

UNITED STATES
AGENCY FOR INTERNATIONAL DEVELOPMENT

THE
INSPECTOR
GENERAL

THE RENEWABLE ENERGY DEVELOPMENT PROJECT
IN MOROCCO NEEDS TO MAKE PROGRESS IN 1984
OR THE PROJECT SHOULD BE REDESIGNED OR THE
FUNDS DEOBLIGATED

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Regional Inspector General for Audit
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EXECUTIVE SUMMARY

Introduction

The Renewable Energy Development (RED) project (No. 608-0159) began in Morocco on April 22, 1980 and is expected to be completed by September 30, 1986. Planned AID financing over the project's life is \$9.2 million. The Government of the Kingdom of Morocco (GOM) is to contribute \$5.6 million in project inputs.

The goal of the RED project is to build an institution which can (a) manage and coordinate applied research in renewable energy for the economic and social development of Morocco; (b) adapt renewable energy technology to Moroccan needs and circumstances; (c) integrate renewable energy forms into national energy policy and planning; and (d) train a cadre of engineers, scientists and managers in the application of renewable energy technologies at demonstration sites, and eventually on a national scale.

Project implementation began on June 16, 1980. As of September 30, 1983, project disbursements totaled about \$1.9 million.

Purpose

The purpose of our audit was to determine whether (a) the project was accomplishing its objectives, (b) effective use was being made of project resources, (c) the contractor was performing satisfactorily and operating within the provisions of the contract, and (d) USAID/Morocco was adequately monitoring the project.

Findings, Conclusions And Recommendations

We found that the project has made only minimal progress and conclude that unless significant progress is made in 1984 the project should either be redesigned or the funds should be deobligated. GOM administrative delays and timing problems are the prime reasons for the minimal progress. Also, the Center for Renewable Energy Development (CDER) has been unable to recruit qualified staff to do its work due to the low salary scales. This problem is critical and unless resolved, the project will fail to accomplish its goal to build an institution (pages 3 to 7).

AID provided a \$270,000 cash advance to the technical assistance contractor. There is a possibility that interest was earned on this advance and thus should be refunded to AID. USAID/Morocco needs to follow up to determine whether this has occurred (pages 7 to 8).

The GOM had not developed an accounting of its contributions to the project despite requests from USAID/Morocco for such information. However, during our audit the USAID obtained information on the GOM's contributions. Also USAID/Morocco has implemented a procedure to annually review the actual GOM contribution to all AID projects, which corrected the deficiency (pages 8 to 9).

The project is not in compliance with the publicity provision contained in the project agreement because pilot project sites do not publicize the fact that the United States is a contributor to the project (pages 9 to 10).

Audit findings were discussed with USAID/Morocco, and a draft audit report was provided for their written comments. We have included their comments in the report as considered necessary. Our draft report contained three recommendations to correct deficiencies and improve project implementation. Based upon prompt corrective action reported by USAID/Morocco we were able to delete one of these recommendations.

BACKGROUND

The Government of the Kingdom of Morocco (GOM), located in the northwest corner of Africa, is nearly 200,000 square miles, excluding the former Spanish Sahara which was absorbed by Morocco partly in 1975 and fully in 1979. Morocco is bounded on the north and west by the Mediterranean Sea and Atlantic Ocean, and on the east by Algeria. In the south lies the former Spanish Sahara, the legal status of which is still in dispute. Morocco is a middle income country with a gross domestic product of about \$15 billion. Its population of 21 million is increasing at an annual rate of over three percent. Over the long term, Morocco has considerable resources on which to base steady economic growth. These include reserves of phosphates and other minerals, potential for higher agricultural production and a substantial infrastructure.

The high cost of energy is a major problem for the Moroccan economy and a major reason for increased import expenditures because Morocco is heavily dependent upon imported fuels. To confront the energy problem the GOM plans a program of energy conservation and domestic resource development in such areas as coal, petroleum exploration, shale oil deposits, hydro-electric power and renewable energy. The GOM has recently intensified offshore and onshore oil and gas exploration via joint ventures with foreign firms. Morocco's increasingly serious search for new energy resources offers potential investment opportunities in oil prospecting, shale oil exploitation, uranium extraction and solar energy.

