CAPITAL ASSISTANCE PAPER

Proposal and Recommendations
For the Review of the
Development Loan Committee

MOROCCO - LOWER MOULOUYA IRRIGATION II
608-22-122-045
608-11-031

AID-DLC/P-667
MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: MOROCCO - Lower Moulouya Irrigation II

Attached for your review are the recommendations for authorization of a loan in the amount not to exceed $5,000,000 to the Government of the Kingdom of Morocco to assist in financing the costs of the Lower Moulouya Irrigation II Project.

This loan proposal is scheduled for consideration by the Development Loan Staff Committee at a meeting on Thursday, February 1, 1968 at 3:00 p.m.

Rachel C. Rogers
Assistant Secretary
Development Loan Committee

Attachments:
Summary and Recommendations
Project Analysis
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SUMMARY AND RECOMMENDATIONS

MOROCCO

LOWER MOULOYA IRRIGATION II

1. APPLICANT: The Government of the Kingdom of Morocco

2. AMOUNT: $1,296,000

3. TOTAL COST OF ACTIVITY: $5,300,000

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>AID Loan</td>
<td>$5,300,000</td>
</tr>
<tr>
<td>GOM Contribution</td>
<td>$5,294,000</td>
</tr>
<tr>
<td>Total</td>
<td>$5,300,000</td>
</tr>
</tbody>
</table>

4. DESCRIPTION OF ACTIVITY: Gravity irrigation of 74,000 acres of farmland in the Lower Moulouya River basin in northeastern Morocco.

5. PURPOSE OF LOAN: To assist in financing the costs of US, local and third country goods and services required for the project. Local and third country costs under the Loan would be financed by US-Moroccan tender purchased from the US Treasury with the proceeds of the Loan.

6. BACKGROUND OF ACTIVITY: Development of the Lower Moulouya Irrigation Project has been under the former Spanish and French regimes prior to Moroccan independence in 1956. The French administration had an early in 1947 undertaken work on the excavation for one of the principal canals. By 1952 some $25,000,000 had been expended on major works for the project. Early in that year the Development Loan Fund authorized a loan of 23 million for the second stage of the works which was intended to finance primarily water storage and transmission facilities over a five year period. The construction financed under that Loan, however, will not in fact be completed until mid-1964. At present time some 52,000 acres are under irrigation of which about 28,700 acres are permanently equipped for gravity irrigation. The balance is being irrigated by sprinkler or wells. It is estimated that $80,000,000 of additional resources will be required to complete the permanent equipping for gravity irrigation of about 30,000 acres comprised of some of those items presently being irrigated by sprinkler or wells and areas not presently under irrigation.

7. EXPORT-IMPORT BANK CLEARANCE: January 11, 1963

8. COUNTRY TEAM VIEW: The Country Team strongly endorses this project.
9. STATUTORY CRITERIA: See Annex D

10. UNRESOLVED ISSUES: None

11. RECOMMENDATION: Authorization of a loan to the Government of the Kingdom of Morocco in an amount not to exceed $5,000,000 with the following terms:

- Maturity: 10 years, including a 10-year grace period
- Interest: 2% per annum during the grace period, 2.5% thereafter
- Repayment: Principal and interest in US dollars
- Procurement Source: US for dollar disbursements and Morocco and other free world countries for disbursement of US-owned Dirhams

CAPITAL ASSISTANCE COMMITTEE:

Capital Development Officer: AFR/CDP, Sean P. Walsh
Council: GC/AFR, Willis W. Jourdin
Engineer: AFR/CDP/ENG, Thomas V. Leahy
Agricultural Officer: AFR/ID, Carl E. Ferguson
Desk Officer: AFR/NA, Gary McCall
A. Historical Development of the Project

The development of the Xerri-Melouya as a planned irrigated perimeter began in the late 1940's as a joint Franco-Spanish program. The Melouya River served as the frontier between the former French zone on the right bank and the former Spanish zone on the left bank. Construction of the Soure-Hamri diversion dam, which was started in 1952 and completed in 1956, provides some eight million cubic meters of useful storage for irrigation. In addition, some 60 km of tunnels and canals were built on the right bank, enabling irrigation in the Triffa plain. Construction was also started on the major water conveyance system in the Triffa area. Work on the project slowed down after Morocco gained its independence in 1956 and little was accomplished toward further completion of the major hydraulic network until 1960. In March 1960 a $15 million loan agreement was concluded between the PNP and the COM to finance construction of the Mechra-Killa storage dam (the principal source of water supply), the Hou Areg Tunnel and High Line Canal, other conveyance systems and drainage canals, and land development.

The IFP-financed project has, however, encountered several serious problems resulting in delays and cost increases. In May 1963 an umbrellaw was constructed over the construction site of the Mechra-Killa dam, although the portion of the dam built at that time was virtually completed, the river widened by approximately a quarter million cubic meters of earth work from the right embankment washed out a considerable portion of the central spillway installation and deposited some 25 million cubic meters of sediments in the main reservoir area. All work on the dam was halted and it was only on March 15, 1965 that a new contract was signed. The dam was completed and dedicated in September 1967. Serious problems were encountered in the Hou Areg Tunnel. First, the river was formed which down-stream portion of the tunnel runs, resulted in severe slippages and required the placing of five drainage tunnels, and was estimated to be heavily fractured, using the theory of fracturing difficult and also requiring heavier lining.
Finally groundwater charged with dissolved sulphate appeared, making necessary the use of a special cement. All of these factors combined to increase the cost of the tunnel from the originally estimated $3.2 million to $4 million, and delayed the completion date from 1965 to July 1967. In addition, the south side tunnel (construction of which was started prior to the two North Giants) outside the town which was not a part of the contractor's division due to the lack of rehabilitation before it will be capable of delivering water to the left bank areas. Work on the rehabilitation of the tunnel is expected to begin in May/June 1968.

In June 1965 the GOM submitted to AID a comprehensive study and plan for the completion of the project together with a request for a loan for this purpose. AID review of these documents and of its experience with the project raised a number of questions concerning the adequacy of these plans arising from the limited availability of skilled Moroccan personnel (accentuated by the departure of foreign technicians), continuing unresolved land tenure problems, inadequate GOM project financing procedures and inadequate project management. Moreover, there appeared to be an ever-ambitious country-wide Moroccan program for development of its water irrigation potential appeared as well to have been largely responsible for the shortage of available manpower for the successful execution of the lower Moulaya project itself. AID then decided the financing of a series of studies by the United States Department of Agriculture and the Stanford Research Institute with the object of obtaining both adequate information concerning manpower requirements for the Moulaya on the one hand and assessment of the relative priorities for investment as between dry land and irrigated farming in Morocco on the other. The results of the initial SRI studies indicated clearly that at least in general terms, investment in Moroccan rainfed agriculture would clearly be more productive. The GOM has since undertaken a program for the introduction of fertilizer in the rainfed cropping farming areas of Morocco. A final SRI study was undertaken to assist by setting the priorities for investment in the Moulaya itself. This study was completed in November of 1967. In the meantime the GOM has undertaken comprehensive measures to alleviate its shortage of skilled manpower in its agricultural programs, has taken steps to resolve the land tenure problems in the Moulaya and has re-organized the structure of its management of irrigation projects to provide for the decentralization of authority and responsibility for the management of the various irrigation projects in Morocco.
B. Borrow

The Borrower will be the Government of Morocco. The project will be carried out by the Office Hydrographique de l'Oasis de Tafraout (OHOT), a GEF entity under the jurisdiction of the Ministry of Agriculture. OHOT was established in 1996 by Royal Decree 96-86. OHOT is tasked with implementing a project: desertification and climate change adaptation and mitigation strategies aimed at improving water management and rural development in that region. A detailed description of the OHOT project is contained in Section III below.

C. Project-Related Background

In January 1997, the European Bank for Reconstruction and Development (EBRD) indicated that it had no interest in the financing of this project.

D. Financial Aid for the Project - EBRD and Latin Plan

In July 1997, Morocco's agriculture, which represents about 12% of GDP, faced a severe decrease in agricultural productivity. Agricultural production, however, accounts for only about 10% of total gross domestic product.

There are several reasons why the current agricultural sector is underperforming. The government has a new policy focusing on developing agriculture. In order to implement the 1997-2000 Plan, several projects have been started, such as the project. The Three-Year Plan, over half of the rural areas of Morocco are expected to be affected by the project.

The report of the EBRD suggests moving closer to Morocco's agricultural sector by focusing on the modernization of the sector. In order to achieve this goal, it will be necessary to implement the project in the region and to start a broader investment in the sector.

While the EBRD in the face of its recommendations has been unable to implement these recommendations, it has nonetheless concentrated its resources on climate change mitigation. Projects were taken in
1967 to improve performance in agriculture. In the early part of the year, the GCM reorganized its administrative system to provide for greater local responsibility and central over agricultural programs, which included in particular the management of the Moulouya Perimeter and instituted a major drive to recruit, principally in Europe, foreign experts to work primarily as operators in GCM programs. In July one of the GCM's cut staff and experienced administrators was named Minister of Agriculture. The latter in conversation with USAID/Washington has affirmed his active interest in the Moulouya and in the US role in its financing.

E. Relationship of Project to US Assistance Strategy

Improvement in Morocco's economic performance is itself a major US objective in Morocco, as well as an important contributing influence to US political objectives in Morocco. It is believed that evidence of economic improvement will strengthen the GCM's capacity to maintain its moderating role in Arab and International councils and its friendly relations with the US.

AID strategy is to assist Moroccan economic development within the framework of the Consultative Group (CG) organized by the IBRD. The CG has endorsed the GOM priority on agricultural development. One of the prime objectives of the AID program in Morocco is to increase agricultural production, which is in accord with US policy to reduce on a worldwide basis dependence on US food assistance over the next five years.

AID assistance to the agricultural sector is directed at increasing production in dry-land farming, as well as irrigated farming in the Lower Moulouya River Basin, where the US has provided $23 million of loan assistance since 1960, as well as $3 million equivalent in local currency loans. The nature of AID assistance to Moroccan agriculture has evolved from major studies made by U.S.A., TVA, and SRI during the last two years to determine the new investment with highest return, as well as to plan specific agricultural development programs. In dry-land farming, AID has provided technical assistance and feed grain donations to improve animal breeding and feeding, and technical assistance and local currency loans to increase cereals production. These projects are continuing and expanding, particularly in cereals production where additional TA in seed production and extension techniques is being provided. AID also expects in this fiscal year to provide foreign exchange through a Development Loan for the Agriculture Sector to finance necessary on-farm equipment and commodity imports, particularly those arising from US technical assistance programs.

