

CLASSIFICATION  
PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

1. PROJECT TITLE  <p style="text-align: center; font-size: 1.2em;">NORTHERN PRIMARY HEALTH CARE</p>			2. PROJECT NUMBER  <p style="text-align: center; font-size: 1.2em;">650-0011</p>	3. MISSION/AID/W OFFICE  <p style="text-align: center; font-size: 1.2em;">USAID/SUDAN</p>
4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) <span style="float: right;">650-80-08</span>				
<input type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION				
5. KEY PROJECT IMPLEMENTATION DATES A. First PRO-AG or Equivalent FY <u>78</u> B. Final Obligation Expected FY <u>79</u> C. Final Input Delivery FY <u>82</u>	6. ESTIMATED PROJECT FUNDING A. Total \$ <u>22,979,000</u> B. U.S. \$ <u>5,863,000</u>	7. PERIOD COVERED BY EVALUATION From (month/yr.) <u>10/79</u> To (month/yr.) <u>9/80</u> Date of Evaluation Review <u>Sep. 20, 1980</u>		

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
1. Approve change in construction component to build Phase I Dispensaries and staff housing instead of PHC Units.	MOH Under Sec USAID Mis Dir AID/W	12-31-80
2. Amend PIO.T-90006 to transfer non-contract dollars to ProAg for sub-obligation re: construction.	MAMicka	10-31-80
3. Collect data to estimate cost of testing National Data Systems (NDS) forms in Khartoum & Red Sea Provinces, especially among Nomad CHWs.	HDavis	11-30-80
4. Review progress of vital events registration to determine what further action is appropriate.	HDavis	3-31-80
5. Develop & formalize supervisory structure for PHC program.	Dr. Kabbashi	3-31-80
6. Prepare schedule for short-term advisors needed.	CMarkarian	11-30-80
7. Prepare schedules for orientation & continuing education courses.	CMarkarian	10-31-80
8. Develop mechanism to promote formal communications among staff members of MOH, USAID and MSC1.	Dr. Kabbashi	11-30-80
9. Approve change from long-term logistics training to short-term observational training.	USAID Mis Dir MOH Under Sec	10-31-80
10. Appoint a panel, or committee, to analyze present and future long-term drug supplies for PHC Program.	Dr. Kabbashi	12-31-80
11. Prepare report re receipt, preparation & delivery of vehicles.	HMiner	9-24-80

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9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

<input checked="" type="checkbox"/> Project Paper	<input checked="" type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____
<input checked="" type="checkbox"/> Financial Plan	<input checked="" type="checkbox"/> PIO/T	_____
<input checked="" type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____
<input checked="" type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

A.  Continue Project Without Change

B.  Change Project Design and/or  
 Change Implementation Plan

C.  Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

MAMicka, M.D., USAID Project Manager  
 Arkabbashi, M.D., Dir-Gen, MOH Rural Health/PHCP  
 AIBiely, M.D., Deputy Dir-Gen, MOH Rural Health/PHCP  
 CAMS, APHA/AID Logistics Consultant  
 AO'Reilly, USAID Evaluation Officer

12. Mission/AID/W Office Director Approval

Signature:   
 Typed Name: Arthur W. Mudge  
 Date: September 20, 1980

CONTINUATION SHEET: PROJECT EVALUATION SUMMARY (PES) - PART I

USAID/Sudan  
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|--|--|----------|
| 12. Determine which spare parts are missing.   | Drs. Kamal/<br>Markarian               |          |
| 13. Formalize "vehicle preparation" system before arrival of 5-ton trucks.   | Dr. Kabbashi<br>C.Markarian<br>MAMicka | 11-30-80 |
| 14. Develop proposal for vehicle maintenance course.   | C.Markarian                            | 10-15-80 |
| 15. Document, approve & Implement recommended system for monitoring of project vehicles before next vehicles arrive    | Dr. Kabbashi                           | 10-15-80 |
| 16. Approve the use of trucks to transport medical supplies from Port Sudan to Khartoum for an initial limited period. | MOH Under Sec<br>USAID MisDir          | 9-30-80  |
| 17. Prepare proposal for side rail modification of trucks.   | MSCI Logistics<br>Advisor              | 10-31-80 |
| 18. Prepare proposal containing a justification to switch from gasoline to diesel operated vehicles.                   | MSCI Logistics<br>Advisor              | 3-31-80  |
| 19. Review project assistance completion date (PACD).  | MAMICKA                                | 9-30-81  |
| 20. Prepare proposal for orientation course for statistical clerks.  | HDavis                                 | 10-31-80 |

I. US Action Agent - Contractor

1/ Staff of Proper Size: From November, 1979 to April, 1980 the position of Chief of Party was vacant and the staffing was supplemented only by two three-week TDY's. A secretary is being hired to support the contract team in 9/80.

2/ Timely Arrival of Personnel: The 5 months' vacancy for the Chief of Party was partly due to the long approval process. The candidate came to Sudan in 1/80 for a 2-3 week TDY. The approval process and the logistics of moving, delayed arrival time to April 12, 1980. It is anticipated that if agreement on the candidate can be reached between MOH and USAID, the logistics position could be filled by October, 1980.

3/ Responsiveness to A.I.D. Directions: During the past 90 days there have been some misunderstandings between the MSCI and the USAID Project Managers. Clarification of roles and reestablishment of regular meetings are in progress as lines of communication have improved.

4/ Adherence to Work: Due in part to the vacancy in the Chief of Party position and the difficulty in finding a house once the Chief of Party arrived, progress on the outputs is behind schedule. Another factor which must be critically evaluated is whether the burden of the support functions provided by the Chief of Party is so great that it interferes with his performance as training and evaluation advisor.

5/ Contractor's Home Office Support: MSCI was not adequately prepared to support the contract team initially. However, the firm has responded by improving support for their team as needs arise. To improve support the USAID Project Manager will explore the possibility of getting permission to send cables for the contractor to MSCI when the telex system is out in Sudan.



NARRATIVE SUMMARY	VERIFIABLE INDICATORS	MEANS, VERIFICATION	ASSUMPTIONS
Outputs	Magnitudes of Outputs		Assumptions for Achieving Outputs
1. Develop and test national data system for PHCP by March 31, 1981	1. National data system for PHCP accepted/ approved by all regions concerned.	1. MOH records	1. Continuing and increasing cooperation among all regions.
2. Implement national data system by June 30, 1982.	2. Printing/distribution of PHCP data forms to functioning PHCU's, training of personnel etc. to achieve timely reporting.	2. MOH/Province/PHCU records on health statistics. Survey PHCU's.	Ministries of Health in the areas of data collection, information sharing and logistics.
3. Improve national vital statistics registration system through increased registration of births and deaths.	3. Vital statistics registration increased from 20-30% to 60%.	3. MONP/MOH records. Survey PHCU's.	2. Ability of MOH to nominate and release appropriate staff for training.
4. Augment national MOH logistics system.	4. Increase movement of medical supplies from Pt Sudan to Provinces; decrease average length of time from order to delivery.	4. MOH/Province records on medical supplies and equipment. Survey PHCU's.	3. Local community commitment to select CHWs and provide self-help funds and labor for PHCU construction.
5. Train by observation of logistic system, personnel from Central Medical Stores(CMS).	5. 4 participants provided observation and returned to positions by June 30, 1982.	5. MOH/USAID/S records	4. Availability of petrol at province level.
6. Train senior drivers/mechanics & MOH Engineer in vehicle maintenance for 12 provinces and MOH.	6. 14 persons completed 6 weeks training and returned to positions by June 30, 1981.	6. USAID/S records	5. Availability of drugs and supplies after initial 2 month supply.
7. Construct and provision phase I dispensaries in Northern and Southern Kordofan by June 30, 1982.	7. 20 phase I dispensaries completed/provided with equipment, instruments and a 2-month issue of drugs and supplies by 6/30/1982.	7. USAID/S records; site visit.	6. Ordering system for equipment/instrument/drugs/ supplies is functional.
8. Augment PHC services for nomads in the Kordofan, Darfur, and Eastern Regions.	8. 600 nomad CHW's provisioned with equipment, instruments and a 2-month issue of drugs & supplies by December 31, 1981.	8. USAID/S records; sample survey.	7. Vehicles being used in manner for which intended.
9. Develop recommendations for future assistance from interim evaluation and reports of long-term & short-term advisors.	9. Reports submitted to and accepted by USAID/S by December 31, 1981.	9. USAID/S records.	8. Full cooperation will continue between MONP & MOH.
10. Orient rural health personnel to PHCP in 10. in 12 provinces.	4,120 health personnel oriented in 12 provinces by June 30, 1982.	10. MOH records; sample survey.	
11. Provide continuing medical education for 11. CHW's in 12 provinces.	1,120 CHW's received continuing medical education by June 30, 1982.	11. MOH records; sample survey.	
12. Train MOH staff in biostatistics and organization of medical care.	12. 2 participants trained to MPH/equivalent degree & returned to project by January 1982.	12. USAID/S records, survey of those trained.	
13. Upgrade MOH "community physicians" in community health skills in U.S.	13. 12 "community physicians" received 3 months training and returned to former positions by June 30, 1982.	13. USAID/S records; survey those trained.	1/ Potent drugs with greater than 6 months life before expiration date upon delivery at province level, and functional equipment and instruments.
14. Upgrade arabic speaking health personnel in community health, managerial & training skills for 12 provinces through in-country/third country training.	14. 36 senior medical assistants, senior tutors and other appropriate staff completed 3 months training and returned to positions by June 30, 1982.	14. MOH/USAID records; survey those trained.	
15. Increase coordination between Northern Primary Health Care Project & Southern Primary Health Care Project in the area of training, logistics & health statistics.	15. Northern and Southern Provinces submitting health data to MOH Department of Health Statistics on a weekly, monthly or quarterly basis as appropriate.	15. MOH records,	2/
16. Increase coordination among non-government agencies involved in PHCP.	16. Annual meeting held for exchange of information on PHC projects. Quarterly newsletter produced and distributed regularly.	16. MOH/USAID/S records.	

Foot Notes:

- 1/ Potent drugs with greater than 6 months life before expiration date upon delivery at province level, and functional equipment and instruments.
- 2/

INPUTS	IMPLEMENTATION TARGET (TYPE & QUANTITY)	MEANS OF VERIFICATION	ASSUMPTIONS FOR PROVIDING INPUTS
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AID:

1. <u>Technical Assistance</u> a. 1 training expert b. 1 vital statistics data expert c. 1 logistics/supply expert d. 3 short-term advisors per year e. 3 short-term advisors for	1. <u>Technical Assistance</u> 36 person months 36 person months 36 PM 27 PM @ 3 mo. each  4 1/2 PM	USAID/S records	1. Contractor selected will be able to provide personnel and back-stopping on a timely basis.
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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>Program or Sector Goal:</u> The Broader Objective to which this Project Contributes:</p> <p>Reduce the incidence of the most prevalent diseases and other health problems that are detrimental to the overall development of the Sudanese.</p>	<p><u>Measures of Goal Achievement:</u></p> <p>The establishment of eight national health programs, may be measured as follows:</p> <ol style="list-style-type: none"> <li>1. Malaria Nationwide: Morbidity-measured by the percentage of population reporting to health facilities &amp; diagnosed as clinical malaria.</li> <li>2. Malaria Man Made: Morbidity-the proportion of population in irrigated areas reported suffering from clinical malaria each year.</li> <li>*3. Primary Health Care Services: Achievement of maximum coverage of primary health services throughout country within framework of current national health plan: one community health worker (CHW) per 4,000 population in settled areas and one per 1,500 population living under nomadic conditions.</li> <li>4. Bilharzia in Irrigated Areas: The incidence of new infections appearing each year in children, prevalence of diarrhea with blood, and snail population density.</li> <li>5. Safe Water Supplies: Number of water-source facilities improved to prevent human and/or animal contamination; 900 government-owned shallow wells, 30,000 privately-owned shallow wells, 850 haffirs, and 30 dams.</li> <li>6. Environmental Health: Implementation of a detailed intersectoral program (under study).</li> <li>7. Food Supply (Dura) in Certain Regions: Reduce to zero the problem of inadequate supplies of dura for 100 percent of population either by expanding areas of dura production and/or increasing yield on existing lands.</li> <li>8. Onchocerciasis: The percentage of skin positives and/or nodule positives in school-age children; number of new cases.</li> </ol>	<p>Comparison of health sector goal with actual achievement.</p>	<p><u>Assumptions for Achieving Goal Target</u></p> <p>National priority to health does not diminish.</p>
<p><u>Project Purpose</u></p>	<p><u>End of Project Status</u></p>	<p><u>Assumptions for Achieving Purpose</u></p>	
<p>To accelerate, expand and strengthen the capability of the GOS to deliver primary health care services to the rural areas of Northern Sudan, especially to Kordofan Region and to provinces with nomadic populations, by June 30, 1982.</p>	<ol style="list-style-type: none"> <li>1. National data base available for assessing health status of population and for management purposes of MOH.</li> <li>2. Health facilities have useful supplies 1/ as needed.</li> <li>3. Increase in number of people utilizing PHC Services in communities.</li> <li>4. Increase in number of nomads utilizing PHC services.</li> <li>5. Increase preventive and promotive services provided throught the PHCP.</li> <li>6. Quality care provided by CHW's. 2/</li> <li>7. Regular supervision of CHWs is providing feedback information to MOH</li> <li>8. CHWs are registering vital events.</li> <li>9. Villagers are providing inputs to CHWs and are responding to the services.</li> </ol>	<ol style="list-style-type: none"> <li>1. Health information sources MOH; data base used for planning purposed at province level</li> <li>2. CMS/PHCU records; inspection of PHCU.</li> <li>3. MOH/Dispensary records; interview village leaders.</li> <li>4. MOH/PHCU records; interview clan leaders.</li> <li>5. MOH/PHCU records.</li> <li>6. Site visits to PHCU's and nomad CHW's; supervisory reports.</li> <li>7. Supervisory reports</li> <li>8. MOH/MONP records.</li> <li>9. Interviews of community leaders.</li> </ol>	<ol style="list-style-type: none"> <li>1. GOS commitment to deliver primary health care service to rural population remains a high national priority.</li> <li>2. Sufficient funding to carry out the 1977-84 primary health care program is forthcoming on a timely basis.</li> </ol>

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**Project: Northern Primary Health Care, 650-0011**

**Inputs, continued:**

<b>2. Training</b>	<b>2. Training</b>	<b>1759</b>	<b>MOH/USAID/S records</b>	<b>2. USAID/S will be able to provide input and technical/management backstopping in a timely fashion</b>
a. In-country				
1. Orient health personnel to PHCP	4,120-HV, tutor, MA, SO			
2. Continuing medical education	1,120 CHW's			
3. Vehicle maintenance workshops	14 senior drivers/mechanics			
b. Third country/in-country training for senior medical assistants, senior tutors and others	36 persons/3 mo. each			
c. Participant Training - U.S.				
1. Long-term				
a. Statistics	1 person/12 months			
b. Organization of health care	1 person/12 months			
2. Short-term				
a. MOH Community Physicians	12 persons/3 mo. each			
b. MOH logistics personnel	4 persons/3 mo. each			
3. <u>Commodities/Supplies</u>	<b>3. <u>Commodities/Supplies</u></b>	<b>2,177</b>	<b>MOH records</b>	<b>3. GOS will be able to provide funds, staff and materials as needed.</b>
a. Printing of health data forms for CHWs	1 year's supply			
b. Photocopy machine	one			
c. Supply/supervisory vehicles )	26 carryalls/24 five-ton trucks			
d. Equipment/instruments/supplies ) for phase I dispensaries and nomads CHW's )	For 20 dispensaries and 600 nomad CHW's			
e. Initial 2 months supply of drugs)				
4. <u>Construction</u>	<b>4. <u>Construction</u></b>	<b>950</b>	<b>MOH/Ministry of Public Works and Construction/USAID/S records</b>	
Phase I dispensaries and staff house	20			
5. <u>Other Costs</u>	<b>5. <u>Other Costs</u></b>	<b>30</b>	<b>MOH records</b>	
Testing of national health data forms	In Khartoum Province			
	<b>Subtotal</b>	<b>\$5,330</b>		
	<b>10% contingency</b>	<b>533</b>		
	<b>TOTAL</b>	<b>\$5,863</b>		

**Financial Inputs Directly Associated with Project**

Salaries for personnel trained in AID funding (2. a., b., c. above) FY 80-82 (includes salaries of 280 nomad CHWs and 20 MAS.