The Renewable Energy Development (RED) project (No. 608-0159) began in Morocco on April 22, 1980. The project assistance completion date is September 30, 1986. Planned AID financing over the life of the grant project is \$9.2 million. The GOM is to contribute \$5.6 million in project inputs.

Project implementation began on June 16, 1980 when a contract was signed for technical assistance with Research Triangle Institute (RTI) to develop a renewable energy center. As of September 30, 1983, project disbursements totaled about \$1.9 million.

The goal of the RED project is to build an institution which can (a) manage and coordinate applied research in renewable energy for the economic and social development of Morocco; (b) adapt renewable energy technology to Moroccan needs and circumstances; (c) create a quality assurance program which will permit Morocco to judge the performance of technologies against standards; (d) integrate renewable energy forms into national energy policy and planning; and (e) train a cadre of

engineers, scientists and managers in the application of renewable energy technologies at demonstration sites, and eventually on a national scale.

OBJECTIVES, SCOPE AND METHODOLOGY

The purpose of our audit was to determine whether (a) the project was accomplishing its objectives, (b) effective use was being made of project resources, (c) the contractor was performing satisfactorily and operating within the provisions of the contract, and (d) USAID/Morocco was adequately monitoring the project.

We reviewed records, reports and correspondence at USAID/Morocco, the GOM, and the contractor's office, and held discussions with selected officials of those organizations. We also visited the project site in Marrakech, Morocco.

The audit was made during January and February 1984, and focused on project activity during the period April 1980 to January 1984.

The audit was made in accordance with the Comptroller General's standards for audit of governmental programs and accordingly included such tests of the project activities, records and internal controls as was considered necessary in the circumstances.

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

GOM Administrative Delays Threaten Achievement Of The Project Goal

The RED project has made minimal progress. We conclude that if the project does not begin to make significant progress in 1984, it should either be redesigned or the funds deobligated. Administrative delays within the GOM are the prime reasons the project's progress has been impeded.

The goal of the RED project is to develop a program for the exploitation of renewable energy resources in Morocco. The project is to fund constructing, equipping and staffing of a Center for Renewable Energy Development (CDER). The project also provides technical assistance to help establish a program for the CDER.

Progress to accomplish these activities to date has been minimal. To illustrate, the construction of facilities has not begun; equipment expenditures totaled only about 2.5 percent of plan; and, perhaps most important, the number of participants recruited and trained is far behind schedule, which has caused fewer trained specialists in renewable energy technologies among the CDER staff. The lack of participants has also resulted in missed training opportunities because the technical assistance contractor, Research Triangle Institute (RTI), performed some pilot project development work in the U.S. which was planned to be done in Morocco. Consequently, the CDER staff missed an important opportunity to learn by helping to do this development work.

The planned timetable, adjusted for a delay in signing the technical assistance contract, for accomplishing these activities and the status of each is:

<u>Activity</u>	<u>Planned Completion</u>	<u>Status as of February 1984</u>
1. Construction	3/83	Not started
2. Equipment Delivery	2/83	2.5% spent as of 11/83
3. Participant Training		
A. Training 5 CDER engineers	4/82	Completed
B. Recruitment of 18 additional participants	11/81	No Candidates Selected
C. Training of additional participants completed	3/83	Candidates not selected
4. Technical Assistance		
A. RTI Contract Signed	3/82	Signed 7/82
B. Staff Mobilized	8/82	Completed 12/82
5. Pilot Projects		
A. Solar and wind: construction and equipment installation	11/82	Not installed
B. Hydro:start-up installations	3/83	No project in operation
C. Biomass	-	Digester Installed 7/83
6. Small Projects Fund	-	Conditions Precedent ^{1/} to disbursement not met

^{1/}Represents certain conditions that must be met by the GOM prior to any disbursements by AID.

As indicated all activities are significantly delayed. Those suffering the biggest delay involve constructing and equipping of CDER facilities and providing the participants to staff the CDER. The project assistance completion date is September 30, 1986, and the RTI contract termination date is February 1, 1986. The delayed activities must soon begin to be completed in time to benefit from the contract technical assistance. For example, if recruitment of participants for academic training is completed by May 1984 and training begins in June, the graduates would only have a three month overlap with the RTI advisors.