As a result of previous US assistance in the Lower Moulouya, this project has become identified in Moroccan eyes as one of major US involvement. The GCM has for some time been seeking additional US loan assistance to complete it, and our continued support of the project has assumed political as well as economic importance in US-Moroccan relations.
I. Project

The main construction project measures a progress from the left bank to the right bank of the Medjerda River. The irrigable land in the Trifia area (on the right bank of the Medjerda river) and 24,000 acres in the Gharbi Plain (on the left bank) lie at higher elevations and would require major expensive installations for the provision of irrigation water from the system.

The Lower Boureya project as presently contemplated includes irrigability areas only, no construction has been undertaken with respect to the two great irrigation areas and none is contemplated at the present time although the GWH has with its own resources initiated necessary design studies concerning the Trifia "High Service" area.

The project comprises three discrete areas. The Trifia area, the most west, lies adjacent to the right bank of the Medjerda River and extends to the Northeast to the Mediterranean sea and the Algerian border. It contains some 75,000 acres irrigable by gravity. At the time the WFP was authorized in 1958, some 25,000 acres in the Trifia area under irrigation, were from privately owned wells and the remainder from the surface water provided by the Sebba Medjerda Dam which was completed in 1965. At the present time, some 62,000 acres are under irrigation of which 52,000 are being diverted from the Medjerda river. The rest of the latter are intended to be utilized to solve irrigation water from the Main Trifia Canal.

The other two areas of the project are on the left bank of the Medjerda River. The Zehra area is similar to the Trifia but its terrain is much drier and lies just to the west of the east end of the Trifia Plain. It contains 15,000 acres of irrigable land, none of which is under irrigation at the present time. The major canal works have been largely completed for the transmission and distribution of water to this area and some of the land is being prepared to receive water. However, the left bank Medjerda Tunnel, a critical part of the conveyance system leading immediately from the Medjerda river to the transmission works on the left bank, is out of consideration because of water construction and may not be in full operation until sometime in 1974. Construction of this tunnel was

However, additional investigations are underway, the preliminary results of which have indicated the possibility of achieving a significant reduction in the time required for completion of the rehabilitation work.
originally begun under the Spanish regime. Work was resumed by the GOM under a contract concluded in late 1959. Major difficulties with the tunnel structure have been known for some time. On completion of a series of studies of the problems involved, the GOM invited bids in November 1967 on a proposed contract for the correction of structural defects in the tunnel. It is anticipated that this contract will be financed by the GOM from its own resources.

The Bou Areg area, which lies to the Northwest of the Zebra and along the Mediterranean Coast, will likewise be affected by the delay in passage of water through the Left Bank Dead Head Tunnel. The Bou Areg area contains some 31,000 acres of irrigable land. While the extensive distribution system running from the northwest portion of the area to the Bou Areg has largely been completed, neither the rain nor any of the other irrigation works required have been started. However, some of the design studies for this area have been completed.

The bulk of the DLF loan of $23 million, of which slightly over $20 million had been disbursed as of the end of November 1967, was (or is being) utilized for construction of the Mechra-Klila storage dam and the Bou Areg Tunnel and the Bou Areg High Line Canal. Smaller amounts were utilized for advisory engineering services provided by a US firm, design services, and construction of some of the main canal, drainage and distribution works. The balance of the loan is expected to be disbursed before the end of this year for reimbursement of the costs of contracts already completed or presently under way.

The GOM has in addition expended an estimated $13 million since the beginning of 1960, about $3 million of which represents the cost of hydroelectric installations at the Mechra-Klila Dam and on the Bou Areg High Line Canal. About $2 million was expended on new construction and the balance represents estimated costs of operation and maintenance of completed works. The DLF loan of 1960 was intended to assist in financing a second phase of project works in the Meoulouya Perimeter. As indicated above, the works undertaken in this phase (apart from the repair of the Left Bank Dead Head Tunnel) are drawing to a close.

In view of the sizeable resources devoted to the Meoulouya over a rather long period of years---by the Spanish, French and Moroccan Governments prior to 1960 and the GOM and AID from 1960 to 1965---to achieve the installation of the bulk of the major installations required for water storage and transmission, it has been considered that at this next stage of development of the perimeter the principal focus of attention should be on those works which will offer the
greatest and most rapid returns on additional resources required for their completion. In the interest of obtaining an assessment of priorities for the completion of the remainder of the project, AID retained the services of the Stanford Research Institute to prepare a study of the costs and returns for the various portions of the project for which irrigation has been planned but not completed.

The results of the study indicate that the completion of the remaining works required to equip the areas in the following Sectors (which may be identified on the map in Annex A) would appear to offer the optimum combination of highest dollar returns and incremental investment and early completion:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triffa Main</td>
<td>177</td>
</tr>
<tr>
<td>Triffa Sector 27</td>
<td>550</td>
</tr>
<tr>
<td>Triffa Sector 28</td>
<td>3,600</td>
</tr>
<tr>
<td>Zebra Collective</td>
<td>4,500</td>
</tr>
<tr>
<td>Zebra Remainder</td>
<td>14,250</td>
</tr>
<tr>
<td>Bou Areg Central</td>
<td>8,250</td>
</tr>
<tr>
<td>Bou Areg Remainder</td>
<td>15,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>43,000</td>
</tr>
</tbody>
</table>

\[\text{Includes some 8,000 acres of land in area of being equipped}\]

If the above is to be accomplished over the next five years, as envisioned by the GOM, the schedule would imply the bringing under irrigation of around 15,000 acres per year. This is around two or three times the GOM's historical rate of development of irrigation in the Moulouya over the past seven years. While the GOM has recently reorganized its management structure to permit greater local autonomy in the management of irrigation perimeters and has recently accorded a very high priority to acceleration of development of the Moulouya in particular, it is evident that, given the manpower constraints involved in the new operation, the above target may well be inadvisable of achievement.

The GOM has itself recognized the elements of this project and has in discussions with USAID/Rabat requested consideration of the financing by AID of the dollar costs of a management contract with a US firm to take over completely the management functions from this
set for the development and initial operation of the New Area area.

The following are the main activities planned for the New Area: the construction and operation of the New Area area. This could reduce the burden on the development of the New Area area. The following activities include:

- 

Description:

The project was initially undertaken in the third phase of the New Area area, which involves the construction of main canals, major pipelines, and individual systems (including consolidation, pumping, land clearing, etc.) by hydraulic design, construction of distribution systems, and establishment of water systems and construction of water supply facilities. In addition, the installation of main canals and minor pipelines is in progress and the land preparation is in various stages of completion. The following is a summary of the work undertaken in each of the various areas of the project:

Area 1:

As indicated above, the main canal is completed up to its connection with the new area. Remaining work is in progress in sector No. 21, 22, and 23 is in progress. Land preparation and the construction of a land drainage system is in progress. Extension of the work in sectors 24, 25 and 26 will require construction of secondary and tertiary irrigation and drainage works. For the preparation and planning in these areas.

Area 2:

The progress of this sector requires the extension of the main canal and the construction of secondary and tertiary irrigation and drainage works. For the preparation and planning in this sector.

Area 3:

The extension of the main canal and the construction of secondary and tertiary irrigation and drainage works.
b. The works to be undertaken on the Left Bank under the proposed third phase of the project are as follows:

**Left Bank Dead Head Tunnel**

As previously indicated, the final stages of preparation for the repair of this structure are under way. An expert has recently been retained to review the situation for this work and is expected to submit his written report in February. His preliminary impressions based on a site inspection, indicate that a satisfactory repair can be made in considerably less time and for less cost than previously contemplated.

The early completion of this work is important since it affects the availability of project water for the entire Left Bank.

**Zebra Collective**

This is an area of collectively owned tribal land that will be divided and allotted to selected tribal members who will become sole owners. A large part of the land preparation and development has already been completed. Some land leveling remains to be done as well as construction of distribution and drainage works.

**Zebra Remainder**

The northern section of the remainder of the Zebra will require the extension of the main canal which will be completed with financing committed under Phase II of the project. Land preparation and leveling will be required along with the construction of distribution and drainage works.

**Bow Area**

Some engineering studies have been completed for the irrigation of the Bow Area. For the most part, however, all of the required construction of main canals and major drainage works, road development, and construction of subsidiary distribution and drainage systems remains to be undertaken.

The Bow Arg Tunnel was completed in 1967 and construction is under way on the Main Canal required to convey water to the southern edge of the Bow Arg service area.

**Other scattered works** will be required including the establishment of water systems, road construction, other community services and buildings.

The requirements for such work are expected to be similar to that found in the areas on the Left Bank since such of the Right Bank is already irrigated.
B. Economic Analysis

At the time that the planning of the second phase of the project was being considered by the DRIP in 1967, it was recognized that the "maximum potential economic return for capital invested" could not be realized with the completion of the first two phases alone. The DRIP also anticipated that the completion of the first two phases, which would be completed in 1969,

The DRIP-financed enrichment of the project is expected to be completed within the period of 1969-70, thus three years behind the original plan. The delay can be attributed in large part to an unusually severe flood which caused a considerable amount of the Mecca Kilaa storage dams and to unexpected technical difficulties which extended both the cost and time required for completion of the Red Arar Tunnel.

The completion of the first phase of the project is expected to require a five-year period for construction and can be succeeded by a final three-month period during which the final adjustment of the Mecca Kilaa storage dams and the main Arkab Dam (or Triata Project) will be made. This will bring the completion of the first phase of the gravity irrigation system to be delayed for about 18 months beyond the scheduled completion period. In the context of the reduced cost, the project will undoubtedly be attractive.

It was, furthermore, noted at the time that the ratio of benefits to costs of the project estimated at the time of the project, varied in a manner expected due to the fact that the cost of the project was anticipated to be reduced. However, it was noted that the higher costs would result in a higher internal rate of return on increased investment.

