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MEMORANDUM

TO: Distribution
FROM: Christopher Brown, ONRAD *CR*
SUBJECT: PACR for Typhoid Prevention and Control
DATE: July 6, 1994

Attached please find for your information the PACR for the subject project which was completed March 31, 1994.

Distribution:

A\DIR:DSmith
OPPD:JFeldman-Lawrence
OPPD:RHenry
OPPD:CBillings
CONT:MLewis
OHNP:BBrown
OEE:HHasan

Clearances:

DIR:CTyson <i>CT</i>	Date 12/12/94
DDIR:DSmith <i>DS</i>	Date 12/6/94
OPPD:KDahlgren (Dft)	Date 11/21/94
OPPD:CBillings (Dft)	Date 10/26/94
CONT:SHunter <i>SH</i>	Date 11/29/94
OEE:HHasan (draft)	Date 6/15/94
OHNP:BBrown (draft)	Date 6/10/94
OPPD:JFeldman-Lawrence (draft)	Date 6/6/94

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PROJECT ASSISTANCE COMPLETION REPORT
Typhoid Prevention and Control
FY 1991 Section 414(b) Commodity Monetization
OGSM/416 DDP-G-532-1/635/00

I. Background

Following two separate outbreaks of typhoid in 1990 in Savanna la Mar, Westmoreland, in which 181 confirmed cases of the disease were found and seven people died, the Government of Jamaica (GOJ) issued a special request for donor assistance. The U.S. Government responded in the form of a Section 416(b) commodity monetization agreement which was signed on April 12, 1991.

Proceeds from the sale of 1,000 tons of butteroil provided under the agreement, valued at US\$1.85 million (J\$42.6 million), provided the U.S. Government funding portion of this program. Commodities arrived on the island between October and November, 1991. Sales of butteroil through the Jamaica Commodity Trading Company (JCTC) were not completed until July of 1992 owing to the very high inflation rate, and the consequent reduction of demand for butteroil, during the first half of 1992.

The project agreement provided for the implementation of the project by the United Nations Development Program (UNDP) in coordination with the Government of Jamaica (GOJ) Ministry of Health (MOH) and the National Water Commissions (NWC).

Proceeds from JCTC commodity sales were deposited in a bank account managed by the Planning Institute of Jamaica (PIOJ) and disbursed to the United Nations Development Program (UNDP) as needed.

Total funding from 416(b)commodity monetizations, including sale proceeds and interest earned, equaled J\$43,695,788.23 -- sale proceeds of J\$42.6 million and interest accruals of J\$1.086 million.

II. Program Components

The components of the typhoid prevention and control program which focused on the Savanna la Mar, Westmoreland area, are as follows:

1. Clinical and epidemiological surveillance - Development of systems and facilities to identify, treat, and monitor carriers of typhoid.
2. Health education - Educate the population regarding proper hygiene, safe food preparation, and water treatment.

3. Roaring River Water distribution system - Ensure that an adequate supply of potable water is distributed from the Roaring River treatment plant.
4. Waste water and excreta disposal - Ensure the proper treatment of waste water in the Savanna la Mar region. Improve existing facilities as necessary and install 1,000 pit latrines.

III. Current Status

A. Disbursements

All US Government funds generated from commodity monetization have been disbursed by the PIOJ and all activities funded from monetization have been completed. GOJ-funded activities planned under the project continue and are planned for completion by December 31, 1994.

B. Project Component Status

1. Surveillance and Related Activities

The UNDP Project team has put in place systems to perform further epidemiological surveillance should another outbreak occur. These include a database of identified carriers and tested suspects and completion of a fully stocked and operational lab at the Savanna la Mar Hospital to perform tests to identify carriers. Testing of suspected carriers has been completed.

2. Health Education

Implementation of recommendations proposed by a health education specialist employed earlier on the project have been initiated by the UNDP Project team. Output recommendations, coming out of focus groups organized during the project to test communications strategies, have been implemented, including print and electronic media campaigns, school and community forums, a poster campaign, and workshops for community health workers and public health inspectors.

3. Roaring River Water Treatment Plant

The contractor had completed 60% of the overall project as of March 30, 1994. Work on all components of the plant is underway: concrete foundation slabs for four sand filters, and the walls of three of the four filters have been completed, dam and intake works are nearly complete, laying of the raw water pipeline from the intake works to the

filters is about 70% complete, and laying of treated water pipeline from the filters to the distribution main is also about 70% complete.

The facility is planned for completion on or about December 31, 1994. Section 416(b) funds do not provide for the entire construction effort. To date the GOJ has allocated J\$10 million and the UNDP/NWC/MOH have submitted a request to the GOJ for a final J\$15 million from the GOJ FY 94/95 budget needed to fund completion.

4. Waste Water and Excreta Disposal

A total of 1,250 concrete pit latrine covers, exceeding the planned 1,000, have been delivered by the UNDP Project team to targeted individuals. Over 1,200 latrines have been built and were in operation as of June 30, 1994.

The UNDP Project team has completed construction of public sanitary conveniences at the Blue Fields health center, the Roaring River tourist area, Dunbars River, Whitehouse, Scotts Cove, and the Wharf Road.