The reasons progress on critical activities has been minimal are:

- GOM Contribution. The project planned that the construction of CDER facilities would be accomplished with GOM funds totaling approximately \$2.4 million in local currency. The CDER was approved in May 1982 and legally established in August 1982.

CDER submitted its five year capital budget and its annual operating budget to the GOM Ministry of Finance in September 1982. Because renewable energy was a new technology to Morocco, the budget review and approval process took about 12 months. The budget was not approved until December 1983. Although the GOM budgeted its agreed-to capital contribution and the 1983 operating budget for the project, it has been available to CDER for only a few months. This delay has hindered project construction.

- Construction. Construction of the CDER facility, as presently designed, would exceed CDER's capital budget. CDER is in the process of redesigning the facility to match the budget. Construction is now planned to begin in late 1984.

- Equipment. Only 2.5 percent of the planned \$2.5 million for equipment has been spent. USAID/Morocco has deliberately delayed the ordering of equipment until progress on construction of the facilities has begun.

- Participants. One project objective is to recruit and train 23 participants to staff the CDER with required technical skills during the life of the project. Five CDER engineers were sent for training in renewable energy technologies at the University of Florida in late 1981. One person did not complete the training, one person was terminated by CDER and the remaining three engineers are on the staff of CDER. No other

participant candidates have been nominated by the GOM in over two and one-half years. This is reportedly due to a lack of qualified candidates, and because the salary paid by CDER is too low to attract qualified candidates.

While the project has been plagued with implementation delays, we found three events under way which could result in significant progress during 1984. They are:

- CDER's fiscal year 1984 operating budget has been submitted to the Ministry of Finance for review. It should be available to CDER for expenditure in March 1984.
- CDER's fiscal year 1984 budget includes a provision to pay higher salaries, which should relieve its understaffed condition.
- CDER facilities have been redesigned to allow for construction to begin in late 1984.

An external evaluation made in October 1983 recognized the implementation delays and recommended that the project completion date and the contract termination dates both be extended by one year. Specifically the October 1983 evaluation stated that:

"...the Morocco Renewable Energy Development Project is an unusually promising one. It appears to have all of the elements for success, and is a project of the type that AID managers and programmers always hope to find. It deserves enthusiastic USAID support".

Our view of the project differs from the evaluation. We believe that the project should not be extended until there are positive signs of it making progress.

Conclusion, USAID/Morocco Comments, RIG/A/Nairobi Response and Recommendation

We do not believe that the project or contract should be routinely extended. We believe that the project is now in a position to show progress. If it does not progress in 1984, the project should be cut back or terminated. If the project shows progress in 1984 then there could be justification to extend it.

To help ensure that progress would be achieved, our draft report contained a recommendation that (a) a deadline be established for authorizing the expenditures for the CDER FY 1984 budget, and (b) a deadline for critical project implementation events be established.

In response to our draft report, USAID/Morocco said:

"GOM Ministry of Finance has informed USAID that 1984 CDER operating and capital budgets have been approved. Additionally timing of participant training noted correctly as implementation problem in draft report may be solved by focusing on recruitment of existing M.S. level graduates."

In addition, USAID/Morocco issued a project implementation letter which, among other things, established a new project timetable.

Approval of the CDER budget and the establishment of a timetable for project events are good indications that progress should proceed more rapidly in the future. Consequently, we deleted the recommendation which appeared in our draft report. However, we are still concerned, based upon past events, that implementation progress may not meet the new schedule. Therefore, we have recommended that USAID/Morocco see that the new goals are met.

RECOMMENDATION NO. 1

USAID/Morocco should not extend the project or contract unless (a) the newtime table is being met, (b) participants are recruited from M.S. level graduates to meet project training goals, and (c) GOM budgeted funds are being disbursed and are sufficient to meet project objectives and timetables.

Possibility of Interest Earned on Cash Advance Requires Investigation

The technical assistance contract with RTI required AID to make a \$270,000 advance payment to meet contract expenses. This advance is to be reimbursed to AID over an 18 month period by deducting \$15,000 from monthly contractual payments. We feel there is a possibility that interest could have been earned on this advance which should be refunded to AID.

