor, in conjunction with the provincial CDD program manager and the provincial level SPMPR. Training materials for these training programs will be developed by the technical advisor for training/communication.

The training programs on the departmental level will occur in the ORT training centers established in the departmental hospitals, and will involve personnel from the CSD and CSE level health facilities; the community level Primary Health Care Coordinators are a key cadre in the list of participants for these training programs.

The objectives of the training programs are:

(a) Each trainee will be able to distinguish between mild and severe dehydration, and know the appropriate ORT treatment plan for each degree of severity.

(b) Each trainee will be able to list the materials necessary for the establishment of an ORT corner in their health facility, and have developed a plan for the creation of these corners.

(c) Each trainee will be able to explain the correct mixing procedure for the ORS salts, and the appropriate administration of the ORS solution to the mother of the child suffering from diarrhea.

(d) Each trainee will be able to explain the correct treatment plan for the child who has diarrhea, but does not exhibit any signs of dehydration, (Treatment Plan A) including the ability to explain this information to the mother of the child suffering from diarrhea.

(e) Each trainee will be able to explain other measures

to the control of diarrheal diseases, such as environmental sanitation which communities should undertake.

(f) Each trainee will be able to explain the correct feeding practices for a child who is suffering from diarrhea, and for the child who is recuperating from a bout of diarrhea.

(g) Each trainee will be able to participate as a trainer in the in-service training programs for community level health workers.

4. The design and implementation of formative research activities for the development of a comprehensive health promotion campaign will occur in each province before the close of second year of the MCH project. The primary responsibility for this activity will rest with the provincial health educator and training/communication technical advisor, with assistance from the SPMPR.

5. Continue activities to strengthen the ORS supply and distribution system by the CDD provincial managers and Chief of Party for the MCH project.

Year Three

1. The training of community level health workers in the use of the ORS salts and the appropriate home based solution by the health personnel who have participated in the department and arrondissement level training programs will occur. The technical advisor for training/communication will be responsible for the development of appropriate training materials. The local level Primary Health Coordinators will be the principal trainers for this level of training; the CSD or CSE person who participated in the ORT training programs will be responsible for assisting them in the implementation of these training programs. The supervision of these training programs will be assumed by the SDMPR and the training/communication advisor.

The specific objectives of the community health worker training program are:

1. Each trainee will know the signs and symptoms of dehydration.

2. Each trainee will be able to correctly mix the ORS

solution using the ORS packets and the appropriate home based solution.

3. Each trainee will be able to explain the correct administration of the ORS solution.

4. Each trainee will be able to explain the correct feeding practices for the child with diarrhea, and for the child recuperating from diarrhea.

5. Each trainee will know where to get the ORS packets.

2. An intensive health promotion activity will be launched during the third year of the MCH project, under the direction of the technical advisor for training/communication and the provincial health educators. This communications campaign will serve to increase community awareness and demand for the ORT services which the health facilities will offer.

Year Four

1. The ORT communications campaign which was launched at the close of Year Three will continue through the diarrhea season.

2. Repeat the cycle of in-service training for the health personnel on the departmental level.

3. Continue activities to strengthen the ORS supply and distribution system by the SPMPR, the SDMPR and the Chief of Party for the MCH project.

Year Five

1. Repeat the cycle of community health worker training programs in ORS to provide a comprehensive training of the new community health workers.

2. Integrate ORT into MCH publicity campaigns.

IMPLEMENTATION SCHEDULE

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Activity                 Year I   Year II   Year III Year IV   Year V
                       1 3 7 10 1 3 7 10 1 3 7 10 1 3 7 10 1 3 7 10
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Year One

1.Review national      x-x
  KAP study
2.ORT Provincial         x-x
  training centers
3.Inventory Health       x-x
  Personnel
4.ORS supply system:       x-------------- ------------- --------x
  review, strategy
  and implementation
5.Information system
  review and est. of
  sentinel sites             x-----------------------------------x
6.Seminars for MD's          x

Year Two

1.Mid-Level
  Management Training          x-x
2.ORT Department
  training centers               x-x
3 In-service training               x-x
4. Formative research                x--x
   for health promotion

Year Three

1.In-service training                      x-x
  community health
  workers
2.Health Promotion                            x--

Year Four

1.Health Promotion                                 -----x
  (continued)
2.Training of                                          x-x
  health personnel

Year Five

1.Training of                                              x--x
  community health
  agents
2.Health Promotion                                           x---x
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X. Administrative Analysis

The Control of Diarrheal Diseases program in Cameroon is in its initial state of development; the awareness and use of Oral Rehydration Salts as the principal treatment of childhood diarrhea and dehydration is not firmly established in the practices of the health professionals at all levels within the delivery system. As such this program is laboriously methodical in its development.

The ORT component begins with key decision makers, progressing to the influential actors in the health care system (the physicians), diffusing out to the rank and file of the health care system (the CSD and CSE staff), and then finally launching a well developed health communications campaign to increase consumer demand for the ORS treatment. At each step the administration of the program must be created.

The role of the national CDD program coordinator and manager is heavily counted on for the clarification of basic issues such as the home based solution, container size, etc: The ORT component of the MCH project does not include an initial national policy development phase to provide this level of direction to its activities. The technical and material assistance of the USAID funded PRITECH project in the development and dissemination of the national CDD policy is a key input. The involvement of the provincial decision makers and physician community with the ORT strategy will occur only with clear policy directives from the MOPH central level.

The responsibility for the ORT activities within the framework of an integrated MCH service delivery will be placed within the same office as the overall management of the MCH service delivery, in order to assure its harmonious presentation as a component of the total MCH service. The Medicin Chef of each province and department, and the SPMPR, SDMPR will shepherd the ORT training and logistical supply activities along under this arrangement, with the support of the project Chef of Party and Training/Communications advisor. The provincial project supervisor will be called upon to assist in this and all activities of the MCH service.

The mid-level management course will be critical for the formation of a cadre of senior MCH service personnel who can assume an active role for the more administrative and complex technical arrangements which are necessary for the delivery of an integrated MCH service in rural Cameroon.

The integration and sustainability of the ORT component of the MCH project depends upon the development of the provincial and departmental leadership within the preventive medicine services. No new positions are proposed. Rather, the clarification of effective treatment strategies and responsibilities for their diffusion as part of a total MCH care system to the periphery are structured into the existing preventive medicine program.

XI. Technical Analysis

The technical aspects of the ORT component of the MCH project are all based upon the World Health Organizations guidelines for the implementation of a CDD program. These guidelines are presently being adapted by the national CDD program coordinator and will be implemented by the MCH project in the two provinces following the guidelines established by that national office. The MCH project will coordinate with UNICEF for the supply of Citrate base ORS packets to conform with the most recent WHO CDD program guidelines.

The ORS salts are a relatively simple technology to use in a clinical setting; the resistance to their use usually stems from the salts' very simplicity, (ie;"Medicine can not be so easy"). Once used, however, the results are dramatic and adoption of the oral rehydration treatment is not a problem past the ice breaking stage. The adequate supply of the salts through the pharmaceutical system must be assured in order to provide for the continued use of the treatment by health workers.

