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**Regional Urban
Environmental Action Program
(RUEAP)**

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LIST OF ACRONYMS:

ANHI	Agence Nationale de lutte contre l'Habitat Insalubre (Morocco National Upgrading Agency)
ANPE	Agence Nationale Pour la Protection de l'Environnement (Tunisia Environmental Protection Agency)
ARRU	Agence de Rehabilitation et de Renovation Urbaine (Tunisia Urban Upgrading and Development Agency)
ATPNE	Association Tunisienne pour la Protection de Nature et l'Environnement (Tunisia Environmental NGO)
IULA/ EMME	International Union of Local Authorities/Eastern Mediterranean and the Middle East
EPAT	Environment and Natural Resources Policy and Training (AID)
EP3	Environmental Pollution Prevention Project
FEC	Fonds d'Equipement Communal (Morocco)
GDP	Governance and Democracy Project
GOJ	Government of Jordan
GOM	Government of Morocco
GOT	Government of Tunisia
LGSP	Local Government Support Project
METAP	Mediterranean Environmental Technical Assistance Program
MPWH	Ministry of Public Works and Housing (Jordan)
NES	National Environment Strategy (Jordan)
ONAS	Office National de l'Assainissement (Tunisia)
PEA	Programmatic Environmental Assessment
PPSS	Private Participation in Environmental Services
PRIDE	Project in Development and the Environment
PSDE	Private Sector Development Environmental Strategy
RAC	Regional Advisory Committee
ToT	Training of Trainers
UMP	Urban Management Program
UNCHS	United Nations Center for Habitat and Settlement

EXECUTIVE SUMMARY

In response to the growing importance of and focus on the urban environment, RHUDO/NENA has initiated the Regional Urban Environmental Action Plan (RUEAP). The RUEAP presents an overview of the recently completed Programmatic Environmental Assessments (PEA's) for Tunisia and Morocco, A.I.D.'s environmental agenda, the Near East Bureau's strategy for addressing environmental issues, RHUDO/NENA's specific focus on the areas of liquid waste and solid waste management in Tunisia, Morocco, and Jordan, host government programs to address these issues, and other donor initiatives and programs. The goal of the RUEAP is to identify and describe activities which address and further RHUDO environmental objectives by drawing on the expertise and resources of, and coordinating with, appropriate bi-lateral regional and country-specific programs, and multi-lateral organizations.

The present atmosphere presents a particularly opportune occasion to address regional environmental concerns. The countries in the region have acknowledged the critical importance of the environment as a factor in their economic futures. While the analysis of economic development and environmental conditions on a regional or cross-national basis can be complex, there exists a commonality of interests within what is variously identified as the North Africa, Mediterranean, Maghreb, or RHUDO/NENA region. The RUEAP attempts to synthesize this idea of the commonality of interests in terms of RHUDO environmental objectives. In conjunction with the increasing focus on the environment by the countries themselves, A.I.D.'s Near East bureau and RHUDO find the present atmosphere extremely conducive to considering cross-regional environmental strategies and initiatives. Unfortunately, the level of available resources, not the motivation, lacks in this instance. With this understanding, several elements which are unique and central to the design of the RUEAP must be taken into consideration:

1. The regional aspect of the plan presents certain advantages in terms of cost sharing and cost optimization, but also definite constraints in terms of a coordinated, focused, and workable action plan;
2. The lack of current available financial and personnel resources presents a severe limiting factor to program design and implementation options; and
3. The inability to specify the availability of future RHUDO personnel or staffing resources to manage the program presents limitations.

Given the factors and constraints cited above, the RUEAP recommends three distinct areas to further the RHUDO urban agenda. These consist of:

- reforming and coordinating urban environmental policies;
- improving and extending social services and infrastructure in low-income urban communities;
- strengthening host country institutions which deal with the urban environment; and
- assisting private sector urban environmental initiatives.

To address these regional foci, the RHUDO proposes several distinct activities. These fall under the general category of technical assistance and training within regional, sub-regional, and individual-country categories. Seminars, conferences, and workshops with elements of technical assistance are proposed, and select regional exchanges will be organized when appropriate.

To fund these activities, the RUEAP proposes a flexible mixture of utilizing RHUDO funds, accessing appropriate and available Mission project funds, requesting A.I.D. central environmental project funding when possible, and coordinating activity efforts and financial resources with other donors when deemed appropriate. Because of the uncertain availability of funding and the current downsizing atmosphere within A.I.D., the RHUDO is in the best position to analyze the future viability and appropriateness of each potential resource in terms of furthering the overall RHUDO environmental agenda. This holds true both for bi-lateral and multi-lateral sources. As an example, the World Bank's Urban Management Program (UMP) and the Mediterranean METAP program have both shown a willingness to consider collaboration and joint opportunities.

The RUEAP acknowledges the likelihood that no further staff resources will be made available, and this report recommends that overall responsibility for the RUEAP be given to the regional advisor to manage the activities envisioned. This management issue presents a re-occurring constraint for the RUEAP activities, and the RHUDO will have to adjust as needed to the added strain of initiating, organizing, and coordinating the various TA and training activities. The present atmosphere for regional environmental initiatives may be opportune, and the activities may be valuable, imaginative, and timely, but the future management capabilities of the RHUDO will continue to be the bottom line.

In addition, Programmatic Environmental Assessments (PEA's) have recently been completed for the Tunisia HG-V and the Morocco HG-IV projects. The PEA's provide timely and valuable information relating to the RUEAP. The recommendations reinforce the importance of both the regional and country-specific focus of the Environmental Action Plan, and confirm the cross-cutting nature of the interventions selected.

In the Tunisia PEA, three activities were recommended. These are:

- to develop a detailed guidance manual for environmental review;
- to develop specific urban environmental regulations (e.g., air quality standards, siting criteria, setback requirements, landfill construction and operation standards, etc.); and
- to train Association Nationale pour la Protection de l'Environnement (ANPE) personnel and private consultants in urban environmental issues, environmental planning, and environmental engineering.

In the Morocco PEA, the recommendations identified four broad areas where environmental training and technical assistance are desirable. These are:

- sanitation;
- environmental sensitization;

- environmental planning and impact evaluation; and
- environmental monitoring.

As a result, the RUEAP presents a resource flexible list of options for RHUDO decision-making and management. It is anticipated that the RHUDO will use this paper in the coming months to initiate and further discussions concerning the regional environmental objectives, and to address the issue of how it can best respond to other missions' environmental interests by serving as an "urban environmental center" for the region. While this aim may be premature, there is, in fact, evidence that together the RHUDO and the Mission are indeed becoming the center for urban environmental concerns and activities. The RHUDO is in the process of building expertise in two fields where country missions' do not necessarily have in-house experience, namely Environmental Training and Local Government Training and Municipal Management. The Environmental Pollution Prevention Project (EP3), a two-year, one million dollar program, is also soon to begin operations in Tunisia. Discussions concerning collaborative efforts have been initiated, and where there are mutually beneficial and overlapping objectives, efforts will be made to join resources. The RUEAP therefore articulates how the various sources of expertise may provide another link to missions and programs throughout the region.

Considering the recommendations of the PEA's, and the RHUDO's urban environmental strategy, the activities identified in the RUEAP and summarized below provide further articulation and support for specific liquid and solid waste strategies in Morocco and Tunisia, and ideas for collaboration with other regional countries. (More detailed information pertaining to these activities is also provided in Tables 1-5).

Regional Activities:

(Including TA and Training; Seminars and Workshops; and Exchange Visits:)

SHORT-TERM ACTIONS (FY '94)

IULA/EMME Solid Waste Management Workshop in Turkey.

Liquid Waste Regional Workshop to be held in Tunisia.

UMP Regional Conference.

Pilot sites exchange visits between Sfax and La Marsa, Tunisia; and Tetouan, Morocco for liquid and solid waste issues.

LONG-TERM ACTIONS (FY 95-98)

Assistance to establish a pollution prevention and "Twinning Program".

Coordinate with regional environmental NGO's.

TA to train private environmental consultants in pre-feasibility studies.

TA to train private environmental consultants.

SHORT-TERM ACTIONS (FY '94)

Exchange Visit between Egypt and Tunisia on Wastewater Management.

Regional Advisory Meeting to take place after the Regional Conference in 1994.

LONG-TERM ACTIONS (FY '95-'98)

Feasibility study for an environmental technology transfer center for the Near East and North Africa Region in Tunisia.

Policy and Regulatory Workshops for Tunisia and Morocco.

Training for Municipal Personnel in Urban Environmental Concerns for Tunisia, Morocco, and Jordan.

Exchange visit between Jordan and Tunisia on Water Management and Pricing.

Exchange visit between Lebanon and Tunisia on Solid Waste Management.

Exchange visit between Algeria and Tunisia on Wastewater Treatment.

Long-term (FY '95-98) Country-Specific Activities for Tunisia:

- Technical Assistance to train private firms in operating and managing municipal solid waste and wastewater systems.
- Environmental Impact Assessment Workshop.
- Training of Trainers in Solid and Liquid Waste Management.
- Technical Assistance to train private environmental consultants in pollution prevention assessments.
- Technical Assistance to Tunisia to formulate pollution prevention legislation and regulations.
- Assist the efforts of and coordinate with local Tunisian NGO's with liquid and solid waste activities.

Long-term (FY '95-98) Country Specific Activities for Morocco:

- Technical Assistance to Assist the GOM in pursuing sound joint economic and environmental policies.
- Feasibility Workshop on privatizing solid waste management.
- Training to improve the delivery of solid waste services.
- Training to incorporate waste reduction, re-use, recycling, and appropriate disposal technologies in the demonstration project.
- Technical assistance for feasibility studies and plans for demonstration projects of privatizing solid waste management in smaller Moroccan municipalities.
- Technical Assistance to Morocco to formulate pollution prevention legislation and regulations.

Long-term (FY '95-98) Country Specific Activities for Jordan:

- Technical Assistance to GOJ for municipal solid waste management and treatment.
- Jordan Institutional Training for Water Resources Management and Monitoring, Water Pollution Prevention and Cleanup, Irrigation Water Management, and Water Management Education.
- TA to assist the GOJ in pursuing sound joint economic and environmental policies by supporting environmental policy and regulatory reforms.
- TA to conduct a Jordan Environmental Impact Assessment Workshop.
- Training of Trainers Workshop.
- Technical Assistance to Jordan to formulate pollution prevention legislation and regulations.