Federal policy endorses advances in reasonable amounts to nonprofit educational or research institutions for experimental, developmental or research work. This policy is intended to ensure that nonprofit organizations are not forced to use their own working capital to finance work carried out under agreements with AID. However, if interest is earned on these advances it should be refunded to AID. A provision to this effect is included in the RTI contract.

We were unable to determine whether any interest had been earned on this advance because contractor accounting records are in North Carolina. USAID/Morocco officials also did not know if any interest had been earned. An official from RTI told us no interest was earned because the advance was deposited in a non-interest bearing account.

We feel that there is a good possibility that interest may have been earned on this advance and that it would be a good management practice to verify this matter. As discussed earlier, project progress had been slow which raises the possibility that expenditures would have been lower than anticipated. Too, it is not good financial management to maintain a large balance in a non-interest bearing account. Cash is fungible and if RTI normally invests excess cash, then AID is entitled to interest earned on its advance.

Conclusion and Recommendation

There is a possibility that interest may have been earned on the cash advance to RTI. USAID/Morocco should determine whether this occurred.

RECOMMENDATION NO. 2

USAID/Morocco determine whether RTI earned interest on the AID-provided cash advance and, if so, request reimbursement.

The GOM's Financial Contribution To The Project Had Not Been Determined

The GOM had not developed a system to account for its contributions to the project despite requests from USAID/Morocco for such information. Thus the USAID did not know whether the GOM was making its agreed-to contributions to the project.

The project agreement, as amended, states that the GOM will provide the local currency equivalent of \$5.6 million, and in no event less than 25 percent of the cost of the project, including costs borne on an "in-kind" basis.

This same situation had previously been found on another USAID/Morocco project and was reported to the USAID in Audit Report No. 3-608-83-5, dated January 14, 1983. USAID/Morocco took proper action to correct that particular deficiency; however, there was no GOM procedure in place to routinely report its contributions on other AID projects on a periodic basis. Consequently, the same deficient condition exists for this project, and probably others which USAID/Morocco manages.

As a result of our discussions regarding this subject, USAID was able to obtain information on the GOM's contributions to this project. Also, partly in response to our report of audit finding, and partly in response to a GOM fiscal austerity program undertaken in cooperation with the World Bank, the USAID recently implemented a procedure to annually review the GOM's actual contribution to all AID projects. This procedure includes a budget projection for the coming GOM fiscal year and projections to the project completion date. This procedure is now included as a routine part of the USAID's portfolio review process.

Conclusion

The recent USAID/Morocco action will provide data on GOM contributions to AID projects. Therefore, we are not making a recommendation.

Project Activities Are Not Publicizing U.S. Contributions

Pilot project sites are not publicizing the fact that the U.S. is a contributor to the project.

Section B.8 of the project agreement states:

"The Grantee will give appropriate publicity to the Grant and the Project as a program to which the United States has contributed, identify the Project site,..."

Pilot project sites do not indicate that the U.S. is a contributor to the project because of an oversight by USAID/Morocco in carrying out its monitoring responsibilities. USAID/Morocco overlooked this deficiency and did not bring it to the attention of the GOM.

Conclusion, USAID/Morocco Comments and RIG/A/Nairobi Response

The project is not in compliance with Section B.8 of the project agreement. Our draft report contained a recommendation that USAID/Morocco inform the GOM of the project agreement publicity requirements and follow up to ensure compliance.

In response to our draft report, USAID/Morocco issued a project implementation letter which adequately informed the GOM of AID marking requirements. USAID/Morocco also indicated they will follow up for compliance during site visits. Therefore, we are deleting our recommendation.

List of Recommendations

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RECOMMENDATION NO. 1

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USAID/Morocco should not extend the project or contract unless (a) the new timetable is being met, (b) participants are recruited from M.S. level graduates to meet project training goals, and (c) GOM budgeted funds are being disbursed and are sufficient to meet project objectives and timetables.

RECOMMENDATION NO. 2

8

USAID/Morocco determine whether RTI earned interest on the AID-provided cash advance and, if so, request reimbursement.

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List of Report Recipients

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