Rural mothers have been shown to learn and adopt for regular use the ORT after being exposed to a mass communications campaign such as the MCH project will undertake in its third year. The reinforcement of these newly learned behaviors by health facility personnel will assure the sustained correct use of the ORT technology.

XII. Social Soundness Analysis

The widespread use of oral rehydration treatments in Cameroon is not well established presently. Other provinces have had experience with integrated Primary Health Care programs that included an ORT component. These programs have reported that mothers readily adopt the use of the ORS salts, or the sugar and salt solution, once the health center staff are promoting its use. This is an indication of the inclination of the beneficiaries to become involved with the ORT program.

The development of the health promotion activities in support of the ORT strategy as outlined in this annex involve the use of formative research for the formulation of messages. The introduction of the concept of dehydration will build upon cultural bound notions of disease causality, and restoration of health. In this manner the ORT component of the MCH project will develop relevant and sensitive approaches to the diffusion of its activities into the communities.

XIII. Evaluation Plan

The national CDD program has scheduled a short term consultancy through the PRITECH project for the development of the health information system's capabilities to collect data specific to the CDD program. This consultancy will develop protocols for the establishment of sentinel data collection sites. The MCH project's ORT component will adapt these program guidelines which are established through the PRITECH consultancy as part of its information system for use in evaluating the impact of the program on health services delivered.

A national study on maternal knowledge, attitudes and practices relating to childhood diarrhea is scheduled to occur as part of the national CDD program, through the PRITECH project. The results of this survey, or in the event that the results are not yet available, the sampling methods and survey instrument, will be critically reviewed for use as a baseline measure for evaluating the impact of the ORT component on the beneficiaries. It is foreseen that this survey will adequately serve the provincial level assessment's needs, with only minor supplementary items to be included in the integrated KAP study which the overall MCH project is composing. These items may include a detailed investigation regarding containers, home based solution practices, and other locally specific information.

Indicators for the evaluation of the impact of the ORT program on maternal behaviors are reflected in the End of Project Status section of this annex. The indicators for the evaluation will be:

(a) Low level indicators: tracking the actual receipt of program messages, knowledge of dehydration (its signs and symptoms) as specified in the EOPS section of this annex.

(b) Mid level indicators:its treatment by the appropriate home based use. Self reported use of the ORS salts will be included in this level of evaluation, as specified in the EOPS section of this annex.

(c) Higher level indicators: these are reflected in the overall project goal of a reduction of childhood mortality.

Repeated measures of the KAP study should be done at the close of year three and four in particular as that is when the community level diffusion of the ORT component will occur.

XIV. Training Plan

The training activities of the ORT component flow through a sequence that is designed to work from the top down:

- From key decision makers and influential health sector persons,
- to the reinforcement of the integrated MCH program's mid level managers,
  supervisors,
- to the training of health center staff,
- to the training of community health workers,
- and finally to the creation of demand by an intensive health communications program.

These steps will proceed through the following training activities. The training/communication technical advisor will call upon the assistance of the Chief of Party, and the SPMPR in the design and execution of these activities.

1. A one day seminar for all physicians in each province, with sessions conducted by Professors from CUSS, national level Ministry of Health, WHO, CDC and UNICEF. Creation of provincial level ORT training centers.

2. Identify ORT program personnel at the following levels in the health care delivery system:

   Provincial: Medecin Chef de la SPMPHP
   Epidemiologist or Technician Superior
   Departmental: Medicin Chef de la SDMPR
   Adjoint Infermier
   Staff currently involved in treating childhood diarrhea at the level of the CSD, CSE, and PMI's.

   Arrondissement: Coordinator of the Primary Health Care at the community level.

3. A three day Mid-Level Managers course in the management of an integrated MCH program delivery system for senior departmental and provincial health care workers, using the Centers for Disease Control's CCCD project manuals. Establishment of departmental ORT training centers.

4. Coordinate the training of health personnel from departmental health facilities with other in-service training programs of the MCH project, using the departmental ORT training centers.

5. Develop training materials for the community health workers using the training manual for village health workers which Save the Children, Care and PRITECH are currently developing, and materials of the AMA as resources.

6. Repeat training at for all personnel as part of the integrated MCH training during the fourth and fifth year of the project as often as possible (eg; every six months).

7. Specific training objectives for health center personnel are listed in the Administrative Plan, Management, Implementation section of this annex.

XV. Operational Research

1. A container survey to identify the appropriate container for use in health promotion activities, and in the training programs for health facility personnel. This can be incorporated into the MCH project KAP study.

2. Research into the feasibility of developing a cereal based rehydration solution for use in treatment plan A, (when there is no sign of dehydration during diarrhea).

3. Based upon the recommendations of the PRITECH consultancy for the development of local production and supply of ORS salts, a cost effectiveness study of alternative strategies for producing ORS salts locally, and for their distribution within the two provinces.

XVI. Procurement Plan

The national CDD program has contracted for a short term consultancy to undertake a national ORS supply and local production study with the USAID funded PRITECH project. The

national CDD program managers' office will implement the recommendations of this study. The MCH project's ORS component will adopt the recommendations of this consultancy to the provincial level activities for the procurement of ORS salts.

The MCH project will proceed with a procurement plan for the Citrate base ORS packets which is following the regular MOPH ordering procedure through UNICEF. The requested order for 1988 has already been increased from 100,000 packets to 600,000 in anticipation of the national training strategy and the MCH project. UNICEF has responded to this request, and has indicated that they will be able to respond to further augmentations of the ORS packet orders during the life of this project. As part of the overall MCH supply distribution system within the provinces, the flow of ORS packets to the rural clinics will be reinforced by the technical assistance of the Chief of Party and the material resources of the MCH project.

The materials for the establishment of the ORT Training Centers in the provincial, departmental and arrondissement hospitals, and the ORT Corners in the local level health facilities will consist of materials drawn from a standardized list which the national CDD program manager's office has established, with the assistance of the PRITECH project. It consists of items which can be purchased locally: cups, spoons, bottles, bowls, funnels, etc.. The Chief of Party will assist the national CDD program managers' office in the procurement and distribution of these materials to the provinces as part of the regular, on-going supply system of the national CDD program.

ANNEX H.6. THE CHILD SPACING COMPONENT

I. Background

A. Policy setting: At present Cameroon has no clearly articulated population policy. The 6th Five Year Plan has introduced a variety of demographic indicators suggesting that planners are alert to the social and economic impact of the present high rates of population growth. Recent statements by the Head of State make it clear that awareness of the need to institute fertility regulation measures is growing at senior levels of government. President Biya made a significant policy statement in July,1986 on the occasion of his presentation of the Sixth Five Year Plan when he said "Procreation, albeit a basic human right, can and must be controlled." Acknowledging the cultural predisposition toward large families, he went on to say that "It is not, therefore, a question of discarding our beliefs,practices and customs in this regard, but rather to strive for the systematic promotion and institution of planned and responsible parenthood." One year earlier, in March of 1985, a National Population Commission was created by decree. The abundant references to demographic issues in the Sixth Five Year Plan make it clear that steps are underway to achieve, as the President said: "The necessary balance between the population, resources and development."