I. INTRODUCTION

A. Background

Issues associated with urban environmental sustainability--specifically water resources management, and liquid and solid waste management--present the most critical urban challenges to the countries in the Near East and North Africa (or Mediterranean) region. Most countries are confronted with water shortages and deficits, while the degradation of water quality increases at an unacceptable rate--further complicating the problem of water availability. Water is being used in an increasingly unsustainable manner due to unrestrained urban and industrial growth; a poor appreciation of conservation and environmental protection, and inadequacies in technical, financial, institutional and regulatory infrastructure to protect and manage these resources.

The climate, access to limited water and arable land, proximity to trading routes and access to existing infrastructure along the Mediterranean shores and rivers has resulted in urban populations being clustered in these areas throughout the region. Since 1990, the Office of Housing and Urban Programs (PRE/H) and the Near East Bureau (NE) have placed increased emphasis on the urban environment. In 1991 the Near East Bureau initiated the Project in Development and the Environment (PRIDE), a five-year effort focusing on Urban and Industrial Pollution and Water Management, which provides the Bureau and NE Missions with technical, analytical, and informational support to promote sound environmental and natural resource use for long-term sustainable urban growth. PRE/H also began developing methodologies for assessing and acting on urban environmental problems. Many RHUDO's also began initiatives in collaboration with Mission programs. Furthermore, PRE/H requested that, beginning in 1992, environmental strategies be included in all RHUDO Program Reviews. It is in this context that RHUDO/NENA is developing the Regional Urban Environmental Strategy.

At the same time, this recognition of the importance of sound environmental management is beginning to surface in the form of a proliferation of individual country environmental strategies such as those evolving in Egypt, Jordan, Morocco, and Tunisia. Thus, the present situation provides an excellent opportunity for AID/W, the Near East Bureau, field Missions, and the RHUDO to respond to the challenge of developing and carrying out a comprehensive strategy for ensuring the economic growth and environmental sustainability of the Near East and North African countries. The opportunity is a mixture of promoting sustainable economic growth by sound environmental management through more efficient production and use of natural resources that reflect market forces.

B. RUEAP Goal and Objectives

The objectives of the RUEAP are to:

- focus RHUDO/NENA resources and efforts in general on sustainable urban economic and environmental growth, and specifically on solid and liquid waste management in Tunisia, Morocco, and Jordan;
- provide RHUDO management with a resource-flexible list of strategies to maximize the impact of available resources; and
- improve the effectiveness of RHUDO environmental activities.

For the RUEAP, the focus countries are Jordan, Morocco, and Tunisia, but Egypt, Lebanon, Turkey, and Algeria will also be invited to participate in select regional activities such as training, conferences, and exchanges. The RUEAP draws on existing documentation and information available from AID/W, USAID/Tunisia, RHUDO/Tunis, USAID/Morocco, multi-donor organizations, and host country reports.

While environmental issues in the region have only recently attained a high level of visibility and support, the accompanying financial resources have not been equally forthcoming. Therefore, the RUEAP must not only be considered within the limits of cuts in grant resources in the NENA region, but also within the overall context of mission or program closures currently being considered and implemented. Whatever the result, it is essential that an effort be made to coordinate RUEAP activities with other Agency programs and to collaborate with similar regional donor programs. To the maximum extent possible, RHUDO should use demonstrated regional environmental success stories to increase the effectiveness of the RUEAP.

II. THE PROPOSED RUEAP

A. The Overall Urban Environmental Approach.

In 1992 A.I.D.'s Near East Bureau officially adopted its Natural Resource and Environment Strategy and the Water Resource Strategy for the Near East region. The strategies encourage Missions to address key natural resource and environmental issues, concentrating attention on those pertaining to water conservation and quality. The following four priority approaches were established for achieving the environmental objectives in the region:

- the Near East Bureau will provide technical support to Missions and countries in the areas of natural resources and the environment to amplify and extend Mission program initiative;
- Missions and the Bureau should suggest and promote common approaches to common problems in the region and should cooperate with existing donor programs wherever possible;
- Missions and the Bureau should emphasize support to critical policy reforms and the development of institutional capability; and
- emphasis should be placed on the use of services and technologies from U.S. private sector and academic institutions.

In light of the USAID environmental strategy, RHUDO/NENA intends that the RUEAP address the following environmental agenda:

1. Reform economic and environmental policies by:
 - identifying policy incentives for minimization of waste (e.g., conservation of reusable materials and recycling); and
 - supporting policy and regulatory reforms that discourage industrial pollution.

2. Strengthening host country institutions by:
 - improving the capacity of municipal governments to analyze problems, and plan mitigative and preventive measures;
 - improving solid waste and wastewater management; and
 - providing technical assistance and training to support solid waste and wastewater management, planning, and development.

3. Advocating private sector solutions by:
 - supporting the privatization of solid waste and wastewater management operations;
 - developing the capability of local environmental NGO's for public awareness and sensitization efforts; and
 - promoting U.S. private sector TA and technology transfer in solid waste management.

Despite the wide array of environmental problems identified, two regional and cross-cutting areas of particular concern were targeted: solid waste and liquid waste management.

This focus further adheres to the Near East strategy of decentralizing the provision of these basic services from national authorities to local governments and an increased focus on engaging the private sector to improve the delivery of urban services.

The RUEAP is intended to serve as a further analysis and synthesis of the waste management challenges facing local governments. The RUEAP proposes specific activities for RHUDO to pursue to meet these challenges. The RUEAP is also intended to elaborate upon and complement Agency and the NENA bureau's environmental strategies and Mission strategic objectives. In addition, the RUEAP reflects collaboration between host-government country officials, Bureau and Mission environmental staff, the regional office of the World Bank/Habitat Urban Management Program (UMP) based in Cairo, Egypt, and the United Nations Center for Habitat and Settlements (UNCHS) in Nairobi.

Because the RUEAP will be strongly linked with the HG programs developed and managed by RHUDO/NENA in its portfolio of countries, and will coordinate with current RHUDO Housing Guarantee policy issues such as Private Sector Development, Democratic Governance, Privatization, Decentralization, Municipal Management, and Provision and Financing of Shelter and Related Urban Infrastructure Services, there are evident widespread opportunities. But this

aspect also presents constraints for the RUEAP by association with the region-wide focus. The management interests of the RHUDO will be a reoccurring factor in this situation. The RUEAP must therefore maintain a balance between cross-cutting activities which genuinely offer region-wide opportunities but which also present the RHUDO with specific and viable options for implementation.

B. Tunisia and Morocco PEA's.

The recently completed PEA's for Morocco and Tunisia provide timely information for the RUEAP. The PEA for Tunisia points out that the most serious environmental constraint facing the government is the lack of personnel trained in environmental sciences, environmental planning, and environmental engineering. The ANPE will face an increasing volume of projects, and will be responsible for performing compliance inspections. Some of this work may be accomplished through contracts with private Tunisian consulting firms. But the area of contract management will also be a weakness. Other areas that could be improved through training include impact study review and preparation, and promulgating regulations specifying siting criteria, setback requirements, resource standards, and performance standards.

The PEA for Morocco maintains that two essential objectives should form the basis for the technical assistance and training plan. These are:

- a common recognition of the importance of the environment by each agency for incorporation into its specific responsibilities and into its cooperative activities with other agencies; and
- ensuring that environmental assessment begins at the earliest stages of urban plan design and updating, and continues through implementation.

The PEA for Morocco also emphasizes the fact that there are relatively few or no environmental regulations in Morocco. Because of this, it is intended that the private sector will play a significant role in formulating solutions to many of the problems, and the mission will make a strong effort to support the GOM on developing and promulgating effective laws.

According to the Morocco PEA, sewage master plans (SDA's) have been completed or are close to completion in a number of cities, primarily as a result of World Bank assistance. The principal need in these cities now is for treatment plant construction, operations, and maintenance. In coordination with the SDA's, the PEA points out that technical assistance should be directed to assessing the already completed SDA's and at those in preparation in order to develop a standardized process for application by local consultants in cities which need to prepare or update SDA's. A second part of this activity would involve the planning and implementation of a training program with the Direction de l'Eau et de l'Assainissement du Ministere de l'Interieur (DEA), private environmental or engineering firms, municipalities, and regies on effective plan preparation.

In the area of solid waste, the Morocco PEA recommends that one city be selected for which a pilot plan would be developed with USAID technical assistance and training. The pilot plan

would address site selection and design for future landfill sites; methods (technical, management, and financial) of waste reduction, and methods of landfill closure and restoration.

The Morocco PEA further identifies environmental planning and impact evaluation methods, methods of project site selection, pre-planning and site assessment, and impact assessment methodology as distinct areas which technical assistance and training could be designed for.

C. The Action Plan

1. Regional Activities:

a. Technical Assistance (TA) and Training Activities, Workshops, Seminars, and Conferences.

The environmental needs and strategies in Tunisia, Morocco, and Jordan in one sense differ substantially, but there are several crosscutting issues which lend themselves to joint training and technical assistance. It is important that regional environmental training activities emphasize that national TA and training events be viewed from the perspective of the regional program, in order to maximize the training potential as well as to insure regional integration of policy and program goals. TA and training activities for the RUEAP will therefore consist of workshops, seminars, and conferences. (see Table 1)

The RHUDO to this point has placed considerable focus on yearly regional conferences, with substantial effort and resources used to plan and produce the annual event. (The 1993 regional conference in Morocco cost \$125,000 out of a regional activities budget of \$175,000. Staff time needed to prepare the conference is not calculated into this figure, thereby escalating the actual costs substantially). A debate has recently developed concerning the cost-efficiency and usefulness of these events, with one view being that, while they are limited in some respect by the lack of time inherent in 2-3 day conferences, they are valuable at engaging high-level counterparts in discussions of an issue of regional importance, thereby promoting the flow of information, promoting the ideals and concepts in the policy agenda of A.I.D., and reinforcing the image and visibility of RHUDO.

The opposing viewpoint maintains that these events are very expensive with little verifiable evidence of their impact, and that the resources would be much better spent on regional exchange visits which have substantially more impact. In fact, there are few quantifiable ways to measure the immediate impact of conferences versus exchange visits, though the fact that exchange visits are more "hands-on" events with a targeted audience would support the idea that they have a larger impact. A suggestion for the annual regional conference is to conduct them further apart, with one perhaps every 16 to 18 months or every two years. This option would certainly relieve the pressure on limited staff resources.

The theme for the 1994 Regional Seminar will focus on low cost housing, combining community participation, self-help, and private participation (new public/private partnerships) in low cost

shelter, and assessing the current status of low cost housing and perspectives for potential improvements. While this activity does not focus specifically on the key RUEAP areas of solid and liquid waste management, thought should be given to how these themes could be included in the overall seminar objectives, especially in terms of the public/private partnerships. To emphasize this point, A.I.D. programs and projects reflect an increasing environmental focus, and forums which have the potential but do not address these issues as a component are not taking full advantage of the current focus on environmental efforts.