* * *

Documents are for theRecord of Director (DRIP/IC/P-176 Rev. 1) 4/76/69

BEST AVAILABLE COPY
### Estimated Construction Costs

#### Phase I

<table>
<thead>
<tr>
<th>Feature</th>
<th>Expenditure to 1/1/61</th>
<th>Commitment to 1/1/61</th>
<th>Expenditure to 6/30/67</th>
<th>Commitment to 6/30/67</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Storage and Regulation</td>
<td>3.4</td>
<td>9.5</td>
<td>10.6</td>
<td>-</td>
</tr>
<tr>
<td>Right Bank</td>
<td>13.7</td>
<td>3.1</td>
<td>1.0</td>
<td>7.9</td>
</tr>
<tr>
<td>Left Bank</td>
<td>2.5</td>
<td>6.7</td>
<td>11.6</td>
<td>14.3</td>
</tr>
<tr>
<td>Farm Development</td>
<td>0.9</td>
<td>2.5</td>
<td>b/</td>
<td>12.6</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td><strong>35.5</strong></td>
<td><strong>23.3</strong></td>
<td><strong>27.2</strong></td>
<td><strong>34.8</strong></td>
</tr>
<tr>
<td>Additional CFE</td>
<td>-</td>
<td>-</td>
<td>2.2</td>
<td>-</td>
</tr>
<tr>
<td>Engineering Services</td>
<td>-</td>
<td>-</td>
<td>e/</td>
<td>2.5</td>
</tr>
<tr>
<td>Regulation and Contingencies</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35.5</strong></td>
<td><strong>23.3</strong></td>
<td><strong>27.2</strong></td>
<td><strong>34.8</strong></td>
</tr>
</tbody>
</table>

*Designated for a 2-year period.*

d/ Included in estimate for East and Right Banks.

t/ Advisory Engineering services included in the costs of the various project features.

d/ 2% of development costs.

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**BEST AVAILABLE COPY**
As indicated in the table on page 11, the present estimates of costs of the project are somewhere higher than the 1960 forecasts. They are not, however, higher by an amount which would have a significantly adverse effect upon the benefit/cost ratio as originally computed.

**BENEFIT-COST ANALYSIS**

Due to the number of alternative areas in which investment could be made in the lower drainage, analysis of benefits and costs were undertaken for discrete project areas for the purpose of establishing a ranking of priority in terms of the economic return resulting from new investment.

The method used in this analysis is the Internal Rate of Return (IRR), which permits comparison of alternative project costs and benefits, within the necessity of assuming a specific interest rate for discounting costs and benefits to their present value. The Internal Rate of Return is that interest rate at which the stream of benefits and costs is breakeven.

The following table summarizes the IRR and project priorities developed in the SPP study of November 1967.

<table>
<thead>
<tr>
<th>Project Area</th>
<th>IRR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triffa Main</td>
<td>21</td>
</tr>
<tr>
<td>Sector 27</td>
<td>9</td>
</tr>
<tr>
<td>Sector 25</td>
<td>3</td>
</tr>
<tr>
<td>Triffa East</td>
<td>9</td>
</tr>
<tr>
<td>Bau Area Central</td>
<td>6</td>
</tr>
<tr>
<td>Bau Area Perimeter</td>
<td>-12</td>
</tr>
<tr>
<td>Triffa High Service</td>
<td>6</td>
</tr>
<tr>
<td>Zebra Collective</td>
<td>9</td>
</tr>
<tr>
<td>Zebra Perimeter</td>
<td>4</td>
</tr>
</tbody>
</table>

While the Triffa East area shows an internal rate of return of 6% higher than the Zebra and Bau Area areas, the Triffa East has not been included for financing under the proposedibeneces of the larger capital investment (about 25.6 million) needed to complete development of this area and the extended time (75 month) necessary to complete studies, construction, and development and placement of farmers on the land. In comparison development of the Zebra area may be completed within approximately 52 months and the Bau Area Central within 56 months. The Triffa High Service area has not been included in the regional analysis.
elevated area requiring water to be pumped to the irrigated land with both higher capital costs (about $1.1 million) and higher operation and maintenance costs (150 Dirhams per hectare via-a-via 100 Dirhams per hectare for the gravity irrigated areas). The only work presently completed in the Triffa High Service Area is the preliminary engineering studies. Similar to the Triffa East, the Triffa High Service area will require an extended development period before agricultural production can be initiated.

The above considerations result in the following revised ranking of priorities:

<table>
<thead>
<tr>
<th>Project Area</th>
<th>IRR (%)</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triffa Main</td>
<td>21</td>
<td>I</td>
</tr>
<tr>
<td>Sector 27</td>
<td>8</td>
<td>I</td>
</tr>
<tr>
<td>Sector 28</td>
<td>9</td>
<td>I</td>
</tr>
<tr>
<td>Bou Areg Central</td>
<td>6</td>
<td>II</td>
</tr>
<tr>
<td>Bou Areg Remainders</td>
<td>6</td>
<td>II</td>
</tr>
<tr>
<td>Zebra Collective</td>
<td>5</td>
<td>II</td>
</tr>
<tr>
<td>Zebra Remainders</td>
<td>5</td>
<td>II</td>
</tr>
<tr>
<td>Triffa East</td>
<td>6</td>
<td>III</td>
</tr>
<tr>
<td>Triffa High Service</td>
<td>5</td>
<td>III</td>
</tr>
</tbody>
</table>

SRI used a cost contingency factor of 25% and a cumulative cost escalation factor of 4.5% per annum. These factors appear excessively high in the light of (1) project experience to date and (2) the fact that from his point the technical risks involved are of a much lower order of magnitude than those inherent in the major works just completed. A reduction in escalation and contingency factor of 15% has therefore been used for the estimates utilized in this paper. The implication of this 15% factor to project costs (in place of the factors used by SRI) would not change the ranking of the alternatives. However, it can be seen that a higher contingency factor would increase the IRR. Hence, schematically the IRR for the Triffa Sector 27 assuming a 15% contingency is shown as the cost curve moves to the right and intersects the IRR curve at a higher interest rate (internal rate of return).

C. Financing Plan

Cost of the project works, management and engineering advisory services for the proposed third stage of the Moulouya Project are estimated as follows:

Best Available Document
(In Millions Of Dollars)

Right Bank:

<table>
<thead>
<tr>
<th>Project</th>
<th>Cost (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triffa Main</td>
<td>3.4</td>
</tr>
<tr>
<td>Sector 77</td>
<td>0.8</td>
</tr>
<tr>
<td>Sector 36</td>
<td>0.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5.1</strong></td>
</tr>
</tbody>
</table>

Left Bank:

<table>
<thead>
<tr>
<th>Project</th>
<th>Cost (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zebra Collective</td>
<td>1.2</td>
</tr>
<tr>
<td>Zebra Remainders</td>
<td>5.4</td>
</tr>
<tr>
<td>Lou Areg Central</td>
<td>7.4</td>
</tr>
<tr>
<td>Lou Areg Remainders</td>
<td>6.8</td>
</tr>
<tr>
<td>Left Bank Dead Head Tunnel</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23.8</strong></td>
</tr>
</tbody>
</table>

Services:

<table>
<thead>
<tr>
<th>Service</th>
<th>Cost (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>2.0</td>
</tr>
<tr>
<td>Advisory Engineering</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>SUB TOTAL</strong></td>
<td><strong>2.5</strong></td>
</tr>
</tbody>
</table>

Escalation & Contingencies @ 15% | 4.7

**TOTAL** | 36.1

It is proposed that the AID Development Loan for this stage of the Moulouya Project be limited to $5 million, an amount which would be sufficient to meet the cost of any US goods and services required for the works to be undertaken. Thus the loan would finance the dollar costs of management and engineering advisory services to be provided by US firms, estimated at $2.5 million. The balance would be available to meet any other US costs that might arise for construction equipment and material.

The balance of funds required would be provided by the GOM from its own budgetary resources, including, as appropriate, agreed allocations of the country's own dirham proceeds of US surplus agricultural programs in Morocco.

To a large extent, construction works in the Moulouya (other than the Bou Areg Tunnel and Mechra Kilia Dam) have taken place under a large number of small contracts with Moroccan firms. It is anticipated that this will continue to be the practice in the forthcoming development stage. Thus, it is evident that the great bulk of project costs in this next stage will be local costs.
In the event that not all of available funds under the loan are required for US costs, it is proposed that any remaining balance be utilized for the payment of local costs of the project. This would be accomplished by utilizing the dollar proceeds of the loan to purchase US-use dirhams (from the US Disbursing Officer) which would be utilized to reimburse the GOM for equivalent local expenditures.

This arrangement is similar to that utilized in the case of the Development Loans for the Marrakech Airport Conversion. Since these loans are repayable in dollars and since Morocco is a "near excess" local currency country, the effect of the transaction is to provide a means for obtaining conversion, over the life of the loan, of otherwise inconvertible US holdings of dirhams which are in excess of its local requirements.

In 1967, over 15 million dirhams (about $3 million) of PL 480 Section 1.04(g) loan funds were, in agreement with the GOM, allocated for the financing of various contracts relating to projects in the Moulouya. It is anticipated that additional allocations will be made out of the local currency proceeds generated from current and anticipated US surplus agricultural commodity programs in Morocco.

It has been proposed that the dirham equivalent of $4.5 million of the proceeds of the October 1967 surplus agricultural commodity Sales Agreement be allocated for a Section 1.04(g) loan for the Moulouya. In addition, it is estimated that a possible $13.5 million (in dirham equivalent) would be available from supplemental surplus agricultural commodity sales programs under Title I and Title IV in calendar 1968 for allocation for loans for development projects in Morocco. These two amounts combined would provide about 64% of the GOM resources required for the project over the next five years. On this basis there would appear to be reasonable prospect that the GOM should be in a position to provide over the five year period of the project the additional resources required for its completion.

It is contemplated that no additional US dollar financing of the Moulouya, beyond the $5 million proposed herein, will be provided for the completion of the Moulouya, since the bringing under irrigation of the 74,000 acres included in the proposed project will substantially complete the works originally contemplated when the DLF loan was authorized in 1962. The remainder of the work shall be within the capability of the GOM to complete with its own resources.
D. Technical Analysis

The Moulouya River, which is one of the largest in Morocco, originates in the Middle Atlas range and flows some 250 miles northeast to the Mediterranean Sea at a point near the Algerian border.