Nevertheless, a fundamentally pro-natalist position remains entrenched in Cameroon. Initiatives in some sectors indicate that policy shifts may be imminent. The Ministry of Agriculture recently held a semina r on family planning in Cameroon. The Ministry of Social Affairs has undertaken a research project on The Cameroonian family that explicitly inquires into family planning interest and practice in over 100 rural communities. Anecdotal evidence, however, points to the possibility that Cameroon may continue to defer adopting an explicit population policy. One element which may delay the emergence of a clear policy is the fact that sub-fertility continues to be a pressing problem in several parts of Cameroon. Unlike many of its neighbors, Cameroon has yet to spawn the emergence of a voluntary Family Planning Association in the nongovernment sector. Highly placed officials at provincial levels retain the traditional pro-natalist position with noticeable vigor. Nevertheless, there appears to be agreement among health officials that child spacing has a legitimate place in the package of maternal and child health services. Hence, unlike the pattern in other Sub-Saharan countries, it appears that the public sector is prepared to assume the role of catalyst in providing modern contraceptive services. The proposed project is expected to facilitate that role for the Ministry of Public Health.

B. Need: The demographic profile of Cameroon makes clear that there is a definite need for provision of child spacing services. The current population growth rate of 2.7 percent

(1986) can only increase as such public health measures as expanded immunization coverage lead to further reductions in child mortality. Indeed, a project which aims at reducing maternal and child mortality without addressing child spacing can only continue to exacerbate already high dependency burdens. As has been demonstrated in Kenya, where vigorous public health initiatives decreased death rates significantly, such improvements in health status can result in soaring rates of population growth. Current prevalence of modern methods of contraception in Cameroon is very low, estimated at no more than 3 percent of eligible women. The birth rate (44 per thousand) and the total fertility rate (6.5 percent) are very high. High fertility rates are known to be associated with high rates of infant and child morbidity and mortality.

C. Administrative Organization: There is at present no focal point for the management of contraceptive services and training. The PMI's are a possible locus for administering such services in the provinces. At the national level, the National Population Commission is likely to address the service issue in due course. At present, private pharmacies are the primary source of supply of contraceptive commodities. Also several non-governmental organizations and missionary hospitals have been active in the promotion of child spacing and the provision of contraceptive services.

D. Level of training: A variety of child spacing training activities have been conducted with USAID assistance over the past ten years. These training activities have reached over two hundred Cameroonians. The proposed project is expected to draw upon this base of trained personnel in developing the child spacing services in the two provinces. Past training activities are summarized below:

1. The Johns Hopkins Program for International Education in Gynecology and Obstetrics (JHPIEGO): Over 60 medical and paramedical personnel from Cameroon have been trained in reproductive health and family planning in the U.S. and third world countries since 1979. Approximately 15 Cameroonians are being trained abroad each year. JHPIEGO has also provided in-country training seminars in postgraduate reproductive health for Ob-Gyns from provincial hospitals in Bamenda, Douala, and Limbe. Ten general practitioners have been trained in high-risk pregnancy management, child spacing techniques and mini-laparotomy. Fifteen nurse/midwives have been trained in family planning. Twenty five nurse/midwives from Protestant hospitals in Anglophone Cameroon have been trained in family planning methods and counseling.

2. International Training in Health (INTRAH): Forty senior staff and Directors of nursing schools were trained in

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communication skills in Maternal and Child Health and Child Spacing in 1982. AHTIP, a project which preceded INTRAH, had a field headquarters in Yaounde from 1974-1979. Over two hundred Cameroonian health workers were trained in child spacing techniques and program administration during that period.

3. World-Wide Training Fund: Ten Cameroonian nurse/midwives from government and private sector family planning clinics have received training in maternal and child health at the Margaret Sanger Center in New York.

4. Family Planning International Assistance (FPIA): FPIA has been providing assistance in Cameroon for over ten years in IEC, contraceptive supplies and equipment and training. Five Cameroonians were trained in family planning communication skills in Douala in July, 1986, at the Pan-African Institute for Development. Another 126 workers from the National Union of Cameroon Workers are being trained in communication skills for child spacing. Clinical in-service training has been supported for five years at the Birth-Spacing Clinic at Djoungolo Hospital and the High-Risk Clinic at the University Hospital in Yaounde.

5. International Federation for Family Life Promotion (IFFLP): Three Cameroonians have been trained abroad in Natural Family Planning (NFP). With funding from the IFFLP the Catholic Health Secretariat has carried out the following activities: an awareness-raising seminar for 72 top and mid-level religious leaders (in Yaounde, December 3-7,1984);an advanced NFP training workshop for 30 participants in November, 1984; and more than ten provincial NFP training workshops in 1985 and 1986.

The training discussed above has not focused on the development of services on a province-wide basis. The only child-spacing-related training program known to have occurred on a province-wide basis was provided in South Province for "matronnes" last year. A report of that training stated that "matronnes" were told that abstinence and rhythm were the best ways for women to space births. Trainees were reportedly told that intrauterine devices and oral contraceptives were also a way to space births but that they were used "primarily by white women and some African women..." There is clearly considerable scope for systematic child spacing training in the provinces.

E. Supplies: At present, oral contraceptives and intrauterine contraceptive devices are the methods central and provincial officials report to be most commonly prescribed. At the provincial level, contraceptives are only available through private pharmacies and at some mission facilities. The precise availability of supplies is uncertain, though it is safe to conclude that there are insufficient supplies to meet any increased demand which may occur during the proposed project

period. The method mix is also insufficient to serve the population. Condoms, for example, are reported to be considered culturally unacceptable. Private pharmacies stock condoms in the two provincial capitals. According to Office of Population records, only small quantities of contraceptives have been supplied through USAID: A list of all commodities supplied by USAID since 1984 appears as Attachment A..

F. Supervision: As there has been so little child spacing activity at the provincial level, there is no established pattern of supervision. Case-by-case referrals have been handled by senior medical personnel at provincial hospitals and by PMI staff.

G. Activities: Apart from the training discussed above, the majority of USAID-assisted activities has been in the area of population policy development and demographic data collection and analysis. Two RAPID presentations have been made to senior government officials with assistance from The Futures Group. The Westinghouse DDD project has assisted in conducting a series of seminars on the integration of demographic data into the Sixth Five Year Plan (1986-1991).

II. Goal: To improve the health status of mothers and children in Cameroon. In support of this overall project goal, the goal of the child spacing component of the project is: to integrate child spacing services into the MCH program in the two provinces.

III. Purpose: To strengthen the maternal and child health services provided through the public sector to the people of South and Adamaoua provinces. The purpose of the child spacing component is to enable all health facilities in Adamaoua and the South to provide regular contraceptive counseling and services.