Other activities which support and advance the regional objectives and which are on-going planned events are the regional advisory committee (RAC) and regional exchange visits.

As previously stated in the summary of actions, more specific components of a regional activities agenda include:

- Continuing assistance to selected representative (pilot) municipalities to design private sector based integrated solid waste management systems;
- the IULA/EMME Solid Waste Management Workshop in Turkey in October, 1993;
- a Liquid Waste Workshop;
- Policy and Regulatory Workshops.;
- Training for Municipal Personnel;
- the UMP Regional Conferences (1 per year, for 3 years); and
- Assisting the GOT, GOM, and GOJ to formulate pollution prevention legislation and regulations.

Urban Management Program (UMP):

The urban management component of the UMP was created in 1990 to help urban development practitioners develop the means of managing the environmental problems faced by the world's growing urban populations. Since it was launched, the component has initiated a number of research activities, case studies, and background papers to clarify a wide range of issues related to urban environmental degradation. At the same time, the UNCHS "Sustainable Cities Program (SCP)" has developed the operational framework for an urban environmental planning and management process, has mobilized required resources, and has initiated city-level demonstrations of the process with a series of cities around the world. In its second phase (1992-1996) the UMP will focus on capacity building at the city/country and regional levels and on transferring program activities from the nucleus teams in Nairobi and Washington to the technical capacities created at regional levels. The environment component will focus its activities at city/country, regional, and global levels accordingly. The UMP seminar schedule and a list of themes is in process, and RHUDO plans to maintain a collaborative relationship and to participate in regional and in-country activities as they occur. This objective is reflected in Tables 1 and 2.

c. Regional Exchange Visits.

A strong emphasis should be placed on the regional exchange program activity. For example, an exchange program similar to the one between the pilot cities of Tetouan, Morocco, and Sfax and La Marsa, Tunisia can disseminate important lessons learned in their attempts to improve the delivery of municipal solid and liquid waste management services. Also, direct face to face contact in a practical setting with colleagues permits counterparts to grasp how to translate policies into future project outputs. This is a cost effective and high impact activity that funds should be made available for in the FY 94 training budget. Specific activities under this section are:

- Follow-up on exchange visits between pilot sites in Sfax and La Marsa, Tunisia; and Tetouan, Morocco;
- Establish a pollution prevention and "Twinning Program" (i.e; Tetouan/Raleigh) among municipality/American training organizations and/or trade, municipal, and professional organizations or institutions; and
- Regional Network Meetings of the Regional Advisory Committee (RAC); (see below).

Regional Advisory Committee (RAC):

The RAC has proved extremely effective, and has attained its own measure of cohesiveness and sustainability. This group should be incorporated into as much of the strategic regional environmental planning as possible, and used as a regional tool to spread the impact of training, seminars, and conferences. RHUDO intends to work with the RAC as an opportunity to advance its collaboration in training with the IULA/EMME. The RAC has consistently provided ideas, concerns and opinions which also relate to the regional environmental objectives. These are:

- Involve citizens of the target countries in environmental protection;
- Improve the enabling conditions for the participation of the private sector;
- Address solid waste and the private sector;
- Address institutional arrangements for environmental protection;
- Design "how to privatize" seminars;
- Train in how to do environmentally sound planning; and
- Present case studies of efficient environmental management.

These activities correspond closely with those suggested in the PEA's for Morocco and Tunisia, and activities identified under the RUEAP.

d. Cooperation With Other Programs and/or Donors.

The EP3 project beginning implementation in Tunisia (and being considered for Morocco) offers a wide range of collaborative opportunities. The goal of EP3 is a reduction of environmental pollution associated with urbanization and industrialization. Specifically, EP3 will assist in strengthening and expanding in-country sources of technical expertise for pollution prevention,

helping to improve national environmental policies, laws, regulations, and their implementing institutions, and promoting activities to encourage, coordinate, and combine the efforts of A.I.D. and other U.S. and donor agencies.

An organization active in the Arab world is the International Union of Local Authorities/Eastern Mediterranean and Middle East (IULA/EMME) with which RHUDO has growing collaborative ties. This organization has specialized in Municipal Management, and other regional issues, including the environment. The possibility of collaborating with the IULA under the EEC's MED/URB/North-South Program is potentially promising, and the RHUDO is exploring ways of using RHUDO expertise to expand the current program into the areas of housing and urban infrastructure so that existing RHUDO programs may benefit from additional funding through this program. In October, 1993, the RHUDO will co-sponsor a conference in Turkey on the subject of Solid Waste Management.

2. Country Specific Activities:

The following section identifies country-specific activities anticipated under the RUEAP. It is not intended as a comprehensive plan, but rather as a brief synopsis of the environmental objectives in each country, with a focus on how the RHUDO might integrate the RUEAP with those country objectives (also see Tables 2, 3, and 4).

a. Jordan:

The National Environmental Strategy (NES) for Jordan was developed in 1991 jointly by the GOJ, A.I.D., and the World Conservation Union (IUCN). The NES, among other strategies, primarily called for an across the board institutional strengthening, including staffing and training. An Environmental Training Needs Assessment report provided by the Environmental and Natural Resources Policy and Training Project (EPAT) recommended that the priority need in environmental training in Jordan is in the Ministry of Municipalities, Rural Affairs and Environment/Department of the Environment (MMRAE/DE) where the staff is minimally certified and trained engineers will soon be responsible for developing and implementing country-wide environmental programs. The need is for short-term, long-term, and continuing in-country training in both evolving technologies and global standards, as well as in institutional development and program management. The following activities will be considered:

- Jordan institutional training;
- Assisting the GOJ in pursuing sound joint economic and environmental policies by supporting environmental policy and regulatory reforms;
- Jordan Environmental Impact Assessment; and
- Jordan Training of Trainers;

b. Tunisia:

Because the GOT has shown initiative and a commitment to environmental restoration and

protection, and reduction of industrial pollution through pollution prevention and control, Tunisia is uniquely positioned for the introduction of pollution prevention concepts and technologies. The GOT has specifically: initiated important environmental legislation, particularly in the area of water quality; requires that new and expanding industry prepare Environmental Impact Statements; tried to build a policy and regulatory structure based on the "polluter pays" principle; and is beginning to enforce water quality and pre-treatment requirements. Further, both the GOT and Tunisian industry have recognized the benefits of environmental protection to support a healthy economy.

Tunisia features a solid base of environmental institutions that could support a pollution prevention center. These include the:

- Institut Regional des Sciences Informatiques et des Telecommunications (IRSIT).
- Laboratoire Regional des Sciences de l'Environnement (LARSEN);
- Agence Nationale Pour la Protection de l'Environnement (ANPE); and
- Environmental Training Center (recently created).

These institutions should be assessed, and used or upgraded as necessary to serve as a resource for the RUEAP training and institution building activities. The Tunisia PEA noted that academic programs in environmental studies do not exist yet or do not have the training capacity in Tunisia. As a result, ANPE employees are sent abroad for training, adding to the expense of programs and neglecting the issue of building sustainable institutions. International donor assistance would be a welcome input in this area. In terms more of regional activities, there has been preliminary talk of establishing a technology transfer center for the Near East and North Africa in Tunisia. An environmental training center might be included to serve public and private needs.

Tunisia is also experiencing a growing environmental movement centered around the Association Tunisienne pour la Protection de la Nature et de l'Environnement (ATPNE). ATPNE is a member supported NGO which, among other things, works as an industry watchdog by reviewing development projects and by working with the government environment and development regulations and laws.

The USAID/Tunisia PSDE project has proposed a Training of Trainers (ToT) strategy which will result in explaining and transferring to industry the approach and procedures used in industrial process and product total environmental accounting. It will lead to demonstrating to senior plant managers that each raw material, waste emission, and product has an environmental cost that must be recognized and factored into operating and cost accounting. It will also demonstrate the real and comparative costs, benefits and pay back periods of typical end-of-pipe treatment, reclamation/recycling, pollution prevention, and clean technology applications. Finally, it will deliver materials and transfer technical and training skills to others in Tunisia who can continue to offer the training. The Local Government Support Project (LGSP) and the HG-V projects would also be likely participants in the ToT component.

Likewise, in-country skills training under the LGSP should be considered to build up a training capacity in specific areas where projects in several countries are similar enough that courses can be adapted and duplicated for multiple use. Initial ideas for topics where this might apply are the areas of municipal finance and other municipal development techniques, techniques and strategies for solid waste collection, and environmental impact assessments of new projects. Two advantages to this strategy are that a U.S. consultant can adapt or "recycle" a training event for use in several countries and contexts, and local training institutions can develop the capacity to deliver training courses in more than one country thereby increasing the cost benefits all around. The following activities will be considered under this program:

- Assist the GOT in pursuing sound joint economic and environmental policies by supporting environmental policy and regulatory reforms;
- Train private firms in operating and managing municipal solid waste and wastewater systems;
- Tunisia Environmental Impact Assessment;
- Tunisia Training of Trainers;
- Train private environmental consultants in pollution prevention assessments, to help small and medium-size enterprises reduce pollution and increase efficient; and
- Feasibility studies and plans for demonstration projects of privatizing solid waste management in smaller Tunisian municipalities (i.e; Sfax and La Marsa, Tunisia; and Tetouan, Morocco).

c. Morocco

In Morocco, the pressing need is for the establishment of a cohesive regulatory basis for environmental policy. Without this as a guide, the advantage of activities such as institutional training, exchange visits, and conferences/seminars is substantially curtailed. The development of government environmental regulatory reforms is an essential step towards collaborative and coordinated relations between the public and private sector. This activity may be simultaneously implemented with the institutional upgrading of public and private organizations, and may serve to form the basis of an ongoing discussion and articulation of individual country environmental strategies. Technical assistance in the establishment of laws and regulations would be a necessary component and input of this activity. The following activities are proposed:

- Assisting the GOM in pursuing sound joint economic and environmental policies by supporting environmental policy and regulatory reforms;
- demonstrating the feasibility of privatizing integrated solid waste management services in smaller municipalities;
- improving the delivery of solid waste services by incorporating user fees and other private financing mechanisms;
- incorporating reduction, re-use, recycling, and appropriate disposal technologies in the demonstration project;
- developing and testing a model that would be replicable in other smaller

- municipalities; and
- Feasibility studies and plans for demonstration projects of privatizing solid waste management in smaller Moroccan municipalities (i.e; Sfax and La Marsa, Tunisia; and Tetouan, Morocco).