The agricultural land is divided into three plains. The largest and most western plain is the Triffa which is located on the right bank of the Moulouya and which extends southward some 31 miles from the Mediterranean Sea. To the west of the Triffa, and on the left bank of the Moulouya is the Zebra plain. Mountains separate the Zebra from the sea and from the Bou Areg plain, which is located northwest of the Zebra. The Bou Areg is a coastal plain, some 19 miles long and 6 miles wide, separated from the sea by a shallow salt water lagoon. Southwest of the Zebra is the Gareb plain which has land suitable for irrigation in its southeastern portion. The Gareb is at a higher elevation than the three other plains and if ultimately irrigated would require pumping from the lower level Zebra conveyance system.

Water from the Moulouya River is stored behind the Mechra Klila Dam which was completed with financing from AID loan (79-A-701) (DLF Loan 976). Water is released downstream (about 9 miles) to the Mechra Homadi reservoir and diversion dam where it is diverted to the right and left bank canals. About 75 kilometers (47 miles) of the Triffa (right bank) main gravity canal have been completed and considerable work has been carried out in the Triffa on distribution and drainage networks, land leveling and other farm improvements. About 37 kilometers (23 miles) of the Zebra (left bank) main gravity canal and the tunnel 6.35 miles (10,197 linear meters) between the Zebra area and the Bou Areg area have been completed.

The GOM will perform certain work needed for development of the gravity irrigation system for some 74,720 acres over the next five years. This effort will be concentrated upon the development of areas that provide the greatest economic returns and the development of a cadre of Moroccan personnel adequately trained in the management of the project. See Annex C for further project details.

Technical Evaluation

a. Infrastructure. The internal highway communication network is excellent and comprises some 973 miles of roads, including 716 miles of weather paved roads.
Other communications links that are in place include the mainline of the Oujda-Pet-Caiblenia railway which also extends to Algeria; the Spanish enclave part of Melilla; and the commercial airports at Oujda and Nador with regular national and international services.

The network is inductively connected with electric power and is powered by a 60 kv line interconnected to the 50 kv national network. Additional power (10 x 1.5 MW per year) is supplied from hydroelectric stations at the Mekhcha Khella dam and the Bou Aref central power station. The towns are connected to each other and the rest of Morocco by telephone and telegraph lines.

b. Soils. Soil surveys and land classifications have been completed in the Maouya valley on a contract basis with French firms using French methods. The Triffa plain was initially mapped at a scale of 1/50,000 with certain areas subsequently resampled at 1/5,000, 1/10,000 or 1/20,000 depending upon the complexity of soil patterns. The Zebra plain has been mapped at a scale of 1/50,000 and the Bou Aref plain at a scale of 1/50,000. On the basis of these surveys, the GCM has classified the soils in terms of suitability for irrigation as follows:

<table>
<thead>
<tr>
<th>Land Classification (Acre)</th>
<th>Class I &amp; II</th>
<th>Class III</th>
<th>Class IV</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triffa Plain</td>
<td>47,000</td>
<td>29,500</td>
<td>22,225</td>
<td>98,725*</td>
</tr>
<tr>
<td>Zebra Plain</td>
<td>4,000</td>
<td>12,775</td>
<td>4,050</td>
<td>21,825</td>
</tr>
<tr>
<td>Bou Aref Plain</td>
<td>25,100</td>
<td>1,690</td>
<td>1,740</td>
<td>38,530</td>
</tr>
<tr>
<td>Gareb Plain</td>
<td>13,395</td>
<td>10,770</td>
<td>0</td>
<td>24,145</td>
</tr>
</tbody>
</table>

*Includes 31,750 acres for High Service Area

The findings thus indicate that: (i) approximately 60% of the area in the four plains is well suited to irrigation (Classes I and II); (ii) more than 3% is suitable but with one or more limitations imposed by undesirable features such as topography, soil characteristics, salinization or restricted drainage (Class III); and (iii) less than 2% of the area is only marginally suited for irrigation (Class IV). In these latter areas only semi-intensive crop rotations will be possible.

The opinion of the Consulting Engineer (Hydrotechnic) with respect to the above classification is that while US Bureau for Reclamation standards were not employed, the classification is accurate and conservative, with more land placed in less desirable categories than might have been the case were US standards followed. The classification has also been reviewed and found to be satisfactory by the USMA team. However, in areas of complex soil patterns which to date have only been mapped to a scale of 1/50,000, some resampling may be necessary as a basis for preparing...
final designs of irrigation and drainage systems, parcellization into farms and
planning of land preparation measures. In addition, considering the high
average salt content of water from the Moulouya River, a program of systematic
leaching will be required to prevent accumulation of salts in the soils,
particularly in the Jebra plain. Certain areas will also require nitrogen,
phosphorus and possibly other nutrients to obtain satisfactory yields.

c. Water. On the basis of studies by the GCM which have been reviewed by
the Consulting Engineer and the U.S. Bureau of Reclamation, it is the
conclusion of A.A.S. that: (i) the quality of water in the Lower Moulouya
is below average but comparable to that of certain rivers in the U.S. which
have successfully been used for irrigation for periods exceeding 100 years;
(ii) there is clearly a sufficient amount of water to irrigate the 128,000
acres to be served in the gravity area. Additional studies are required
to determine if adequate water is available for irrigation of 176,000
acres.

The only significant source of supply for irrigation water in the perimeter
is the Moulouya River. While some and is presently being irrigated from
wells, most ground water is of low quality. The Moulouya contains
dissolved salts which vary in concentration from 100 ppm during peak flow
to 1150 ppm during period of recession. The event concentration is 750 ppm.
On the basis of USDA Salinity Laboratory criteria, the water is class O3-S1
(high salinity-low alkalinity). While water is thus of mediocre quality,
it is comparable to that of rivers successfully used for irrigation in the
U.S. (e.g., the Lower Colorado River) and poses no serious problems to
irrigation in the Moulouya perimeter provided the GCM adhered to recommended
programs for meeting leaching requirements.

With respect to the 128,000 acre project, the demand for water measured at
the Mechra Hocadi diversion dam is estimated at about 575 million cubic meters
per year as follows:

<table>
<thead>
<tr>
<th>Demand for Water</th>
<th>Peak Flow (August)</th>
<th>Annual Total (m³ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture (176,000 acres)</td>
<td>33.7 m³/s</td>
<td>806</td>
</tr>
<tr>
<td>Municipal &amp; Industrial Consumption</td>
<td>2.8 m³/s</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>36.5 m³/s</td>
<td>829</td>
</tr>
<tr>
<td>128,000 acres to be irrigated by Gravity</td>
<td>25.5 m³/s</td>
<td>575</td>
</tr>
</tbody>
</table>

*(The estimated peak requirements of 34.5 m³/s compares with a 35 m³/s design
capacity of the main canals at the diversion dam, including 18 m³/s for the
Right Bank and 17 m³/s for the Left Bank).
This estimate is based on probable rainfall, cropping patterns, plant requirements, evapo-transpiration and other expected losses of irrigation water. The estimate is believed by the Consulting Engineer to be reasonable but subject to refinement on the basis of tests to be carried out on a continuing basis.

The annual average availability of water from the Moulouya river is estimated at 1100 million m³ or about double the estimated requirement for the gravity areas.

**Estimated Availability of Water**

<table>
<thead>
<tr>
<th>Twelve Year Annual Average for Moulouya River</th>
<th>34 m³/second</th>
<th>1,100 million m³/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum inflow</td>
<td>8,000 m³/second (1963)</td>
<td>3,400 million m³ (1962-63)</td>
</tr>
<tr>
<td>Minimum inflow</td>
<td>1 m³/second (1954)</td>
<td>532 million m³ (1956-57)</td>
</tr>
</tbody>
</table>

On this basis it appears that there should be ample water available for irrigation of the gravity area, as the water availability obtained from twelve years' observation exceeds the requirements in all but the 1956-57 season shown above. Prior to the development of land with pumped service areas (the Garb and the Triffa High Service), a review and analysis of the river hydrology should be undertaken to assess the availability and regulation of the river flows.

d. Studies, Engineering and Construction. The overall irrigation scheme outlined by the GOEM defines the major features and the magnitude of the work to be accomplished to attain the ultimate goal.

This scheme is being carried out in phases over a long time period. The present phase encompasses the development planned within the priorities indicated by the Stanford Research Institute (SRI) study for the gravity irrigation system.

The studies for land classification have been completed for the gravity irrigation system in the Triffa, Bou Areg and Zebra plains by French firms and were considered reasonably accurate by the Consulting Engineer. Land consolidation and parcelling have been completed by SEDMET in the Bou Areg Central area, the Zebra Collective and Zebra Remainder sectors 7 thru 10. Land consolidation and parcelling are needed for Triffa sectors 27 and 28, Bou Areg Remainder and Zebra Remainder sectors 1 and 2. The engineering designs for the Triffa main, sector 27 and 28, and the Zebra Collective have been or are being completed by the GOEM forces. The engineering design for the Central Bou Areg and Zebra Remainder sectors 7 thru 10 has been or is being completed by Hydrotechnic. Engineering design will be required for the Bou Areg remainder sectors D-3 thru D-7 and G4 thru G-6 and Zebra Remainder sectors 1 and 2. The engineering design for the Dead Head Tunnel has been undertaken by S.C.E.T. who have prepared and issued an "Avant Projet" for bid invitations for construction.
This firm will also undertake supervision of construction. The engineering not yet performed can be accomplished by GOM forces and/or private engineering firms.

Construction of the extensions to the main irrigation and drainage canals, land preparation, sector canals and drainage ditches will be performed under contracts to local contractors, except perhaps in the case of the rehabilitation of the Left Bank Dead Head Tunnel.

c. Cropping Patterns. The existing cropping pattern in the Moulouya, including both irrigated and dry farming, includes grain, forage, citrus, vegetables, olives, grapes and a small amount of deciduous fruits and nuts. Of the roughly 2,600,000 acres of agricultural production in the Moulouya, about 177,000 acres are in field crops, 24,000 in vegetables, 16,000 in citrus, 15,000 in grapes, 5,400 in forage crops, 1,700 in olives, and 1,500 in other fruits and nuts.

Taking into consideration past and present trends in plantings as well as agronomic and price and marketing factors, the following projection of cropping patterns has been developed for the Lower Moulouya.