A secondary purpose of this component is to demonstrate through activities undertaken in the two provinces that there exists considerable demand for child spacing services among a substantial number of couples of reproductive age. The demonstration effect is expected to encourage the Ministry of Public Health to adopt the policy of training health workers in child spacing techniques in all provinces.

IV. End of project status:

1: Modern methods of contraception will be regularly available through Propharmacies, PMI's and all health outlets;

2: "Matronnes" will be able to resupply users of condoms, foaming tablets, and oral contraceptives who have been screened by health personnel;

3: Basic educational materials for semi-literates will be available at all PMI's and at least half of all rural health outlets;

4: Training curriculum and materials will be prepared for the training of health workers in other provinces;

5: Ministry personnel will have established procedures for placing annual orders for contraceptives so as to ensure continuity of supply;

6: Training of primary health care workers will incorporate child spacing modules;

7: The Ministry of Public Health will have established a methodology for performing KAP studies of target populations;

8: Pre-service training in child spacing will be available for all cadres of health personnel.

9: Supervisory protocols will be developed to monitor child spacing activities at all levels of the health care system;

10: The Ministry of Public Health will have developed plans for extending child spacing services to all provinces in the Seventh 5 year plan;

11: 50% of eligible couples will know at least one modern method of contraception.

12: 50% of eligible couples will be in favor of longer birth intervals;

13: A training of trainers program will be developed and delivered in the second year of the project;

V. Outputs:

1: A cadre of trainers will be trained at the central level in the techniques of training in child spacing services and counseling. These trainers will be all existing health workers in the Provinces who have supervision responsibilities over other health workers whom they will train;

2: 800 provincial health personnel will be trained in counseling, service delivery and supervision of peripheral workers;

3. 1,000 copies of a manual on contraceptive counseling for health workers will developed and distributed.

4. 5,000 copies of a contraceptive methods handout will be developed and distributed to all service points.

5. 140 provincial, district and arrondissement formal and non formal leaders will receive an orientation to the child spacing program.

VI. Inputs:

1: At least one visit by personnel of USAID-centrally financed logistics project to prepare Ministry personnel to forecast commodity requirements and develop procurement and logistics procedures;

2: Support for central and provincial health education personnel to attend Africa regional workshops on family planning information, education and communication techniques;

3: Support for up to six decision makers and service providers to undertake regional study tours to become familiar with African MCH/CS programs;

4: Support for at least one technical assistance visit by experts in design of natural family planning programs;

5: Technical assistance in development of low-cost print materials for literates and semi-literates;

6: Technical and financial support for baseline KAP studies in the two provinces.

7. Technical and financial support for operations research activities on modalities for service delivery in the two provinces.

8. Technical assistance in developing and testing communication messages and materials;

9. Commodity support for contraceptive supplies;

VII. Budget:

There are few Project costs which are specifically attributable to child spacing as commodity support will be sought through AID centrally-funded population services. Other child spacing expenses are those related to the use of limited short

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term technical assistance and the support of study tours. These items are presented in the Project budgets in Section VI.

VIII.Recurrent Cost Analysis and Financial Plan:

As there are not expected to be significant expenses associated with this element of the Project, there will be few recurring costs. However, as the demand for contraceptive services increases as the people learn to appreciate the value of child spacing in the protection of child and maternal health, the users themselves are expected to bear the costs of materials.

IX. Administrative Plan, Management and Implementation:

Given the very early stage of child spacing program development in Cameroon as well as the sensitivities surrounding it, the approach to implementation must be both cautious and deliberate. It will be based on the principle of careful formative research. While there is reason to believe that substantial unmet demand for services exists, the project must keep in mind that its purpose is to respond to that demand, rather than to aggressively attempt to create or lead it. Interviews conducted during project development suggest a low level of public awareness of the health benefits of child spacing. Provincial officials spoke of a need to investigate public attitudes and knowledge and to sensitize the public to child spacing. These officials also made clear, both explicitly and implicitly, that health personnel themselves were a very important audience for sensitization. With this orientation to program development, the following activities are proposed for the project.

A. Year One:

1. Inventory of trained personnel:

Prior to developing training activities in the provinces, it is necessary to determine the present status of medical and paramedical personnel trained to date. These personnel represent an important resource of Cameroonian manpower on which to base provincial-level training plans. Although further in-country and third-country training is anticipated, assessing the capacity of existing Cameroonian manpower to provide that training to provincial personnel is a critical first step.

2. Conduct child spacing KAP studies in both provinces:

Baseline data is an absolute prerequisite to the development of child spacing services in the provinces. One provincial official suggested that the majority of births in Adamaoua are already adequately spaced (24 or more months.) Others maintain that traditional practices exist which obviate the need for

spacing. For purposes of evaluation and effective program development, basic KAP data must be gathered. In the interest of eventual national policy and program development, other agencies such as MINAS, and Women's Affairs will participate in designing the KAP as well as share in the findings. Existing studies, such as the Cameroonian family study currently being analyzed by MINAS will be consulted. KAP studies will look at health personnel, in addition to the general public in the provinces.

3. Develop training plan:

Based on findings of the first two steps, a phased training plan will be developed. Although an indicative training plan is provided in the project paper for planning and budgeting purposes, it is important that the training be developed in response to information which emerges from steps one and two, above. Additionally, the Mission currently envisages a centrally-funded training needs analysis in FY 1988. This analysis should pay special attention to training needs in the two provinces. The final training plan will incorporate information accumulated from this analysis. The training plan will address the question of whether representatives from other ministries should also receive training on child spacing matters as a support to the introduction of services in the provinces.

4. Analyze commodity requirements; undertake procurement:

Commodity requirements are very difficult to project at this stage. In keeping with the spirit of cautious formative research which underlies this component, commodity requirements will be reviewed in light of the steps described above. In particular, contraceptive method mix will be reviewed. The only temporary methods reportedly being used in the two provinces are orals and IUDs. This mix should probably be expanded to include condoms and foaming tablets. Prior to undertaking procurement, logistics and cost issues must be decided. How will supplies be managed and distributed? Will they be sold or provided free of charge? The Office of Population has agreed to make available a technical assistance mission from the centrally-funded family planning logistics project to help establish procurement and logistics procedures. Central resources can also be used to pay for the initial commodity orders. A technical assistance mission by specialized personnel is scheduled for the end of Year One.

5. Develop Operations Research plan:

At this initial stage of child spacing service provision, it is highly desirable to investigate different service delivery modalities. Should the approach be strictly clinic-based or might a community-based distribution system be appropriate? How will the introduction of child spacing services be monitored and supervised? Bearing in mind that one of the project's goals is to

provide the Government of Cameroon with potential models for national MCH/CS service delivery, modest OR activities will be very useful at this point. A central OR project can provide necessary support to establish and finance appropriate studies.