GOS recurrent costs FY 80-82 associated with AID funded commodities (3. a., b., c., d., e., f., above)

Equipment/supplies/drugs - recurrent costs - for DISP constructed by FY80-82

**GOS**

1. FY 80-82 salaries for trained personnel **\$20,691**

2. Maintenance, fuel, depreciation, drivers, etc. to operate AID funded commodities FY 80-82 **1,952**

3. Equipment/supplies/drugs for DISP and 600 nomad CHW's **336**

**TOTAL \$22,979**

**BEGINNING OR PROJECT STATUS AS OF JANUARY 1978**

1. National primary health care program 1977-84 approved, published and given high priority by GOS.
2. Community health workers:
  - a. Trained to date: 420
  - b. In training: 700
3. In four western provinces where AID will supply funds for construction of PHCUs or dispensaries and supply initial equipment and drugs:
  - a. PHCUs completed to date: 287
  - b. Dispensaries completed to date: 156
4. Baseline study performed in Kassala/Northern Kordofan and Equatoria December 1976.
5. Health data/management information system for primary health care program designed and tested.

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Attachment I

## PROJECT OUTPUTS - PROGRESS TO DATE

B. QUALITATIVE INDICATORS FOR MAJOR OUTPUTS	TARGETS
1. National Data System (NDS) for Primary Health Care Program (PHCP) accepted/ approved by all regions concerned.	Planned: NDS for PHCP was to have been developed/tested/ modified by 9/80. Actual to date: Revised form developed; testing to begin Sept-Oct. 1980. Replanned: Complete by 3/31/81.
2. Printing/distribution of PHCP data forms to functioning PHC units, training of personnel, etc. to achieve timely reporting.	Planned: Implementation to have begun by 9/80. Actual: "Needs" assessment completed 3/80 in Southern Region re areas for strengthening the Dept/Health Statistics. Replanned: Conduct "needs" assessment of 12 Northern Provinces in FY 81. Other implementation aspects to be completed by June 30, 1982.
3. Vital statistics registration increased from 20-30% to 60%.	Planned: Hold meeting with MONP Dept/Statistics on Birth/ Death registration to initiate procedures for CHW involvement. Actual: 3 meetings held. MONP will provide registration/ certification forms. Replanned: Implementation of this system is planned to take place concurrently with implementation of NDS/PHCP.
4. Increase movements of medical supplies from Port Sudan to provinces; decrease average length of time from order to delivery.	Planned: Develop procedures for unit packing of project commodities and for receipt of vehicles/spare parts, including accountability/storage/repair/maintenance. Inventory: MOH vehicles; commodities at CMS and Port Sudan. Actual: 26 carryalls arrived at Port 2/80; 24 distributed; management procedures developed but not formalized and fully implemented. Central Medical Stores (CMS) spare parts warehouse completed. MOH commodities inventoried at Port. Procedures established to unit package project commodities. Needs assessment conducted in Southern Region & 2 provinces in the North. Two MOH representatives assigned to expedite clearance/movement of MOH cargo from Port to Khartoum. Project staff have noted increased movements of medical supplies from Port to Khartoum over last year and more orderly storage in CMS. Replanned: Inventory MOH vehicles & CMS once movement of supplies from CMS to provinces begins. Complete "needs" assessments in 10 Northern provinces in FY 81. By 11/80 formalize procedures to receive 5-ton trucks.
9. Reports of long & short-term advisors submitted and accepted by USAID/Sudan.	Planned: By 1/80 define needs for short-term advisors; by 9/81 submit completed reports. Actual: Needs not defined; 0.5 PM used. Replanned: Define needs in 10/80; submit reports by 12/81.
15. Northern and Southern Provinces submitting data to MOH regularly: training logistics health statistics.	Planned: USAID Project Manager (PM) to initiate liaison between the project and Southern PHC project. Actual: USAID PM initiated regular visits to provide coordination between the two projects. Replanned: MSCI PM & MOH counterpart will visit Southern PHC project, as well other long-term advisors and counterparts to coordinate programs.
16. Annual coordination meeting held on PHCP and quarterly newsletters distributed to CHW's.	Planned: Inventory other donor's planned inputs. Actual: Meetings held with UNICEF officials to coordinate the purchase of instruments, drugs, supplies/equipment to avoid duplication. Replanned: Assist with interagency meetings on PHCP activities. Contribute articles to MOH planned quarterly newsletter.

**Progress Review Worksheet**  
**PROJECT OUTPUTS- PROGRESS TO DATE**

Evaluation Attachment II  
for Period 10/79 to 9/80

A. QUANTITATIVE INDICATORS FOR MAJOR OUTPUTS		TARGETS (Percentage/Rate/Amount)					
		CUMU- LATIVE PRIOR FY	CURRENT FY		FY <u>81</u>	FY <u>82</u>	END OF PROJECT <u>6/30/82</u>
			TO DATE	TO END			
5. Personnel from Central Medical Stores (CMS) complete observational training and return to positions by June 30, 82	PLANNED	-	0	1	0	0	Long Term 1
	ACTUAL PERFORMANCE	-	-				
	REPLANNED			0	2	2*	Short-term 4* (maximum)
6. Senior drivers/mechanics complete 6 weeks in country training and return to positions by June 30, 1981	PLANNED	New output added as a result of the evaluation.					
	ACTUAL PERFORMANCE	-	-				
	REPLANNED			0	14	0	14
7. Health care facilities completed/provided with equipment instruments and a 2-month issue of drugs and supplies.	PLANNED	-	6	1	14	14	35 PHC Units
	ACTUAL PERFORMANCE	-	0				
	REPLANNED			0	10	10	20 Phase I dispensaries
8. Nomad community health workers (CHW) provisioned with equipments, and instruments and a 2-month issue of drugs & supplies by December 31, 1981.	PLANNED	-	0	0	300	300	600 nomad CHW's
	ACTUAL PERFORMANCE						
	REPLANNED			-	-	-	-
10. Provincial health personnel oriented to PHCP.	PLANNED	-	0	0	2060	2060	4120
	ACTUAL PERFORMANCE	-	-				
	REPLANNED			-	-	-	-
11. CHW's receive continuing medical education by June 30, 1982	PLANNED	-	40	0	540	540	1120
	ACTUAL PERFORMANCE	-	0				
	REPLANNED			0	560	560	1120
12. MOH counterparts completed long-term training, MPH/equivalent degree, and returned to positions by 1/82	PLANNED	-	0	3	0	0	3
	ACTUAL PERFORMANCE	-	0				
	REPLANNED			0	0	2	2
13. MOH community physicians completed 3-months short term U.S. training and returned to former positions by June 30, 82	PLANNED	-	0	4	4	4	12
	ACTUAL PERFORMANCE	-	0				
	REPLANNED						
14. Sr. medical assistants tutors & other health personnel completed 3-months management training course in-country.	PLANNED	-	0	0	18	18	36
	ACTUAL PERFORMANCE	-	0				
	REPLANNED			0	18	18	36

Progress Review Worksheet

Evaluation for Period: 10/79 to 9/80

PROGRESS TOWARD CONDITIONS EXPECTED AT END OF PROJECT Revised 9/80

A. CONDITIONS EXPECTED TO EXIST AT THE END OF THE PROJECT	B. METHOD(OR MEASUREMENT)OF VERIFYING CONDITIONS AT END OF THE PROJECT	C. PROGRESS AS SHOWN BY MEASUREMENT VERIFICATION
1. National data base available for assessing health status of population and for management purposes of MOH.	Information sources, Dept. Health * Statistics, including monthly PHCP reports; review data base used by provincial health officials for planning purposes.	Premature to review records of Dept. Health Statistics (DHS). PHCP reports received from provinces irregularly and 3 months to a year late. DHS generates repts based on data submitted and returns to provinces for use.
2. Health facilities have useful supplies as needed.	Review records of/Central Medical Stores, PHC Units & dispensaries for quantities of drugs orderd & received. Review shelf date of drugs on hand and condition of equipment and instruments.	Premature to review records and make site visits.
3. Increase the number of people utilizing primary health care (PHC) services in communities.	Review MOH/PHC Units records. Interview village chief and village council members for acceptability of services Evaluate distances people must travel to facility.	Premature to review records or conduct interviews.
4. Increase in number of nomads utilizing PHC services.	Review MOH/Nomad CHW records. Interview members of Farig Council, Chief of clan and local government officials for acceptability of services.	Premature to review records or conduct interviews.
5. Increase preventive and promotive services through the PHC Program.	Review MOH/PHC Units records for changing patterns of preventive and promotive activities.	Premature to review records. CHW manual has been revised to increase the emphasis on preventive/promotive services. CHW-tutor training time spent on preventive/promotive topics has been increased to 30%.
6. Quality care provided by community health workers (CHW).	Site visits to randomly selected PHC Units and nomad CHW's to observe quality of care provided and preventive/promotive activities; interview village chief for problems; review treatment records and records of supervisory visits.	Premature to conduct on-site evaluation.

\* PHCP - Primary Health Care Program

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Attachment III

Progress Review Worksheet

Evaluation

for Period: 10/79 to 9/80

PROGRESS TOWARD CONDITIONS EXPECTED AT END OF PROJECT Revised 9/80

A. CONDITIONS EXPECTED TO EXIST AT THE END OF THE PROJECT	B. METHOD(OR MEASUREMENT) OF VERIFYING CONDITIONS AT END OF THE PROJECT	C. PROGRESS AS SHOWN BY MEASUREMENT VERIFICATION
7. Regular supervision of CHW's is providing feedback information to MOH.	Review records of senior medical assistants, public health inspectors and health visitors; review MOH and provincial supervisory records.	Premature to conduct on-site evaluation.
8. CHW's are registering vital events.	Review MOH data base on births and deaths. Review CHW records on births and deaths reported. Interview village/clan leaders to estimate completeness of reporting.	CHW's have yet to begin much activity in this area.
9. Villagers are providing inputs to CHW's and are responding to the services	Interview village/clan council officials in randomly selected areas. Review CHW records for caseload and promotive activities. Survey observable effects of promotive activities.	Premature to conduct on-site evaluation.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

THE DEMOCRATIC REPUBLIC OF THE SUDAN  
MINISTRY OF HEALTH  
UNDERSECRETARY'S OFFICE  
P. O. Box 303 Khartoum  
Tel. 72053  
Telegraphic Address ( " DAWA )



جمهورية السودان الديمقراطية  
وزارة الصحة  
مكتب الوكيل  
ص. ب. ٣٠٣ الخرطوم  
تليفون ٧٢٠٦٣

RF  
IO  
CAR  
11/6/8

Khartoum, 25th. October. 1980

No. | MIN. | |

الخرطوم في : -

التمرة : - وص | |

Mr. Arthur Mudge,  
U.S. A.I.D.,  
Khartoum  
SUDAN

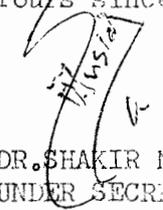
Dear Mr. Mudge,

During the evaluation of the Northern Primary Health Care Project ( 650-0011) the topic of construction of phase - one dispensaries required further discussion. In view of the preliminary work already completed, it seems advisable and more feasible to continue with plans to build phase-one dispensaries in North and South Kordofan.. I hope that future plans will look into achieving the widest possible coverage through community involvement and participation.

I am looking forward to a continuing cooperative working relationship among our respective staff.

Thank you.

Yours sincerely

  
DR. SHAKIR MUSA  
UNDER SECRETARY  
MINISTRY OF HEALTH

September 19, 1980

ACTION MEMORANDUM FOR DIRECTOR, USAID/SUDAN

SUBJECT: Evaluation: Northern Primary Health Care Project,  
650-0011.

PROBLEM: To approve action decisions and discuss unresolved issues resulting from the evaluation of the Northern Primary Health Care Project.

DISCUSSION: Since September 2, an evaluation team has been meeting regularly to review and measure the progress made in implementing the above named project. The evaluation team was composed of the following people:

Abdel Rahman Kabbashi, M.D., Director General, MOH  
Rural Health and Primary Health Care Program.

Ali I. Biely, M.D., Deputy Director General, MOH  
Rural Health and Primary Health Care Program.

C.A. Markarian, Chief of Party & Training/Evaluation  
Advisor, Medical Services Consultants, Inc.

Howard G. Miner, APHA logistics consultant

Mary Ann Micka, M.D., USAID Project Manager, Northern  
Primary Health Care Project.

Arlene O'Reilly, USAID Evaluation Officer

George Contis, M.D., President of Medical Services Consultants, Inc., Washington, D.C., spent five days with the team and participated in the technical review session held at the Ministry of Health on Sunday, September 14, 1980. The draft minutes of the technical review identify the other participants in that session.

The evaluation team and participants in the technical review discussed and recorded 16 issues concerning various aspects of project implementation and the Primary Health Care Program. Recommendations have been articulated for most of these issues. The executive staff is urged to give them considerable thought. Alternative resolutions would also be welcome.

Unresolved Issues:

The one issue (No. 6) for which the team did not feel qualified to resolve or to make a recommendation was whether the newly authorized \$18.0 million Rural Health Project is in fact the follow-on project that was anticipated when the present project was designed.

On four issues that critically affect the achievement of the outputs the team has made recommendations that would merely initiate an action that would lead to a resolution of the problem. These issues are :

- lack of a regular supply of petrol (issue No. 5);
- an adequate and regular supply of drugs for the PHC program (issue No. 4);
- adequate supervision of CHWs (issue No. 7); and
- project completion date (issue No. 16).

Issues with Proposed Resolutions :

The proposed change in the construction component of the project, if approved at the executive level, would mean an amendment to the Project Agreement (issue No. 1).

The recommendations on another four issues (numbers 8, 10, 11, 15), if approved, involve adding minor components to the project, that is, two in-country training courses; a modification to project vehicles; and a more thorough testing of the health data collection forms than present resources permit. An analysis of the present budget will be necessary to identify any dollars which have not already been specifically earmarked for a project activity. If none are available in the present project budget, then approval would be needed to request additional funds to implement these four activities.

Another minor change in project design will occur if the recommendation is accepted to provide short-term observational training for two or four persons in lieu of long-term training for one MOH staff member (issue No. 2).

There are five implementation issues and their recommendations which the team felt were fairly routine in nature. The issues are as follows:

- a mechanism to monitor project vehicles (issue No. 3);
- registration and certification of vital events (issue No. 9);
- receipt and inspection of project vehicles (issue No. 12);
- project communications (issue No. 14); and
- storage and movement of medical supplies and equipment for PHC program (issue No. 13).

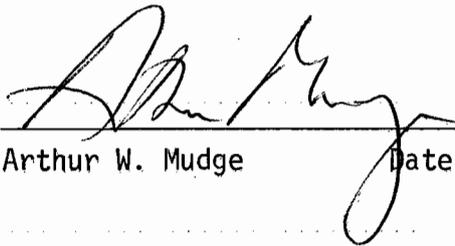
RECOMMENDATION: that the recommendations to the above noted issues be approved during the executive review session; and that you indicate your willingness to sign the Program Evaluation Summary (PES) as resently drafted or with specific changes as indicated.



Mary Ann Micka, M.D., M.P.H  
Project Manager

Attachments:

- Issues Paper
- PES
- Revised Logframe - I
- Progress to Date: Outputs - II
- " " " : EOPS - III
- Performance Analysis-IV
- Minutes executive review session-VI

Approved:  2 Feb, 83  
 Arthur W. Mudge Date

Disapproved: \_\_\_\_\_  
 Arthur W. Mudge Date



## ISSUES PAPER

Issue No. 1: Duplication of construction of Primary Health Care Units in Northern and Southern Darfur.

The Project was designed to finance the construction of 35 PHC units in the Kordofan and Darfur regions. PHC units are also being constructed by the Dutch and the African Development Fund in Northern and Southern Darfur. In the Kordofan Provinces PHC units are being constructed with community self-help. Since funds are not available to build dispensaries to support the new PHC units in Northern and Southern Kordofan, an agreement has been reached among the MOH, the USAID and Medical Services Consultants Inc. (MSCI) that the project construction funds could be better utilized if dispensaries were constructed to support the new PHC units. It may be possible to construct as many as 20 dispensaries, with staff houses, with the available funds. These will be built in Northern and Southern Kordofan with the larger proportion in Southern Kordofan where many fewer facilities exist than in Northern Kordofan.

Recommendation: That this change in the construction component of the project be formally approved and documented.

Note: It should be noted that the Under Secretary who attended the Technical Review as an orientation session for the Primary Health Care Project expressed some reservation about this change in the project. Further discussion of this issue is expected at the Executive Review session.

Issue No. 2: Long-term logistics training in the United States for MOH personnel.

The project provides for long-term training in logistics in the U.S. for a MOH staff member. Because of the difference between logistical systems in Sudan and the U.S., project officials now believe it would be more beneficial if short-term observational training in the U.S. could be arranged and tailored to focus on the training needs of the Sudanese. It is not certain how many short-term project staff could be trained in this manner with available funds - perhaps 2 to 4.