**PROJECTED CROPPING PATTERNS IN THE LOWER MOULOUYA**

(In per cent of total irrigated area)

<table>
<thead>
<tr>
<th>Crop</th>
<th>Left Bank and Triffa High Service</th>
<th>Triffa Main</th>
<th>Sector 2 Sector 28</th>
<th>Triffa East</th>
<th>Class I &amp; II</th>
<th>Class III</th>
<th>Class IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrus</td>
<td>40</td>
<td>60</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetables</td>
<td>15</td>
<td>10</td>
<td>15</td>
<td>15</td>
<td>20</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Cotton</td>
<td>10</td>
<td>15</td>
<td></td>
<td>15</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forage</td>
<td>10</td>
<td>15</td>
<td></td>
<td>15</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheat</td>
<td>10</td>
<td>15</td>
<td></td>
<td>15</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grapes</td>
<td>25</td>
<td>10</td>
<td></td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry beans</td>
<td>20</td>
<td>10</td>
<td></td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunflower</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Olives</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

* Includes double cropping.
The projected cropping pattern for the Bou Areg plain includes cotton. During the first five years of the project it would be grown on an estimated 1% of the Class I and II lands. This represents only 960 hectares (2,420 acres) of this 39,000 acre area. The cotton acreage may increase one hour after five years if satisfactory drainage conditions are achieved in the Bou Areg.

The cotton grown is long staple. Traditionally Morocco exports its entire crop and imports US short staple cotton to meet the requirements of the Moroccan spinning mills.

The cropping pattern of the Trifta East (about 18,000 acres) is projected to include 15% (about 2,700 acres) in cotton. It is likely that because of the limited extent of Class I and II lands in the Trifta East cotton will not increase beyond that percentage.

It is evident that the amount of irrigated cotton that is likely to be grown in the Moulouya is minimal, even assuming that local drainage conditions are suitable.

f. Technical Soundness. The AID Project Engineer has reviewed all the data and major construction performed to date on this long-range phased project and finds the technical requirements sufficiently defined to continue the project on an orderly schedule. The estimates of cost of project facilities have been determined by SRI from average values of unit costs obtained from previously awarded contracts and from detailed design and analysis prepared by the Hydrotechnic Engineering firm of two typical sectors located in the Bou Areg area. The costs for the contract have been estimated by the USAID. It is considered that the degree of engineering planning undertaken and the determination of costs to the US Government are adequate to meet the applicable requirements of Section 611 of the Foreign Assistance Act.
E. Financial Status of Borrower

1. The Moroccan Economy

Growth of Morocco's GDP in real term averaged about 2% per year in 1964 and 1965. Per capita GDP in 1965 was approximately $162. A severe drought in 1966 resulted in a decrease of slightly over 2% in GDP which with population growth averaging 3.2% per year resulted in a 5% decline of per capita GDP in 1966 to about $154. A second drought occurred in 1967 but is not expected to have the severe effects of the 1966 drought. Crop forecasts for the first nine months of 1967 indicate a 4% increase in real GDP above the 1966 level. This is also the economic growth rate estimated by the IBRD for the period 1965-70.

Morocco's economy is heavily dependent upon the agricultural sector, which has averaged about 4.5% growth per annum. However, growth of the small modern segment of Morocco's agricultural sector has increased at the rate of about 7% per annum.

In 1966 the International Bank for Reconstruction and Development (IBRD) presented a number of recommendations designed to increase Morocco's economic growth rate. On the basis of these recommendations the GOM proceeded with planning the necessary program to increase investment levels from the 1964-65 level of 11% of GNP to 17% of GNP and stimulate the rate of economic growth from 4% to an average of over 4% annually for the five years 1966-70. In addition, the GOM has taken measures to curb the population growth rate, while placing increased emphasis on raising production of both dryland (wheat) and irrigated agriculture.

2. Investment and Savings

The level of total gross investment has remained at about 11% of GNP for several years, although the percentage declined slightly in 1965. Under the GOM's Three Year Plan, 1965-67, the gross investment target was set at DH 13.3 billion. Actual investment expenditures for the three year period reached about DH 4.6 billion, of which the Government expenditure amounted to DH 1.8 billion as against DH 2.1 billion budgeted. This may have been partly due to the GOM's deliberate austerity policy under the IMF stabilization program, but more probably it was due to the shortage of trained cadres to plan and execute projects.

In the private sector, considerable amounts of savings may be hoarded due to lack of projects attractive to investors. The level of private investment has been running at about 5% of GNP through 1965. The GOM, as incentive to private investors, has cut profit taxes from 43.2% to 40% and announced a ten year guarantee against tax increases.

1/ US $1 = DH 5.06
Loans are available to private investors from the MIDEPA as well as from special funds to promote tourism development.

Under the 1968-1972 plan about to be issued, investment levels are to be accelerated considerably, reaching 11% of GNP by 1970. Morocco is relying heavily on foreign assistance to achieve these projected higher levels.

3. Central Government Finances

The Moroccan money supply which had increased by 7.6 per cent in 1966, remained virtually unchanged in 1966. The first half of 1967 witnessed a 5 per cent increase in the money supply. The major part of this increase was concentrated in June and July when the supply reached DH 148 million. Currency in circulation expanded rapidly in June and July, mainly factors being reinforced by commodity hoarding related to the Middle East crisis. Demand deposits did not show their normal decline in the first half of 1967. Deposits with commercial banks declined slightly while deposits with the Treasury increased as public and semi public agencies continued their transfers from the banking system to the Treasury. The increase in money supply in the first half of 1967 can be traced to the normal seasonal increase in net foreign assets, not offset by the customary decline in claims on the private sector. Claims on the private sector declined slightly until May 1967, but increased through June and July due primarily to additional financing of textile stocks. Claims on the Government rose by 10 per cent in the first half of 1967, the increase in central bank claims on the Government being mainly offset by larger deposits with the Treasury.

Ordinary budgetary revenues which increased by 8 per cent in 1966 are expected to increase by 7 per cent in 1967 to DH 2.1 billion. Despite a decrease in agricultural tax receipts, receipts from direct taxes rose by 10 per cent in 1966, and a 2% increase is estimated for 1967, due to price controls on income declaration and an acceleration of tax collections. Owing mainly to a relaxation of the import program in late 1966 and a concurrent increase in tariffs on certain consumer goods, customs receipts increased by 21 per cent in 1966. Although budgetary estimates call for a decline of 3 per cent in customs receipts in 1967, it is likely that actual receipts will be considerably larger in view of the import liberalization measures introduced subsequent to the estimates. Receipts from indirect taxes, state monopolies and other sources are expected to be 11 per cent higher in 1967, owing to increased profit on sugar sales, and revenue from the newly created Office de Commercialisation et d'Exportation (OCE).

Recurrent ordinary budget expenditures increased by 3.4 per cent in 1966 and are expected to increase by an additional 7 per cent in 1967, reaching DH 2.2 billion. Although wage and salary scales in the public

1/ Banque Nationale pour le Developpement Economique
sector have remained unchanged since 1966, the wage bill increased in 1966 and 1967 because of an increase in the number of employees and promotions. Public debt service and pension payments also increased. Other expenditures are expected to increase by 1% per cent in 1967.

The extraordinary (in deficit) budget, which includes mainly current and extraordinary expenditures, was forecast at DH 725 million in 1966. Most of the increase is due to unexpected expenditure on the capital budget, which is an increase and in the past have been covered by capital expenditure. The source of funding for extraordinary budget expenditure are mainly domestic security issues, Postal Checking system deposits, treasury deposits, Central Bank lending and foreign assistance. The foreign assistance limit has decreased from a high of DH 527 million in 1965 to DH 253 million in 1966. Forecasts for 1967 place foreign assistance at the level of DH 475 million. Domestic financing has also decreased from an estimated DH 272 million to an estimated DH 142 million in 1967. The recent increase in foreign and domestic financing is expected to be offset by increased borrowing from the Central Bank which had been held at modest levels in 1965 and 1966. Under the IMF standby agreement of October 1967, the GOI agreed to take all necessary measures to maintain a stable currency essential to the balanced development of the economy and a viable balance of payments. Particular to this is an export expansion of the Central Bank assets (credit) are not to exceed its June 30, 1967 level by more than DH 20 million until December 31, 1967, unless $12-$13 million until December 31, 1967. GOI, in return, the Central Bank is estimated at DH 132 million for 1967, or DH 65 million or less than the approved credit expansion.

The combined ordinary and extraordinary budget deficit of DH 742 million forecast for 1967 is expected to be financed by net foreign assistance of DH 675 million, net security issues of DH 62 million, a net increase in Treasury and Postal Checking deposits of DH 73 million, and the Central Bank increase to DH 132 million.

Sales at Pampas
**LIMITED OFFICIAL USE**

- 25 -

**MOROCCO - SUMMARY BALANCE OF PAYMENTS, 1965 - 1969**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exports, f.o.b.</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Imports, f.o.b.</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Trade Balance</strong></td>
<td>-44</td>
<td>-443</td>
<td>-542</td>
<td>-615</td>
<td>-525</td>
</tr>
<tr>
<td><strong>Services, net</strong></td>
<td>-21</td>
<td>-53</td>
<td>-53</td>
<td>-21</td>
<td>-21</td>
</tr>
<tr>
<td><strong>Balance of Goods and Services</strong></td>
<td>-70</td>
<td>-69</td>
<td>-128</td>
<td>-120</td>
<td>-95</td>
</tr>
<tr>
<td><strong>Transfer Payments (net)</strong></td>
<td>15</td>
<td>21</td>
<td>33</td>
<td>37</td>
<td>33</td>
</tr>
<tr>
<td><strong>Non-monetary Capital (net)</strong></td>
<td>92</td>
<td>64</td>
<td>86</td>
<td>56</td>
<td>51</td>
</tr>
<tr>
<td><strong>Errors and Omissions (net)</strong></td>
<td>-44</td>
<td>-21</td>
<td>-33</td>
<td>-33</td>
<td>-33</td>
</tr>
<tr>
<td><strong>Overall Balance</strong></td>
<td>-33</td>
<td>-1</td>
<td>-10</td>
<td>-10</td>
<td>-11</td>
</tr>
</tbody>
</table>

Although these projected deficits are of the same order of magnitude as those incurred in the period 1962-64, the situation is fundamentally different, both in respect to the source of the deficits and in respect to the means for meeting them. In the former case, Morocco suffered from a very heavy outflow of private capital coupled with a sharp decline in foreign government expenditures in Morocco. In the latter case, the projected deficits are more a function of accelerated growth, rising debt servicing, and the absence of foreseeable, additional foreign resources necessary for development financing. To meet the deficits during the period 1961-64, Morocco was obliged to draw down foreign exchange reserves of over $140 million. The same type of financing is no longer possible, since Morocco no longer possesses such reserves. Even if remaining reserves are drawn down to the maximum extent feasible, and the IMF's standby is used, Morocco will still require at least $15 million additional foreign assistance in 1965 beyond that is presently foreseeable, with over $20 million necessary in 1966. Official reserves are estimated at $72 million of which some $73 million is locally required for currency cover.