The UNDP Project team did not complete the planned improvements to sewage treatment plants at Llandillo, Shrewsbury, and the Savanna la Mar market during the project period. All renovation activities funded from the monetization of commodities, however, have been completed. Outstanding activities necessary to complete improvement work will be funded by the GOJ and are scheduled for completion by December 31, 1994. Completion of sewage plant renovations suffered from difficulties in clearing key parts through Customs in a timely manner, but will be completed with GOJ funds.

IV. Summary of Contributions Made by Grantee, Donors, and Participants

A. The USG, through a section 416(b) commodity monetization agreement with the GOJ, contributed US\$1.85 million (J\$42.6 million). In addition, interest accruals to these funds were J\$1.086 million, for a total USG contribution of J\$43,695,788.23.

B. UNDP (Donor)

The UNDP contribution was in the form of approximately 50% of a UN volunteer from the fall, 1992 to March 31, 1994.

C. Grantee

1. Cash - J\$10 million in cash during the project period to fund improvements to the Roaring River Water Treatment Plant. An additional J\$15 million has been requested to fund full completion of the construction effort at Roaring River.
2. In-Kind - Staff time from the Epi-Unit of the MOH, medical personnel in Savanna la Mar to coordinate epidemiological work, staff time from the NWC to manage Roaring River, sewage treatment plant construction, site selection for pit latrines, and oversight for construction of public sanitary conveniences.
3. Participants - Recipients of 1,250 pit latrines were required to arrange for or perform excavation of pits and construction of pit housing.

D. USG Fund Attribution

The USG contribution was timely and helped begin the program on a timely basis. It became clear shortly after implementation began however, that some of the activities undertaken under the project would require a longer time than originally anticipated. Consequently, USAID reached agreement with UNDP to disburse USG funds, for all activities until these funds are exhausted before proceeding with the disbursement of funds from UNDP or from the grantee.

All USG funds were disbursed by January 31, 1994. The following two tables regarding the disbursement were developed by UNDP. The first, Attachment I, illustrates the monthly drawdowns of these funds. The second, Attachment II illustrates the program components for which the funds were disbursed.

The UNDP figures show total USG funds at J\$44,570,368. This figure is in error. Apparently UNDP had counted the accrued interest, J\$1.086 million, twice. The correct USG value should be J\$43,695,788.23.

TYHPOID CONTROL AND PREVENTION PROGRAM

JAM/91/004

**EXPENDITURE TO 31 JANUARY, 1994
(IN JAMAICA DOLLARS)**

DATE	EXPENDITURE	EXPENDITURE TOTAL
July 15, 1993	10,606,398	10,606,398
August 31, 1993	16,090,766	26,697,164
September 30, 1993	2,441,743	29,139,907
November 30, 1993	3,648,635	32,787,542
December 30, 1993	1,021,822	33,809,364
January 31, 1994*	3,543,781	37,353,145
January 31, 1994**	7,217,223	44,570,368

* including purchase orders issued/downpayments made

** services provided but not paid for

JAM/91/003 - STATUS EXPENDITURE
USAID/USDA CONTRIBUTION AS PERCENTAGE OF TOTAL COST PER COMPONENT
AT 31 JANUARY, 1994

BUDGET LINE	DESCRIPTION	USAID/USDA CONTRIBUTION J\$	PERCENTAGE OF PROJECT TOTAL (Rounded)
11.01	International Project Coordinator	1,526,998	100
11.02	Epidemiologist	Position cancelled	
11.61	In-depth Evaluation	0	0
13.00	Administrative Support	323,787	89
15.00	Local Travel	282,544	n/a
17.00	National Project Personnel	2,330,644	88
21.01	Water Supply	18,937,342	64
21.02	Waste Water	680,027	37
21.03	Latrine Building Program	2,400,000	79
21.04	Laboratory Extension	535,805	100
21.05	Pit Latrines	1,930,676	79
21.06	Watershed Plan (STC)	154,350	70
30.00	Training	184,168	100
40.00	Equipment	14,652,812	99
51.00	Maintenance of Equipment	437,000	n/a
52.00	Reporting	0	0
53.00	Sundries	194,215	n/a
99.00	TOTAL	44,570,368	

* Both budget lines/allocations fall under same agreement with the Ministry of Health

The Budget Total consists of the following contributions: J\$43,695,788 GOJ/USAID
 J\$10,000,000 GOJ

n/a = not available as final cost for component is not yet determined.

7 July 1994

V. Review of Project Accomplishments

A. Clinical and Epidemiological Surveillance

Implementation and management of a functioning epidemiological surveillance unit by regional medical authorities in Savanna la Mar will provide fast response to controlling future outbreaks in the area, a capability that was weak prior to the program. Completion of improvements to the Savanna la Mar Hospital laboratory provides facilities for testing and treating suspected typhoid sufferers which did not exist at all in Westmoreland prior to the project. All samples were previously transported in coolers to distant laboratories, suffering degradation and losing valuable time for patient treatment.