Recommendation: That the change from long-term logistics training to short-term logistics training be formally approved, documented and implemented.

Issue No. 3: A mechanism to monitor the use of and to maintain project vehicles.

The evaluation team has no evidence that vehicles have been or are being used for purposes other than which they were intended. The MOH on the advice of the former logistics advisor has developed and partially implemented a system designed to monitor and restrict the use of project vehicles to the Primary Health Care Program. On June 5, 1980 Dr. Biely sent a letter to the Assistant Commissioner for Health of each province saying that project vehicles "used for any other purpose may result in withdrawing them from your province". This was followed by a similar letter, dated June 16, to Provincial Commissioners from the Minister of Health.

A monthly vehicle report form is being designed to provide pertinent data on each vehicle and its use. The form is to be completed by provincial staff and forwarded to the Director General of the PHC Program in Khartoum.

It was also suggested that a form be designed and reproduced which could be used to record information gathered informally on the use of project-financed vehicles by both GOS and USAID officials travelling to the provinces.

Maintenance of vehicles in the Sudan is a chronic problem and mechanics are unfamiliar with US made vehicles. To develop the capability of MOH to maintain the 50 project vehicles, project officials feel that a training course on vehicle maintenance is needed for MOH drivers and mechanics.

Vehicle spare parts are to be stored in the Central Medical Stores (CMS), in Khartoum. These will be distributed by the CMS Director General in consultation with the two automotive maintenance staff members as needed by the vehicles in the provinces. Authorization for distribution will come from Dr. Kabbashi. A schedule for servicing the vehicles at CMS facilities will be developed and maintained. Both the MOH and the provincial officials will have copies of the schedule. It will be coordinated with trips by the vehicles from the provinces to Khartoum to pick up medical supplies from the Central Medical Stores.

Recommendations: a. That a vehicle maintenance training course for senior driver/mechanics be added to the project.

b. That the above system be documented, implemented and reviewed on a periodic basis to determine whether it provides for the use of vehicles as intended.

Issue No. 4: An adequate and regular supply of drugs for PHCP facilities.

The project provides for a 2-month supply of drugs to each new phase I dispensary when it is constructed. If the PHC Program is to be effective in delivering services to the people in rural areas, an adequate drug supply beyond the initial two months' provision must be available on a regular basis. To date the GOS has been unable to assure that an adequate and regular supply of drugs will be available over the long term. The present supply can be described as "seasonal" or when foreign exchange is available.

Recommendation: That a panel or committee be appointed to look at current stocks both in Central Medical Stores and in the pipeline to see if the type and amount of drugs are adequate to provide a regular supply to PHCP facilities. If not, what can be done to insure this continual supply of PHCP required drugs?

Issue No. 5: Lack of regular supply of petrol for project vehicles.

This is a problem being faced not only in the Sudan but by most non-producing oil countries of the world. The evaluation team, however, does wish to go on

record that nearly all the outputs of this project are dependent on an adequate and timely source of petrol. If petrol is not available or if it does not get through the distribution system to the provinces, there is little that project officials can do at the time.

Recommendation: That the MOH, the USAID and MSCI staffs look at the possibility of switching in the future from gasoline consuming project vehicles to diesel which is less expensive and more readily available in Sudan. Diesel operated vehicles, however, are more expensive.

Issue No. 6: A follow-on project to the Northern Primary Health Care Project, 650-0011.

A follow-on project was anticipated by both the GOS and the USAID when this project was designed. A Rural Health Support project in the amount of \$ 18.0 million has just been authorized by AID/Washington. Dr. Kabbashi, Director General of Rural Health and Primary Health Care, believes this project is not the follow-on project anticipated by the MOH officials. The USAID Project Manager does not have the in-depth continuity to provide an answer to project officials.

Recommendation: That USAID officials provide information to clarify this situation, i.e., does the newly authorized Rural Health Project satisfy the requirement that a follow-on project would be considered?

Issue No. 7: Adequate supervision of Community Health Workers (CHWs).

Following our discussions with many of the interviewees, it was apparent that adequate supervision of the CHWs is lacking. In theory, they can be supervised by as many as six different health categories; but in fact they are rarely supervised. In one province it was reported that the Assistant Commissioner for Health tries to supervise the CHWs at least once per month.

Lack of transportation, petrol and an incentive for the Medical Assistants are the usual basic response to inquiries as to why this function is not being performed.

Recommendation: Since the MOH has the responsibility for setting standards, we recommend that the MOH develop and formalized a systematized supervisory structure for the Primary Health Care Program.

Issue No. 8: Orientation Training of Statistical clerks to be involved in PHC Program.

Since the collection and processing of Health Information and vital statistics are an integral part of the PHC Program and since statistical clerks in the Provinces and Regions will have the responsibility of compiling and processing data at that level, there is a need for the orientation of these personnel in the plans and procedures of the Health Information System using the PHC Program.

Recommendation: That monies be made available in the amount of LS. 24,000 for the payment of transportation, Per Diem, and other costs for the orientation of 400 statistical clerks currently working in the 12 provinces of the North.

Issue No. 9: Registration and certification of vital events nation-wide.

The responsibility for this function is presently divided between the MOH and the Ministry of National Planning. At the present time the nurses and CHWs are performing both the registration and certification although the work of the CHW in this area has been questioned. On the other hand, the MONP has very few resources to allocate to this activity. The question has been raised, "should the entire process of registering and certifying vital statistics be placed in one ministry?"

Recommendation: That cooperation and coordination between the MOH and the MONP be continued in an effort to strengthen the registration and certification process. If the system does not improve, the entire process should be reviewed in six months' time.

Issue No. 10: Maintenance of project vehicles.

A total of 50 U.S. vehicles are being provided to the Primary Health Care Program by this project. Given the lack of facilities and trained persons to maintain U.S. vehicles in Sudan, it was recommended by the former logistics advisor that some in-country training should be provided to maintain and provide minor repairs to these vehicles. It was agreed that General Motors/Sudan would provide a short training course to mechanics/drivers beginning in September, 1980. However, details including financing remain to be worked out.

Recommendation: That a proposal be prepared and submitted to the MOH and the USAID for funding. The proposal will include details such as the cost, the location, who will be trained, when, and the extent of the training. If funds can be made available, the training course should be added as an input to the project.

Issue No. 11: Testing of data forms in Red Sea Province.

The current work plan calls for the intensive testing of the Health Information System and Forms in Khartoum Province alone. The original work plan called for the testing to be done in the rural and nomadic areas of the Red Sea Province as well. The rationale given for the change is that Khartoum Province includes rural areas and that the time available and expense for testing in the Red Sea Province may exceed the time and budget available for testing.

Recommendation: That if the resources, manpower and time, are available serious consideration be given to include at least certain areas of Red Sea Province. This would provide for the testing of the forms in a more diverse setting than can be done in Khartoum Province along; i.e. among normal CHWs. It is hoped that this type of testing would result in a National Data System that is more sensitive and accommodating to the different areas that are represented in Sudan.

Issue No. 12: Receipt and inspection of newly arrived project vehicles.

A procedure for the receipt and inspection of newly arrived project vehicles has not yet been clearly formulated and documented. Of the 26 vehicles arriving at Port Sudan in February, 1980, twenty-two have been distributed to the provinces; two to MOH; and two were returned to Port Sudan (following a short drive in the area) where they remain immobile. Seven (or 27%) of the vehicles are presently non-operational, six (or 23%) with the same problem.

Recommendations: a. That the 24 vehicles presently on order (expected any time between July and November 1980) remain at the Port until a procedure is formalized and accepted by the MOH, the USAID and MSCI. This procedure will include mechanical inspection and preparation as well as a check to see if specifications have been met.

b. That the details of the arrival, inspection and distribution of the 26 vehicles already in country be documented and a copy of the report placed in the project file for future reference.

Issue No. 13: Storage of PHC Program Supplies.

The Central Medical Store in Khartoum is full to the point that supplies are stored outside or in sheds without walls or cement floors. Although a large amount of MOH supplies has recently been moved from Port Sudan to CMS, the exact status of medical supplies remaining at Port Sudan (in terms of amount and exact location) is unknown. Adequacy and appropriateness of provincial storage facilities is also unclear.

Twenty-four 5-ton trucks are due to arrive at Port Sudan sometime between July and November, 1980.

Recommendations: a. That storage facilities in the provinces be assessed.

b. That the status of MOH supplies at Port Sudan and Khartoum Airport assessed.

c. That if supplies still remain at the Port at the time the trucks are ready for movement to Khartoum, they be used to transport MOH supplies to CMS Khartoum for a period of time deemed necessary to clear the Port of all such supplies. The trucks can then be used to move supplies from CMS Khartoum to their respective provinces.

Issue No. 14: Project Communications.

All interviewees pointed to the very good working relationship between their department and that of the Primary Health Care Program. All of them also recognize the need for a continuous, more formal (documented) and regular pattern for this relationship. Regular technical review meetings could provide a suitable mechanism.

Recommendation: That the MSCI Chief of Party reinstitute monthly meetings to include appropriate participants directly concerned with the implementation of the Northern Primary Health Care Project, that is MOH, USAID and MSCI. Also that Dr. Kabbashi reinstitute the semi-annual meetings with the Assistant Commissioners of Health in the Provinces.

Issue No. 15: Side rail modification to project trucks expected between now and November, 1980.

The trucks ordered for the project are flat bed trucks with 24-inch side rails. This comparatively low side rail limits the amount and type of supplies and equipment that can be safely transported in the trucks. The former logistics advisor explored the possibilities in Khartoum and learned a modification could be made to increase the height of the side rails on the trucks. However, funds are not available within the project budget.

Recommendation: That a proposal be prepared and submitted to the MOH and the USAID to include the cost, time and location of the work to be performed. If funds can be made available, the evaluation team recommends that the modification be made as soon as the trucks are cleared, inspected and prepared for use in Sudan.

Issue No. 16: Project Assistance Completion Date (PACD)

The project provides funds for 36 person months of three long-term technical advisors in Sudan. Two of the three arrived in October, 1979 while the third arrived in April 1980. The PACD in the Project Agreement (the date by which all goods and services are to be delivered by the project) is June 30, 1982. Project officials believe it is premature to judge whether the June 30, 1982 completion date is valid.

Recommendation: That as soon as it is feasible to do so, project officials review the outputs of the three long-term technical advisors to determine if 108 months of technical expertise will be needed to achieve the purpose and whether it can be achieved by 6/30/82.

## Project Evaluation Summary - Part II

### 13. Summary

The Northern Primary Health Care Project (650-0011) provides assistance to the GOS to carry out its Primary Health Care Program (PHCP) by strengthening the central Ministry of Health(MOH) infrastructure in health statistics, logistics and training/evaluation. Provincial infrastructure is to be strengthened by manpower training and the provision of vehicles to assist the logistical aspects of the project. Western Provinces and nomadic populations have been identified for activities to strengthen infrastructure at the periphery of the Primary Health Care System.

Project inputs and implementation are lagging. Thus, it is too early to make predictions about the likelihood of achieving project purpose by June 30, 1982, the project assistance completion date (PACD). A major problem has been vacancies in project positions resulting from the turnover of two out of the three project advisors and because of the long time required for the advisors to locate suitable housing. Another problem has been the difficulty of travel in Sudan to complete the needs assessment of each province regarding health statistics, logistics and training.

### 14. Evaluation Methodology

The project paper provides for an interim evaluation at 24 months and a final evaluation at 36 months. An evaluation covering the first 12 months of project activity was performed at this time because USAID/S policy is to conduct annual evaluations. The purpose was to clarify project design through the Logical Framework, to measure progress achieved to date and to improve project implementation. A six member evaluation team was composed of the following persons:

#### Ministry of Health, Khartoum

Dr. Abdel Rahman Kabbashi, Director General Rural Health & PHCP

Dr. Ali Biely, Deputy Director General, Rural Health & PHCP

#### USAID/SUDAN

Ms. Arlene O'Reilly, Evaluation Officer

Dr. Mary Ann Micka, Public Health Officer

#### Medical Services Consultants, Incorporated (MSCI)

Dr. C.A. Markarian, Chief of Party & Training/Evaluation Advisor

#### American Public Health Association (APHA)

Mr. Howard G. Miner, Logistics and Supply Consultant

Dr. George Contis, President of MSCI in Washington, D.C. participated in the evaluation for five days and was present for the Technical Review session.

Dr. Biely, Markarian and Micka and Mr. Miner conducted one and a half to four hours of interviews of the Khartoum-based PHCP program and project staffs. A predetermined set of questions that addressed project design and implementation was used as a guide to the interviews. The following persons were interviewed:

Ministry of Health

1. Dr. Shakir Musa, Under Secretary
2. Dr. Abdel Rahman Kabbashi, Director General, Rural Health & PHCP
3. Dr. Mohamed A. Musbah, Director, PHCP
4. Dr. Tag El Sire, Deputy Director, PHCP
5. Mr. Mohamed A. Baroudi, PHCP
6. Mr. Mohamed I. Bushara, Training
7. Dr. Kamal Medani, Director General, Central Medical Stores (CMS)
8. Dr. El Tahir Ismail Salim, Deputy Director General, CMS
9. Mr. Mohamed Abdel Mutaleb, Assistant for Supplies
10. Mr. Salah Abdel Haffiz, Assistant for Management
11. Dr. Omer El Bagir, Director General, Health Statistics
12. Dr. M.M. Bala, Health Statistics

Medical Services Consultants, Inc.

1. Dr. C.A. Markarian, Chief of Party & Training/Evaluation Advisor
2. Mr. Hillard Davis, Health Statistics Advisor

A number of records were reviewed to collect additional data. These included the Project Paper, Project Agreement, MSCI contract files, MSCI logistics files, and USAID project Implementation Plan files.

The only additional cost outside of staff time was a three-weeks consultancy in logistics financed by AID/Washington through a contract with APHA.

15. External Factors

A review of external factors revealed no major changes in project setting. Health and the PHCP continue as high priorities of the GOS. Sufficient funding for the PHCP is still a valid assumption at the purpose level. In absolute terms, the amount of funding for the PHCP in the provinces has increased however, in relative terms, the impact is unknown. The impact of GOS regionalization on PHCP is, as yet, indeterminate. Two other agencies have initiated projects related to the PHCP. This change has led to a recommendation for revised inputs and is discussed in the next section.

At the input level several critical assumptions were implied but not stated in the logframe:

1. Contractor selected is able to provide personnel and backstopping on a timely basis.
2. GOS is able to provide funds, staff and materials as needed.

At the output level, the four assumptions in the original logframe remain valid. However, it was recommended that one be expanded and made more specific, that is,

"Expanded ability by MOH to maintain and operate USAID supplied commodities" became the following assumptions:

"4. Availability of petrol at province level."

"5. Availability of drugs and supplies after initial two month supply."

"6. Ordering system for equipment/instruments/drugs/supplies is functional."

"7. Vehicles are used in the manner for which they were intended."

#### 16. Inputs

During the evaluation several problems concerning inputs were identified. The change in the Chief of Party was accompanied by a five month vacancy plus a further delay in project implementation caused by the length of time required to settle in. Thus, out of 33 person months (PM) of technical services planned for during the period evaluated, only 28 (PM) had been provided. It is too early to determine whether an extension of the technical services input will be required.

Maintenance of the 50 U.S. vehicles will be remedied by adding a maintenance training course to the project.

In order to strengthen the provincial infrastructure in health statistics and provide for the implementation of the National Data System, an orientation training course for statistical clerks will be added to the project.

Several changes in the type of input were recommended, such as:

(a) the U.S. long-term training in logistics would have little transferability to the Sudan. A change to short-term U.S. observational training will provide a more beneficial experience.

(b) Complaints have been heard at the provincial level concerning the 26 carryalls already delivered regarding the size of vehicles tires, a lack of headliners on the vehicles and the "bounciness" of the suspension. Headliners were not part of the original specifications. Large sized tires and heavy duty shocks were ordered for selected provinces. In addition, seven of the 26 carryalls, or 27%, have become non-operational in a very short time after arrival in country; six of them reportedly due to the same problem. Present documentation of the receipt and inspection of the carryalls and of the nature of the vehicle breakdown is inadequate to assign cause or effect. The problem is further discussed in Issues 3 and 12.

(c) The 24 five-ton trucks due to arrive by November 30, 1980 have only 24-inch sides. To be more useful the sides need to be heightened. This is discussed further in Issue 15.

(d) The Dutch and the African Development Fund are now constructing Primary Health Care units in Darfur Region. As a consequence, project construction should concentrate in Kordofan Region to avoid duplication. Because of fewer facilities than in Northern Kordofan, Southern Kordofan should receive the majority of the structures. However, USAID engineering requirements tend to limit the use of mud plaster and thatch, preferring to construct a more permanent structure. The building of this type of structure, as a Primary Health Care Unit (PHCU), has created discontent in Sudanese communities with the people who have built PHCU's from local materials, and it has discouraged other communities from self-help construction. Since MOH has limited funds to build enough dispensaries to support satellite PHC Units, it was decided that the construction of 20 Phase I Dispensaries, rather than 35 PHCU's, would be more appropriate and manageable within the two years remaining on the project.