5. **Foreign Indebtedness of the GOM**

Morocco's external state and public enterprise debt amounted to $490 million in 1966. Debt servicing payments for 1966 totaled about

\[1/ \text{5} \text{0 million agreement approved in October, 1967.}

\[1/\]
$37 million or approximately .6% of Morocco's total export earning of $628 million. Generally, external debt servicing requirements of less than 10% of total export earnings is considered to be a satisfactory ratio. Debt service projections for the period 1967-80 on present external debt, including that portion presently undischarged, are shown in the following table.

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Outstanding Debt</th>
<th>Debt Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>1966</td>
<td>570.5</td>
<td>$36.7</td>
</tr>
<tr>
<td>1967</td>
<td>655.2</td>
<td>33.6</td>
</tr>
<tr>
<td>1968</td>
<td>661.6</td>
<td>44.4</td>
</tr>
<tr>
<td>1969</td>
<td>461.8</td>
<td>30.2</td>
</tr>
<tr>
<td>1970</td>
<td>457.0</td>
<td>36.5</td>
</tr>
<tr>
<td>1971</td>
<td>379.6</td>
<td>38.9</td>
</tr>
<tr>
<td>1972</td>
<td>353.3</td>
<td>38.3</td>
</tr>
<tr>
<td>1973</td>
<td>337.6</td>
<td>37.1</td>
</tr>
<tr>
<td>1974</td>
<td>313.0</td>
<td>35.2</td>
</tr>
<tr>
<td>1975</td>
<td>280.1</td>
<td>34.1</td>
</tr>
<tr>
<td>1976</td>
<td>266.4</td>
<td>32.8</td>
</tr>
<tr>
<td>1977</td>
<td>243.3</td>
<td>31.1</td>
</tr>
<tr>
<td>1978</td>
<td>221.6</td>
<td>30.7</td>
</tr>
<tr>
<td>1979</td>
<td>177.4</td>
<td>25.6</td>
</tr>
<tr>
<td>1980</td>
<td>178.3</td>
<td>25.5</td>
</tr>
</tbody>
</table>

External debt charges on present debt as shown above do not increase substantially over the next 14 years, reaching a maximum of $44.4 million in 1970 and decreasing consistently thereafter. At the same time, export earnings are expected to increase. Assuming that Morocco does not increase its external debt at a rate substantially above that has been the case, the additional debt service requirements resulting from the proposed loan of $5 million, on 5-year concessional terms, should not have a significant affect upon Morocco's ability to meet its aggregate debt servicing responsibilities and the prospects of repayment of this loan are considered reasonable.
F. Other Considerations

1. Impact of Project on US Property

This project will not have any adverse effect on the US economy in general or on the US balance of payments in particular. Dollar terms will be used exclusively to ensure that the US Federal Reserve System will be made responsible for the maintenance of the US dollar. In addition, US money and securities will be utilized and maintained in the countries under the direction of the US Treasury. Loans will be financed under this loan will be made in US dollars. The repayment of all loan proceeds will be in US dollars. The following portion of excess US-owned aircraft to US dollars.

In view of Morocco's historical dependence upon Europe, principally France, as a source of technical services, the financing of US professional services under the loan is considered to be a net addition to and not a substitution for US commercial exports to Morocco.

It is also considered extremely doubtful in view of Morocco's historical use of European firms that US professional services would be utilized on this project if it were financed by donors other than the US.

2. Impact of Project on Private Enterprise

This project will not have an adverse effect on private enterprise. All project financing will be used for procurement of goods and services from private enterprises.

3. Excess Property

Provision will be made in the loan agreement for identification of any requirement which can be met through utilization of excess property. If appropriate, AID financing under this loan will subsequently be made available for procurement of excess property rather than new items.

4. Other Foreign Sources of Financing

During the period 1965-66, Morocco's major sources of external assistance have been the United States and France, followed by Kuwait, IBRD, West Germany, ITA and IFC.

Since 1965, French aid has been limited to technical assistance consisting of the supply of French technicians, teachers, and other support to Morocco's educational system. French aid to Morocco in 1965 (apart from technical assistance) consisted of $15 million for budget support, $50 million in export credits, $15 million in capital project assistance tied to French procurement, and $16 million tied to payment for former French aid for improved land and equipment.

West Germany has agreed to provide some $27 million in capital assistance and commodity loans to Morocco since 1962. Of this total, $22.3 million has actually been committed under loan agreements. This includes a $17.3 million loan agreement for the Safi Chemical complex and a $5 million commodity loan both signed in 1965. All West German
capital assistance is expected to be tied to German exports. Germany has in addition provided relatively substantial technical assistance.

The IBRD has made four loans to Morocco since 1962 totaling $63 million. Of this total, a $17.5 million loan in 1965 was for development of the Sidi Slimane irrigation perimeter. Other assistance by international lending agencies include an $11 million credit by IDA in 1965 for secondary education projects and an IFC loan and investment of $1.5 million also in 1965.

Recent assistance by free world donors to development of Morocco's agriculture includes the $17.5 million IBRD loan mentioned above, a $21.6 million Kuwait loan in 1966 for development of the Tensoulet Pan Irrigation Project and a $7.5 million Kuwait loan for extension of the Tadla Irrigation Perimeter.

The following table summarizes other free world assistance (excluding technical assistance) to Morocco for the years 1962-66.

($ Millions)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>40.0</td>
<td>50.0</td>
<td>64.0</td>
<td>70.0</td>
<td>-</td>
</tr>
<tr>
<td>West Germany</td>
<td>22.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kuwait</td>
<td>53.5/</td>
<td>28.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IBRD</td>
<td>15.0</td>
<td>17.5</td>
<td>10.0</td>
<td>17.5</td>
<td></td>
</tr>
<tr>
<td>IDA</td>
<td>11.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IFC</td>
<td>1.5</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>165.5</td>
<td>191.6</td>
<td>227.5</td>
<td>166.7</td>
<td>45.6</td>
</tr>
</tbody>
</table>

\^[/ Includes only long-term loans and exporter credits
\^b Includes $25 million private capital

External assistance to the Lower Moulouya Irrigation Perimeter since 1960 has been confined to US support. Considering AID's previous involvement in and commitment to the Lower Moulouya, an AID loan is felt to be the most appropriate source of financing for this project.
SECTION III - PROJECT IMPLEMENTATION

A. Perimeter Administration

Authority for implementation of the development program for the Lower Moulouya Perimeter and as well as the continuing management and operation of the completed perimeter is the responsibility of the Office Regional de Mise en Valeur Agricole de la Moulouya (ORMVAM). ORMVAM was created in October 1966 as one of seven new regional offices which replaced the Office de Mise en Valeur Agricole (OMVA). Under the OMVA and its predecessor agencies, authority for administration of irrigation projects was centralized in Rabat.

Under the new regional office organization, responsibility for administering ORMVAM is vested in an Administrative Board of 10 members headed by the Minister of Agriculture and Agrarian Reform as chairman. All other board members (other than the Chairman and a representative of the Interministerial Economic Committee) represent agencies or activities in the region of the perimeter which comprises parts of two provinces. Local representatives on the Board include the governors of the two provinces, Oujda and Nador, the presidents of the two provincial assemblies and of the two provincial chambers of agriculture as well as the perimeter Director.

The responsibilities of the Administrative Board include review of the agency's program, establishment of its organizational structure, development of its annual budget, and establishment of rates and conditions of payment for water and other services provided in the perimeter.

The Director of ORMVAM is charged with the responsibility for execution of the policies established by the Administrative Board and administration of all ORMVAM functions. This responsibility includes selection of staff and operating personnel, acting as official ORMVAM representative in all negotiations with state and other public or private bodies, and the management of funds within limits indicated by the Ministers of Finance and Agricultural and Agrarian Reform.

Perimeter Organization

 ORMVAM organizational structure consists of a directorate, five major services or divisions, and one separate bureau. Two services, Service Administratif et Comptable and Service du Matériel, are concerned with administration and logistical support of ORMVAM operations, while the remaining three services and the separate bureau are involved in technical matters associated with agricultural development. Each service has one or more subordinate bureaus. Service Chiefs and the head of each bureau report directly to the ORMVAM Director.
2. Perimeter Staffing

OPWWM organization structure calls for 557 positions of which 446 or 80% were filled as of May 27, 1967. However, 37 of the 71 position vacancies reported were in the high and middle levels. Foreign (chiefly European) technicians occupy 19 of the 16 high level positions that were filled at that time.

While OPWAM must in the long run look to Morocco's educational system to provide the personnel to satisfy current and projected requirements, the current high and middle level vacancies require personnel with extensive prior experience. To fill this present need it will be necessary for OPWAM to continue its program of recruiting foreign technicians until such time as graduates of Moroccan educational programs acquire the necessary experience. The management assistance component of this project described in the Project analysis will to some extent alleviate OPWAM's high level personnel requirements.

B. Implementation Schedule

<table>
<thead>
<tr>
<th>Step</th>
<th>Months</th>
<th>Implementation Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>Sign Loan Agreement</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Identify conditions precedent and initiate procedures for selection of US firm for management contract</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Negotiation of extension of advisory Engineering Services Contract (Hydrotechnic)</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>Negotiation of Management Contract</td>
</tr>
<tr>
<td>5</td>
<td>60</td>
<td>Completion of Project</td>
</tr>
</tbody>
</table>

C. Waivers

Section 7.2 of AID Regulation 7 provides, in substance, that the United States will not finance direct costs of construction work performed by third country nationals unless the total costs of the project with which the construction work is associated do not exceed $250,000; or after excluding nationals of the country in which the site of construction is located and persons who have resided therein uninterruptedly for more than three years immediately prior to any determination under Regulation 7, at least 80% of all persons who work under the contract at the site of construction are United States citizens; or the employment of third country nationals is necessary to avoid excessive costs to the United States.
Section 217.5 authorizes the Regional Assistant Administrator to waive the provisions of Section 217.3 if he determines in any case that it is important to the national interest of the United States to finance the direct costs of construction work performed by third country nationals.

