

UNITED STATES  
AGENCY FOR INTERNATIONAL DEVELOPMENT

THE  
INSPECTOR  
GENERAL

MALARIA CONTROL PROGRAM  
PROJECT NO. 386-0455  
AID LOAN NO. 386-U-224  
USAID/INDIA

Audit Report No. 5-386-81-15  
August 17, 1981



Regional Inspector General for Audit  
KARACHI

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AUDIT REPORT  
ON  
MALARIA CONTROL PROGRAM  
PROJECT NO. 386-0455  
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USAID/INDIA

EXECUTIVE SUMMARY

Introduction

Malaria continues to be a major public health problem in India. The Government of India (GOI) has launched a multi-year malaria control program with the objective of reducing the incidence to two cases per 1,000 population as soon as possible. The GOI plans to achieve this through mass distribution of drugs and intensified spraying; enlisting the participation of village and community-based organizations; and research and training.

AID has provided a loan of \$38 million to support the GOI's malaria control program. The loan would be used mainly to finance the import of insecticides for the program operations during CY 1979 and CY 1980. The loan agreement was executed in August 1978 and as of December 31, 1980, \$29.2 million had been disbursed. In addition to the AID loan, other donors and the GOI agreed to provide the balance of \$365 million to meet the total program cost of \$403 million for the period April 1978 to March 1981.

This was our first audit of the project. Its purpose was to determine if the project was accomplishing its objective and if it was being implemented in compliance with terms of the loan agreement and AID regulations. Our findings were discussed with concerned USAID and GOI officials. A draft of this report was reviewed by USAID and their comments were considered in finalizing the report.

## Audit Conclusions

- Start-up of the loan-financed activities for 1979 was a year late because of delays in meeting conditions precedent under the loan, and delays in procurement and arrival of insecticides. Various other factors **slowed** progress during 1980. These factors included inadequate and untimely supply of insecticides, development of insecticides resistance in some vectors, and lack of surveillance workers and transport. Consequently, the incidence of malaria declined by only 12 percent during CY 1980, far short of the GOI's target of a 30 percent reduction. (See p. 3.)
- Loan-financed materials valued at \$401,321 were not being effectively utilized even though received over a year ago. (See pp. 5-6.)
- Adequate records on receipt and distribution of loan-financed insecticides, costing \$24.2 million, were not maintained by the GOI. Hence, accountability for these commodities was limited. (See pp. 7-8.)
- Appropriate claim records had not been established and timely action was generally not taken in filing claims for shortages. Consequently, prospects for recovery on some losses/damages were uncertain. (See pp. 9-10.)

The report contains three recommendations for improving utilization and accountability of the loan-financed **materials** used on malaria program.

## BACKGROUND

Malaria continues to be one of India's major public health problems. In 1953 it infected 75 million people and caused 800,000 deaths. At that time the Government of India (GOI) instituted a malaria control program that, by 1965, had reduced the incidence to less than 100,000 cases annually with no reported deaths. After almost eliminating malaria, the GOI started giving less emphasis to the control program. The number of cases then began to increase because of delays in importing drugs and insecticides, untimely spraying and the mosquitos developed resistance to some insecticides. Over five million cases were reported in 1977.

In 1977, the GOI launched a new control program with the immediate objective of reducing the incidence of malaria to two cases per 1,000 population. Because of limited resources, the GOI could not set a target date for eradicating malaria. But with the consultation of the World Health Organization (WHO) it adopted a modified plan of operations based on mass distribution of drugs, intensified spraying, participation of village and community based organizations, and research and training.

AID provided a \$38 million loan to finance the import of insecticides of abate, malathion, and DDT, plus fog generators to be used during 1979 and 1980 spraying seasons. The loan agreement signed August 26, 1978, was for \$28 million and an amendment for an additional \$10 million was executed June 30, 1979. The total cost of the project (April 1978 through March 1981) was to be \$403 million. Other donors agreed to provide \$79 million and the GOI the balance of \$286 million. Originally the GOI was expected to request additional AID assistance through 1983, but the GOI has advised USAID that further assistance will not be needed because domestic insecticide production will be sufficient to meet its malaria control requirements.

The National Malaria Eradication Program (NMEP) under the Ministry of Health is the implementing organization and the GOI's authorized representative for the loan. Because disbursements have been made in Washington through direct letters of commitment, some suppliers' invoices, the suppliers' certificates and related invoices and contract abstracts (AID Form 282) were not available for our review. With the exception of these invoices, we verified all loan transactions. As of December 31, 1980, loan disbursements had been \$29.2 million.