3. RUEAP Implementation Plan and Schedule

a. Activities for Short-term (FY '94) Implementation

Following is a list of action activities which may be considered for short-term implementation. The criteria for selection are activities which lay the ground work for activities which could be implemented later; for activities that might be pursued by the governments themselves, the private sector, or other donors; or for processes that may continue of their own volition. Therefore, the strategic emphasis is on laying foundations through training, on pilot demonstrations, and on exchange events with wide impact effects for incentive-based pollution management through private sector development. The following tables (1-5) provide a more detailed view of activities, potential funding, and time-frame.

TABLE 1: REGIONAL ACTIVITIES**TA and Training, Seminars and Workshops**

ACTION	POTENTIAL DONOR OR PROGRAM FUNDING	TIME FRAME
IULA/EMME Solid Waste Management Workshop in Turkey.	RHUDO HG-Programs; and IULA/EMME.	FY '94
Liquid Waste Regional Workshop to be held in Tunisia.	Tunisia HG-V	FY '94
Policy and Regulatory Workshops for Tunisia and Morocco.	HG-Programs, EP3, PSPP, METAP, and UMP	FY '95-98
Training for Municipal Personnel in Urban Environmental Concerns.	Tunisia HG-V, Morocco HG-0045, EPAT, UMP, and WASH.	FY '95-98
UMP Thematic Workshops	UMP	FY '95-98
UMP Regional Conferences (1 per year, for 3 years).	UMP	FY '94, and '95-'98
TA to assist the GOT, GOM, and GOJ to formulate pollution prevention legislation and regulations.	HG Programs; EP3; EPAT; PRIDE; METAP	FY '95-98

TABLE 1 (CONTINUED)**Regional Exchange Visits**

<u>ACTION</u>	POTENTIAL DONOR OR PROGRAM FUNDING	TIME FRAME
Follow-up on and continue exchange visits between pilot sites in Sfax and La Marsa, Tunisia; and Tetouan, Morocco.	HG Programs	FY '94
Exchange Visit between Egypt and Tunisia on Wastewater Management.	USAID/Egypt, USAID/Tunisia	FY '94
Exchange Visit between Jordan and Tunisia on Water Management and Pricing.	USAID/Tunisia, USAID/Jordan	FY '95-98
Exchange Visit between Lebanon and Tunisia on Solid Waste Management.	UMP	FY '95-98
Exchange Visit between Algeria and Tunisia on Wastewater Treatment.	RHUDO/Tunis, USAID/Tunisia	FY '95-98
Exchange Visit between Morocco and Tunisia on Wastewater Treatment.	USAID/Morocco	FY '94
Regional Advisory Meetings.	RHUDO HG Programs	FY '94. and '95-'98

TABLE 2: COUNTRY SPECIFIC ACTIVITIES FOR TUNISIA**TA, Training, and Workshops:**

ACTION	POTENTIAL DONOR or PROGRAM FUNDING	TIME FRAME
TA to train private firms in operating and managing municipal solid waste and wastewater systems.	HG-004; HG-005 EP3; WASH; and PRIDE.	FY '95-98
Tunisia Environmental Impact Assessment	LGSP	FY '95-98
Tunisia Training of Trainers	LGSP	FY '95-98
Training and Assistance to Tunisian NGO's.	HG-V	FY '95-98
Train private environmental consultants in pollution prevention assessments, to help small and medium-size enterprises reduce pollution and increase efficiency.	HG-004; HG-005; EP3, and PRIDE	FY '95-98

TABLE 3: COUNTRY SPECIFIC ACTIVITIES FOR MOROCCO**TA, Training, and Workshops:**

ACTION	POTENTIAL DONOR or PROGRAM FUNDING	TIME FRAME
Technical Assistance to assist the GOM in pursuing sound joint economic and environmental policies.	HG-IV	FY '95-98
Feasibility workshops on privatizing integrated solid waste management.	HG-IV	FY '94
Training to improve the delivery of solid waste services.	HG-IV	FY '95-98
Training to Incorporate reduction, re-use, recycling, and appropriate disposal technologies in the demonstration project.	HG-IV	FY '95-98
Feasibility studies and plans for demonstration projects of privatizing solid waste management in smaller Moroccan municipalities (i.e; Sfax and La Marsa, Tunisia; and Tetouan, Morocco).	HG-IV	FY '94

TABLE 4: COUNTRY SPECIFIC ACTIVITIES FOR JORDAN**TA and Training: Seminars and Conferences**

ACTION	POTENTIAL DONOR or PROGRAM FUNDING	TIME FRAME
TA to GOJ for Municipal Solid Waste Management.	HG-IV, TSFS, and PRIDE.	FY '94
Jordan institutional training.	HG-IV; TSFS; and PRIDE.	FY '95-98
TA to Assist the GOJ in pursuing sound joint economic and environmental policies by supporting environmental policy and regulatory reforms.	HG-IV; TSFS; and PRIDE.	FY '95-98
Jordan Environmental Impact Assessment.	HG-IV; TSFS; and PRIDE.	FY '95-98

TABLE 5: Long-term FY '95-98 Activities**Seminars and Conferences; and TA and Training**

ACTION	POTENTIAL DONORS	TIME FRAME
Train private environmental consultants in prefeasibility and feasibility studies to help firms prepare applications to government institutions for financing pollution prevention and control equipment.	HG Programs, EP3, PRIDE, METAP, and UMP.	FY '95-98
Establish a pollution prevention and "twinning" (i.e.; Tetouan/Raleigh) program among municipality/American training organizations and/or trade, municipal, and professional organizations or institutions.	PRIDE; EP3; and HG Programs	FY '95-98
Training private environmental consultants in specialized pollution prevention areas (re; tanneries, metal finishing, textiles, etc.) to enable firms in major polluting industries to meet current and future environmental regulations and to improve efficiency.	HG Programs, EP3, PRIDE, METAP, and UMP.	FY '95-98

c. Staffing and Management for RUEAP Implementation

Considering the acknowledged uncertainty over potential funding sources, and the admittedly low levels of Mission/RHUDO financial and personnel resources currently available for the RUEAP, the issue of staffing is difficult to resolve. This will remain the case until the availability of regional resources is established, and the likelihood of funding from individual country programs is clearer. In all probability therefore, managing the RUEAP will remain the responsibility of the regional activities advisor, with assistance at appropriate times from various program officers. With this acknowledged, the recommendation is that one staff position be designed and created which would primarily coordinate the activities of the RUEAP and articulate its objectives with other donors who have established urban program and environmental initiatives or operations in the region. This step would provide significant potential for tapping into or leveraging other funding sources and organizational resources to pursue collaborative strategies.

d. Monitoring and Evaluation Activities

While measuring the impact and sustainability of activities is an important objective and will be included in the RUEAP as activities are finalized, it is difficult at this point to identify and design effective evaluation techniques. Primarily, the RUEAP remains more of an informal plan created for RHUDO guidance, rather than a formal or authorized program. Therefore, it is premature to design evaluation measures given the other uncertainties involved in the action plan. While some of the activities may be in process or on-going in nature, at this point they will have to be evaluated individually as they occur, rather than in a more formal evaluation process within the context of the RUEAP.

Secondly, the nature of the interventions identified do not easily lend themselves to evaluation efforts. The cumulative effect of training, conferences, seminars, and workshops is qualitative in nature, with the impact measured in years. For the purpose of the action plan, the RHUDO Training Officer, in coordination with RHUDO staff, will evaluate the activities on an individual basis as they are approved, funded, designed, and implemented.

Lastly, evaluation methods are most effective when used in conjunction with sound base-line data. This area needs to be addressed as the RUEAP activities become more definite.

4. The RUEAP Financing Plan

a. Financing the Regional and Country-level Activities

Because of the financial constraints under which the Mission and RHUDO are operating, and the modest objectives of the RUEAP, inputs from four distinct funding sources is proposed. These sources are:

- available USAID mission program funds;
- RHUDO grant funds established for training and conference activities, and pilot projects in Morocco, Tunisia, and Jordan;

- A.I.D. centrally funded projects established for general environmental training and technical assistance services; and
- other donor programs carrying out similar regional environmental training and conference activities.

While the overall level of these funding sources can be identified from existing documents, it is unclear in the current environment to what extent they will in fact be available and how RHUDO and USAID Mission management may wish to collaborate on activities with the available funding. Therefore, the purpose of this section is to identify potential funding sources. The idea is that the RHUDO will be able to identify a number of potential choices from a core set of activities from available funding, with increasing options as funding and staff resources become available.

TABLE 6

Potential Grant Funds Associated with Training Funds from Morocco HG-004, Tunisia HG-V, and Jordan HG-004 and TSFS V:

INSTITUTIONS	Total
Tunisia	
(General)	100,000
(Liquid Waste/Onas)	65,000
(Solid Waste)	99,000
LGSP	240,000
Morocco	
(ANHI)	100,000
(DGCL)	40,000
(DUB)	40,000
(FEC)	40,000
(MOF/CIH)	50,000
Jordan	
(MPWH)	170,000
TSFS V	615,000
TOTAL	1,539,000

b. Potential Funding From Central Projects.

A significant source of technical and financial support for a range of the RUEAP strategies could be provided through the centrally funded PRIDE, EPAT, or EP3 projects. PRIDE has already provided general environmental legislation to Egypt and Jordan. For Tunisia, the Development Studies Program (DSP) could be a potential funding source. PRIDE and WEC, a key component of PRIDE, are working together in other countries to deliver courses related to the subject areas. They are also developing French language training materials which could be used in Morocco and Tunisia. When EP3 is underway that project should also develop, offer, and transfer this training course. It would be possible to combine resources from both central and Mission projects to develop a training program that would both meet the requirements and be

useable in other countries.

TABLE 7

PROJECT/NUMBER	PACD	CORE	BUY-IN
Conservation of Biological Diversity/936-5518	1995	13.8M	7.0M
Environmental and Natural Resources Policy and Training (EPAT)/936-5554	2001	35.5M	35.5M
Environmental Pollution Prevention Program (EP3)/936-5559	1997	20M (TBD)	--
Water and Sanitation for Health (WASH II)/936-5973	1993	12.3M	12.3M
Project in Development and the Environment (PRIDE)/398-0365	1995	6.0M	8.0M

c. Potential Other Donor Funding:

TABLE 8: METAP Regional Funding
(source: 1991 Activity Report; '000)

TRAINING	1993 REGION-WIDE FUNDING
Environmental Planning and Management	--
Municipal Environmental Management	--
Environmental Management Compendium	80
Environmental Financing Technical Workshop	--
Water Policy Workshops	100
Hazardous Waste Workshop	80
Environment Control	80
Environmental Education	120

TABLE 9: World Bank/UMP Funding:

ACTIVITY	COST OF ACTIVITY	TIME FRAME
Regional Workshops (Total of 3, for 4 days each)	\$80,000 each.	June 1994, and June 1995
7 Thematic Workshops over three year UMP duration.	\$40,000 each.	To be decided.