As previously indicated, it is expected that for the most part the project will be carried out under a large number of small construction contracts with Moroccan contractors, as in the past. However, it is entirely possible that there may be some contracts with construction firms partly owned by third country nationals and that such firms as well as the purely Moroccan-owned firms may employ third country nationals. In such cases a difficult problem would arise in meeting the terms of Regulation 7 since as a practical matter Americans are not reasonably available for employment by such contractors and our previous experience with the Blouzinae Desalination project in Morocco has indicated that American contractors would not be interested in bidding on small contracts in that country.

It is therefore recommended that the Assistant Administrator determine, pursuant to Section 217.5 of Regulation 7, to waive the application of Regulation 7 to this project since the project will contribute to the attainment of US foreign policy objectives and the objectives of the Foreign Assistance Program.
SECTOR 27

**NOTE:**
- Costs A: includes 15% construction contingency.
- Costs B: includes 25% construction contingency.
- Costs C: includes 50% construction contingency.

**Graph Details:**
- **X-axis:** Interest Rate
- **Y-axis:** Thousands of Dirham
- Costs A, B, C, and Benefits are plotted on the graph.
PROJECT DESCRIPTION

The project components to be undertaken on the Moulaya Irrigation Project over the next five years consists of the following:

1. **Construction of the main canals and branch canals to provide the source of water to the sectors to be developed in the Triff. Bou Areg and Zebra areas.** This construction will include the necessary structures such as regulators, highway bridges, aqueducts, water intake and discharge structures, etc.

2. **Land Development**, which includes engineering, land consolidation and parcelling, leveling, land preparation (subsoiling, ripping, destoning, etc.) and installation of water distribution canals (secondary, tertiary and quaternary) and drainage collector ditches, for the Triffa main covering 24,000 acres in sectors 8, 9, 10, 16, 20, 21, 23, 24, 25A, 25B, 27 and 28; Bou Areg Central covering 16,250 acres in sectors D1 through D2B and G1 through G3B; Bou Areg Remainder covering 15,000 acres in sectors D5 through D7 and G4 through G6; Zebra Collective covering 4,500 acres in sectors 3, 4, 5 and 6 and Zebra Remainder covering 14,250 acres in sectors 1, 2, and 7 through 10 and the remainder of sectors 3, 4 and 5. The total land to be developed is about 74,000 acres.

3. **Canalization of the Oued Zeluan and Oued Sidi Amar in the Bou Areg Plain consisting of straightening, enlarging and regularizing these streams to carry the flood waters to the sea.** Drainage interceptor canals are to be constructed parallel to the sea in the Bou Areg Plain. In the Triffa Plain the Oued Rjada main drain will be deepened and enlarged and secondary drains will be excavated to provide for drainage of the Madagh area. This will include the construction of bridges and culverts and other related work.

4. **Major Common Works** will consist of:
   a. **Clearing of the Moulaya riverbed downstream of the Mechra Kilia dam caused by flood damage, and the installation of a set of stop logs for maintenance of spillway gates.**
   b. **Design, supervision and construction of repairs to the left bank dead head tunnel.**
   c. **Construction and establishment of sub-division Offices and installations for farmer support such as C.M.V. and farm stables.**

                  (Translation: Development Centers)

                  [Signature]
5. Management. It has been proposed that a US management firm be employed by the GCM to manage and operate the entire Bou Areg area. Such management would encompass all activities from the initial concept to final irrigation and agricultural production. Such activities would include responsibility for supervision of engineering and construction of primary and auxiliary drainage canals, complete development of land, training Moroccans in modern irrigation practices, preparation of market studies, and the subsequent training of a Moroccan cadre to take over the executive management of the Bou Areg area.

At this writing, the concept of turning over to a private US firm executive responsibility for the management of the establishment and initial operation of irrigation for the Bou Areg area has been only broadly defined by the GCM. It is intended that proposals will be invited from a reasonable number of qualified US firms, that a selection will be made among them, and a more detailed and comprehensive definition of the services to be performed will be established at that time. It has been estimated that the costs of such a contract will be about $2 million. In any event, the costs of this contract, other engineering services to be provided under an extension of the Hydrotechnic contract and other US costs will not exceed the proposed $5 million development loan for the project.

The classifications, duties and responsibilities of the management personnel will have to be clearly defined and agreed to by the GCM Perimeter Director and other GCM Agencies including arrangements for the necessary logistic support.
CHECK LIST OF STATUTORY CRITERIA

(Development Loan Fund)

1. **FAA ** § 102. Extent to which US commodities and services are furnished consistent with improving the US balance of payments. See Sections II-C, II-F.

2. **FAA ** § 201(b). Manner in which loan will promote country's economic development, emphasizing help for long-range plans and programs designed to develop economic resources and increase productive capacities. See Section I-D.

3. **FAA ** § 201(b)(1). Information and conclusion on availability of financing from other free-world sources, including private sources within the United States. See Section II-F.

4. **FAA ** § 201(b)(2). Information and conclusion on activity's economic and technical soundness, including the capacity of the recipient country to repay the loan at a reasonable rate of interest. See Sections II-B, II-D and II-E.

5. **FAA ** § 201(b)(3). Information and conclusion on existence of reasonable promise activity will contribute to development of economic resources or increase of productive capacities. See Sections II-B and II-D.

6. **FAA ** § 201(b)(4). Information and conclusion on activity's relationship to other development activities, and its contribution to realizable long-range objectives. See Sections I-D and I-E.

The following abbreviations are used:


AFR/CDF: 10/66
7. **FAA 8.201(b)(5).** Country's self-help measures, including institution of Foreign Assistance Act investment guaranty programs. Investment Guaranty Agreement signed with Morocco 3/31/61. See Sections I-D and II-E.

8. **FAA 8.201(b)(6).** Information and conclusion on possible effects on U.S. economy, with special reference to areas of substantial labor surplus. See Section II-F.

9. **FAA 8.201(b)(7).** Information and conclusion on the degree to which the country is taking progress toward respect for the rule of law, freedom of expression and of the press, and recognition of the importance of individual freedom, initiative, and private enterprise.

10. **FAA 8.201(b)(8).** Information and conclusion on the degree to which the country is taking steps to improve its climate for private investment. See Section II-E.

11. **FAA 8.201(b)(9).** Information and conclusion on whether or not the activity to be financed will contribute to the achievement of self-sustaining growth. See Sections I-D and II-B.

12. **FAA 8.201(b).** Information and conclusion on reasonable prospects of repayment. See Section II-E.

13. **FAA 8.201(b).** Information on applicability of the twenty country ceiling.

14. **FAA 8.201(d).** Information and conclusion on legality (under laws of the country and the U.S.) and reasonableness of lending and relending terms. Loan will be on minimum terms permitted under FAA. These are deemed reasonable, see Section II.

15. **FAA 8.201(e).** Information and conclusion on availability of an application together with sufficient information and assurances to indicate reasonably that funds will be used in an economically and technically sound manner. See Sections I-A, II-B and II-D. Application received January 15, 1968.

16. **FAA 8.201(f).** If a project, information and conclusion whether it will promote the economic development of the requesting country, taking into account the country's human and material resource requirements and the relationship between the ultimate objectives of the project and the country's overall economic development. See Sections I-D and II-B.

17. **FAA 8.201(g).** If a project, information and conclusion whether it effectively provides for appropriate participation by private enterprise. See Sections II-C and II-F.

18. **FAA 8.202(a).** Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports.
from private sources, or is otherwise being used to finance procurements from private sources. See Sections II-C and II-E.

29. FAA 5.207. Information on the emphasis placed on

(a) encouraging development of economic, political and social institutions; No apparent relationship.

(b) self-help in meeting the country's food needs; Project will contribute to production of food for local consumption.

(c) improving availability in the country of educated, trained manpower; Project will contribute to the development of trained manpower as one of the functions of the management contract (See Annex C, para 5).

(d) programs aimed at malnutrition, disease eradication, slum clearance, water purification, sewage disposal, health education, maternal and child care (including family planning), and other public health assistance; See Section II-D.

(e) other development activities including industrial development; free labor unions, cooperatives and voluntary agencies; transportation and communication systems; capabilities for economic planning and public administration; urban development; and modernization of laws to facilitate economic development. GCM intends encourage development of cooperatives, particularly in the M't Bank areas. Project; will also develop capabilities for economic planning and public administration (Annex C, para 5). Other: not applicable.

20. FAA 5.205. Information on the extent to which the country is

(a) attempting to increase food production and food storage and distribution facilities; This project is one evidence of Morocco's efforts in this direction. See also Section I-D and I-E.

(b) creating a favorable climate for foreign and domestic private enterprise and investment; The GCM has recently reduced profits, taxes and announced a ten year guarantee against tax increases. See Section II-E-2.

(c) increasing the role of the people in the developmental process; No apparent relationship to this project.

(d) allocating expenditures to development rather than to unnecessary military purposes or intervention in other free countries' affairs; See Sections I-D and II-G.

(e) willing to contribute funds to the project or program; The GCM has already devoted considerable resources to the project. It has budgeted S13 million for the Houlouya for 1967. See Section II-C.

(f) making economic, social and political reforms such as tax collection improvements and changes in land tenure; a Royal Commission has been appointed to make recommendation on land tenure problems in the Lower Houlouya.

(g) responding to the economic, political and social concerns of its people and showing a determination to take self-help measures. See Sections I-D and II-E.
21. FAA 8.202. Information about multilateral assistance being furnished to the country and whether the loan will encourage regional development programs. The IDB has established a Consultative Group for Morocco, which reviews the GOM development program and progress. See Section II-F-4 for information on other donor assistance to Morocco.

22. FAA 8.201. Extent to which the loan will contribute to the objective of assuring maximum participation in the task of economic development on the part of the people of the developing countries, through the encouragement of democratic private and local governmental institutions. No apparent relationship.

23. FAA 8.601(a). Information and conclusions whether loan will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; (f) strengthen free labor unions. This project is expected to increase technical efficiency of agriculture.

24. FAA 8.601(b). Information and conclusion on how the loan will encourage U.S. private trade and investment abroad, and how it will encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise). See Section II-

25. FAA 8.601(d). Conclusion and supporting information on compliance with the Congressional policy that engineering and professional services of U.S. firms and their affiliates are to be used in connection with capital projects to the maximum extent consistent with the national interest. US engineering and management services will be financed under this loan.