B. Health Education

Awareness of typhoid -- its causes, symptoms, and treatment -- have all increased significantly since project inception. The UNDP has not yet provided survey results to support this, though anecdotal evidence indicates this is the case. Unfortunately, the project learned through a series of focus group seminars that even among populations that are aware of risks, behavior patterns have not changed in concert with the heightened levels of awareness.

C. Roaring River Water Distribution System

The project has successfully provided for improvements to the original treatment plant facility as planned under the project agreement and the subsequent UNDP project document, including education and monitoring of operators, strengthening operational controls, and improved monitoring of water quality.

Construction of the Roaring River water treatment facility, begun during the project, has the potential to more than double the volume of potable water in Westmoreland, increasing treated water output from 2.5 million to 5 million/gallons a day. This achievement will address the major objective of the program as well as the prime risk factor suspected of leading to recent typhoid outbreaks. Operation of the facility is not expected, however, until July, 1994 at the earliest.

Requirements for general improvements to the Savanna la Mar area distribution system proved to be too extensive and beyond the funding capabilities of the project. Prominent among these activities was a leak control program. Project personnel found that a large percentage of distribution piping in the region was of such an age and had deteriorated to such a degree that only a major pipe replacement scheme would be adequate to address the problem. At one point during the project the European Union (EU) proposed to undertake this task, and as a consequence project funds were reprogrammed for the Roaring River treatment plant addition. The EU subsequently reprogrammed their funds to other activities on the island and the distribution replacement scheme never initiated. This task remains as a future requirement.

The project has also been able to provide potable water to several squatter settlements in the area which did not previously have access to clean water by providing metered water to these communities.

D. Waste Water and Excreta Disposal

Completion of over 1,000 pit latrines in and around Savanna la Mar meets original project objectives and will contribute to increased sanitary conditions. Analysis indicates, however, that at least an additional 1,000 latrines are needed to meet the real needs of the area, however. In addition, completion of five public sanitary conveniences built under the project are contributing to improved sanitary conditions.

Up to completion of project-funded activities, the project was unable to complete improvements to any of the waste treatment plants initiated during the project period. Improvements to the treatment plant at the Savanna la Mar Hospital did not even begin, due to difficulties in coordinating renovation with an ongoing cholera prevention project managed by the MOA. As a result, no improvements to the waste treatment system have been provided to residents. The UNDP and the NWC continue to coordinate construction activities, with the release of necessary items from Customs being the main constraint on completion.

VI. Extent to Which Project has Resolved Original Problem

No significant outbreaks of typhoid have been reported in the area since project implementation began.

VII. Post-project Monitoring Responsibilities

The Mission will continue to monitor completion of the Roaring River Water Treatment Plant upgrade as well as completion of sewage treatment plant improvements. These elements absorbed the largest percentage of USAID project funds and have the capability, upon their completion, to provide the greatest impact on typhoid prevention and control of all project initiated activities.

The Mission will undertake site visits to be made every other month, at minimum, to the project area to inspect all treatment facilities until the plant is complete and operating.

VIII. Evaluation Requirements

With the UNDP tasked with the implementation responsibility for this project, all audit and evaluation requirements of that organization are in effect.

IX. Lessons Learned

1. Coordination with Other Donors:

For commodity monetizations, identify other donor import plans and consider the demand elasticities for imported products in light of

expected total supply and inflation. For this project, butteroil imported by the U.S. ended up competing with a parallel butteroil import by the World Health Program in a period of steeply rising inflation. Butteroil consumption turned out to be highly elastic as it is a commodity which is not essential to the diet of Jamaicans. As a consequence, U.S. Government-provided butteroil took over one-year to sell off, necessitating over US\$121,000 in storage fees to be paid out of Food Aid Monitoring and Support funds.

2. Implementation Arrangements and Reporting Requirements:

Operating agreements provided for project implementation by the UNDP with reporting to be provided by the Planning Institute of Jamaica. With actual implementation not being in the hands of the PIOJ, their reporting function became wholly dependant on UNDP reporting. As a consequence, early on in the project PIOJ relinquished the reporting function, except for commodity sales data, to UNDP. UNDP management culture proved highly resistant to USAID needs for project progress and planning information, failing to provide useful data regarding actual project progress against planned progress throughout the entire project period. Status reporting provided dealt almost entirely with process reporting and very minimally with progress against benchmarks.

In future, agreements of this nature must clearly match reporting requirements against reporting capability, that is, the implementing entity should be made the reporting entity from the beginning. In this case, the UNDP, and not the PIOJ, was the implementing entity and should have been formally tasked with the reporting function. Additionally, reporting requirements and format should be clearly established up front. Project progress should be reporting against accepted benchmarks, with each progress report comparing actual against planned. Where they diverge, a revised schedule for completion should be provided with each report, along with actions planned to recoup or manage the impact of lost time.

3. Construction activities always take longer than imagined. All schedules should have a realistic construction schedule allowing for relative isolation of Savanna la Mar, rainy season, etc. With the high rate of inflation in Jamaica, additional time means significant increases in Jamaican dollar costs. Consequently, budget estimates need to factor in expectations for significant cost increases.