6. Planning of Year Two Activities:

The above activities represent a reasonably-paced approach to preparing for the gradual introduction of child spacing services in the integrated MCH package envisioned in the project. The process also allows for the continuing evolution of policy occurring at the central level. The project will sponsor a brief seminar at the end of the first year in which National Population Commission representatives can be informed of the outcomes of the first year's activities and have input into the planning of the implementation of training and service delivery activities scheduled for Year Two. While the outcomes of the First Year will be an important factor in determining the precise operational plan for the Second Year, the expected activities for Year Two are as follows:

B. Year Two:

1. Training: Although a key outcome of the first year of project activity is the preparation of a detailed training plan, the following describes the type of training required to launch the provision of services. Four types of training will be conducted:

a. Orientation and Sensitization: At both central and provincial level, workshop/seminars will be an important first step. Short events of three days duration will be held to provide senior health personnel with information about the health benefits of child spacing, about the proposed methods (including natural family planning), about the policy and demographic issues surrounding child spacing, and about related issues such as prolonged breast feeding, and traditional practices such as abstinence and withdrawal. In addition, the Ministry's short and long-term plans with respect to child spacing in the context of maternal and child health will be discussed. The workshops will be participatory in nature, offering the opportunity to health personnel to discuss and debate the social, economic, and clinical issues. Representatives from other concerned sectors, such as Social Affairs, Women's Affairs, Education and Agriculture will be included in these events. These orientation seminars will also be held for key provincial and district formal and informal leaders.

b. Clinical Aspects: Once the method mix has been determined, health personnel will require training in service provision. Though in subsequent years all cadres, include "agents de sante" may be trained, the initial training will focus on

doctors and nurses. In addition to clinical matters, this training will include counseling of potential contraceptive acceptors. Depending on the previous knowledge of the participants, these programs may run from one to two weeks. There is also a need to provide health personnel with the same type of orientation and sensitization components discussed above.

c. Logistics and Supplies: Selected personnel will be trained in the ordering, re-ordering, maintenance and supply of contraceptive commodities. Efforts must be made to assure regular supply for users of oral contraceptives in particular. At the early stage of introducing child spacing services, the new user must not be allowed to be frustrated by shortage of supplies. As the adoption of the decision to postpone a birth will be a new behavior in most cases, the health services must support that behavior with reliable supply, service, monitoring and information.

d. Study Tours: While new to Cameroon, the integration of child spacing into MCH programs is by no means new to Africa and other regions of the world. Senior national and provincial personnel can benefit considerably from exposure to other programs in and outside of the region. In the region, visits to programs in Mali, Burkina Faso and Niger may be quite instructive, as well as visits to Mauritius, Botswana and Zimbabwe, which have the region's most advanced programs. In Latin America, Mexico and Colombia offer interesting program opportunities, especially with respect to how child spacing relates to the Catholic Church. For some senior personnel, exposure to the highly advanced programs in Asia might be desirable. Some central and regional funding may be secured for selected personnel to visit such programs.

2. Message and Materials Development: Although a mass media approach is not appropriate at this stage, it is important to decide, through investigation and testing, what the interpersonal communication approach will be. Health benefits of child spacing is the educational approach that seems most suitable in the context of the project. These messages should be clear and supported by facts and simple educational materials on the correct use and contraindications of various methods. Programs that fail to provide information on correct use often suffer setbacks. With caution and care as the watchword of the child spacing component of the project, attention will be paid to correct information and counseling approaches. Educational materials must be carefully pretested with the target audiences prior to use. Technical assistance will be provided to assist in developing this capacity.

3. Service Delivery: In Year Two, the first year of service delivery, it is advisable to provide services in no more than half of the province's facilities, ideally in provincial and

departmental headquarters which receive substantial supervision. Important lessons will be learned from the initial service sites which will permit the child spacing services to evolve effectively. The more urbanized areas are also likely to be places where demand for the services is greater. In the following years of the project, services can be introduced in the remaining departments. Personnel who have gained experience in service provision and counseling in Year Two can serve as a valuable resource to orient and train personnel in the remaining departments.

4. Supervision and Monitoring: While important in all areas of the health care system, this is of particular importance when introducing a new and potentially controversial service. Supplies and counseling as well as client follow-up are important. If IUDs are used, pelvic inflammatory disease must be carefully monitored. Correct use of pills and condoms as well as proper knowledge of natural methods is important to the success of the component. Supervisory protocols developed in the project must be revised to include the child spacing activities being introduced in Year Two and thereafter. Supervision of the provision of child spacing services will be integrated into the general supervision of the rural health services system and will be a responsibility of all supervisors of services providers and managers. In addition, the Technical Advisory Group of the Project will include Cameroonian experts in the provision of child spacing services to review the effectiveness and appropriateness of the Project's child spacing activities.

5. Operations Research: The strategy developed for OR at the end of Year One will be carefully followed to guide the next year's planning. The OR activity will serve as a way to evaluate the introduction of the service in the first year of delivery.

6. Planning for Year Three: Based on a careful review of the process and outcomes of providing child spacing services in the initial departments, central and provincial personnel will convene a planning seminar for the extension of services into the remaining departments. This activity will not take place in isolation from other provincial planning exercises, but it is important to pay careful attention to the child spacing issues which are likely to be different in nature from other aspects of the integrated project.

C. Years Three through Five: The remaining years of the project will entail the continuation of the activities undertaken in Years Two and Three until services are integrated in all health outlets. Bearing in mind that the introduction of child spacing in the two provinces is expected to provide central personnel with important information and guidance for eventual replication nationwide, the emphasis on Operations Research, Evaluation,and Supervision is very important. Training will

continue to be important as more health and extension personnel are likely to receive training in child spacing. traditional birth attendants, community health workers, and the Village Health Committees will receive training in various elements of child spacing, and their roles will be examined through operations research activities. Questions of whether to include contraceptive supplies in the community drug supplies will be examined through OR in selected communities. The project will endeavor to document child spacing activities as a contribution to an eventual national strategy. Attention will be paid to rates of acceptance of various methods, as a guide to forecasting commodity requirements in other provinces. OR will also look at the private sector's role in providing supplies to guide pricing and supply strategies and policies. A large scale evaluation near the end of Year Four will be required to assess prevalence, cost and training questions. The final recommendations of this evaluation will focus on the national integration of child spacing services into all levels of the health care system, including pre-service training of personnel as well as policy questions regarding such matters as adolescent fertility, in-school education, and legal issues. Project personnel, along with representatives of other ministries will hold a national seminar to present project findings on the provision of child spacing.