III. URBAN ENVIRONMENTAL INDICATORS

a. Base-line Data for Urban Environmental Indicators

With the exception of Tunisia, regional base-line data complete enough to serve the objectives of the RUEAP is either not available, does not fill the needs of the RUEAP, or is not documented for solid and liquid waste inputs and outputs. In this respect, the January 1992 PRISM report on Morocco experienced the same difficulties. There continues to be a need to locate and/or complete studies for accurate data, and this should be an important and on-going activity for RUEAP management, not only for the efficient use of resources but also to design and implement effective action plan evaluation methods. The areas specified in the following tables constitute an effort to identify the type of preliminary data which may potentially be used to create and monitor RUEAP performance targets. This section is intended more to initiate this process of gathering reliable and effective information.

TABLE 10: LIQUID WASTE

COUNTRY	% OF URBAN HOUSEHOLDS CONNECTED TO URBAN SEWER SYSTEM	TONS OF SEWAGE PRODUCED AND TREATED	% OF INDUSTRY ATTACHED TO SEWER SYSTEM	TONS OF SEWAGE PRODUCED AND TREATED	TREATMENT CAPACITY OF SEWAGE PLANTS
Jordan					
Tunisia					
Morocco					

TABLE 11: SOLID WASTE (Urban Households)

COUNTRY	% OF URBAN HOUSEHOLDS SERVED BY MUNICIPAL SOLID WASTE SYSTEM	TONS OF WASTE PRODUCED AND TRANSPORTED /DAY	% OF HOUSEHOLDS SERVED BY PRIVATE WASTE COMPANIES	TONS OF WASTE PRODUCED AND TRANSPORTED	CAPACITY OF SOLID WASTE SITES
Jordan					
Tunisia					
Morocco					

TABLE 12: SOLID WASTE (Industry)

COUNTRY	% OF URBAN INDUSTRIES SERVED BY MUNICIPAL WASTE SYSTEM	TONS OF WASTE PRODUCED AND TRANSPORTED	% OF INDUSTRIES SERVED BY PRIVATE WASTE COMPANIES	TONS OF WASTE PRODUCED AND TRANSPORTED
Jordan				
Tunisia				
Morocco				

b. Performance Indicators at Country-levels for:

- Morocco
- Jordan
- Tunisia

URBAN ENVIRONMENT AND INFRASTRUCTURE:

Infrastructure Expenditure per Capita:

Ratio of total annual expenditures for operations, maintenance and capital by all levels of government including private utilities and parastatals on infrastructure services (roads, drainage, water supply, electricity, and garbage collection) to the urban population. This indicator is an indirect measure of the supply of infrastructure for residential development. Low levels of infrastructure expenditures result in land supply bottlenecks and thus in higher prices for land and housing. They also result in inadequate provision of residential amenities, such as water, sewage, drainage and electricity, and in subsequent traffic congestion, all of which have a direct affect on the quality of housing.

Individual Water Connections:

Percentage of dwelling units with individual water connections. This indicator is an important measure of housing quality, focusing on the level of residential amenities associated with the basic house structure. It is also a proxy indicator for the existence of sewage, drainage, and electricity. A low level for this indicator is usually associated with areas not properly serviced by public infrastructure, as in many cases recently occupied squatter areas.

Upgrading Informal Land Development:

Percentage of total informal land development that is serviced by water, roads, liquid and solid waste collection systems, and electricity. This indicator measures the will and capacity of public agencies to recognize the contribution that the informal sector makes to overall housing supply and to extend adequate urban services to informal neighborhoods.

Operations and Management:

Percentage of residential areas that are serviced by solid waste removal. This indicator is a proxy indicator for the service level and coverage of infrastructure and other urban services in a given municipality. It gives a general indication of a city's ability to provide adequate service in water supply, sanitation, drainage, and solid and liquid waste collection and disposal.

ANNEXES

Annex 1: Relationship to Mission/RHUDO Programs.

A. Morocco HG-IV Project

USAID/Morocco's 1992-1995 Action Plan for Morocco focuses on four strategic objectives: employment generation; improved market competitiveness; more effective delivery of social services; and the increased availability of affordable housing and services for low income families. These objectives are complemented and reinforced by the three crosscutting themes of improvements in women's lives, democratic pluralism, and the environment. The RUEAP addresses to varying degrees all of these objectives.

The Mission Action Plan has a cross-cutting objective of promoting a better appreciation for and application of sound environmental policies and practices. Accordingly, the Mission's environmental program is being undertaken as integral components of priority program activities. Specifically, HG-004 program funds will finance the extension or upgrading of existing sewer-lines required for ANHI's land development activities, as well as for existing under-served low-income neighborhoods. These extensions are critical to allow the ANHI to open up less costly sites for development that are located at the periphery of city limits.

The increased local government capacity to manage urban development through adequate infrastructure and service delivery will have long-term environmental benefits in participating cities.

The goal of the HG-004 project is to increase affordable housing opportunities for households with below median incomes. The purpose of the project is to completely eliminate bidonvilles in Morocco by the end of this decade, prevent the growth of sub-standard housing areas, improve conditions in clandestine neighborhoods, help local governments address pressing environmental issues related to housing and support initiatives to restructure the housing finance system. The aim of the RUEAP supports this goal and purpose by focusing primarily on the issues of liquid and solid waste management.

B. Jordan HG-004; and Technical Support for Feasibility Studies (TSFS) Project

The goal of the HG-004 program is to improve the delivery of affordable housing and related services to Jordanian families with incomes at or below the median. The purpose is to help the GOJ improve efficiency and coordination within the housing delivery system and enable the private sector to provide a greater number of housing units for lower income families. The inputs for the HG-004 program are a total of \$50 million in loans, \$955,000 in grant funds for technical assistance, and \$170,000 for training.

In November, 1992, it was agreed upon between USAID/Jordan and the RHUDO staff that given the limited Mission funds under the fifth Technical Services and Feasibility Studies (TSFS)

project, the TA and T plan should be more focused, and that approximately \$615,000 under TSFS V would be allocated "in principle" to support the HG-IV program. As funds become available under the TSFS (probably end of FY '93), the RHO Jordan and RHUDO's Training Advisor will TDY to Jordan to discuss with the mission and GOJ officials TA and Training activities to be implemented in FY '94.

C. Tunisia

1. USAID/Tunisia Programs

The primary focus of USAID/Tunisia is the expansion and energizing of Tunisia's private sector. This is being accomplished through projects directed at improving the policy, regulatory, and management approaches of GOT agencies; decentralizing responsibilities and authority to lower levels of government; and delivering training and technical assistance to the Tunisian private sector.

The principal projects in the Mission portfolio are two new five-year private sector related initiatives and a combined grant/housing guaranty program currently under design. The Private Enterprise Promotion Project (PEP) focuses on privatization of government-owned enterprises and financial market development. The Management Training for the Private Sector (MTPS) provides business management and development assistance for small and medium size firms. The grant/HG Private Provision of Environmental Services (PPES) will support GOT efforts to improve urban environmental services by accelerating decentralization and increasing participation by the private sector in delivery of urban environmental services. These three projects represent a closely coordinated three-pronged strategy for helping to hasten and strengthen development of the private sector in Tunisia.

a. Private Sector Development Environmental Strategy (PSDE):

In order to ensure an efficient and effective allocation of scarce mission resources the USAID/Tunisia Private Sector Development Environmental (PSDE) Strategy was developed. The PSDE Strategy is the outcome of a Mission effort involving direct hire staff, environmental and development specialists from the NE Bureau Project in Development and the Environment (PRIDE), and consultants with GOT personnel and the Tunisian private and NGO sectors.

The USAID/Tunisia Mission project portfolio offers an excellent platform for undertaking a well-targeted environmental program. USAID/Tunisia's approach has been to capitalize on the complementary capabilities of projects to create an integrated support framework for the PSDE Strategy. The strategy addresses key private sector and environmental concerns through training and technical assistance. The training and technical assistance is aimed at strengthening the private sector, on one hand, and at strengthening related GOT institutions, policies, regulations, and procedures, on the other. USAID/Tunis adopted the following actionable PSDE Strategy elements:

- wherever possible, incorporate environmentally related training and technical assistance activities at improving the business opportunities for Tunisian and U.S. environmental firms in project plans;
- emphasize and reinforce pollution prevention, including energy conservation and waste minimization;
- emphasize the concept of total environmental accounting in public and private sector training and technical assistance delivered through Mission projects; and
- emphasize environmentally appropriate urban and industrial solid waste management;

b. Governance and Democracy Program (GDP):

The Mission governance and democracy strategy emphasizes accountability of public institutions and citizen participation in the public decision-making process and the environment. Under this project, funding can be provided for environmental activities which stress environmental services at the municipal level. One of the specific activities is the sensitization of mayors under the GDP.

c. Local Government Support Program (LGSP):

The LGSP consists of activities necessary to formulate and carry out assistance in the area of decentralization and local government support. Activities funded under the project will be concentrated in the areas of public administration at local, regional, and national levels, elected bodies at the local level, and non-governmental businesses and community organizations. Specifically, the delivery and financing of urban environmental and other services will serve as the technical theme undertaken with these groups. Program funds are planned to be used for pilot projects, training, institutional strengthening, special studies, and monitoring, evaluation, and implementation support. With this type of activities the LGSP serves as a very suitable vehicle for coordination of efforts and resources with the RUEAP.

d. EP3

For the EP3 project, an in-country pollution prevention office is being established in Tunisia. The funding of this office will be dependent on support from PRIDE components. The office will be staffed by three locally contracted Tunisian specialists, specifically a private sector and marketing specialist, a pollution prevention engineer, and an information analyst. A Washington-based component will offer technical experience on an as needed basis. The activities of the Pollution Prevention Office which adhere most closely to RUEAP objectives are pollution prevention assessments and audits, pollution prevention workshops and training, and pollution prevention public awareness programs.

2. RHUDO Programs:

a. HG-IVD:

Like the current program under design, the final phase of the Low Cost Shelter Project (HG-004/D) combines an Investment Component with a Policy Component. While the Investment Component supports GOT activities in municipal infrastructure development, the Policy Component provides technical assistance for the attainment of three distinct objectives:

- Increased availability of municipal resources to finance capital improvements;
- Improved municipal revenue collection and cost recovery performance; and
- Increased private sector participation in the design, execution and management of capital projects.