Consideration of these factors resulted in an agreement by the USAID project manager, MSCI chief of party and MOH Director General of Rural Health/PHCP program to construct Phase I Dispensaries in North and South Kordofan. (Issue 1.) The initial data gathered has been in accordance with this agreement.

#### 17. Outputs

As a result of the evaluation, the original outputs have been revised to reflect more precisely the outputs which the project can be expected to produce. See Logframe, Revised, 9/80, Attachment I.

Actual progress measured against the output targets is tabulated on the "Progress Review Worksheet, Project Outputs-Progress to Date" included as Attachment II. The lack of progress in several outputs can be attributed to three factors, i.e., the absence of a full time USAID project manager for eight months, the absence of the contract chief of party for five months, and the difficulty of travel in Sudan.

In an effort to augment the national MOH logistics system (output 4), a temporary change will be made in the use of the new 5-ton trucks expected to arrive at the Port within the next few weeks. The initial trip of the 24 trucks to Khartoum would be utilized in moving medical supplies presently stored in the port awaiting rail transportation to the Central Medical Stores (CMS) in Khartoum. Following that trip, 12 trucks would then be made ready to move the supplies to the provinces while 12 trucks would return to the Port until it was cleared of all medical supplies. This should take three to four weeks at which time these 12 trucks would also begin moving supplies to the provinces.

#### 18. Purpose

During the evaluation the purpose and EOPS were carefully reviewed and revisions made as indicated below.

Original: To accelerate, expand and strengthen the ability of the GOS to deliver primary health care services in the rural areas of the Sudan.

Revised: To accelerate, expand and strengthen the capability of the GOS to deliver primary health care services to the rural areas of northern Sudan, especially to Kordofan Region and to provinces with nomadic populations, by June 30, 1982.

At the Technical Review session the MOH recommended adding EOPS Nos. 7,8 and 9. Setting standards will remain a centralized function of MOH. Supervision is considered such a crucial part of this function that it should be specified at the EOPS level.

The GOS has embarked upon an innovative move to improve the demographic data base in Sudan: the CHW's and VMW's are involved in the process of registration and certification of births and deaths. Since the Sudan will be among the leaders in the world by taking this position, it should be reflected as an EOPS.

Community participation in the design of its own health services is reflected by the selection of a CHW and the building of a PHC unit. If the community is expected, eventually, to assume the salary of the CHW, efforts must be made to involve the community on a continuing basis. Since this is a key issue in the success of the PHC program, it must be reflected as a change at the end of the project.

It was premature to evaluate the progress toward the EOPS at the PHC unit level or by reviewing records. Data from the completion of the various needs assessments could be used as the baseline from which any changes by June 30, 1982 are measured. It is also premature to determine when the EOPS will be achieved. (See Attachment III)

For Revised EOPS No. 6, some change has already been noted. The CHW manual has been revised and is to be printed. As a result of the revisions, the training time for CHW tutors, spent on preventive/promotive topics has increased to 30 percent.

#### Original EOPS

Significant increases in the number of:

1. Patients seen at the PHCU level.
2. Referrals from the PHCU to more specialized health facilities.
3. Immunization sessions promoted and conducted at the PHCU level.
4. Health education activities undertaken.
5. Community health activities accomplished at the PHCU level, i.e. rural sanitation activities, etc.
6. Curative care services provided at the PHCU level.

#### Revised EOPS

1. National data base available for assessing the health status of the population and for management purpose of MOH.
2. Health facilities will have useful supplies as needed.
3. Increase in the number of people utilizing services in communities where phase I Dispensaries are constructed.

4. Increase in the number of nomads utilizing PHC services.
5. Increase in preventive and promotive services provided through the PHCP.
6. Quality care provided by CHW's.
7. Regular supervision of CHWs provides feedback information to MOH.
8. CHW's are registering and certifying vital events.
9. Villagers are providing inputs to CHW's and are responding to his services.

19. Goal

The goal for the project was originally stated as follows:

"Through a medium of eight National Health Programs, reduce the incidence of the most virulent diseases and other disabilities that are detrimental to the overall development of the Sudanese."

The evaluation team believed the project was designed to and would make a specific contribution to one of the priorities listed in the GOS National Health Programme. As a result the goal statement was revised accordingly.

Revised goal:

"Reduce the incidence of the most prevalent diseases and other health problems that are detrimental to the overall development of the Sudanese."

New Sub-goal:

"Achievement of maximum coverage of primary health services throughout the country within the framework of the current national health plan."

It is premature to assess the progress toward either the achieved goal or the subgoal.

20. Beneficiaries

Direct beneficiaries of the project will be those villagers living in the sites selected for construction of Phase I Dispensaries who take advantage of the available health services. The nomad population which is serviced by NCHW's who have received supplies through the project will also benefit.

Indirectly, all Sudanese will benefit as the National Data System becomes an effective tool for health planning purposes. As the medical logistics system begins to function more smoothly, the health facilities will be better supplied and thus provide more adequate services to the rural

people. As training and supervision of the CHW's improves, the beneficiaries will be the people seeking health services in the villages where these CHW's work.

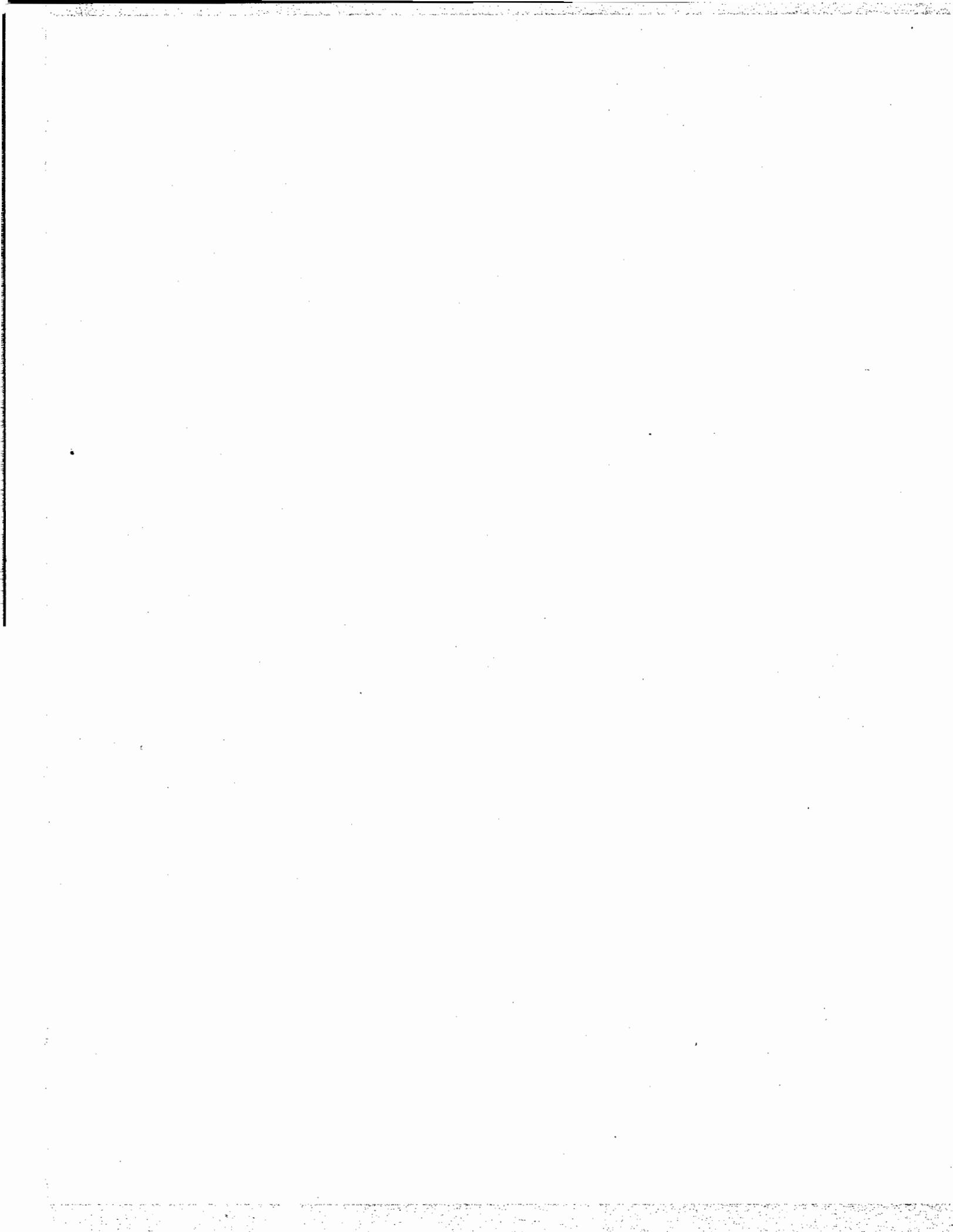
#### 21. Unplanned Effects

To date the only unplanned effect that has been identified relates to the continuing medical education (CME) of the CHW's. Should this output (#11) demonstrate the value of providing this training, the MOH would like to seek donor assistance to establish a regular on-going program of continuing medical education.

#### 22. Lessons learned

1. The unique terrain of each province should be considered when ordering vehicles as well as the use for which the vehicles are being ordered. Wide tires are recommended for all vehicles because of the scarcity of paved roads in the Sudan, the addition of headliners should be considered, as should the height of side-rails in relation to the use of the vehicle.

2. Delay in selecting the contract chief of party and the USAID/project manager have reduced the chances of timely project implementation. For example, the contract logistics advisor developed procedures for the receipt, inspection and monitoring of vehicles, but there has been delay in approving and implementing these procedures.



I. US Action Agent - Contractor

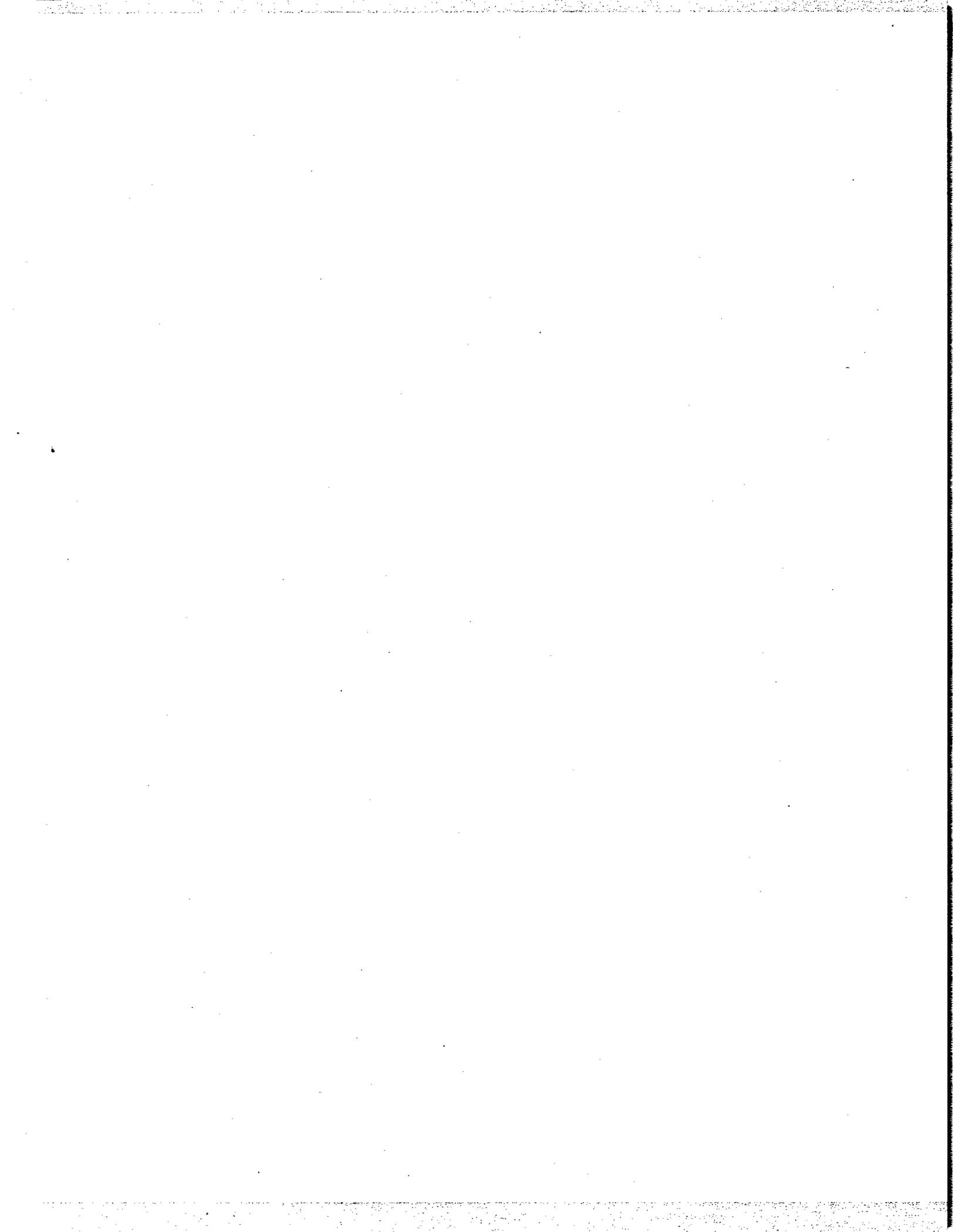
1/ Staff of Proper Size: From November, 1979 to April, 1980 the position of Chief of Party was vacant and the staffing was supplemented only by two three-week TDY's. A secretary is being hired to support the contract team in 9/80.

2/ Timely Arrival of Personnel: The 5 months' vacancy for the Chief of Party was partly due to the long approval process. The candidate came to Sudan in 1/80 for a 2-3 week TDY. The approval process and the logistics of moving, delayed arrival time to April 12, 1980. It is anticipated that if agreement on the candidate can be reached between MOH and USAID, the logistics position could be filled by October, 1980.

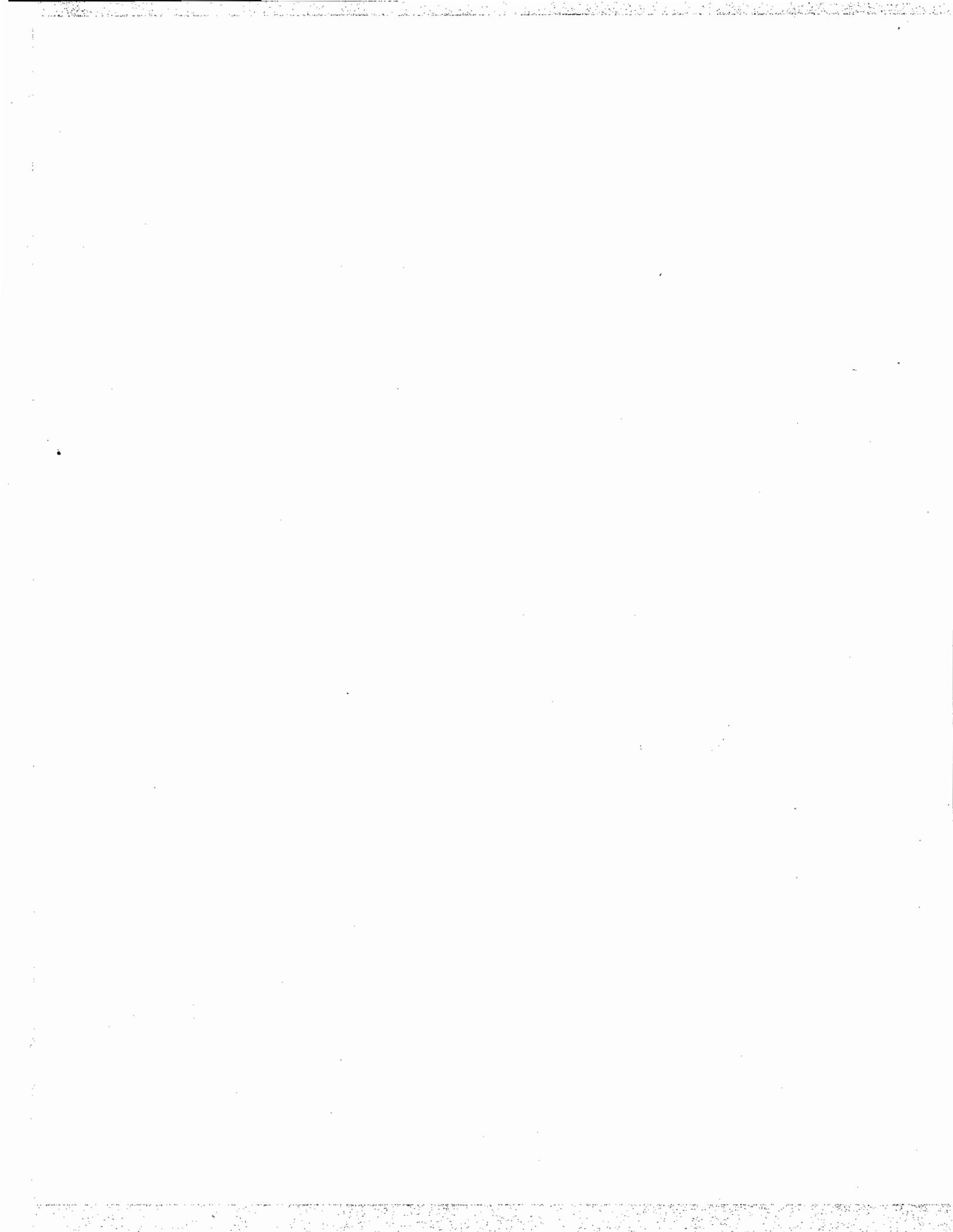
3/ Responsiveness to A.I.D. Directions: During the past 90 days there have been some misunderstandings between the MSCI and the USAID Project Managers. Clarification of roles and reestablishment of regular meetings are in progress as lines of communication have improved.