The purpose of our audit was to review progress against project objectives and compliance with the loan agreement and AID regulations. Our review was made intermittently from January to June 1981 covering the project from inception through December 31, 1980. We conducted the audit in accordance with generally accepted audit standards and included such tests of records and other procedures as we considered necessary. We interviewed USAID and GOI officials and visited two States in India where loan-financed commodities were used. A draft of this report was reviewed by USAID officials and their comments were considered when preparing this final report.

## AUDIT FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

### A. PROJECT IMPLEMENTATION STATUS

#### Project Progress

The program target of reducing the incidence of malaria in 1980 by 30 percent was not being achieved for a number of reasons. Spraying operations were curtailed due to an inadequate and untimely supply of insecticides. This was caused in part by slow procurement and a general shortage of insecticides in the country. The program also was hindered for a lack of surveillance workers and adequate transport. However, an assessment of the full impact of the program will not be possible until more statistical data is available.

The loan agreement was signed in August 1978, but insecticides which were planned to be used during the 1979 spraying season were not available until 1980. The loan conditions precedent were not met until May 1, 1979, because of problems related to insecticide specifications. Procurement was then delayed because the U.S. suppliers had difficulty in complying with the GOI Insecticides Act, which required the insecticides to carry a two year warranty and to be shipped in metal containers. Because U.S. insecticides were not available for the 1979 spraying season the amount of spraying had to be reduced. According to the June 1980 Project Evaluation Summary (PES), spraying operations in Gujarat State, for example, covered only 1.8 million people against a planned 4 million. The PES stated that despite the limited spraying in 1979 malaria incidence was reduced because of increased participation in the program by community health volunteers and establishment of village level drug distribution centers.

The Regional Malaria Advisor (RMA) reported in February 1981 that although the malaria case incidence had been reduced in 1980 in the two States using malathion, better results could have been achieved if the State Governments had not limited the use of malathion to the more severely affected areas. The insecticides were late arriving in Maharashtra State because of port clearance delays and spraying operations started too late to halt the early transmission of malaria. In Gujarat State the 1980 spraying operations covered only 7.1 million people, instead of the 20 million people living in areas having an incidence of 2 cases and above per 1,000 population.

Commenting on the national program, USAID reported that the GOI's modified plan of operations has been implemented in the entire country. Most areas with a malaria incidence of 2 cases and above per 1,000 population are sprayed regularly, more than 350,000 drug distribution centers have been established and the surveillance staff has been increased. Although a final assessment of the program's impact is not yet possible, interim GOI statistics show malaria incidence in 1980 down 12 percent from 1979, against the targeted reduction of 30 percent.

USAID has identified the following factors which were responsible for this shortfall; the development of insecticide resistance in some mosquitos, inadequate and untimely supply of insecticides due to shortage of funds and non-availability of insecticides in the country, lack of surveillance workers and supervisors, and inadequate transportation.

All of the malathion and most of the DDT had been issued and was expected to be fully utilized by the end of the 1981 spraying season. The malathion was used in two States and the DDT in eleven.

#### Project Reporting

Under the terms of the loan agreement and Implementation Letters 1 and 5, the NMEP was required to submit quarterly progress and shipping reports and an annual independent appraisal report of the NMEP. Since the project's inception in August 1978, the GOI has been slow in furnishing progress reports. The last progress report for the quarter ending March 31, 1981, was received at the conclusion of the audit. This report included very little information on progress, problem areas and overall development impact of the program. The report was of limited value for project monitoring and evaluation. Only one shipping report has been received for the period up to September 30, 1980. USAID advised us that they will request the GOI to improve the quality of reporting. Also, the GOI has assured USAID that all delinquent reports will be submitted shortly. Consequently, we have not made a recommendation on the frequency and quality of GOI reporting.

#### Project Monitoring

The Project Paper stated that USAID's monitoring would be limited because they would rely upon NMEP and WHO for detailed program monitoring, reporting and evaluation. USAID, on the recommendation of the RMA, contracted with a local physician to serve as a malaria consultant and to monitor the project activities. The consultant, who has been with this project since June 1979, and the RMA have monitored the project for USAID. They have made field visits to ensure the safe handling of malathion, to review the spraying operations and to analyse the epidemiological situations in the areas which received the loan-financed insecticides. They have reported that the insecticides were used safely and for the specified purposes.

## Commodity Utilization

Loan-financed materials costing \$401,321 were received 11 to 15 months ago and were still unused at the time of our review. These items are as follows:

- (a) Technical Abate: A shipment of 46,575 lbs., of abate costing \$321,367 was received during February/April 1980. The entire quantity was unused at the time of our review in May 1981.