HG-004/D forms the bridge between previous HG programs which focussed on the production of serviced plots for low-income families and the current emphasis on the provision of urban environmental infrastructure.

b. Private Provision of Social Services (PPSS):

Under the PPSS initiative established in 1991, PRE/H was provided a grant to study and demonstrate the feasibility of privatizing solid waste management services in select countries in several regions. Phase I of the PPSS program consists of a review of a municipalities existing waste collection and disposal system. The result of this phase is a list of recommendations designed to both improve existing levels of service as well as identify opportunities for public/private partnerships. Phase II (where applicable) provides additional technical assistance to facilitate the implementation of private activities.

Phase I of this program has been implemented in Sfax and La Marsa, Tunisia, and these cites should be considered for regional exchange programs with Morocco or in-country training seminars. In general, the following observations have been made when considering the privatization of these services. Rules, laws, and regulations and the means to enforce them are essential to control the actual and future production of solid and toxic waste. A study must be produced to know if such laws exist and which must be created before attempting to attain a control of the solid and toxic waste situation. Aside from the establishment of new rules and regulations, the municipality must establish an objective evaluation of its garbage collection systems, and consider privatization as a method of reducing the costs and raising the effectiveness.

In addition to PPSS, the ANPE, under the guidance of the Ministry of the Environment and Territory (MEAT), commissioned the COMETE Engineering firm to complete a lengthy study of the waste management system in Greater Tunis. The goals of this report were to study the present overall environment, synthesize past studies, measure the discharge of waste, and conduct a preliminary study of future waste sites taking into account environmental, sanitary,

economic, financial, and technical constraints. While the COMETE report does not serve the aims of the Mission or RHUDO program in that program strategies or goals are not addressed, it does establish useful technical information concerning waste treatment in Tunis along with extensive studies. The report should be used as a baseline data source for future efforts in Tunis.

c. PPES/HG-V:

The Private Participation in Environmental Services (PPES HG-V) Program continues the objective of increased private sector participation. Activities such as feasibility studies for municipal contracting out of solid waste collection will be subsumed under the PPES technical assistance umbrella. PPES continues this policy direction with an expanded agenda of pilot projects in a range of environmental activities. The municipal finance technical assistance and training in HG-IV/D will lay the groundwork for the preparation and execution of solid waste and liquid waste pilot projects in cities not covered by ONAS. The two programs are therefore considered complementary and mutually reinforcing.

The improvement of environmental services through the use of a Housing Guaranty loan follows the Mission approach to environmental issues. Rather than design a separate environmental program, the Mission has chosen to promote the protection and enhancement of the environment through existing sectoral programs: private sector development, privatization, and urban development.

TUNISIA PRIVATE SECTOR PARTICIPATION IN ENVIRONMENTAL SERVICES (PPES) HG-V ACTIVITIES WORKPLAN: 1994-1998

ACTIVITIES	DATE	RESPONSIBLE
1.A.I Technical assistance to interested institutions to analyze the structure of potential markets able to encourage entry of new private firms into delivery of environmental services and to assure a competitive environment among them.	10/94	Ministry of Environment
1.A.II Technical assistance to interested institutions to identify potentially interested private firms.	10/94	
1.B.I TA to interested institutions for policy analysis of the Investment Code in order to determine eligibility conditions effects for private firms interested in the delivery of urban environmental services.	2/94 9/94	Ministry of Plan Ministry of Environment
1.B.II TA to interested institutions for policy analysis of options for raising private capital for environmental services.	2/94	
1.C.I TA to ONAS to develop a contract model for sub-contracting sewage systems operation and procedures to check market allocation.	3/95	Ministry of Environment (ONAS)
1.C.II TA to ONAS to develop a contract model for sub-contracting the operation of a treatment plant unit and procedures to check market allocation.	3/95	Ministry of Environment (ONAS)
1.C.III TA to ONAS to develop a contract model for the concession of a treatment plant unit and procedures to check market allocation.		Ministry of Environment (ONAS)
1.C.IV TA to the interested institution to achieve the preparation of a contract model for sub-contracting solid waste collection and procedures for checking market allocation.	3/96	Ministry of Interior
1.C.V TA to the interested institution to develop a contract model for sanitary landfill operation and procedures to check market allocation.	5/94	Ministry of Interior
1.C.VI TA to the interested institution to develop a contract model for a sanitary landfill concession and procedures to check market allocation.	7/95	Ministry of Interior
	11/95	
1.C.VII TA to the interested institution to develop a contract model for sub-contracting the operation of a mixed composting station unit and procedures to check market allocation.	3/96	Ministry of Interior
1.C.VIII TA to the interested institution to develop a contract model for sub-contracting the operation of a transfer unit center and procedures to supervise market allocation.	3/95	Ministry of Interior
1.C.IX TA to the interested institution to develop a contract model for land development joint ventures between municipalities and private developers and procedures to supervise market allocation.	10/94	Ministry of Public Works and Housing, Ministry of Interior
1.D.I TA to interested institutions to organize roundtables: identification of potentially interested private firms; Technical and financial feasibility studies (included expected operating account and IRR) for each type of business to be created.	5/94	Ministry of Environment, Ministry of Interior
1.D.II TA to interested institutions to conduct roundtables with participation by U.S experts and practitioners.	10/94	Ministry of Environment
		Ministry of Environment, Ministry of Interior
	11/95	Ministry of Equipment, Ministry of Interior
	2/94	

ACTIVITIES	DATE	RESPONSIBLE
<p>1.A.I Technical assistance to interested institutions to analyze the structure of potential markets able to encourage entry of new private firms into delivery of environmental services and to assure a competitive environment among them.</p> <p>1.A.II Technical assistance to interested institutions to identify potentially interested private firms.</p>	<p>10/94</p> <p>10/94</p>	<p>Ministry of Environment</p>
<p>1.B.I TA to interested institutions for policy analysis of the Investment Code in order to determine eligibility conditions effects for private firms interested in the delivery of urban environmental services.</p> <p>1.B.II TA to interested institutions for policy analysis of options for raising private capital for environmental services.</p>	<p>2/94</p> <p>9/94</p> <p>2/94</p>	<p>Ministry of Plan</p> <p>Ministry of Environment</p>
<p>1.C.I TA to ONAS to develop a contract model for sub-contracting sewage systems operation and procedures to check market allocation.</p> <p>1.C.II TA to ONAS to develop a contract model for sub-contracting the operation of a treatment plant unit and procedures to check market allocation.</p> <p>1.C.III TA to ONAS to develop a contract model for the concession of a treatment plant unit and procedures to check market allocation.</p> <p>1.C.IV TA to the interested institution to achieve the preparation of a contract model for sub-contracting solid waste collection and procedures for checking market allocation.</p> <p>1.C.V TA to the interested institution to develop a contract model for sanitary landfill operation and procedures to check market allocation.</p> <p>1.C.VI TA to the interested institution to develop a contract model for a sanitary landfill concession and procedures to check market allocation.</p>	<p>3/95</p> <p>3/95</p> <p>3/96</p> <p>5/94</p> <p>7/95</p> <p>11/95</p>	<p>Ministry of Environment (ONAS)</p> <p>Ministry of Environment (ONAS)</p> <p>Ministry of Environment (ONAS)</p> <p>Ministry of Interior</p> <p>Ministry of Interior</p> <p>Ministry of Interior</p>
<p>1.E.I TA to interested institutions to establish a training program for private promoters concerning (1) the operation of sewage systems and treatment plants and, (2) solid waste collection and sanitary landfill operation.</p> <p>1.E.II TA to interested institutions for the delivery of local consultancy services for environmental services management.</p>	<p>3/95</p> <p>3/95</p>	<p>Ministry of Environment, Ministry of Interior</p>

ACTIVITIES	DATE	RESPONSIBLE
<p>1.A.I Technical assistance to interested institutions to analyze the structure of potential markets able to encourage entry of new private firms into delivery of environmental services and to assure a competitive environment among them.</p> <p>1.A.II Technical assistance to interested institutions to identify potentially interested private firms.</p>	<p>10/94</p> <p>10/94</p>	<p>Ministry of Environment</p>
<p>1.B.I TA to interested institutions for policy analysis of the Investment Code in order to determine eligibility conditions effects for private firms interested in the delivery of urban environmental services.</p> <p>1.B.II TA to interested institutions for policy analysis of options for raising private capital for environmental services.</p>	<p>2/94</p> <p>9/94</p> <p>2/94</p>	<p>Ministry of Plan</p> <p>Ministry of Environment</p>
<p>1.C.I TA to ONAS to develop a contract model for sub-contracting sewage systems operation and procedures to check market allocation.</p> <p>1.C.II TA to ONAS to develop a contract model for sub-contracting the operation of a treatment plant unit and procedures to check market allocation.</p> <p>1.C.III TA to ONAS to develop a contract model for the concession of a treatment plant unit and procedures to check market allocation.</p> <p>1.C.IV TA to the interested institution to achieve the preparation of a contract model for sub-contracting solid waste collection and procedures for checking market allocation.</p> <p>1.C.V TA to the interested institution to develop a contract model for sanitary landfill operation and procedures to check market allocation.</p> <p>1.C.VI TA to the interested institution to develop a contract model for a sanitary landfill concession and procedures to check market allocation.</p>	<p>3/95</p> <p>3/95</p> <p>3/96</p> <p>5/94</p> <p>7/95</p> <p>11/95</p>	<p>Ministry of Environment (ONAS)</p> <p>Ministry of Environment (ONAS)</p> <p>Ministry of Environment (ONAS)</p> <p>Ministry of Interior</p> <p>Ministry of Interior</p> <p>Ministry of Interior</p>
<p>1.F.I TA to ONAS to establish specific covenants for contracts, study available offers and set the final contract for sub-contracting sewage systems and treatment plant operation.</p> <p>1.F.II TA to ONAS for feasibility study concerning the concession of a treatment plant.</p> <p>1.F.III TA to ONAS to establish specific covenants for contracts, study available offers and set the final contract for the concession of a treatment plant.</p> <p>1.F.IV TA to ONAS for the evaluation of pilot projects in water sanitation.</p> <p>1.F.V TA to ONAS to verify the feasibility of giving to the private sector the task of sanitation operation for municipalities outside ONAS responsibilities (included those connected or not to the sewage network)</p> <p>1.F.VI TA to the Ministry of Interior to establish special covenants for contracts, study available offers and set the final contract for the sub-contracting of domestic solid waste collection.</p> <p>1.F.VII TA to the Ministries of Environment and Interior to verify the feasibility, establish special covenants, study available offers and set the final contract for the sub-contracting of a sanitary landfill operation.</p> <p>1.F.VIII TA to the Ministries of Environment and Interior to verify the feasibility, establish special covenants, study available offers and set the final contract for the concession of a sanitary landfill.</p> <p>1.F.IX TA to the Ministries of Environment and Interior to evaluate the pilot-project concerning the sub-contracting of a sanitary landfill operation.</p> <p>1.F.X TA to the Ministry of Public Works and Housing to evaluate results of present partnerships activities and establish a pilot project in land development.</p> <p>1.F.XI TA to the Ministry of Public Works and Housing to prepare, implement and evaluate a pilot project in land development.</p>	<p>12/95</p> <p>10/96</p> <p>12/95</p> <p>10/96</p> <p>6/96</p> <p>11/96</p> <p>6/95</p> <p>6/96</p> <p>10/94</p> <p>5/96</p> <p>1/96</p> <p>5/96</p> <p>6/97</p> <p>10/95</p>	<p>Ministry of Environment, ONAS, Ministry of Interior, Ministry of Public Works and Housing</p> <p>Ministry of Equipment and Housing.</p>