4/ Adherence to Work: Due in part to the vacancy in the Chief of Party position and the difficulty in finding a house once the Chief of Party arrived, progress on the outputs is behind schedule. Another factor which must be critically evaluated is whether the burden of the support functions provided by the Chief of Party is so great that it interferes with his performance as training and evaluation advisor.

5/ Contractor's Home Office Support: MSCI was not adequately prepared to support the contract team initially. However, the firm has responded by improving support for their team as needs arise. To improve support the USAID Project Manager will explore the possibility of getting permission to send cables for the contractor to MSCI when the telex system is out in Sudan.







NARRATIVE SUMMARY	VERIFIABLE INDICATORS	MEANS, VERIFICATION	ASSUMPTIONS
<b>Outputs</b>	<b>Magnitudes of Outputs</b>		<b>Assumptions for Achieving Outputs</b>
1. Develop and test national data system for PHCP by March 31, 1981	1. National data system for PHCP accepted/ approved by all regions concerned.	1. MOH records	1. Continuing and increasing cooperation among all regions.
2. Implement national data system by June 30, 1982.	2. Printing/distribution of PHCP data forms to functioning PHCU's, training of personnel etc. to achieve timely reporting.	2. MOH/Province/PHCU records on health statistics. Survey PHCU's.	Ministries of Health in the areas of data collection, information sharing and logistics.
3. Improve national vital statistics registration system through increased registration of births and deaths.	3. Vital statistics registration increased from 20-30% to 60%.	3. MONP/MOH records. Survey PHCU's.	2. Ability of MOH to nominate and release appropriate staff for training.
4. Augment national MOH logistics system.	4. Increase movement of medical supplies from Pt Sudan to Provinces; decrease average length of time from order to delivery.	4. MOH/Province records on medical supplies and equipment. Survey PHCU's.	3. Local community commitment to select CHWs and provide self-help funds and labor for PHCU construction.
5. Train by observation of logistic system, personnel from Central Medical Stores(CMS).	5. 4 participants provided observation and returned to positions by June 30, 1982.	5. MOH/USAID/S records	4. Availability of petrol at province level.
6. Train senior drivers/mechanics & MOH Engineer in vehicle maintenance for 12 provinces and MOH.	6. 14 persons completed 6 weeks training and returned to positions by June 30, 1981.	6. USAID/S records	5. Availability of drugs and supplies after initial 2 month supply.
7. Construct and provision phase I dispensaries in Northern and Southern Kordofan by June 30, 1982.	7. 20 phase I dispensaries completed/provided with equipment, instruments and a 2-month issue of drugs and supplies by 6/30/1982.	7. USAID/S records; site visit.	6. Ordering system for equipment/instrument/drugs/supplies is functional.
8. Augment PHC services for nomads in the Kordofan, Darfur, and Eastern Regions.	8. 600 nomad CHW's provisioned with equipment, instruments and a 2-month issue of drugs & supplies by December 31, 1981.	8. USAID/S records; sample survey.	7. Vehicles being used in manner for which intended.
9. Develop recommendations for future assistance from interim evaluation and reports of long-term & short-term advisors.	9. Reports submitted to and accepted by USAID/S by December 31, 1981.	9. USAID/S records.	8. Full cooperation will continue between MONP & MOH.
10. Orient rural health personnel to PHCP in 10 provinces.	10. 4,120 health personnel oriented in 12 provinces by June 30, 1982.	10. MOH records; sample survey.	
11. Provide continuing medical education for 11 CHW's in 12 provinces.	11. 1,120 CHW's received continuing medical education by June 30, 1982.	11. MOH records; sample survey.	<b>Foot Notes:</b>
12. Train MOH staff in biostatistics and organization of medical care.	12. 2 participants trained to MPH/equivalent degree & returned to project by January 1982.	12. USAID/S records, survey of those trained.	1/ Potent drugs with greater than 6 months life before expiration date upon delivery at province level, and functional equipment and instruments.
13. Upgrade MOH "community physicians" in community health skills in U.S.	13. 12 "community physicians" received 3 months training and returned to former positions by June 30, 1982.	13. USAID/S records; survey those trained.	
14. Upgrade arabic speaking health personnel in community health, managerial & training skills for 12 provinces through in-country/third country training.	14. 36 senior medical assistants, senior tutors and other appropriate staff completed 3 months training and returned to positions by June 30, 1982.	14. MOH/USAID records; survey those trained.	
15. Increase coordination between Northern Primary Health Care Project & Southern Primary Health Care Project in the area of training, logistics & health statistics.	15. Northern and Southern Provinces submitting health data to MOH Department of Health Statistics on a weekly, monthly or quarterly basis as appropriate.	15. MOH records.	2/
16. Increase coordination among non-government agencies involved in PHCP.	16. Annual meeting held for exchange of information on PHC projects. Quarterly newsletter produced and distributed regularly.	16. MOH/USAID/S records.	

INPUTS	IMPLEMENTATION TARGET (TYPE & QUANTITY)	MEANS OF VERIFICATION	ASSUMPTIONS FOR PROVIDING INPUTS
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AID:

1. <b>Technical Assistance</b> a. 1 training expert b. 1 vital statistics data expert c. 1 logistics/supply expert d. 3 short-term advisors per year e. 3 short-term advisors for	1. <b>Technical Assistance</b> 36 person months 36 person months 36 PM 27 PM @ 3 mo. each 4 1/2 PM	USAID/S records	1. Contractor selected will be able to provide personnel and back-stopping on a timely basis.
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Attachment I

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>Program or Sector Goal:</u> The Broader Objective to which this Project Contributes: Reduce the incidence of the most prevalent diseases and other health problems that are detrimental to the overall development of the Sudanese.</p>	<p><u>Measures of Goal Achievement:</u></p> <p>The establishment of eight national health programs, may be measured as follows:</p> <ol style="list-style-type: none"> <li>1. Malaria Nationwide: Morbidity-measured by the percentage of population reporting to health facilities &amp; diagnosed as clinical malaria.</li> <li>2. Malaria Man Made: Morbidity-the proportion of population in irrigated areas reported suffering from clinical malaria each year.</li> <li>* 3. Primary Health Care Services: Achievement of maximum coverage of primary health services throughout country within framework of current national health plan: one community health worker (CHW) per 4,000 population in settled areas and one per 1,500 population living under nomadic conditions.</li> <li>4. Bilharzia in Irrigated Areas: The incidence of new infections appearing each year in children, prevalence of diarrhea with blood, and snail population density.</li> <li>5. Safe Water Supplies: Number of water-source facilities improved to prevent human and/or animal contamination; 900 government-owned shallow wells, 30,000 privately-owned shallow wells, 850 haffirs, and 30 dams.</li> <li>6. Environmental Health: Implementation of a detailed intersectoral program (under study).</li> <li>7. Food Supply (Dura) in Certain Regions: Reduce to zero the problem of inadequate supplies of dura for 100 percent of population either by expanding areas of dura production and/or increasing yield on existing lands.</li> <li>8. Onchocerciasis: The percentage of skin positives and/or nodule positives in school-age children; number of new cases.</li> </ol>	<p>Comparison of health sector goal with actual achievement.</p>	<p><u>Assumptions for Achieving Goal Target</u> National priority to health does not diminish.</p>
<p><u>Project Purpose</u></p>	<p><u>End of Project Status</u></p>	<p><u>Assumptions for Achieving Purpose</u></p>	<p>To accelerate, expand and strengthen the capability of the GOS to deliver primary health care services to the rural areas of Northern Sudan, especially to Kordofan Region and to provinces with nomadic populations, by June 30, 1982.</p>
	<ol style="list-style-type: none"> <li>1. National data base available for assessing health status of population and for management purposes of MOH.</li> <li>2. Health facilities have useful supplies 1/ as needed.</li> <li>3. Increase in number of people utilizing PHC Services in communities.</li> <li>4. Increase in number of nomads utilizing PHC services.</li> <li>5. Increase preventive and promotive services provided through the PHCP.</li> <li>6. Quality care provided by CHW's. 2/</li> <li>7. Regular supervision of CHWs is providing feedback information to MOH</li> <li>8. CHWs are registering vital events.</li> <li>9. Villagers are providing inputs to CHWs and are responding to the services.</li> </ol>	<ol style="list-style-type: none"> <li>1. Health information sources MOH; data base used for planning purposed at province level</li> <li>2. CMS/PHCU records; inspection of PHCU.</li> <li>3. MOH/Dispensary records; interview village leaders.</li> <li>4. MOH/PHCU records; interview clan leaders.</li> <li>5. MOH/PHCU records.</li> <li>6. Site visits to PHCU's and nomad CHW's; supervisory reports.</li> <li>7. Supervisory reports</li> <li>8. MOH/MONP records.</li> <li>9. Interviews of community leaders.</li> </ol>	<ol style="list-style-type: none"> <li>1. GOS commitment to deliver primary health care service to rural population remains a high national priority</li> <li>2. Sufficient funding to carry out the 1977-84 primary health care program is forthcoming on a timely basis.</li> </ol>

Project: Northern Primary Health Care, 650-0011

Inputs, continued:

2. <u>Training</u>		1759
a. <u>In-country</u>		
1. Orient health personnel to PHCP	4,120-HV, tutor, MA, SO	
2. Continuing medical education	1,120 CHW's	
3. Vehicle maintenance workshops	14 senior drivers/mechanics	
b. Third country/in-country training for senior medical assistants, senior tutors and others	36 persons/3 mo. each	
c. <u>Participant Training - U.S.</u>		
1. Long-term		
a. Statistics	1 person/12 months	
b. Organization of health care	1 person/12 months	
2. Short-term		
a. MOH Community Physicians	12 persons/3 mo. each	
b. MOH logistics personnel	4 persons/3 mo. each	
3. <u>Commodities/Supplies</u>		2,177
a. Printing of health data forms for CHWs	1 year's supply	
b. Photocopy machine	one	
c. Supply/supervisory vehicles	26 carryalls/24 five-ton trucks	
d. Equipment/instruments/supplies for phase I dispensaries and nomads CHW's	For 20 dispensaries and 600 nomad CHW's	
e. Initial 2 months supply of drugs)		
4. <u>Construction</u>		950
Phase I dispensaries and staff house	20	
5. <u>Other Costs</u>		30
Testing of national health data forms	In Khartoum Province	
<b>Subtotal</b>		<b>\$5,330</b>
<b>10% contingency</b>		<b>533</b>
<b>TOTAL</b>		<b>\$5,863</b>

MOH/USAID/S records 2. USAID/S will be able to provide input and technical/management backstopping in a timely fashion

MOH records

3. GOS will be able to provide funds, staff and materials as needed.

MOH/Ministry of Public Works and Construction/USAID/S records

MOH records

BEGINNING OR PROJECT STATUS AS OF JANUARY 1978

- National primary health care program 1977-84 approved, published and given high priority by GOS.
- Community health workers:
  - Trained to date: 420
  - In training: 700
- In four western provinces where AID will supply funds for construction of PHCUs or dispensaries and supply initial equipment and drugs:
  - PHCUs completed to date: 287
  - Dispensaries completed to date: 156
- Baseline study performed in Kassala/Northern Kordofan and Equatoria December 1976.
- Health data/management information system for primary health care program designed and tested.

Financial Inputs Directly Associated with Project

Salaries for personnel trained in AID funding (2. a., b., c. above) FY 80-82 (includes salaries of 280 nomad CHWs and 20 MAS.

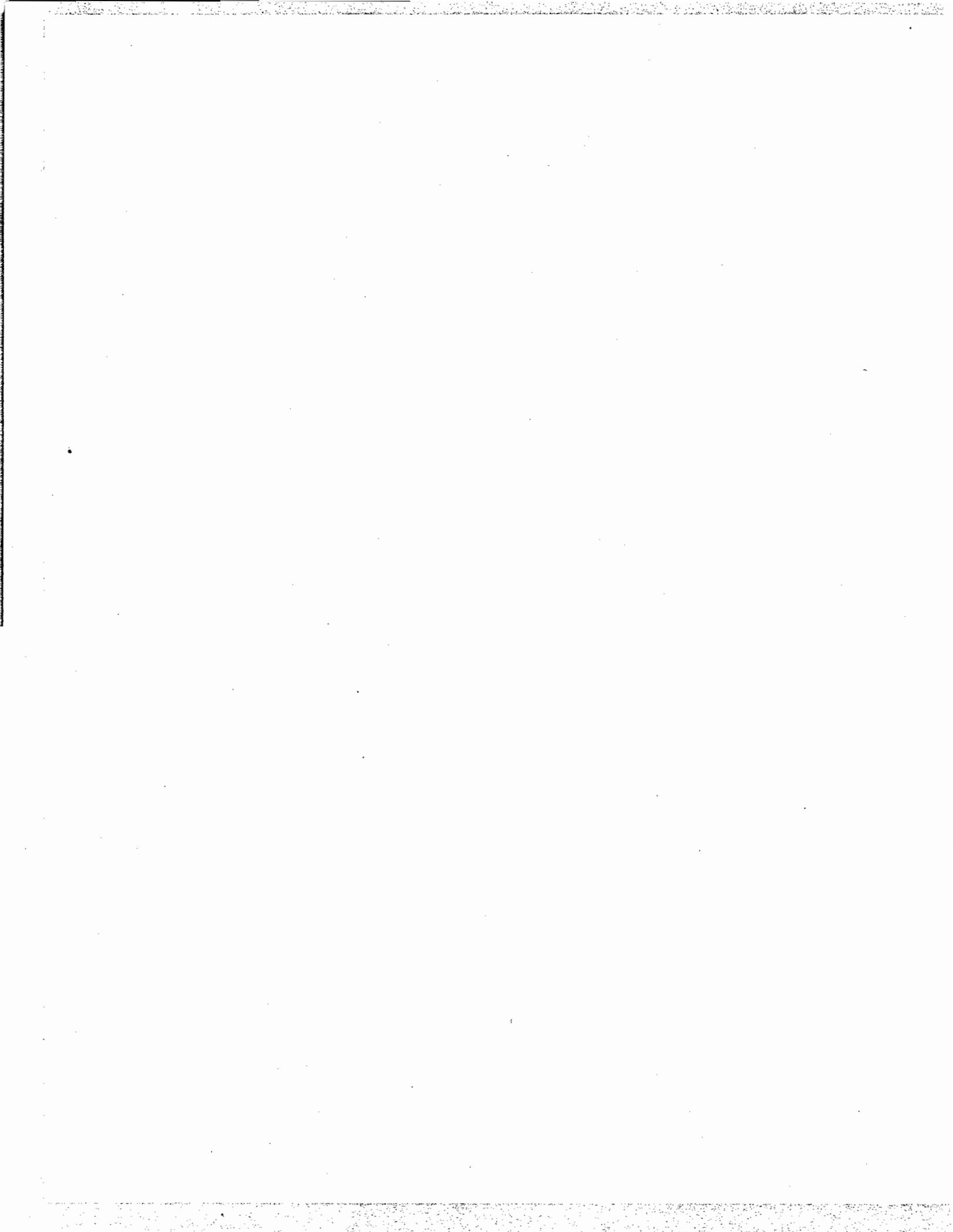
GOS recurrent costs FY 80-82 associated with AID funded commodities (3. a., b., c., d., e., f., above)

