

MIDDLE EAST WATERSHED MONITORING AND EVALUATION PROJECT  
PASA # PCE-P-00-01-00011-00  
ANNUAL REPORT

JANUARY 15, 2004

Section I. Technical Progress

This is the third Annual report of the Middle East Watershed Monitoring and Evaluation Project. USAID MERC approved the project on March 1, 2001. Prior to that date, the Project had preliminary funding from the US Department of State and the USDA Forest Service. Although funding was available prior to the USAID MERC grant, the Project was not completely funded and work was slow to begin. All technical and financial reporting is coincident with the annual cycle of the project as outlined in the May 29, 2001 guidance.

1. Research Objectives:

The specific Project objectives are:

- a. Monitor and evaluate the effectiveness of watershed management practices in preventing erosion and increasing the efficiency of water use in arid and semi-arid watershed pilot programs.
- b. Evaluate the biophysical measurements appropriate for evaluation of operational watershed management practices implemented for erosion control and biomass production in arid and semi-arid regions.
- c. Demonstrate effective practices for forest and grassland management using pilot watershed programs.

The Project is focused on two different components. The first is the evaluation of the effect of watershed improvement practices on vegetation, hydrology, and erosion/sedimentation. The second, and primary, component of the study is the evaluation of the monitoring tools used to assess treatment effectiveness.

During the third year the specific objectives were to:

- a. Continue the implementation of watershed improvement practices (primarily in the Palestinian Authority), complete the installation of monitoring equipment, and identify any additional software and hardware needs, primarily GIS related. Israel, Jordan, Turkey and the United States had completed most of their site work, equipment purchase and installation. The Palestinian Authority, until this year, was unable to access each of their primary study sites due to troubles in the Region, so they have selected alternate sites near Sorif Village, closer to Hebron. Their intention is to eventually return to their original sites but in the meantime they have purchased equipment and initiated water-harvesting practices on one original and two new sites. A summary of progress to date in all five participating countries is appended to this report.

- b. Hold a meeting of the IST in Malatya, Turkey, in July 2003. Every member of the IST was able to participate in the meeting. The purpose of the meeting, which consisted of both an office and field agenda, was to discuss progress and share ideas. Study plans were revisited as needed and any appropriate study plan revisions were made.

2. Research Accomplishments.

Participants from the Palestinian Authority implemented treatments and began monitoring on three sites, but little data is available. The USA, Turkey, and Israel have collected a significant amount of data on erosion, sedimentation, and vegetative response. That data is shared in the Progress Reports posted on the MERC website. The USA overcame a major set back as the entire study area was burned in the Hayman Fire during the summer of 2002. As a result, monitoring equipment was replaced and supplemental new sites were added to the study. See attached report for more details on progress.

3. Scientific Impact of Cooperation:

There appears to be significant increases in the collaboration between participants. Based on preliminary results, some participants are adapting techniques used by others, such as the use of silt fences to estimate erosion. As in 2002, the Jordanian and Israeli participants used another training opportunity to get together on the USA site. The web site has provided an opportunity for all participants to share data, pictures, and techniques.

4. Description of Project impact:

It is too early to provide tangible evidence of the impact of the project, beyond the improved collaboration and cooperation that is occurring between partners. Although it appears to be no longer necessary, the Middle East partners are maintaining contingency plans to facilitate the Palestinian Authority's use of other study sites as a means to enable them to better participate in the project. In addition, it is apparent in some countries such as Turkey, Jordan, and Israel, that the watershed practices implemented as part of this study are also being implemented elsewhere in the country on a more operational scale.

5. Strengthening of Middle Eastern Institutions:

- a. The study involves both University and Government Agency personnel to intentionally build institutional relationships within countries and between countries. Technical exchanges that have occurred in person and through the project website have strengthened institutions. As noted in the attached report, 3 graduate students in the US, 7 in Jordan, 5 in Israel, and 3 in the Palestinian Authority for a total of 18 are supported by the MERC project. Of those, at least 6 will graduate this year.
- b. Members of the International Study team and in-country Study Teams from Israel and Jordan attended the International Watershed Management

Seminar held at the University of Wisconsin. The USFS International Programs Office sponsors the Seminar. Members of the Jordanian and Israeli study team were also given a 4-day training session on Watershed Management in Colorado prior to the seminar in Wisconsin. The US State Department has offered 2004 funding for a joint supplemental project in which the Palestinian Authority, Jordan and Israel will collaborate. The Jordanian and Israeli ISTs have already submitted draft Study Plans for the work, while discussions on the nature of the study plan have occurred with the Palestinian IST as part of a January 2004 site visit.

## Section II.

### 1. Managerial Issues:

There are no managerial issues to report at this time. We are currently in the process of dispersing the Year 4 MERC funding. Current budget sheets for all 5 participating countries reflecting all sources of funds are appended to this report.

### 2. Special Concerns:

The continuing troubles in the Middle East are still restricting full mobility of the project. Current conditions caused the IST meeting, planned for Jordan in April 2004, to be held in the USA instead. Plans are for the 2005 meeting to return to the Middle East.

### 3. Cooperation, Travel, Training, and Publications:

The US State Department has provided funds for the Study and all partner countries met in Turkey in 2003. This was a key opportunity to strengthen personal interactions early in the deployment of the study. The meeting provided an opportunity to discuss options for changes in the study plans of the various partner countries, and allowed for calibration of individual objectives and methods. Concurrence was reached on common measurement practices. The inclusion of university professors as part of the IST leadership for the study facilitated the opportunity to make the latest knowledge and technology available to all the participants. This also permits the inclusion of graduate students on partner country study site research.

### 4. Request for USAID actions:

There is no request for USAID action at this time.