ACTIVITIES	DATE	RESPONSIBLE
2.A.I TA to interested institutions to evaluate additional needs for financing.	3/95	Ministry of Plan, Ministry of Interior, Ministry of Finances, Ministry of Environment (ONAS)
2.A.II TA to interested institutions for policy analysis (cost/benefit, administrative feasibility, fiscal impact) of options for raising private capital in Tunisian and Foreign financial markets.	3/95	
2.A.III TA to interested institutions in the design and launching of new financial instruments.	1/96	
	6/96	
2.B.I TA to ONAS for a study on wastewater sanitation in order to measure actual costs (operating and capital) and revenues and identify options to increase cost recovery (fees and other) and to target subsidies.	9/94	Ministry of Environment (ONAS)
2.B.II TA to interested institutions for a similar study on domestic solid waste	6/95	Ministry of Interior

ACTIVITIES	DATE	RESPONSIBLE
3.A.I TA to the Ministry of Plan to establish a Monitoring Unit for urban programs.	6/94	Ministry of Plan
3.B.I TA to ONAS to formulate a national strategy in terms of sanitation services.	9/94	Ministry of Environment (ONAS)
3.B.II TA to ONAS to (1) verify performance standards for wastewater treatment and (2) establish regulatory processes for sewage systems operation.	12/94	
3.B.III TA to interested institutions to prepare a design manual related to non-conventional sanitation systems (technologies adapted to small municipalities)	6/94	
3.B.IV TA and training at ONAS for the Performance Monitoring Unit (PMU).	1/94	
	10/95	
	6/94	
3.C.I TA to interested institutions for institutional support.	10/94	Ministry of Environment (ANPE), Ministry of Interior Ministry of Interior
3.C.II TA to interested institutions to define a national strategy for private participation in solid waste collection, treatment and disposal.	12/94	
3.C.III TA to interested institutions to develop technologies related to solid waste management (collection, sanitary landfill, etc) and elaborate a design manual.	10/94	
3.C.IV TA to interested institutions to establish performance standards and control tools for solid waste collection, treatment and disposal.	3/95	
3.C.V TA and training to interested institutions to establish the Performance Monitoring Unit.	5/94	
3.D.I T.A to evaluate options of enhanced municipal role in land control process.	5/94	Ministry of Equipment and Housing
3.D.II Study of the potential role of partnerships in basic sewage systems and construction improvement in old urban fabric.	1/95	
3.E.I TA to interested institutions to enhance municipal capacity in sub-contracting solid waste collection.	10/94	Ministry of Interior
3.E.II TA to interested institutions to enhance private sector capacity in operating sanitary landfills.	1/95	
3.E.III TA to interested institutions to enhance municipal capacity in sub-contracting waste water sanitary systems.	11/94	

ACTIVITIES	DATE	RESPONSIBLE
4.A.I Assistance to interested local NGO's in environmental awareness activities.	12/94	Ministry of Environment, Ministry of Interior
4.B.I TA for participation of U.S environmental NGO leaders in the Tunisian conferences.	6/94 6/95-6/98	Ministry of Environment
4.C.I TA to NGO's to implement micro-projects in environmental services.	6/95 1/98	Ministry of Environment

Annex 2: Relationship to AID/W Environment Strategy.

A. AID Overall Environmental Strategy

Since 1990, A.I.D acknowledged that development and the environment must be taken into account together, and that mismanagement of natural resources and environmental degradation is one of the primary constraints to development. A.I.D. therefore initiated a priority environmental focus. Since then, environmental concerns have become an integral part of the A.I.D. development program and project planning, implementation, and monitoring process. The regional bureau's have become the implementors of the agencies goals. The RUEAP's main goal, then, is to support this process in the Near East region, and to provide a list of realistic activities by which RHUDO can further the agenda and achievement of A.I.D.'s overall environmental objectives.

B. Near East Bureau Natural Resources and Environment Strategy

The strategic efforts of the Near East Bureau have only recently begun to have an impact in project planning. Traditionally, there has been a lack of an environmental ethic throughout the region, as is evident by the critical lack of NGO's oriented towards environmental and natural resources issues within the countries. Likewise, there is a lack of regulatory and enforcement capability with respect to combatting environmental degradation and fostering sustainable natural resource management. In some cases environmental regulations have become law, yet, a commitment to the "environmental cause", is missing leading to weak enforcement that has undermined the impact.

Awareness of environmental degradation is growing due to the magnitude and severity of environmental problems facing the populations of the region. This awareness is being manifested in country-wide and internally-initiated environmental and natural resource strategy papers and environmental action plans that are emerging throughout the Near East region. Projects have emerged that specifically address the need for increased environmental awareness. The emergence of "green party" political activism is also evident in many of the Near East countries and is putting environmental issues at the forefront of governmental debate. In addition, other assistance and development organizations have encouraged recipient countries to formulate environmental strategies and/or action plans.

Annex 3: Relationship to Government Programs.

The following section cites country-specific programs, and areas for RUEAP Activities:

A. Government of Morocco (GOM) Programs

The RUEAP will address the three primary objectives of the current GOM shelter sector policy: elimination or upgrading of substandard housing areas; increased private sector involvement in low-income land development and housing production; and decentralization of urban planning and management functions to the local level.

In the current Social and Economic Development Plan (1989-1992), the GOM has confirmed its commitment to improving the shelter conditions of limited income Moroccan families. The principal institution that the GOM is using to achieve its policy is the National Shelter Upgrading Agency (ANHI), a specialized housing agency specifically created and mandated to improve shelter conditions for low-income households.

In the overall government strategy, local governments are playing a greater role in the urban development process. The GOM is actively pursuing a policy of decentralization in which municipalities are expected to assume primary responsibility for managing urban growth and providing basic infrastructure and services.

The desire to strengthen local municipal institutions also reflects an increasing belief among Moroccan policy makers that the problem of urban environmental degradation is inextricably linked to municipal service delivery, and is therefore best addressed at the local level. As a result, the GOM is working to improve environmental conditions in Moroccan cities by increasing the capacity of local governments to deliver basic services that include adequate sewage and solid waste collection and disposal services.

The activities identified in the RUEAP will directly address these issues. The essential element of an action plan for Morocco consists of improving the institutional and legal framework for environmental management. In a second phase, the institutional framework would be reformed and new laws and regulations passed. The goal is to allocate, for each issue and in a coherent manner, each function of environmental management to a specific administrative body and to give each body the legal, monitoring, control, and planning capacity to effectively implement its function.

B. Government of Jordan (GOJ) Programs

During the past two decades Jordan has significantly improved both the quantity and quality of its housing stock. Success in the sector has bred increasingly high housing aspirations and the imposition of legal standards for land use and construction that will be difficult to meet given the current slowdown in the country's economic growth---made worse from problems stemming

from the effects of the Persian Gulf Crisis. Households that were unable to improve their housing situation during the economic upturn will find it more difficult to do so now. The overwhelming majority of these, as well as potential new households, will have middle or low incomes.

As a result of this situation, Jordan is now faced with a growing shortage of affordable housing opportunities for low and middle income households. Given Jordan's high population growth (3.8%) and the ensuing new family units formed, pressures on the housing delivery system and the urban environment will increase dramatically in the coming years.

The GOJ has been aware of changing conditions in the sector and has recognized the need for an overall strategy and for greater efforts in providing additional housing opportunities for low income households. This awareness has led to a strategy to: develop and implement a comprehensive National Housing Strategy aimed at establishing a capacity for substantial delivery of housing based on economic efficiency through private sector initiatives; guide a greater number of private sector investment to the production of low cost housing; target public sector investment in urban areas for both infrastructure and housing construction to meet effective demand; and, reduce housing costs related to fees and financial conditions.

In terms of the RUEAP, the needs of Jordan are now:

1. Wastewater management training skills;
2. Institutional coordination and training for water quality; and
3. Establishment of a legal and institutional framework for solid waste.

C. Government of Tunisia (GOT) Programs

In recent years the GOT has developed a National Environmental Protection Strategy (NEPS) and an Action Plan for Environmental Protection (APEP). NEPS and APEP have been translated in part into specific programs and projects in Tunisia's Eighth Five year plan, and were presented to the international donor community and discussed at the 1992 UN Conference on Environment and Development in Rio de Janeiro, Brazil. The National Agency for the Protection of the Environment (ANPE) developed the APEP. The Ministry of Environment and Land Use Planning was established in 1991 to span ANPE, the National Office of Wastewater (ONAS), and other environmental concerns. These represent significant steps towards coordinating the legal and enforcement aspects of environmental protection.

The Eighth Plan lays the groundwork for GOT development policy over the 5-year period 1992-1996. The plan furthers a series of structural reforms, introduced through the SAP in 1986, which emphasize economic liberalization and a more efficient distribution of roles between the public and private sector. To the extent possible, the GOT has defined its role as a facilitator of the private sector with respect to infrastructure.

There is a concern about the construction of 23 municipal sanitary landfills in each governate, and the development of an integrated solid waste management plan for the Tunis metropolitan

area. Do the GOT plans go far enough to produce a cohesive or coherent national policy to follow these objectives? To set landfill site and design specification standards, monitoring procedures, and performance standards? These are questions which should be addressed in the institutional training and coordination activities of the RUEAP.

Annex 4: Relationship to Other Regional Donor Programs.

As previously mentioned, a number of donors are also either initiating or currently implementing innovative regional urban environmental activities of their own. Following are examples of two organizations which may present collaborative opportunities for the RUEAP. While the stated objectives of each organization appear to match the RHUDO regional objectives, the RHUDO personnel are best placed to analyze the potential for actual collaboration. This section is therefore meant to provide merely an overview of regional donor organizations and activities.

World Bank/UNEP/UNCHS Urban Management Program (UMP) for Arab States.