Equipment/supplies/drugs - recurrent costs - for DISP constructed by FY 80-82

<u>GOS</u>	
1. FY 80-82 salaries for trained personnel	\$20,691
2. Maintenance, fuel, depreciation, drivers, etc. to operate AID funded commodities FY 80-82	1,952
3. Equipment/supplies/drugs for DISP and 600 nomad CHW's	336
<b>TOTAL</b>	<b>\$22,979</b>

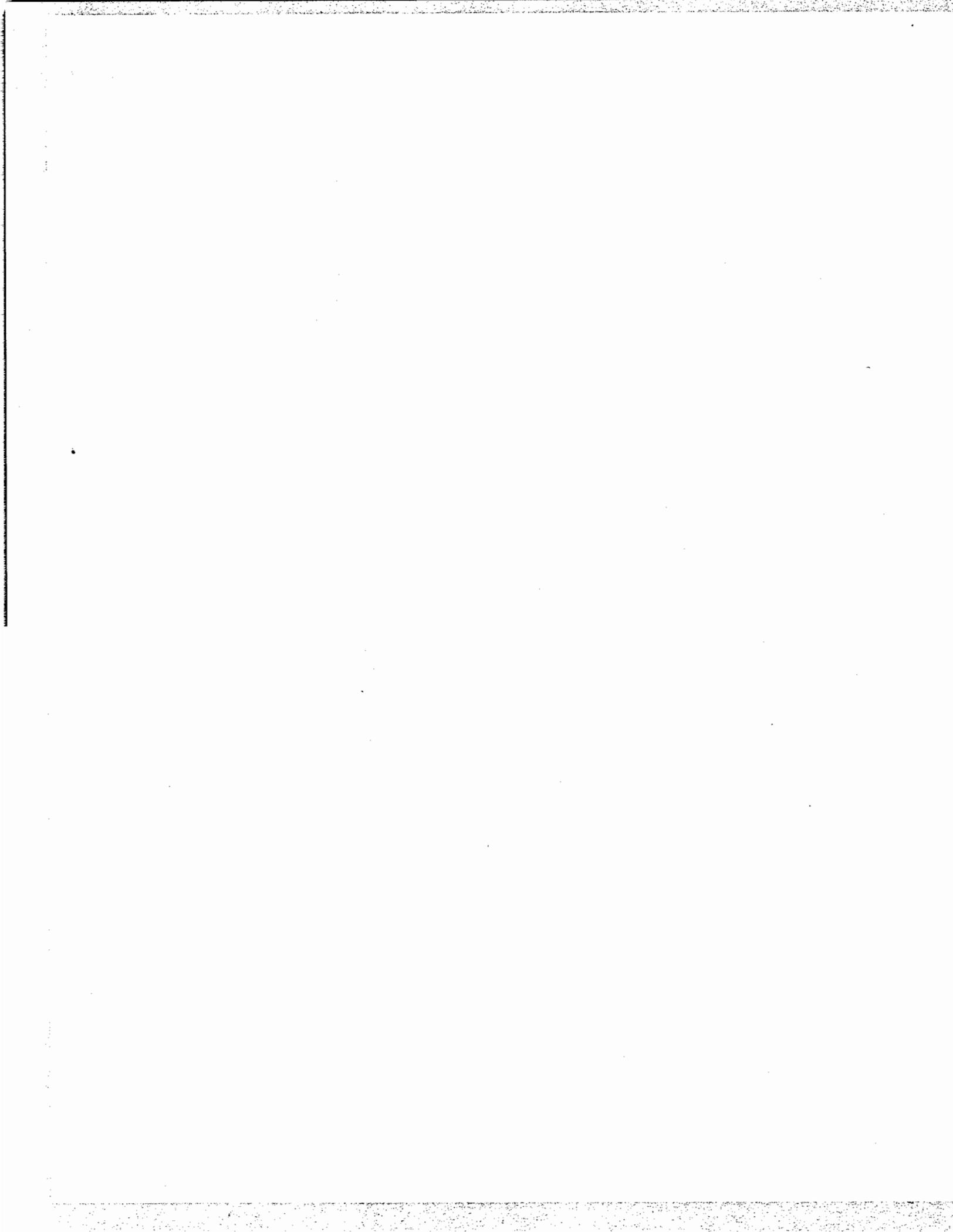
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Attachment I



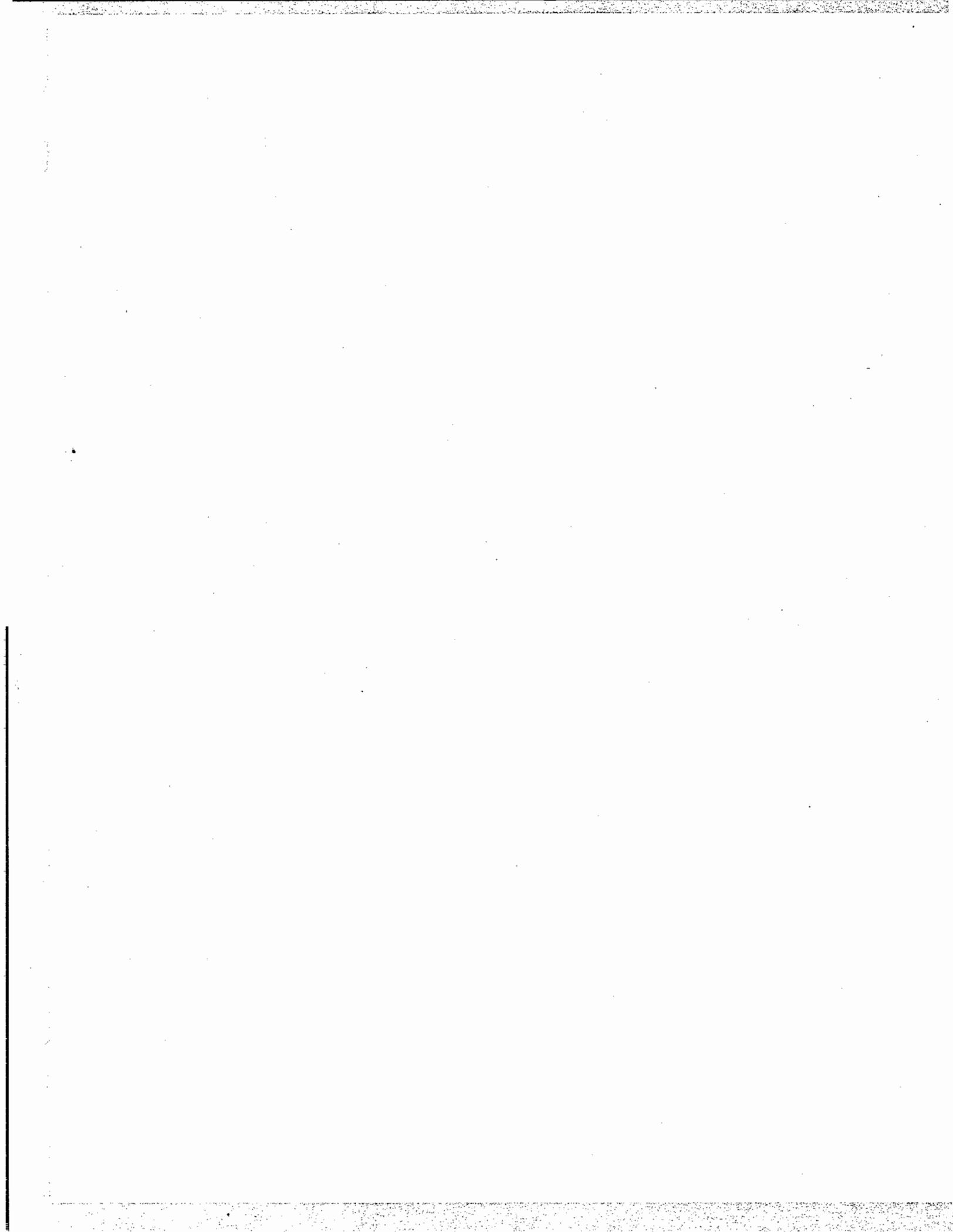
## PROJECT OUTPUTS - PROGRESS TO DATE

B. QUALITATIVE INDICATORS FOR MAJOR OUTPUTS	TARGETS
1. National Data System (NDS) for Primary Health Care Program (PHCP) accepted/approved by all regions concerned.	<p>Planned: NDS for PHCP was to have been developed/tested/modified by 9/80.</p> <p>Actual to date: Revised form developed; testing to begin Sept-Oct. 1980.</p> <p>Replanned: Complete by 3/31/81.</p>
2. Printing/distribution of PHCP data forms to functioning PHC units, training of personnel, etc. to achieve timely reporting.	<p>Planned: Implementation to have begun by 9/80.</p> <p>Actual: "Needs" assessment completed 3/80 in Southern Region re areas for strengthening the Dept/Health Statistics.</p> <p>Replanned: Conduct "needs" assessment of 12 Northern Provinces in FY 81. Other implementation aspects to be completed by June 30, 1982.</p>
3. Vital statistics registration increased from 20-30% to 60%.	<p>Planned: Hold meeting with MONP Dept/Statistics on Birth/Death registration to initiate procedures for CHW involvement.</p> <p>Actual: 3 meetings held. MONP will provide registration/certification forms.</p> <p>Replanned: Implementation of this system is planned to take place concurrently with implementation of NDS/PHCP.</p>
4. Increase movements of medical supplies from Port Sudan to provinces; decrease average length of time from order to delivery.	<p>Planned: Develop procedures for unit packing of project commodities and for receipt of vehicles/spare parts, including accountability/storage/repair/maintenance. Inventory: MOH vehicles; commodities at CMS and Port Sudan.</p> <p>Actual: 26 carryalls arrived at Port 2/80; 24 distributed; management procedures developed but not formalized and fully implemented. Central Medical Stores (CMS) spare parts warehouse completed. MOH commodities inventoried at Port. Procedures established to unit package project commodities. Needs assessment conducted in Southern Region &amp; 2 provinces in the North. Two MOH representatives assigned to expedite clearance/movement of MOH cargo from Port to Khartoum. Project staff have noted increased movements of medical supplies from Port to Khartoum over last year and more orderly storage in CMS.</p> <p>Replanned: Inventory MOH vehicles &amp; CMS once movement of supplies from CMS to provinces begins. Complete "needs" assessments in 10 Northern provinces in FY 81. By 11/80 formalize procedures to receive 5-ton trucks.</p>
9. Reports of long & short-term advisors submitted and accepted by USAID/Sudan.	<p>Planned: By 1/80 define needs for short-term advisors; by 9/81 submit completed reports.</p> <p>Actual: Needs not defined; 0.5 PM used.</p> <p>Replanned: Define needs in 10/80; submit reports by 12/81.</p>
15. Northern and Southern Provinces submitting data to MOH regularly:  training logistics health statistics.	<p>Planned: USAID Project Manager (PM) to initiate liaison between the project and Southern PHC project.</p> <p>Actual: USAID PM initiated regular visits to provide coordination between the two projects.</p> <p>Replanned: MSC I PM &amp; MOH counterpart will visit Southern PHC project, as well other long-term advisors and counterparts to coordinate programs.</p>
16. Annual coordination meeting held on PHCP and quarterly newsletters distributed to CHW's.	<p>Planned: Inventory other donor's planned inputs.</p> <p>Actual: Meetings held with UNICEF officials to coordinate the purchase of instruments, drugs, supplies/equipment to avoid duplication.</p> <p>Replanned: Assist with interagency meetings on PHCP activities. Contribute articles to MOH planned quarterly newsletter.</p>



Progress Review Worksheet  
PROJECT OUTPUTS-PROGRESS TO DATE

A. QUANTITATIVE INDICATORS FOR MAJOR OUTPUTS		TARGETS (Percentage/Rate/Amount)					
		CUMULATIVE PRIOR FY	CURRENT FY		FY 81	FY 82	END OF PROJECT 6/30/82
			TO DATE	TO END			
5. Personnel from Central Medical Stores (CMS) complete observational training and return to positions by June 30, 82	PLANNED	-	0	1	0	0	Long Term
	ACTUAL PERFORMANCE	-	-				
	REPLANNED			0	2	2*	Short-term 4* (maximum)
6. Senior drivers/mechanics complete 6 weeks in country training and return to positions by June 30, 1981	PLANNED	New output added as a result of the evaluation.					
	ACTUAL PERFORMANCE	-	-				
	REPLANNED			0	14	0	14
7. Health care facilities completed/provided with equipment instruments and a 2-month issue of drugs and supplies.	PLANNED	-	6	1	14	14	35 PHC Units
	ACTUAL PERFORMANCE	-	0				
	REPLANNED			0	10	10	20 Phase I dispensaries
8. Nomad community health workers (CHW) provisioned with equipments, and instruments and a 2-month issue of drugs & supplies by December 31, 1981.	PLANNED	-	0	0	300	300	600 nomad CHW's
	ACTUAL PERFORMANCE						
	REPLANNED			-	-	-	-
10. Provincial health personnel oriented to PHCP.	PLANNED	-	0	0	2060	2060	4120
	ACTUAL PERFORMANCE	-	-				
	REPLANNED			-	-	-	-
11. CHW's receive continuing medical education by June 30, 1982	PLANNED	-	40	0	540	540	1120
	ACTUAL PERFORMANCE	-	0				
	REPLANNED			0	560	560	1120
12. MOH counterparts completed long-term training, MPH/equivalent degree, and returned to positions by 1/82	PLANNED	-	0	3	0	0	3
	ACTUAL PERFORMANCE	-	0				
	REPLANNED			0	0	2	2
13. MOH community physicians completed 3-months short-term U.S. training and returned to former positions by June 30, 82	PLANNED	-	0	4	4	4	12
	ACTUAL PERFORMANCE	-	0				
	REPLANNED						
14. Sr. Medical assistants tutors & other health personnel completed 3-months management training course in-country.	PLANNED	-	0	0	18	18	36
	ACTUAL PERFORMANCE	-	0				
	REPLANNED			0	18	18	36



Progress Review Worksheet

Evaluation

for Period: 10/79 to 9/80

PROGRESS TOWARD CONDITIONS EXPECTED AT END OF PROJECT Revised 9/80

A. CONDITIONS EXPECTED TO EXIST AT THE END OF THE PROJECT	B. METHOD(OR MEASUREMENT)OF VERIFYING CONDITIONS AT END OF THE PROJECT	C. PROGRESS AS SHOWN BY MEASUREMENT VERIFICATION
1. National data base available for assessing health status of population and for management purposes of MOH.	Information sources, Dept. Health * Statistics, including monthly PHCP reports; review data base used by provincial health officials for planning purposes.	Premature to review records of Dept. Health Statistics (DHS), PHCP reports received from provinces irregularly and 3 months to a year late. DHS generates repts based on data submitted and returns to provinces for use.
2. Health facilities have useful supplies as needed.	Review records of/Central Medical Stores, PHC Units & dispensaries for quantities of drugs orderd & received. Review shelf date of drugs on hand and condition of equipment and instruments.	Premature to review records and make site visits.
3. Increase the number of people utilizing primary health care (PHC) services in communities.	Review MOH/PHC Units records. Interview village chief and village council members for acceptability of services Evaluate distances people must trave to facility.	Premature to review records or conduct interviews.
4. Increase in number of nomads utilizing PHC services.	Review MOH/Nomad CHW records. Interview members of Farig Council, Chief of clan and local government officials for acceptability of services.	Premature to review records or conduct interviews.
5. Increase preventive and promotive services through the PHC Program.	Review MOH/PHC Units records for changing patterns of preventive and promotive activities.	Premature to review records. CHW manual has been revised to increase the emphasis on preventive/promotive services. CHW-tutor training time spent on preventive/promotive topics has been increased to 30%.
6. Quality care provided by community health workers (CHW).	Site visits to randomly selected PHC Units and nomad CHW's to observe quality of care provided and preventive/promotive activities; interview village chief for problems; review treatment records and records of supervisory visits.	Premature to conduct on-site evaluation.