Technical abate, which is used as a larva killing agent for the urban malaria control program, was received as a concentrate and was sent to Hindustan Insecticides Limited (HIL), a GOI corporation, for formulation. At the time of our audit, HIL had formulated only 11,444 lbs., or about one-fourth of the quantity received. HIL sent samples of the formulated abate along with analysis reports to the NMEP in March 1981 but had received no response at the time of our review. NMEP advised us that a registration application had been filed but that use of the formulated abate has been delayed pending action by the Central Insecticide Board (CIB). Only CIB registered insecticides can be used in India and the CIB requires data on environmental pollution and other technical matters in addition to the formulation analysis. Although no firm information on when the abate would be released was available at the time of our audit, NMEP anticipated that one-half of the quantity would be used in 1981 and the balance in 1982.

- (b) Fog Generator: Twelve fog generators costing \$39,844 were received during April/May 1980 and were unused at the time of our review in May 1981. The NMEP advised us that the generators had not been used because they were received too late for the 1980 spraying season, but that they would be used during the 1981 season (April to June). The fog generators were still unassembled in May 1981 making it doubtful that they would be used during 1981. Meanwhile, another 10 fog generators that were procured under the loan are arriving soon.

After we completed our audit, NMEP informed USAID that seven of the 12 generators had been assembled and put to use, and the remaining five were to be used soon.

- (c) DDT: In a bonded warehouse we found 875 cartons, or 30,625 kgs., of DDT costing \$40,110 that had been unused since July 1980. GOI officials first informed us that the authorities had not released the DDT because the necessary related shipping documents were not available. As a result of our audit they later advised us that the clearing agents would soon be releasing the DDT for use in the program.

USAID should follow-up to ensure that the loan-financed materials are used for the intended purposes and if not utilized as intended within a reasonable period of time, refunds should be filed as required under the terms of the loan.

Recommendation No. 1

The Director, USAID should, as part of its monitoring activities, verify the utilization status of the loan-financed materials listed above. If these materials are not used as intended or used within a reasonable time period, USAID should file refund claims for their cost in accordance with the terms of Section D6 of Annex 2 to the loan agreement.

## B. COMMODITY ACCOUNTABILITY

Records maintained by the GOI for loan-financed insecticides were incomplete and inaccurate.

The NMEP did not have an accurate record of quantities received, dispatched and used by the various consignees. NMEP officials told us that this information would be available from the Deputy Assistant Director General, Medical Stores Depot (DADG), who was the GOI consignee for the loan-financed materials. We found that the DADG records also were inaccurate because the DADG had only individual shipment files in which the information was scattered and incomplete.

DDT: Against the 10,000,025 kgs., of DDT received by DADG during the audit period, the NMEP records showed 10,003,350 kgs., were received. NMEP records also showed large variations between the quantities dispatched to the various States and quantities acknowledged by the consignees. Although the DADG gave us the dispatch details for 10,000,025 kgs., the accuracy of these records was questionable because they were not supported by acknowledgements from the recipient States. For example, in the two States we visited we found that the dispatch details were incorrect; both States claimed to have received more or less quantity than was reported by DADG:

	<u>Dispatches</u> <u>Per DADG</u> Kgs.	<u>Acknowledged</u> <u>by State</u> Kgs.	<u>Difference</u> Kgs.
Maharashtra State	658,945	729,260	(70,315)
Madhya Pradesh	1,362,725	944,230	418,495

Since the States' records were supported by acknowledgements from their ultimate consignees, we believe that they were more reliable.

Malathion 50% WDP: A total quantity of 5,945,880 kgs., of malathion was received under the loan. Of this, 3,445,860 kgs., (114,862 cartons) were for Maharashtra State, and 2,500,020 kgs. (83,334 cartons) were for Gujarat State.

The DADG reported 114,835 cartons dispatched to Maharashtra State with 27 cartons not accounted for while the State acknowledged receipt of 114,860 cartons, which reduced the discrepancy to only 2 cartons. Again, the States' records appeared to be correct as they were supported by acknowledgements received from the ultimate consignees. The DADG

acknowledged that the State records were probably more correct because of possible errors in counting quantities at the time of shipment or in recording stray cartons.

The DADG had no records for the malathion received and dispatched for Gujarat State. The shipments were cleared directly by the State where they reported the receipt of 2,494,406 kgs., i. e., 5,614 kgs., short of the quantity shipped under the loan. Neither NMEP nor DADG could account for the discrepancy.

On the basis of our review we believe that neither the NMEP nor the DADG have maintained accurate records for loan-financed insecticides costing \$24.2 million. Because USAID only addressed the problem late in the life of the project, there has been limited improvements in commodity accountability. USAID officials recently met with NMEP to discuss our audit findings, and were assured that the commodity records would be reconciled as soon as possible.

#### Recommendation No. 2

The Director, USAID should, (a) urge the GOI to prepare accurate records on the receipt and distribution of loan-financed materials and to reconcile the records with the quantities acknowledged as received by the various States and (b) require USAID to verify the accuracy and completeness of the records after they have been prepared.