Like the RHUDO program strategy, the UMP Arab States Program recognizes the importance of the cross cutting nature between six key components: Land Management, Municipal Finance and Administration, Infrastructure, Urban Environment, Poverty Reduction, and Enterprise Development. Also like the RHUDO program, the UMP program design is based on specific interventions that cut across components. The UMP Program rationalizes the cross-cutting nature of its program by admitting that while improvements in living conditions and in the efficiency of urban service delivery are important contributors to the urban development process, they are not, on their own, sufficient to stimulate the development of urban centers. The incorporation of enterprise development into the UMP provides an important material contribution to the urban development process. Both enterprise promotion and employment generation are central to the well-being of the urban economy. Integrated with improvements in the quality of life, they offer a major opportunity for steady economic growth and sustainable urban development.

Mediterranean Environmental Technical Assistance Program (METAP).

In 1988, the World Bank and the European Investment Bank initiated the Environmental Program for the Mediterranean (EPM) to address the environmental policy, institutional, and investment-related needs of the Mediterranean countries. A three-phased approach was adopted. Phase I analyzed the nature, extent, and causes of environmental degradation in the Mediterranean basin. Phase II, of which the METAP is the centerpiece, provides resources to identify and prepare investment projects and institutional development activities, and to define specific policy measures in four substantive priority areas. Phase III is the implementation of regional and country-specific investment projects and policy measures, using in particular the outputs of Phase II. METAP is funded by the Commission of the European Communities (CEC), the European Investment Bank (EIB), the UNDP, and the World Bank.

METAP seeks to accelerate the pace and enhance the impact of environmental activities in the Mediterranean Basin, and thus to act as a catalyst for environmental investment. To this end METAP pursues three basic types of activities:

- the development of a pipeline of environmental projects;
- the formulation of and effective improvement in environmental policies; and
- the strengthening of the environmental legislative, regulatory and institutional capacity.

These activities focus on four substantive priority areas which had been identified in Phase I:

- integrated water resource management;
- soil and hazardous waste management;
- marine oil and chemical pollution prevention and control; and
- coastal zone management.

In considering the relationship between the RUEAP and the METAP, two activities are particularly significant to the RHUDO. The Environmental Management Institutions Activity in Morocco, and the Tunis Solid Waste Activity in Tunisia.

In the priority areas of management of solid and liquid waste, activities are focused on the development of long term sustainable management methods with due attention to innovative technologies, development of incentives, improvement of legislation and strengthening of monitoring and enforcement measures. METAP activities incorporate this strategy by developing national hazardous waste programs and programming regional studies to examine innovative and successful management options with replicability potential.

The grant agreement signed between Tunisia and the World Bank launches METAP's Tunisian Hazardous Waste Management Study. The study diagnoses the hazardous waste situation in Tunisia, identifies appropriate treatment for each type of hazardous waste, and establishes criteria for a pilot hazardous waste site. More importantly to the goals of the RUEAP, a training component for the handling of hazardous waste is also included in the plan.

Annex 5: Summary of Urban Environmental Priorities in NENA Countries.

The following summary provides a general description of the most pressing urban environmental issues in the NENA countries with which this RUEAP is concerned.

1. Algeria

The most serious environmental issues and concerns in Algeria relate to the depletion of the country's water resources, and the deterioration of water quality. A second concern is the magnitude of the environmental pollution, particularly in regards to hazardous industrial wastes and its impact on water, soils, urban, and marine pollution.

Concerning urban and industrial pollution, waste management requires priority attention: the poor status of the domestic wastewater treatment plants, poor management of industrial and domestic solid wastes, and disposal of the existing stockpiles of toxic wastes have also raised serious public health and environmental issues.

2. Egypt

Consensus opinion in Egypt on the order of priority of environmental issues is:

- the scarcity and degradation of water resources;
- the degradation and loss of fertile soil;
- air pollution and the quality of urban life; and
- coastal zone management and the protection of natural and cultural heritage.

Regarding air pollution, there are severe concentrations of carbon dioxide and monoxide, lead and sulfur dioxide. In addition, highly inadequate solid waste management contributes to water and air degradation. According to World Bank 1984 estimates, approximately 11,000 tons of municipal waste is generated daily in urban centers, of which 15% is collected by private collectors and 60% is collected by municipal services and dumped in unsanitary overloaded landfills. The remaining 25% is dumped in illegal landfills, burnt on-site or left to decompose. Inadequate management of solid wastes adds a substantial load to the pollution of the country's freshwater resources.

3. Jordan

The 1991 National Environment Strategy for Jordan specified four specific directions for action:

- Establishing a legal framework for environmental management;
- Strengthening existing institutions;
- Expanding the role for Jordan's protected areas; and
- Bringing environmental concerns to the public interest.

The NES also pointed out that sectoral priority should be given to water and population issues,

both of which will have serious long-term impact if they are not addressed immediately. Jordan's rapid population growth, combined with extensive physical development of the land, add substantial new pressures to a delicate natural environment balance. Drawing on its rich social heritage and values, Jordan must strike a more careful balance between its fast expanding population and the sustainability of its natural resource base.

4. Morocco

The bidonvilles and clandestine settlements suffer from environmental impacts because of the lack of on-site infrastructure. They also cause impacts, indirectly, because of the lack of off-site infrastructure. In addition, the old medinas suffer from pollution because of deteriorating infrastructure, including disintegrating sewers, and inadequate domestic waste collection systems. The National Economic and Social Development Plan for 1988-92 included studies and plans for public works to protect certain medinas (Rabat, Sale, Fes, and Marrakech). The work in Fes, Marrakech, and Rabat has been partially accomplished. Finally, portions of the new medinas also suffer from poor construction and a lack of potable water, sanitation, and electricity.

In general, liquid and solid waste represent the most significant urban environmental problems in Morocco. In cities and towns located on rivers and the coasts, municipalities and regies allocate 30-50% of their capital improvements budgets to this problem. Their concern is shared by the central government's Local Government Directorate (DGCL) and the Directorate of Potable Water and Sanitation (DEA).

5. Tunisia

The primary environmental problems in Tunisia concern:

- the constant and continuous deterioration of soil resources (erosion, desert encroachment, etc.);
- a degradation of the coastline (erosion of the beaches) and of the marine ecosystem through public overuse and industrial urban pollution; and
- a deterioration of available water resources, through the growth of industrial and agricultural pollution, and overuse of the groundwater.

Concerning the urban areas, there is a substantial deterioration in the quality of urban life. This includes:

- difficulties in extending sewage network and treatment plans to all cities and rural localities;
- poor management of domestic solid waste collection, transport, transfer and disposal; and
- inefficiency in managing industrial and toxic wastes.

Annex 6: RHUDO Regional Training Strategy:

As the Regional Activities Advisor has emphasized, the primary problem when considering a region wide strategy is the fact that no country, with the possible exception of Morocco, has developed a coherent, medium or long-term plan to use training as a tool to enhance or further program goals. Training activities are programmed on a year-to-year, fund-available basis. Because of the increasing necessity for reliance on funding sources other than the RHUDO, it is essential that country training plans are developed which attempt to integrate the regional, Mission, program, and project objectives, and which match training needs to potential longer term sources of funding---either Mission-based or from other resources. The alternative is that training will continue to be used as a piecemeal adjunct to programs, never reaching full potential in terms of addressing program or project objectives and failing to effectively access potential financial resources.

In general, a Regional Activity and Training Strategy should pursue the following objectives:

- Emphasize the institutional, as well as the programmatic objectives, of the Regional Housing and Urban Development Office, and how training will serve to advance these objectives in both the short and medium term;
- Define regional training objectives and purposes which are different from country project-based training; and
- Relate country-based programs to a regional program, with the goal of integrating activities into a framework consistent with the regional orientations and concerns of the RHUDO, so that country and regional activities are mutually supportive, complementary, and maximize regional resources by leveraging available program and project funding.

The activities which RHUDO/NENA considers the most effective at furthering program goals are:

- policy dialogue through conferences and meetings;
- short seminars and workshops;
- short-term skills training;
- observational study trips and exchange visits; and
- on-the-job training.

In general, the advantages gained from regional activities differ from that of in-country activities by providing a broader framework for consideration of the day-to-day project context, by de-politicizing issues by placing them outside of a national setting; by interjecting new thinking from outside; and by observation of success stories. In addition, by networking with national institutions, regional organizations, and international agencies, and participating in collaborative regional training activities in key policy and program areas, training can supplement and reinforce select policy messages, and reach audiences outside the normal scope of a country project. In the process, the objectives of RHUDO are furthered by providing a forum for high-

level regional and sub-regional contacts which may promote inter-regional cooperation; and the policy agenda of the RHUDO and USAID are communicated to high-level decision-makers. Lastly, it is important to note that seminars of a policy nature, rather than technical, are more suited for the regional seminars. Because of this, the ideal target is a small, select group of policy makers from each country.

Annex 7:**TUNISIA DATA**

Activity	Quantity	Rate
Sewage Service	420,000 Customers (population served: 2.300,000)	45%
Water Volumes, of which:	104.0 million m3	53.5%
- domestic:	80.8 million m3	64.1%
- industrial:	12.8 million m3	17.8%
- tourism:	104 million m3	90.4%
Treatment	approx. 69 million m3	66.6%
Household Refuse	250kg/per cap/year	1.5 tons/housing unit/year

The following table presents a probable estimate of the cost of water pollution control and waste disposal in the years 1992-1996 (Eighth Development Plan) in percentages of GDP; and includes a comparison with recent data (1990-91); all estimated at 1990 prices. The data does not include the private sector, for which data is not available. Generally, this data provides some cross-over with the basic objectives of the PRE/H Performance Indicators.

RESOURCES ALLOCATED TO POLLUTION CONTROL IN TUNISIA

ACTIVITY	1990	1992-1996 (Annual Average)	% CHANGE
GDP (at 1990 market prices)	10,900	12,380	+13.6%
AVERAGE ANNUAL INVESTMENTS (in millions of 1990 TD)			
Sewage (treatment)	26.0	33.4	+29%
Industrial Pollution Control	3.0	17.0	+467%
Waste Treatment	--	8.2	
Support Actions	--	2.4	
Total Investment	29.0	61.0	+110%
(in % of GDP)	2.7%	4.9%	+85%
ANNUAL OPERATING COSTS			
Sewage	25.0	30.0	+20%
Refuse Collection	20.0	24.0	+20%
Refuse Treatment	--	6.0	
Total Operating Costs	45.0	64.0	+34%
(in % of GDP)	4.1%	5.2%	+25%
ALL EXPENDITURES	74.0	125.0	+69%
GRAND TOTAL	74.0	137.0	+85%
(in % of GDP)	6.8%	11.1%	+63%

* Source of Data: World Bank: Funding of Pollution Control in Tunisia, November, 1991

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