\* PHCP - Primary Health Care Program

Progress Review Worksheet

Evaluation

for Period:

10/79

to

9/80

PROGRESS TOWARD CONDITIONS EXPECTED AT END OF PROJECT Revised 9/80

A. CONDITIONS EXPECTED TO EXIST AT THE END OF THE PROJECT	B. METHOD(OR MEASUREMENT)OF VERIFYING CONDITIONS AT END OF THE PROJECT	C. PROGRESS AS SHOWN BY MEASUREMENT VERIFICATION
7. Regular supervision of CHW's is providing feedback information to MOH.	Review records of senior medical assistants, public health inspectors and health visitors; review MOH and provincial supervisory records.	Premature to conduct on-site evaluation.
8. CHW's are registering vital events.	Review MOH data base on births and deaths. Review CHW records on births and deaths reported. Interview village/clan leaders to estimate completeness of reporting.	CHW's have yet to begin much activity in this area.
9. Villagers are providing inputs to CHW's and are responding to the services	Interview village/clan council officials in randomly selected areas. Review CHW records for caseload and promotive activities. Survey observable effects of promotive activities.	Premature to conduct on-site evaluation.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

THE DEMOCRATIC REPUBLIC OF THE SUDAN

MINISTRY OF HEALTH  
UNDERSECRETARY'S OFFICE

P. O. Box 303 Khartoum

Tel. 72053

Telegraphic Address ( " DAWA )



جمهورية السودان الديمقراطية

وزارة الصحة

مكتب الوكيل

ص. ب. ٣٠٣ الخرطوم

تليفون ٧٢٠٦٣

Khartoum, 25th October, 1980

No. | MIN. | |

الخرطوم في : -

الذمرة : - و ص | |

Mr. Arthur Mudge,  
U.S. A.I.D.,  
Khartoum  
SUDAN

Dear Mr. Mudge,

During the evaluation of the Northern Primary Health Care Project ( 650-0011) the topic of construction of phase - one dispensaries required further discussion. In view of the preliminary work already completed, it seems advisable and more feasible to continue with plans to build phase-one dispensaries in North and South Kordofan.. I hope that future plans will look into achieving the widest possible coverage through community involvement and participation.

I am looking forward to a continuing cooperative working relationship among our respective staff.

Thank you.

Yours sincerely

DR. SHAKIR MUSA  
UNDER SECRETARY  
MINISTRY OF HEALTH

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**Performance Analysis**

Evaluation for Period: 10/79 to 9/80

**II. INPUT - COMMODITIES**

*(If of particular significance to project, use a separate sheet for each major commodity group)*

Type of Commodity: Carryalls

**A. FUNDING**

1. Cumulative Obligations Through Prior Fiscal Year  
\$

2. Estimated Budget, Current Fiscal Year  
\$

3. Estimated Additional Budget to Completion, After Current Fiscal Year  
\$

**B. IMPORTANT OUTPUTS DEPENDENT SUBSTANTIALLY ON THESE COMMODITIES**

C. ACTUAL PERFORMANCE DURING THE PERIOD AS COMPARED TO PLANS							D. IMPORTANCE FOR ACHIEVING PROJECT PURPOSE				
Unsatisfactory		Satisfactory			Outstanding		Low	Medium		High	
1	2	3	4	5	6	7	1	2	3	4	5
E. PERFORMANCE FACTOR RATING FACTORS							Actual Impact			Check if Important	
							Negative	As Planned	Superior		
1. Commodities Appropriate to Project Needs									1/		
2. Timeliness of Procurement/Reconditioning									X		
3. Timeliness of Delivery to Point of Use									X		
4. Storage Adequacy							X				
5. Appropriate Use									2/		
6. Maintenance and Spares									X		
7. Records, Accounting, and Controls								X			

**F. ACTION REQUIRED:** What action(s) should be taken to improve the effectiveness of commodity input?

See attached comments.

(If additional space is needed, use reverse side of the worksheet)

## II. INPUT - COMMODITIES: Carryalls

1/ Commodities Appropriate to Project Needs: A report is being prepared on the receipt and inspection of the carryalls. It should include information that is available on whether they meet specifications outlined in the PIO/C. Six out of 26 of these vehicles are presently immobile due to what appears to be the same problem.

2/ Appropriate Use: The former logistics advisor and MOH officials have taken steps to ensure insofar as it is possible that the vehicles will be used for the purpose for which they were intended.

6/ Maintenance and Spares: The former MSCI logistics advisor had arranged for General Motors/Sudan to conduct an in-country automotive maintenance course for project drivers and mechanics for project vehicles. It appears that two boxes of spares are missing.

Performance Analysis

Evaluation for Period: 10/79 to 9/80

IV. ACTION AGENT - COOPERATING COUNTRY

A. IMPORTANT OUTPUTS DEPENDENT PREDOMINANTLY ON THE HOST GOVERNMENT

B. ACTUAL PERFORMANCE DURING THE PERIOD AS COMPARED TO PLANS						C. IMPORTANCE FOR ACHIEVING PROJECT PURPOSE							
Unsatisfactory		Satisfactory			Outstanding		Low	Medium		High			
1	2	3	4	5	6	7	1	2	3	4	5		
D. PERFORMANCE FACTOR RATING													
FACTORS PERSONNEL						FACTORS OTHER FACTORS							
Not Applicable		Actual Impact		Check if Important		Not Applicable		Actual Impact		Check if Important			
		Negative	As Planned	Superior					Negative	As Planned	Superior		
1. Competence/Continuity of Project Leadership						1. Cooperation within Host Government							
2. Ability to Implement Project Plans						2. Host Government Cooperation with Non-Government Organizations							
3. Use of Project-Trained Manpower						3. Availability of Reliable Data/Statistics <u>4/</u>							
4. Technical Skills of Project Personnel						4. Adequacy of Project Funding							
5. Planning and Management Skills						5. Legislative Changes Relevant to Project							
6. Technical Man-years Available						6. Adequacy of Project-Related Organization							
7. Continuity of Staff						7. Physical Resource Inputs							
8. Willingness to Work in Rural Areas <u>1/</u>						8. Maintenance of Facilities and Equipment							
9. Adequacy of Pay and Allowances <u>2/</u>						9. Political Conditions Specific to Project							
10. Counterpart Acceptance of and Association with Project Purpose						10. Resolution of Bureaucratic Problems							
11. Management of Commodities						11. Receptiveness to Change							
						12. Actual Dissemination of Project Benefits							
						13. Intent/Capacity to sustain and/or Expand Project Impact After U.S. Inputs are Terminated							
E. ACTION REQUIRED: What action(s) should be taken to improve the performance of the Cooperating Country?													

See attached comments.

(If additional space is needed, use the reverse side of the worksheet)

#### IV. Action Agent - Cooperating Country

##### PERSONNEL FACTORS

- 1/ Willingness to Work in Rural Areas: The rating "as planned" refers to project personnel only.
- 2/ Adequacy of Pay and Allowances: If frequency of personnel turnover is used as an indicator of adequate pay, then one must assume that pay is adequate. There are three MOH officials who receive a salary subsidy from WHO. There are also many physicians in MOH who conduct a private practice to augment their salary.

GOS travel allowances are extremely low, ranging from LS.1.500/day or less to LS.2.000/day for the top pay grades. When requested, WHO is able to augment the travel allowance.

- 3/ Management of Commodities: Considerable time has been spent in discussing the problems of vehicle management and control during this evaluation. The rating "as planned" reflects the evaluation team's judgment that the vehicles are being managed as it was planned in the Project Paper and Project Agreement.

##### OTHER FACTORS

- 4/ Availability of Reliable Data/Statistics: The "availability of reliable data" was recognized as a problem during project planning. Thus a long-term advisor was provided as an input.

Performance Analysis

Evaluation for Period: 10/79 to 9/80

VI. ACTION AGENT - A.I.D./W

A. IMPORTANT OUTPUTS DEPENDENT SUBSTANTIALLY ON A.I.D./W

B. ACTUAL PERFORMANCE DURING THE PERIOD AS COMPARED TO PLANS							C. IMPORTANCE FOR ACHIEVING PROJECT PURPOSE					
Unsatisfactory		Satisfactory			Outstanding		Low	Medium		High		
1	2	3	4	5	6	7	1	2	3	4	5	
D. PERFORMANCE FACTOR RATING FACTORS							Not Applicable	Actual Impact			Check if Important	
								Negative	As Planned	Superior		
1. Provision of Personnel <u>1/</u>								X				
2. Provision of Commodities							X					
3. Provision of Adequate A.I.D./W Technical Backstopping <u>2/</u>												
4. Contract Negotiation										X		

E. ACTION REQUIRED: What Mission action(s) should be taken to stimulate improved A.I.D./W performance?

See attached comments.

VI. Action Agent - AID/W:

- 1/ Provision of Personnel: AID/W was slow in providing a suitable Health Officer to manage the project.
- 2/ Provision of Adequate AID/W Technical Backstopping: Unknown

Performance Analysis

Evaluation for Period: 10/79 to 9/80

VII. ACTION AGENT - USAID

A. OUTPUTS DEPENDENT SUBSTANTIALLY ON USAID ACTIONS

B. ACTUAL PERFORMANCE OF USAID DURING THE PERIOD (Compare it to commitments made to Host Country in the ProAg)							C. IMPORTANCE FOR ACHIEVING PROJECT PURPOSE				
Unsatisfactory		Satisfactory			Outstanding		Low	Medium			High
1	2	3	4	5	6	7	1	2	3	4	5
D. PERFORMANCE FACTOR RATING FACTORS						Not Applicable	Actual Impact			Check if Important	
							Negative	As Planned	Superior		
1. Responsibilities Defined and Assigned in USAID								X			
2. Authorities Defined and Assigned in USAID								X			
3. Effective Communications within USAID <u>3/</u>							X				
4. Effective Communications with Other Action Agents <u>4/</u>							X				
5. Mobilization of Mission Staff as Needed								X			
6. Coordination with Related Project(s)								X			
7. USAID Performance per Terms of ProAgs/Contracts/PASAs								X			

E. ACTION REQUIRED: What action(s) should be taken to improve USAID performance?

See attached comments.

VII. Action Agent: USAID

3. Effective Communications within USAID: The new USAID Project Manager is having some difficulty in reconstructing the facts about problem situations which have not been documented. The change in USAID personnel is a contributing factor to this difficulty as the new incumbents are unable to provide information on events that took place before their arrival.
4. Effective Communications with Other Action Agents: The lines of communication are generally open among the three action agents. However, the USAID Project Manager is having difficulty in communicating on a frequency with the number of people required to assure maximum coordination in the three areas in which the project is involved.

Northern Primary Health Care Project, No. 650-0011  
Minutes of Technical Review Session  
Sunday, September 14, 1980

Participants:

Ministry of Health (MOH)

Dr. Shakir Musa, Under Secretary  
Dr. Abdel Rahman Kabbashi, Director General, Rural Health and PHCP  
Dr. Omer Bagir, Director General, Health Statistics  
Dr. Kamal Medani, Director General, Central Medical Stores (CMS)  
Dr. El Tahir Ismail Salim, Deputy Director General, CMS

Medical Services Consultants, Inc. (MSCI)

Dr. George Contis, President, MSCI, Washington, D.C.  
C.A. Markarian, Chief of Party and Training/Evaluation Advisor  
Hillard Davis, Health Statistics Advisor

USAID/Sudan

Arlene O'Reilly, Evaluation Officer  
Dr. Mary Ann Micka, Health Officer

American Public Health Association (APHA)

Howard G. Miner, Logistics and Supply Consultant

The meeting was opened by the Under Secretary. Dr. Micka reviewed pertinent historical points of the project. Arlene O'Reilly explained terminology. The need for greater specificity in terms and in the target areas was explained.

Discussion of End of Project Status (EOPS) resulted in suggestions that "Quality of Care" be defined and that community acceptability of services be a criteria. Three new EOPS were suggested: Strengthened supervision, continued community involvement in the design of health priorities, and enhanced registration and certification of vital events by CHW's and VMW's.

During the discussion of inputs, Dr. Omer suggested consideration of mobile PHCU's. Dr. Kabbashi felt this could be considered in future planning. According to present experience with mobile units was unfavourable because of lack of petrol.

Another input that Dr. Omer discussed was the need for training to strengthen health statistics at the peripheral level. The process of

decentralization has begun with well trained personnel having been assigned to Kassala, Kordofan, Nile and Southern Regions. Dr. Omer would like to present the statistical clerk course for Kordofan Region but needs per diem for three months for the tutors and/or the students. He would also like to train mid-level clerks. Dr. Kabbashi was in agreement if appropriate funding could be identified, but he was unwilling to reduce the amount of funds available for orientation, refresher or in-country training courses. Dr. Omer and Mr. Davis will formulate the issue and recommendations.

During the discussion of outputs, the following points were raised:

1. Develop and test the National Data System (NDS). The testing in Khartoum Province is to be thorough. Thus, time and funds available for testing may be insufficient to include the Red Sea Province as originally planned. The evaluation team urged that Red Sea be included to collect information from NCHW's. Dr. Micka suggested that information from the testing being conducted in the Southern Region be utilized in modifying the forms.

2. Implement NDS/PHCP. The Department of Health Statistics considers printing/distribution of forms, training and supervision as crucial parts of implementation.

3. Improve national vital statistics registration system. The fact that CHW's and VMW's will be performing the registration and certification of births and deaths should be emphasized because Sudan is among the leaders in the world for such an innovation.

4. Augment national MOH logistics system. Dr. Kamal was concerned that the Magnitude of Outputs selected did not reflect the entire logistics system. It was explained that these were indicators and that if they showed an improvement, it would be indicative of improving the system. Dr. Kamal suggested another indicator: are appropriate drugs in the appropriate amounts on the shelves of PHCU'S?

Dr. Kamal was concerned about achieving change in the system. The new method of letting bids including delivery of drugs to Khartoum increases the cost to CMS because of transport costs from Port Sudan. The system has not changed, rather the responsibility has been transferred from CMS to the importer. It still takes a year to get the goods from the port to CMS because the importer also uses the railroad. The Under Secretary felt that the drugs should be cleared as soon as possible from the port and that some of these problems might be solved by contacting the Ministry of Transport.

The system could be augmented by using the 24 trucks to transport PHCP medical supplies and other high priority items from Port Sudan to Khartoum. Half of the trucks could be assigned to the provinces with the understanding that they are to move supplies from Khartoum to the provinces and then to the periphery. Retain half of the trucks at CMS for a limited time to move supplies from Port Sudan to Khartoum. The question was raised as to who would provide the drivers for the 12 trucks retained in Khartoum. After discussion, the Under Secretary said that problem will be worked out by MOH.

5. Train senior drivers/mechanics in vehicle maintenance. The purpose of the training needs to be specified, e.g. training for minor repairs and maintenance at the province level. Major repairs would be handled through Ministry of Transport.

The agreement with the MOT to concentrate MOH vehicle repairs at MOH was discussed. Dr. Kabbashi and the Under Secretary requested that an engineer from the MONP be added to the vehicle maintenance training course. Dr. El Tahir suggested that an engineer might be unwilling to take the course with senior drivers and that a special course might have to be designed.

The discussion then focused on the Issues Paper.

#### Issue I. Construction of Primary Health Care Units (PHCUs).

The Under Secretary asked for a further explanation of the reasons for changing the construction PHCU's to Phase I Dispensaries. In addition to the factors listed in the paper, Dr. Contis discussed the restrictions the REDSO/EA engineer had had concerning the construction PHCU's using local materials. The Under Secretary was still not in full agreement with the change.

#### Issue 3. Monitoring of project vehicles

The recommendation should be reworded: That the above system be documented, implemented and reviewed on a periodic basis to determine whether it provides for the use of vehicles as intended. The complete process for issuing spare parts should be defined and MOH should be involved in the release of spare parts.

#### Issue 7. Supervision

Each of the Director Generals have certain provinces for which they are responsible. The frequency of their site visits varies from monthly to seldom. Dr. Omer suggested that the Director Generals should visit their provinces at least quarterly to demonstrate a commitment to the concept of supervision. The Under Secretary mentioned how difficult it was to provide supervision of those with whom one stayed.

Another way to improve supervision would be monthly meetings of the Assistance Commissioners of Health or their Deputies with the senior medical assistants, senior public health inspectors and health visitors to review supervisory activities. The provincial medical officer should meet monthly with the senior medical assistant to discuss the appropriateness of medical care as revealed by the CHW's monthly reports.

The primary limiting factors are transportation and petrol. MOH used to give the MA's money to buy a horse for transportation but the funds were used elsewhere. Now motorcycles are being tested as an incentive. UNICEF plans to provide funds for animal transport in Southern Kordofan. Toyota

trucks have been given to each province for the purpose of supervision. The Under Secretary believes that the Rural Health Complexes centered around the district hospital should have five vehicles assigned for supervision and training purposes.

In addition, the medical assistants do not provide supervision because they are engaged in "private work". Alternatively, tutors could be used in the role of supervisors during the time between courses. This would allow them to improve their courses by adjusting to the needs of the CHW's. The tutors could use the carry-alls for this activity.

The recommendation from this discussion was "Given that the MOH has the responsibility for setting standards, MOH should formalize the supervisory structure".

#### Issue 9. Registration and Certification of Vital Events.

Whereas this process is a divided function between MOH and MONP, Dr. Omer prefers to continue working with MONP to strengthen their operation until it can be fully assumed by MONP. To date MONP has agreed to the regular distribution of registration and certification forms and to checking the completed forms monthly. Now that the Governor is responsible for the allocation of all personnel in his provinces, it should be possible to assign MONP personnel to implement this process.