### C. CLAIMS FOR SHORTAGES

Claim records had not been established by either NMEP or DADG and claims for shortages were not filed promptly. As a result, some of the shortage claims may not be recoverable from the shipping agents.

Under the established procedures, the Directorate of Shipping files the initial claim with the shipping agent for any shortages, but DADG must file the final claim action within one year of the arrival of a shipment. We found that the Directorate of Shipping had filed initial claims, but DADG often had not completed the final claim actions. During the course of our audit DADG discovered several such cases and filed the final claims, but some were filed after the one year limitation. The details of the claims furnished in Exhibit A.

In addition to the claims listed in Exhibit A, there were three other instances of shortages for which either no claim information was available or the claim amount had been recovered in local currency.

- (1) Concerning the aforementioned shortage of 5,614 kgs., of malathion which is valued at \$10,599, neither NMEP nor DADG could show whether the malathion had been used in the program or whether a claim had been filed for the shortage. This shortage included 1,800 kgs., found short from a shipment meant for a port in Gujarat State but which was off-loaded in Bombay and later shipped by road to Gujarat State. The shipment to Gujarat State was 60 cartons short and DADG had done nothing to trace the missing cartons. Since we did not visit Gujarat State, we do not know whether action was taken by the State to file claims for shortages in shipments to that State.
- (2) One box of spare parts for the for generators was damaged and some parts were missing. A survey report for the missing parts was prepared, but the value of the parts could not be determined because the invoice did not show the value by item. NMEP advised us that no claim was filed for the loss, but later informed USAID that a claim had been filed.
- (3) HIL recovered Rs. 9,003 (\$1,125) for 132 lbs., of technical abate valued at \$911 that was short in a shipment from Bombay to New Delhi.

Section C-7(b) of Annex 2 to the loan agreement requires that any indemnification received by the GOI for claims should be used to replace the shortage, subject to the provisions of the agreement.

Recommendation No. 3

The Director, USAID should follow-up with NMEP on the claims listed in Exhibit A and the above apparent shortages to assure that all claims are filed and that any indemnification received is used to replace the shortage or is refunded to AID in accordance with the provisions of Annex 2 to the loan agreement.

USAID/INDIA  
MALARIA CONTROL PROJECT  
DETAILS OF CLAIMS FOR SHORTAGES

Vessel Name (Arrival Date)	B/L No. & Date	Qty Short Landed/Missing (Cartons)	Formal Claim by AD/Shipping	Final Claim by DADG		
				Last Date for Filing	Date Filed	Claim Amount
<u>DDT</u>						
State of Manipur 5/80	OP-1 3/24/80	831	2/81	5/13/81	4/2/81	\$ 38,095
Jala Murgan 5/80	33808 2/27/80	12	Not Known	5/81	4/2/81	550
<u>MALATHION</u>						
Stag Hound/Red Jacket - 3/80	C-027669 3/10/80	7	8/27/80	3/24/81	4/2/81	396*
Stag Hound/Export Champion 3/80	C-02558 2/7/80	15	8/29/80	3/24/81	4/2/81	850*
Export Courier 3/80	C-02327 1/29/80	1	Not Known	3/81	4/2/81	57*
Export Partiot/ Export Commerce 4/80	E-32702 12/26/80	4	9/4/80	4/9/81	4/ 2/81	227*
<u>TECHNICAL ABATE</u>						
Export Courier 2/80	C-02326 1/29/80	414 lbs.	8/80	2/81	4/ 6/81	3,157**
					Total	<u>\$43,332</u>

\*The steamer agents have stated that they would not entertain any claim because the containers had arrived intact. Moreover, in three of the four cases the final claim was lodged after expiry of the one year filing period. However, DADG had started inquiring about the validity of these claims and had sought clarifications from the steamer agents.

\*\*The final claim was also filed after expiry of the one year time limit.

LIST OF REPORT RECIPIENTS

USAID/India

Director 5

AID/W

Deputy Administrator (DA/AID) 1

Bureau For Asia

Assistant Administrator (AA/ASIA) 1  
Office of Bangladesh and India Affairs (ASIA/BI) 1  
Audit Liaison Officer 1

Asia/TR/HPN 5

Bureau For Development Support

Office of Development Information and Utilization  
(DS/DIU) 4

Bureau For Program and Policy Coordination

Office of Evaluation (PPC/E) 1

Office of Legislative Affairs (AA/LEG) 1

Office of General Counsel (GC) 1

Office of Financial Management (ASD/FM) 1

IDCA Legislative and Public Affairs Office 1

Office of Inspector General:

Inspector General (IG) 1  
Communications and Records Office (IG/EMS/C&R) 12  
Policy, Plans and Programs (IG/PPP) 1

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OTHER

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and Inspections (RIG/II/Karachi) 1

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