D. Chart of Major Activities:

YEAR ONE: (BAR CHART OF ACTIVITIES)

	MONTHS											
	1	2	3	4	5	6	7	8	9	10	11	12
1. Personal Inventory		X										
2. KAP STUDIES												
Design			X	--	X							
Implementation					X	-----	X					
Analyze								X	-----	X		
Disseminate											X	-- X
3. Develop Training Plan										X	--	X
4. Commodity Procurement											X	-- X
5. OR Planning											X	-- X
6. Planning Seminar												X

YEAR TWO: (BAR CHART OF ACTIVITIES)

MONTHS

	1	2	3	4	5	6	7	8	9	10	11	12
1. TRAINING												
a. Orientation		X	X									
b. Clinical				X	X							
c. Logistics						X						
d. Study Tours				X			X					
2. MESSAGE/MATERIALS DEVELOPMENT				X	--------		X					
3. SERVICE DELIVERY (SELECTED DEPARTMENTS)						X	_____	_____	_____	_____	_____	X
4. SUPERVISION & MONITORING						X	.....	.....	.....	.....	.....	X
5. OPERATIONS RESEARCH						X	----	.....	.....	.....	----	X
6. REPLANNING												X

E. Detailed Notes on Implementation and Management of Major Activities:

Year One:

1. a) Activity: Inventory of trained personnel:

   b) Output: A directory of Cameroonian health personnel with names, addresses, current positions, and training received in service delivery and child spacing counseling and administration. This document is a key input to the development of the training plan to be developed in the third quarter of Year One.
   c) Responsibility: Cameroonian Project Coordinator (PC) with assistance of USAID/Yaounde and Chief of Party (COP)
   d) Duration: Approximately two months

2. a) Activity: Conduct child spacing KAP:

   b) Output: Baseline study on child spacing knowledge, attitudes, and practices of sample of both health personnel and general public in the two provinces.

   c) Primary responsibility: Cameroonian Project coordinator (PC) and Technical Assistance team plus local consultants;

   d) Duration: To be completed by the beginning of the third quarter of Year One

   e) Discussion: The child spacing KAP will be conducted as part of the integrated KAP study required for other project components unless pretests of such an integrated questionnaire reveal that the collection of child spacing KAP data somehow skew the results. To facilitate integration and to allow for efficient baseline data collection, a single KAP covering all MCH issues is desirable.

3. a) Activity: Develop training plan:

   b) Output: A written plan for phased training of health
   personnel in child spacing and orientation or sensitization workshops for provincial and district leaders. The plan will specify numbers to be trained, timing and place for the training, key objectives, duration and evaluation methodology.

   c) Primary responsibility: PC, with assistance from a centrally-funded training project

d) Duration: The planning exercise will require four to six weeks and should be completed by the start of the third quarter of the year.

4. a) Activity: Analyze commodity requirements; undertake procurement:

b) Output: Based on findings above, the initial procurement order for commodities needed the first year of service delivery will be placed.

c) Primary responsibility: COP, PC with assistance from centrally-funded Logistics Project (CDC/John Snow)

d) Duration: An exercise of no longer than one month, this will be complete by the end of Year One.

5. a) Activity: Operations Research Planning:

b) Output: Design of operations research plan for Year Two of the project;

c) Primary responsibility: COP, PC, with assistance from centrally-funded project

d) Duration: Four to six weeks, to be completed by end of Year One

6. a) Activity: Planning seminar:

b) Output: Detailed plan for Year Two activities in child spacing

c) Primary responsibility: PC, COP, provincial personnel

d) Duration: One week, to be completed by first month of Year Two

Year Two:

1. a) Activity: Curriculum Development and Training:

b) Output: Curriculum developed and training delivered for the following participants:

b).1: Orientation/sensitization: 30 provincial and district leaders;

b).2: Clinical Training for 10 Doctors and 25 Nurses in Adamaoua and 19 Doctors and 27 Nurses in South Province;

b).3: Logistics training for 4 pharmacists from each province;

b).4: Study tours arranged and conducted for 6 central and provincial personnel;

c) Primary Responsibility: PC, COP, and Training coordinator to be designated by Ministry at central and provincial level;

d) Duration: b).1: 3 days; b).2: 5 days; b).3: 3 days; b).4: two weeks;

e) Discussion: The planning and management of the training activities will entail the formation of a committee under the direction of the project coordinator. Detailed annual plans will be required to manage the sequence of training activities. The provincial training will be complete by the end of the second quarter of the year.

2. Message and Materials Development:

a) Activity: Formative research for message and materials development; generation of messages for interpersonal communication about child spacing and identification, development and testing of print materials; based on results of pretests, print materials will be produced.

b) Output: report of message development will describe the educational messages to be used in counseling potential acceptors of child spacing methods, both natural and modern; messages will include health benefits of child spacing, dispelling myths and rumors, advantages and disadvantages of various methods; prototype print materials describing methods will be developed and pretested; final materials will be produced.

c) Primary responsibility: PC, COP, Consultant in message and materials development;

d) Duration: The entire process, leading up to production of final materials, will take approximately five months and be complete by the beginning of the third quarter;

3. Service delivery:

a) Activity: Provision of counseling and services:

b) Output: All mothers in contact with health service points will receive education and counseling in child spacing and have access to contraceptive commodities through service points.

c) Primary responsibility: Doctors and nurses who have received training

d) Duration: This is the beginning of a process which continues throughout the life of the project and beyond. It begins when training, commodities and educational materials are in place.

4. Supervision and Monitoring: This is a regular process which conforms to the supervision taking place in the integrated project effort. As discussed above, new contraceptive acceptors, especially users of IUDs will be monitored with particular care.

5. Operations research:

a) Activity: Conduct of focused operations research activities as designed in Year One

b) Output: Report of findings of operations research available to planners for program planning exercise at end of Year Two.

c) Duration: The last two quarters of Year Two

d) Responsibility: COP, OR Technical Assistance personnel

6. Replanning:

a) Activity: Synthesize observations of participating personnel, operations research report, and service statistics; conduct three day replanning exercise utilizing findings to determine pace of expansion of training and service delivery in remaining departments;

b) Output: Detailed work-plan for Year Three activities in child spacing;

c) Primary responsibility: PC, COP

d) Duration: three days, to be complete by end of first month of Year Three

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While annual planning will be necessary to adjust the pace of training and service provision for the remaining years of the project, it is anticipated that the remaining years of the project will entail the progressive training of all health personnel in child spacing, resulting in the complete integration of child spacing services in all health outlets by the end of Year Five. The anticipated training targets for the remainder of the project are summarized in the Training Plan.

X. Administrative Analysis:

The first step in the administration of the child spacing activities is the resolution of the policy issues associated with integrating child spacing services into the maternal and child health program in the two provinces. The preliminary investigations into KAP will provide the health and policy rationale for the introduction of the service. A policy directive from the Vice-Minister which states clearly the goal and the operational instructions will be a necessary prerequisite to undertaking the training, commodity procurement and distribution details. What methods are to be provided, under what conditions, to whom and at what cost must be spelled out in the directive. The first year of the project will be used to establish the foundation for these directives. With the policy directive in place, the task of initiating the activities can proceed. Existing agreements between GOC and USAID/Yaounde suggest that bringing forth such a policy directive will present no problem.

With assistance from a central project in forecasting commodity requirements and training selected staff in supply and storage, the administration of commodities will be relatively straightforward. The volume of the commodities is likely to be relatively modest, estimated tentatively to be no more than 5,000 units of oral contraceptive cycles, 2,000 IUDs, 3,000 packets of foaming tablets, and 1,000 gross of condoms. This level of supplies to just over 100 potential outlets in the Second Year of the project is well within the capacity of the drug supply system.