26. FAA 8.602. Information and conclusions whether loan will permit American small business to participate equitably in the furnishing of goods and services financed by it. To be satisfied in Loan Agreement.

27. FAA 8.102. Compliance with restriction of commodity procurement to U.S. except as otherwise determined by the President and subject to statutory reporting requirements. Procurement will be limited to the US for dollar disbursements and to Morocco and other free, world countries for US-owned dirham disbursements.

28. FAA 8.603(b). Compliance with bulk commodity procurement restriction to prices no higher than the market price prevailing in the U.S. at time of purchase. Not applicable.

29. FAA 8.603(a). Compliance with requirement that marine insurance be purchased on commodities if the participating country discriminates, and that insurance be placed in the U.S. To be satisfied in Loan Agreement.

30. FAA 8.608(a). Information as to the utilization of excess personal property in lieu of procurement of new items. Will be required as appropriate under terms of Loan Agreement.
31. FAA § 611(a)(1). Information and conclusion on availability of engineering, financial, and other plans necessary to carry out the assistance and of a reasonably firm estimate of the cost of the assistance to the United States. See Section II-D.

32. FAA § 611(a)(2). Necessary legislative action required within recipient country and basis for reasonable anticipation such action will be completed in time to permit orderly accomplishment of purposes of loan. See Section I-A.

33. FAA § 611(b); App. § 101. If water or water-related land resource construction project or program, information and conclusion on a benefit-cost computation. See Section II-B.

34. FAA § 611(c). Compliance with requirement that contracts for construction be let on competitive basis to maximum extent practicable. To be satisfied in Loan Agreement.

35. FAA § 611(c). If a loan for a project of $1 million or more, certification by the principal AID officer in the country as to the capability of the country (both financial and human resources) to effectively maintain and utilize the project taking into account other US-financed projects. (Such certification is to be approved by the Administrator at the time the loan is authorized.) In process of being obtained.

36. FAA § 612(h); § 536(h). Appropriate steps that have been taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services. The GCM is contributing over $30 million to completion of this project. Excess US-use dirhams will be used for eligible project costs other than US goods and services.

37. FAA § 619. Compliance with requirement that assistance to newly independent countries be furnished through multilateral organizations or plans to maximum extent appropriate. Not deemed appropriate in view of previous AID financing and commitment to the project. See Sections I-A and I-D.

38. FAA § 620(a); App. § 107(a); App. § 107(b). Compliance with prohibitions against assistance to Cuba and any country (a) which furnishes assistance to Cuba or failed to take appropriate steps by February 14, 1964, to prevent ships or aircraft under its registry from carrying equipment, materials, or supplies from or to Cuba; or (b) which sells, furnishes, or permits any ships under its registry from carrying items of primary strategic significance, or items of economic assistance. Morocco is not known to be in violation of these sections.

39. FAA § 620(b). If assistance to the government of a country, existence of indebtedness to a U.S. citizen for goods or services furnished or ordered where such citizen has exhausted available legal remedies or where the debt

40. FAA § 620(c). If assistance to the government of a country, existence of indebtedness to a U.S. citizen for goods or services furnished or ordered where such citizen has exhausted available legal remedies or where the debt
is not denied or contested by such government or the indebtedness arises under an unconditional guaranty of payment given by such government. No such indebtedness is known to exist.

41. FAA  §620(d): If assistance for any productive enterprise which will compete with U.S. enterprise, existence of agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan. Not applicable.

42. FAA  §620(c)(1): If assistance to the government of a country, extent to which it (including government agencies or subdivisions) has, after January 1, 1962, taken steps to repudiate or nullify contracts or taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking appropriate steps to discharge its obligations. No such steps or actions are known to have been taken by the GOM.

43. FAA  §620(f): Morocco is not considered to be a communist country.

44. FAA  §620(g): Compliance with prohibition against use of assistance to compensate owners for expropriated or nationalized property. To be satisfied in Loan Agreement.

45. FAA  §620(h): Compliance with regulations and procedures adopted to ensure against use of assistance in a manner which, contrary to the best interests of the U.S., promotes or assists the foreign aid projects or activities of the Communist-bloc countries. To be satisfied in Loan Agreement.

46. FAA  §620(i): Existence of determination that the country is engaging in or preparing for aggressive military efforts. No such determination has been made.

47. FAA  §620(j): Information on representation of the country at any international conference when that representation includes the planning of activities involving insurrection or subversion against the U.S. or countries receiving U.S. assistance. No such representation is known to have occurred.

48. FAA  §620(k): Existence of a determination that the country has permitted or failed to prevent destruction of U.S property by mob action or has failed to take steps to prevent a recurrence and to pay compensation. No such destruction is known to have taken place.

49. FAA  §620(k): If construction of productive enterprise where aggregate value of assistance to be furnished by U.S. will exceed $100 million, identification of statutory authority. Not applicable.
50. FAA §.620(1). Consideration which has been given to denying assistance to the government of a country which after December 31, 1966, has failed to institute the investment guaranty program for the specific risks of inconvertibility and expropriation or confiscation. Satisfied. See No. 7 above.

51. FAA §.620(h); App. §.107(h); App. §.116. Compliance with prohibitions against assistance to countries which traffic or permit trafficking with North Vietnam. Morocco is not known to be in violation.

52. FAA §.620(c). If country has seized, or imposed any penalty or sanction against, any U.S. fishing vessel on account of its fishing activities in international waters, information on the consideration which has been given to excluding the country from assistance. No such situation is known to exist.

53. FAA §.620(p); App. §.117. U.A.R. restriction. Not applicable.

54. FAA §.620(a). Existence of default under any Foreign Assistance Act loan to the country. No such default exists.

55. FAA §.620(g). Consideration of whether country is devoting unnecessary percentage of budget for military purposes or use of foreign exchange for military equipment.

56. FAA §.620(t). Prohibition on aid if country has severed diplomatic relations with US unless agreements have been negotiated after resumption. Diplomatic relations have not been severed.

57. FAA §.620(u). Status of the country on delinquent UN obligations. Morocco is not known to be delinquent on its UN obligation.


59. App. §.102. Compliance with requirement that payments in excess of $25,000 for architectural and engineering services on any one project be reported to Congress. Such reports will be made.

60. App. §.104. Compliance with bar against funds to pay pensions, etc., for military personnel. Such payments will not be eligible for financing under the Loan Agreement.

61. App. §.106. If country attempts to create distinctions because of their race or religion among Americans in granting personal or commercial access or other rights otherwise available to US citizens generally, application which will be made in negotiations of contrary principles as expressed by Congress. Morocco is not known to have made any such attempts.

U.LIMITED OFFICIAL USE
62. App. E.111. Compliance with existing requirements for security clearance of personnel. Will be satisfied in Loan Agreement and Implementation Letter.

63. App. E.112. Compliance with requirement for approval of contractors and contract terms for capital projects. Will be satisfied in Loan Agreement.

64. App. E.114. Compliance with bar against use of funds to pay assessments, etc., of US member. Such payments will not be eligible for financing under the Loan Agreement.

65. App. E.115. Compliance with regulations on employment of US and local personnel for funds obligated after April 30, 1964, (Regulation 7). See Section III-C.


67. App. E.119. If a country other than Greece, Turkey, Iran, Israel, Republic of China, Philippines or Korea, reduction in assistance by amounts spent for the purchase of sophisticated military equipment.

68. App. E.141. Compliance with bar against use of funds for publicity or propaganda purposes within US not heretofore authorized by Congress. Such use of funds will not be eligible for financing under the Loan Agreement.

Morocco is a traditional Islamic monarchy with a constitution. The constitution was implemented, following a popular referendum, in 1962. National, regional and professional elective bodies, including a parliament, were established by universal suffrage under the constitution in 1963. The parliament was suspended in 1964 in a "State of Exception" because of its inability to agree on measures with adequate urgency to meet the prevailing economic imperatives. In July 1967 the King appointed a Prime Minister to direct a Cabinet of appointed technicians.

The constitutional framework nevertheless remains intact in Morocco and nationwide popular elections for some of the "professional" chambers were held in August and September, 1966. The press is relatively free in Morocco and the "right of dissent" prevails provided that such dissent does not violate the prohibition against political attacks on the institution of the monarchy or the person of the monarch.

2/ Under the revised US AID Policy for Africa, agreed to in November, 1966, Morocco is designated a "development emphasis" country, entitled to receive continuing support on a country basis as part of a multilaterally coordinated country program. Morocco was subsequently included in Presidential Determination 67-14 (January 5, 1967).
Pursuant to the authority vested in the Assistant Administrator for Africa of the Agency for International Development ("A.I.D.") by the Foreign Assistance Act of 1961, as amended, (the "Act") and the delegations of authority issued thereunder, I have received and taken into consideration a certification from the Director of USAID/Morocco as to the financial and human resources capability of Morocco to effectively utilize the Lower Moulouya Irrigation Project taking into account, among other things, the maintenance and utilization of projects in Morocco previously financed or assisted by the United States, and I hereby authorize the establishment of a loan pursuant to Part I, Chapter 2, Title I, the Development Loan Fund, to the Government of the Kingdom of Morocco ("Borrower") of not to exceed five million dollars ($5,000,000) to assist in financing the foreign exchange and local currency costs of goods and services for the third phase of the Lower Moulouya Irrigation Project subject to the following terms and conditions:

1. Interest Rate and Terms of Repayment. Borrower shall repay the loan to A.I.D. in forty (40) years, including a grace period not to exceed ten (10) years. Borrower shall pay interest on the unrepaid principal and any interest accrued thereon at the rate of (a) two percent (2%) per annum during the grace period and (b) two and one-half percent (2-1/2%) per annum thereafter.

2. Currency of Repayment. Repayment of the loan and payment of interest shall be made in United States dollars.
3. Other Terms and Conditions.

(a) Goods and Services financed under the loan shall have their source and origin in:

(i) the United States if disbursements therefor are made in United States dollars, or

(ii) any country in the free world, including Morocco, if disbursements therefor are made in Moroccan currency.

(b) A.I.D. Regulation 7 shall not apply to construction work financed under the loan because, as detailed in Section III.C of Capital Assistance Paper No. P 667, it is important to the national interest of the United States that the direct costs of construction work performed by third-country nationals be financed out of funds made available by the Act.

(c) Such other terms and conditions as A.I.D. may deem advisable.

Assistant Administrator for Africa

Date