#### Issue 14. Project Communications

Regular staff meetings are held for the PHCP. In addition, Dr. Kabbashi has held meetings with the Assistant Commissioners of Health from the provinces. Recommendation: That Dr. Kabbashi hold regular semi-annual meetings with the Assistant Commissioners of Health; that the Chief of Party reinstitute monthly meetings to include appropriate participants directly concerned with the implementation of the Northern Primary Health Care Project, i.e. MOH, USAID and contractor.

Returning to vehicles, there is no record in MSCI/USAID files documenting the release of the vehicles from the Port. This is necessary to fulfill the covenants in the Project Agreement. Since there was some difficulty in getting the agent of AAPC to fulfill their part of the agreement for inspection and preparation of the vehicles in the Port, what resource is available to properly process the 5-ton trucks? Mr. Miner will continue the data collection on this problem.

The Executive Review is tentatively scheduled for Saturday, September 20, at 0900 hours, at USAID.

EVALUATION

Northern Primary Health Care Project (650-0011)

Minutes of the Executive Review Session  
September 20, 1980

Participants:

Ministry of Health (MOH)

Dr. Shakir Musa, Under Secretary  
Dr. Abdel Rahman Kabbashi, Director General, Rural Health and PHCP  
Dr. M.M. Balla, Health Statistics

Medical Service Consultants, Inc. (MSCI)

C.A. Markarien, Ph.D., Chief of Party and Training/Evaluation Advisor  
Hillard Davis, Health Statistics Advisor

USAID

Arthur W. Mudge, Director  
James Holtaway, Assistant Director  
Robert Friedline, Program Officer; Acting General Development Officer  
Ken Frith, Controller  
Arlene O'Reilly, Evaluation Officer  
Dr. Mary Ann Micka, Health Officer

American Public Health Association (APHA)

Howard G. Miner, Logistics Consultant

Mr. Mudge welcomed the guests. Ms. O'Reilly reviewed the meeting agenda. Dr. Micka presented a proposed revision of the purpose statement. After some discussion the revised purpose was accepted. She stated further that the evaluation had identified the following four action items that would improve implementation and strengthen the project. Should these proposed actions be accepted and made a part of the project, there may be a need for increased funding if unearmarked funds cannot be identified within the project.

The unresolved primary issue coming out of the Technical Review concerning construction was reviewed. The evaluation team had recommended that the construction component be changed from building 35 Primary Health Care Units in four western provinces to 20 Phase I Dispensaries in the Kordofan Region due to the following reasons:

1. The African Development Fund and the Dutch are constructing PHCUs in Darfur Region.

2. Engineering requirements tend toward the use of hard materials for more permanent structures.
3. Hard structures as PHCUs actually have discouraged self-help among Sudanese communities that did not have such a structure built for them.
4. MOH has not been able to build Phase I Dispensaries in support of already existing PHCUs.

The Under Secretary would prefer to promote self-help construction with the project providing the necessary materials for the communities to construct 100 PHCUs. He stated his belief that the provision of 50 trucks and 20 Phase I Dispensaries were not enough to show for a \$5.0 million project. When the issue could not be resolved during the Executive Review session, Dr. Kabbashi and Dr. Micka were asked to explore further the possibility of self-help construction under the project.

of

The recommended change/(Issue No. 2) long-term to short-term logistics training in the U.S. was approved. A proposal needs to be developed estimating the costs of the training.

At this point the MOH proposed that a mechanical engineer from the Ministry of Mechanical Transport be sent to the United States for short-term training in place of one of the logistics persons. It was agreed that training on major repairs of the vehicles could be provided in-country. Before reaching a decision about funding, the cost of this training needs to be determined and a proposal submitted by Dr. Kabbashi and Dr. Markarian.

The proposed vehicle maintenance training course for senior drivers/mechanics was approved. Dr. Markarian will prepare the proposal.

Issue No. 3: The recommendation to establish a mechanism to monitor the use of project vehicles.

Issue No. 4: The principle to establish a mechanism to evaluate the status of current drug supplies was accepted. However there is no way to assure a continual supply of drugs at the present time since bids are let two years in advance. Each time it is impossible to predict the reaction or the approval of the Ministry of Finance for a letter of credit or for foreign currency.

Issue No. 5: Based upon the results of the logistical "needs survey" in the province, a justification might be developed to purchase diesel operated vehicles in future projects.

Issue No. 6: The USAID will remain open to the needs of the GOS in the areas of health and agriculture. Funding for future projects will depend upon how well current projects are being managed. In all likelihood, future needs in the health area will be included within the framework of the new Rural Health Support Project, 650-0030.

Issue No. 7: Supervision is a continuing activity of MOH. The status of the supervisory structure will be reviewed in six months.

Issue No. 8: Recommendation was accepted. A proposal will be submitted before the source of funding is determined.

Issue No. 9: The recommendation was accepted.

Issue No. 11: An input from nomad CHW's is considered important for the testing of the health data forms. Cost estimates should be finalized by November 30, 1980. The inclusion of NCHW's can then be determined depending on the availability of funds.

Issue No. 12: The GOS shipping agent should have verified the specifications upon receipt of the vehicles at Port Sudan. The details that can be documented will be contained in the report being prepared by Mr. Miner. It was agreed that the trucks will be held in Port Sudan until inspection and mechanical preparations have been completed and documented. Documentation should then be maintained at MOH/USAID/MSCI.

Issue No. 13: The previous Under Secretary and the current Under Secretary both agreed that the 5-ton trucks should be used for three to four weeks to transport medical supplies from Port Sudan to Khartoum. Then the trucks should be made ready to move on to the provinces.

Issue No. 14: By November 30, 1980 Dr. Kabbashi and Dr. Markarian will have developed a mechanism for formal project communications among MOH/USAID/MSCI.

Issues No. 15 & 16: Recommendations were accepted.

Since two boxes of spare parts are missing, Dr. Kamal and Dr. Markarian are to follow-up on this problem.

Northern Primary Health Care Project (650-0011)

CHRONOLOGICAL SEQUENCE OF EVENTS CONCERNING 26 PHCP CARRYALL VEHICLES

July 30, 1979 (Cable/USAID) Tried to get 2 vehicles for project team to avoid renting locally. Contract team due to arrive August 79. New date of 26 carryall delivery from 1979 to 1980.

Aug. 30, 1979 (Telex) Vehicles available (all 26 carryalls) late September.

Dec. 1, 1979 (Fred's Report) 3. Personnel  
a) A MOH Transportation Officer has been assigned to PHCP.  
Responsibilities include:  
- all vehicle maintenance  
- repairs  
- scheduling commodity shipments  
- approval of spare parts issuance  
- recording of monthly and annual operating costs of each vehicle, etc.

Dec. 17, 1979 (Telex from Schwarz-GMODC, Athens) Re: 26 carryalls.  
No dealer commission has been set aside to enable local GM dealer to perform pre-start-up of vehicles at Port Sudan.

Dec. 20, 1979 Both GM & IH AAPC purchase orders stipulate that local suppliers will provide pre-delivery warranty services.  
  
PIO/C: "The suppliers representative in Sudan (M/S State Trading Corp. of P.O.Box 22/Khartoum, Sudan) is responsible to provide pre-delivery after sales and warranty services as well as back up Parts for their vehicles."<sup>1/</sup>

Jan. 10, 1980 (Cable/USAID) Will advise soonest outcome of AAPC discussions with GM and IH.

Feb. 1980 26 carryalls arrive in Port Sudan.

Feb. 5, 1980 (Telex) AAPC received following info: Pre-delivery service performed at factory.

Feb. 10, 1980 (Telex) Direct sale without dealer involvement: no dealer obligation exists.

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1/ PIO/C (650-0011-2-80033)

"Upon arrival in Sudan the suppliers will agree that his agent will furnish to purchaser at no additional cost services of a fully qualified mechanic to assemble and perform initial start-up, and insure vehicles are completely adjusted, etc."

Feb. 10, 1980  
(Continued)

Ref to January 22, 1980 cable sent by International Gov't Sales Section of GM to AAPC: pre-delivery service is not the responsibility of the dealer on direct sales to governments. We arrange for pre-delivery service at factory. This option is shown on our Quotation No. 65-0219-79 to AAPC Inc. (Note: Miner was unable to find a copy of GM Quotation at USAID/S. However, IH Quotation is in USAID/S PHCP, file).

Feb. 14, 1980  
(Fred's Report)

c. Activities

1. 26 carryalls have been off-loaded at Port Sudan. A decision is being made as to who will pay for the pre-delivery service at Port Sudan (\$60 per vehicle, total \$1,560).

3. Vehicle Distribution

Distribution will be made by the MOH through Dr. Kabbashi. He is determined that two carryalls be assigned to his office according to Project Agreement. Provincial governors will send drivers to Port Sudan to deliver vehicles directly to the provinces.

6. Reporting Systems

a. Vehicles official use, maintenance procedures will be instituted.

Annex "C", Detailed Report

3.b. Vehicle distribution (trucks). Dr. Kamal (CMS) informs me that Dr. Kabbashi has agreed to assign only one truck to each designated province; the other twelve to be temporarily assigned to CMS, Khartoum. These will be used to transport medical supplies from Port Sudan to Khartoum to help relieve one bottleneck in the transportation system.<sup>2/</sup> After two or three months, provincial truck usage will be evaluated to determine whether or not the second truck is required. It has been determined that the provincial trucks be used for regular transport of medical supplies from Khartoum to the Provinces.

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2/ Field trip to Port Sudan, December 11-18, 1979, by Fred Michaels.

Purpose: To inventory MOH supplies.

Findings: The MOH Port representative has no list of items and locations of MOH supplies. A "walk through" inventory of MOH items in warehouses was performed by asking person in charge of each warehouse where the MOH supplies were located. (Annex A contains itemized listing). It is estimated that there are 400 tons of MOH supplies at Port Sudan.

Open storage areas were not inventoried due to absence of lists and locations. Some MOH supplies have been in Port Sudan for five years. At this time 656 tons of IV solutions were being off-loaded directly onto commercial trucks for shipment to CMS. It is not known if all 656 tons would be sent to CMS.

By having CMS, Khartoum, as an end point for both supply lines, regularly scheduled maintenance procedures can be carried out.

5. The usual procedure for storage of spare parts would be to turn them over to the Ministry of Transport where all accountability would be lost. It is best they be kept in the PHCP warehouse at the CMS.

Feb. 16, 1980  
(Fred's Telex)

Though GM states vehicles were prepared at factory, vehicles cannot just be driven from the Port. Local GM agent in Khartoum agreed to perform pre-delivery service at \$60 each. Contractor has no funds. GM Athens representative says AAPC was informed that local agent has no responsibilities for vehicles but did not inform USAID/S.

March 13, 1980  
(Cable/USAID)

USAID wishes to go on record that GMC has not complied with terms of AAPC PO 4723 in that local GMC refuses responsibilities for purchased vehicles.

March 27, 1980  
(Fred's Report)

At the request of Dr. Kabbashi, Fred is helping MOH clear, insure, and prep vehicles to Khartoum for provincial distribution.

#### Meeting of March 26

Participants included Dr. Kamal, Mr. Hassan (MOH Port Rep.), Mr. Hamza (MOH Motor Transport Dept.). Hassan left Khartoum for Port Sudan to begin customs clearance; Hamza left for Port Sudan to assist in vehicle prep. Dr. Kamal informed Fred that 2 vehicles for Red Sea and Kassala will be delivered directly to those provinces from the Port.

All other vehicles (24) will pass through Khartoum, reporting to CMS area for further mechanical inspection before proceeding to provincial assignments.

MOH supplies at Port Sudan warehouses: as many crates as possible will be transported to CMS by these carryalls.

Reporting documents are being prepared for each vehicle. Depending upon Dr. Kabbashi decisions these reports are to be submitted to him each month or every 2 months.

Methods for enforcing the submission of these reports will be discussed by Dr. Kabbashi and Dr. Kamal at an appropriate time.

#### 2/ Conclusions/Recommendations

It was suggested to Dr. Kamal (CMS), that in order to strengthen his operational infrastructure efforts must be made to:

1. Assist MOH representative in establishing a port locator system for all commodities.
2. Prepare monthly status form for all commodities at the Port. (To be forwarded to Dr. Kamal).
3. Have one warehouse at the Port designated for the receipt of all MOH commodities.

April 14, 1980  
(Fred's Report)

Fred was at Port Sudan April 4-8 at request of Dr. Kabbashi to clear 26 carryalls.

Port officials were on strike so Fred left Mr. Hassan Abbas (MOH Port Rep.) and Mr. Hassan Nimir (Ministry of Transport Officer) to do the following:

- clear vehicles through customs
- insurance Co. inspect and submit report
- move vehicles to provincial hospital motor pool area for security
- vehicle preparation (separate report for each vehicle). 10 items were to be performed i.e. mechanical check up
- obtain and attach tags
- record each vehicle numbers (motor, chassis, engine and mileage) assign vehicles to provinces and record locations
- notify Dr. Kabbashi when vehicles are ready for picking up by provincial officials
- obtain receipt for delivery of vehicles to drivers and forward to Dr. Kabbashi

Anticipated delivery of vehicles ready for assignment by end of April.

May 7, 1980  
(Fred's Report)

26 carryalls are in Port Sudan undergoing inspection and preparation for delivery to MOH Khartoum. A current status report is not available due to illness of Dr. Kabbashi.

Additional time will be required for GOS documentation, issuance of vehicle tags and painting Official Use Only, etc. on each vehicle.

Spare Parts (carryalls) - 14 packages weighing 3,274 pounds are being cleared through customs at Port Sudan.

July 23, 1980  
(D. Abbot's Report)

- 26 carryall vehicles have been purchased and delivered to the provinces
- Delivery check lists have been published (not seen by Miner)
- A vehicle maintenance program has been developed and the first class of 6 mechanics begin training in September.

#### Recommendations

- Vehicle maintenance and scheduling should be monitored by the advisor and his counterpart to ensure maximum usage of the vehicles.

Sept. 8, 1980

Dr. Kamal informed Howard G. Miner that only 12 of the 14 boxes of spare parts are in the CMS warehouse. No one seems to know where the other 2 boxes are or what, if anything, is being done to locate them.

SURVEY OF PHCP PROJECT VEHICLE (Located in MOH vehicle repair yard)

H. Minor APHA/AID Logistics Consultant *H-1 (for)*  
R. Aitken USAID/Sudan Supply Management Officer *Paul*  
MOH Senior Driver

Background

Chevrolet carryall, serial number CK26AF106366, a V-8, four wheel drive vehicle is one of 26 identical vehicles purchased by the MOH under the PHCP project. The vehicle, assigned to North Kordofan in May 1980 upon its arrival at Port Sudan from the US had experienced an engine problem that deadlined the vehicle. The people listed above inspected the vehicle. The vehicle had broken down enroute from North Kordofan to Khartoum to pick up medical supplies and was towed into Khartoum from about 40 kilometers outside the city. Driver of the vehicle was not present at inspection. It was stated by someone at inspection that the driver noticed the engine was running rough and there was a lot of smoke from the tailpipe and he stopped the engine. The vehicle driver had returned to North Kordofan with his vehicle log book and there was no history on the vehicle at Khartoum. It is not known if the vehicle or the other 25 vehicles received any pre-use inspection or mechanical checks before being driven from Port Sudan the 1,200 kilometers to Khartoum prior to travel to North Kordofan. The vehicle showed 8,156 kilometers on the odometer.

Survey Findings

1. Water in the oil in the crankcase
2. No water in the radiator
3. Crankcase overfull with water/oil mixture
4. Crankcase oil had blown into carburetor aircleaner through pollution control system
5. Engine would start and run on 5-6 cylinders
6. Water blows out tailpipe when engine running.
7. Exhaust showed no indication of smoke
8. Both engine valve covers had been removed and replaced at some time
9. In replacing one valve cover, a cover bolt had been crossthreaded and left extended about 1½ inches out of cover and cylinder head
10. Thermostat housing showed no indication on bolts that thermostat had been removed
11. Radiator cap was in place
12. When engine was running (about 1 minute) there was no noise related to a broken piston or other more serious mechanical problems
13. Vehicle showed evidence of hard use in very short use period in Sudan
14. Vehicle had Korean 9.00-16, 6pr tires on all four wheels. MOH senior driver said that all vehicles had Korean tires. The MOH removed the U.S. tires as unsuitable for heavy sand travel and have stored the U.S. tires at Wad Medani.

Probable Engine Problem and Cause

Blown head gasket or warped cylinder head or both. May also have cracked cylinder head. Possible that there is damage to engine block or cylinders. Original cause is unknown.

9/29/80