The major administrative challenge will be the preparation and delivery of the training to health personnel. As retraining is one of the major activities of the project, administrative issues are discussed extensively elsewhere in the project paper. For the child spacing-related training, the pace is kept deliberately slow. In Year Two of the project, 29 doctors and 52 nurses will receive a training of one week's duration. With over two hundred Cameroonians already trained, this is a feasible target for the second year of the project. In Year Three, an additional 21 doctors and 49 nurses will be trained. In Year Four, when child spacing training is scheduled to be given to three new cadres, the numbers increase, but by that time the system of retraining being developed in the project will be

functioning sufficiently well to manage the load. 341 auxiliary health personnel are scheduled to be trained in Year Four, and 357 in Year Five.

The beginning of the second year of the project entails a considerable amount of interrelated activity. A closely scheduled set of activities requiring technical assistance visits by various specialists precedes the service delivery phase. As the activity is new, this may present some difficulties. For this reason, a replanning seminar at the end of Year One may lead to a revision of the Year two timetable. The absence of a mechanism for administering these new activities makes it difficult to predict performance at this stage. If it becomes necessary to space these activities, training targets can easily be adjusted. The present plan calls for training only 70 doctors and nurses in Year Three, hence the deferring of some of the Year Two activities until Year Three can be done without reducing the total training and activity targets established for the life of the project.

XI. Technical Analysis:

The child spacing technologies proposed for the project have been extensively tested in every region of the world. Cameroon is already using, on a limited scale, the contraceptives which will be made more widely available in the two provinces. Side effects associated with the methods entail considerably lower risks than the maternal and child health risks associated with un-spaced pregnancies. The incidence of sexually transmitted diseases (STDs) poses a potential risk with the use of intrauterine contraceptive devices (IUDs). As stated in the Administrative Plan, it will be important to provide careful screening and follow-up to all new users of modern methods, but particularly to users of IUDs. The risk of pelvic inflammatory disease (PID) is high for women with STDs. PID can lead to sterility. Hence, the Administrative plan foresees training doctors and nurses only as contraceptive service providers in the first three years of the project. Following careful evaluation and monitoring, other health cadres will be trained in the last two years of the project.

Evidence from several other African countries demonstrates clearly that short term training by qualified personnel can prepare health professionals to provide reliable contraceptive information and counseling. Courses of two weeks' duration are adequate to prepare physicians and nurses to prescribe and dispense the contraceptives identified in the project. Qualified technical assistance will be furnished to develop curriculum and assist in delivering the initial training courses.

XII. Social Soundness Analysis:

The cautious manner of gradually integrating child spacing information and services into the maternal and child health project proposed in this document is likely to have a salutary effect on the health of mothers and children reached during the project period. Consistent with AID's worldwide strategy with respect to population programs, the theme of the child spacing component will be the voluntary and informed choice couples will be enabled to make with respect to the number and timing of children they wish to have. In the absence of freely accessible spacing services, women are currently unable to make choices about family size. In addition to positive impacts envisioned on women's health, access to child spacing services is a basic right available to women elsewhere in the world and which this project expects to make available to those eligible women in the project area. A secondary social benefit of increased access to services is the likely reduction of illegal abortion.

The voluntary element of the program is important to note. There is absolutely no coercive element in the approach and there are to be no incentives of any kind offered to contraceptive acceptors or service providers.

As of the writing of this project paper, the Ministry of Social Affairs is analyzing data from over 142 focus groups inquiring into Cameroonian family values. The high total fertility rate in Cameroon suggests a predisposition toward large families. Anecdotal evidence exists which points to an alteration in this trend. Economic pressures plus growing costs of educating children may be leading toward changing this social norm somewhat, especially in urban and peri-urban areas. The increased accessibility of services will be an opportunity to test that hypothesis. Activities of Catholic groups in Cameroon in support of natural family planning attest to the Church's recognition of the need to space births through religiously acceptable means. Islamic cultures elsewhere in the region (notably Nigeria, Niger, and Mali) have introduced child spacing programs without incurring significant religious opposition. The Koran is often interpreted in other Muslim societies to encourage rearing no more children than a family can feed, clothe and educate satisfactorily. It will be necessary to engage Muslim religious leaders in Cameroon in a public dialogue about religious issues associated with child spacing. The success of advanced population programs in Indonesia, Bangladesh, Egypt and other Islamic nations make clear that Islam and child spacing are not mutually exclusive.

In sub-Saharan Africa, men are seen as a very important target group for sensitization and motivation on child spacing. This reflects the awareness that men typically exercise a unilateral decision-making role on matters of family size. Large

numbers of children are typically considered to reflect well on men's virility.

Recognizing the socio-cultural constraints to introducing child spacing, the project strategy focuses on a gradual approach in the two provinces, preceded by orientation and sensitization seminars for formal and non-formal leaders. At least at the outset of the project (Years Two and Three), medical personnel will continue to require that husbands give their consent for their wives' use of modern contraceptives. The administrative plan of the project calls for vary careful monitoring and supervision of the child spacing activities.

XIII. Evaluation Plan:

The major input in the integration of child spacing services is training: the preparation of personnel to provide quality services and counseling. The training plan makes clear who is to be trained to do what. The evaluation of this input takes place at two levels. On the programmatic level, as part of evaluating the overall training effort, the question is: are the personnel being trained? This information can be gathered easily from cost and programmatic reports. The second level is quality; this is more difficult to determine through evaluation, but not impossible. The first measure is the use of standardized pre and post tests. The cognitive level of learning required for the provision of service is easily evaluated through pre and post test instruments. Expertise exists in Cameroon to develop such tests. Beyond cognitive learning, there are clinical skills to be acquired, in particular the insertion and removal of IUDs, and the screening of patients. The evaluation of these skills requires a competency-based approach to training. This will be built into the training of clinicians.

The aim of the component is the introduction of child spacing services. Evaluation of this will be done through examination of service statistics and through direct observation of pharmacies. Careful records will be kept by all service providers of contraceptive supplies and acceptors. These records will be reviewed both through regular supervision and at annual review and replanning meetings scheduled throughout the life of the project. Supervisors will also record whether educational materials are available at service delivery points. As correct use of methods is very important to the health of users and the success of the program, educational materials can help reinforce messages given in counseling.

In addition to these evaluation activities covering the various elements of the child spacing component, the ensemble of providing services and counseling will be evaluated regularly. The operations research activities will contribute to this process, but an actual evaluation of the overall component will

be conducted in Year Four. Using the KAP data acquired as part of the baseline, the key findings will concern changes in the knowledge, attitudes and practices of both the service providers and the target population. This evaluation will be broad enough to assist the government in determining whether and how to introduce child spacing services in the other provinces.

XIV. Training Plan:

Extensive discussion of the types of personnel to be trained and the timing of those training events can be found in the administrative plan. Training targets are given in the "Outputs" section of this annex. The following tables summarizes the total training plan by type of training, numbers and types of participants, key objective, and duration and timing:

SUMMARY OF CHILD SPACING
TRAINING

TYPE OF TRAINING	TYPE AND NUMBER OF PARTICIPANTS	KEY OBJECTIVES	DATE AND DURATION
1. ORIENTATION SENSITIZATION	30 PROVINCIAL, DISTRICT AND LOCAL LEADERS PER YEAR IN YEARS 2+3; 40 PER YEAR IN YEARS 4+5	ELICIT SUPPORT FROM LEADERS FOR CHILD SPACING SERVICES	THREE DAYS, AT LEAST TWO MONTHS PRIOR TO INITIATING SERVICE DELIVERY
2. CLINICAL SERVICES:	A. ADAMAOUA: 10 DOCTORS AND 25 NURSES; SOUTH: 19 DOCTORS AND 27 NURSES	MEDICAL PERSONNEL CAPABLE OF PRESCRIBING MODERN METHODS (PILLS, IUDS, FOAMING TABLETS)	2nd QUARTER OF YEAR TWO; 5 DAYS
	B. ADAMAOUA: 8 DOCTORS AND 18 NURSES; SOUTH: 13 DOCTORS & 31 NURSES	"	2nd QUARTER OF YEAR THREE
	C. ADAMAOUA INFIRMIER BREVITE : 42 AIDES SOIGNANTS: 74 AGENTS DE SANTE: 26	AUXILLARY PERSONNEL ABLE TO PRESCRIBE AND/OR COUNSEL ON MODERN METHODS	1st QUARTER OF YEAR FOUR (TWO WEEKS)
	D. SOUTH: INF. BREV. : 48 AIDES SOIGNANTS: 87		
	E. ADAMAOUA: INFIRMIER BREVITE : 38 AIDES SOIGNANTS: 72 AGENTS DE SANTE: 32	"	1st QUARTER OF YEAR FIVE
	F. SOUTH: INF. BREV. : 48 AIDES SOIGNANTS: 114 AGENTS DE SANTE: 53	"	1st QUARTER OF YEAR FIVE
3. LOGISTICS:	2 CENTRAL PERSONNEL 10 PROVINCIAL "	PHARMACY AND ADMINISTRATIVE PERSONNEL WILL BE ABLE TO ORDER, STOCK, DISTRIBUTE AND REORDER COMMODITIES	BY 2nd QUARTER OF YEAR TWO
4. REGIONAL STUDY TOURS:	6 CENTRAL AND PROVINCIAL PERSONNEL	SENIOR PERSONNEL VISIT OTHER MCHCS PROGRAMS	BY 3rd QUARTER OF YEAR TWO

XV. Operational Research:

In Year One a plan for OR will be developed. A centrally-funded project will be invited to assist in developing and implementing the plan. The major purpose of OR for the child spacing component is to assist the Government of Cameroon in evolving the most suitable modality for service delivery. Then different departments offer an opportunity to experiment with free versus paying services. As the present contraceptive prevalence rate of 3% has been achieved through a paying system (commodities being purchased in private pharmacies), there is already reason to believe that potential users are prepared to pay for services. In the last two years of the project, auxiliary health workers will be trained to provide service and counseling. OR will look at community-based models using these workers as well.

XVI. Procurement Plan:

In keeping with USAID-assisted bilateral programs worldwide, the procurement of contraceptives will be undertaken with the assistance of USAID/Washington, Office of Population/Commodity and Program Support Division, which is responsible for contraceptive commodity support provided to AID bilateral programs worldwide. It is anticipated that all commodity needs for the life of the project can be met through central resources.

ANNEX I.

Gray Amendment

USAID/Cameroon firmly believes in following the Gray Amendment principles to permit small and minority firms and HBCUs an opportunity to contribute their expertise to AID projects. An example of USAID's commitment was demonstrated by its decision to make the participation of an HBCU one of the evaluation criteria in the Request for Expressions of Interest (REI) for this project. The collaborative assistance mode allowed the HBCU to participate in the design as well as implementation phase. The project will benefit from the experience of an institution accustomed to achieving results with scarce resources. The mission will continue to identify opportunities for small and minority firms in the procurement of goods and services as our requirements become firm.

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ANNEX J JOB DESCRIPTIONS

I. Chief of Party

A. Health Services Management Assistance

1. Serves as the principal Project collaborator at the Ministry of Health, working directly with the Ministry-appointed Project Director to develop and execute management improvement interventions in the South and Adamaoua Provinces.

2. Acts as the principal technical advisor to the MOH for:

a. assessment of the rural health services management needs of the Project provinces
b. formulating strategies for addressing these management needs
c. planning the methodology for Project interventions
d. developing a training program for the provincial health managers to enhance their management, training and child survival services delivery skills.
e. engaging provincial health services managers in a series of in-service workshops designed involve them in practical, problem-solving exercises derived from their own management responsibilities
f. evaluating the relative effectiveness of alternative Project interventions

3. Is responsible for ensuring that the investment of Project resources results in the achievement of stated Project objectives

B. Project Administration:

1. Serves as the representative of the Contractor to the GRC and USAID/Cameroon
2. Serves as the team leader of the Contractor-provided long term and short term advisors
3. Coordinates the delivery and use of Project resources, including personnel, commodities and operating funds
4. Maintains the Project management information system and prepares regular reports, as required by the GRC, USAID and the Contractor

Qualifications: The Chief of Party will be a public health physician with at least five years of relevant planning and management experience in Africa, excellent French and availability for a long term assignment in Yaounde

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II. Management Trainer

In collaboration with the Chief of Party, the Management Trainer will:

A. Assess the management, teaching and services delivery training needs of the rural health services personnel in the South and Adamaoua Provinces

B. Prepare and execute a competency-based in-service training program to meet these needs

C. Coordinate the health promotion and communications aspects of the Project

D. Coordinate the Project supported public health degree training and MCH study tours

Qualifications; The Management Trainer should have graduate training in both management and training, at least five years of relevant African experience, excellent French and availability for a three year assignment in Yaounde

III. Provincial Project Coordinator

A. Serves as the principal Project advisor at the Province level, coordinating the full spectrum of Project activities within the Province.

B. Facilitates the involvement of the Chief of Party, the Management Trainer and the short term consultants in Project activities within the Province

C. Maintains the Project management information system (MIS) within the Province and prepares regular reports as required by the GRC, USAID and the Contractor.

D. Is responsible for the achievement of the Project objectives within the Province

Qualifications: The Provincial Project Coordinators must have a graduate degree in public health or health services administration, at least three years of relevant African experience, excellent French and a willingness to accept a long term assignment in a rural, Provincial capital.

IV. Peace Corps Volunteers

Although the involvement of Peace Corps Volunteers in the Project is still under discussion and no commitments have been made, it is generally felt that Peace Corps Volunteers could accelerate the realization of Project objectives by serving as Project facilitators at the Division or sub-Division levels. This could be accomplished without the volunteers assuming any

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direct health system roles, but simply expediting the development of Project initiated management improvements by serving as advisors to rural health workers. Possible Peace Corps involvement in the Project was presented earlier in Annex G.6.