

**Jordan Activities**  
**Quarterly Report-XVII**  
**Sustainable Development of Drylands Project**  
**IALC-BRDC**

**Activities Summary (October 1 – December 31, 2006):**

**2006/2007 SOW**

- The Jordanian component SOW for Year 4 of project is finalized and approved by the USAID-Amman mission with the following activities:
  1. Conference: “Can Water Resources Be Sustained in Dry lands? The Challenge for the Present and Future”
  2. Distance Learning Course on Reclaimed Water Irrigation Management
  3. Advanced Biosolids Laboratory Training,
  4. Required Biosolids Laboratory Training
  5. Development of Drying Bed Sludge Treatment Method to Arrive at a Permitted “Process to Further Reduce Pathogens” (PFRP) (Madaba),
  6. Modeling Biosolids Treatment in Jordan
  7. Application of Treated Biosolids to Land Irrigated with Effluent (Madaba)
  8. Management Practices of Sludge and Biosolids in Jordan with three volumes: Manual for Management of Biosolids in the Drying Beds at the WWTP Level (Volume I), Management Practices of On-farm Biosolids Application Manual (Volume II, and Laboratory Procedure Manual (Volume III)
  9. The Development of Anaerobic Wastewater Treatment Technology for Jordan (Septage Characterization and UASB Technology Development
  10. Characterization of Septage at Ein Ghazal
  11. Rangeland Responses under Biosolids Application
  12. Linkages for On-Farm Applications and Technology
- Activities 6, 8, 9 and 12 are from Year 3 SOW and continuing at this project year

**Bio-solid Analysis:**

- Phase III of the bio-solids project with Royal Scientific Society (RSS) was concluded and the final report was submitted.
- Final report is under review by the TAT team at U of A

**Linkages for On-Farm Applications and Technology**

- The contract between BRDC and JUST was signed and processed,
- The project team at JUST received the first payment from the fund and started the project activities
- First progress report was due at the end of October 2006 but not received.

**The Development of Anaerobic Wastewater Treatment Technology for Jordan**

- The contract between BRDC and WERSC/UJ was signed and processed,
- The first payment from the project fund was transferred to WERSC and the project started at the end of November 2006,

- New amendment for the WERSC contract is prepared and signed with new start and reporting dates to accommodate the delay in transferring the fund and starting the project.

#### **Water Conference**

- Dr. Ramzi Touchan, Chair of the Scientific Committee (SC), visited BRDC and met with the suggested Theme heads (TH) and other SC members,
- Dr. Touchan explained to the TH's their duties and agreed on due dates for assigning Session Heads (SH) and preparing abstracts for the various sessions,
- Two TH's were withdrawing and new TH's were contacted and agreed to work with the SC,
- TH's started assigning SH's and contacting them to prepare abstracts for their sessions

#### **Distance Learning Course in Reclaimed Water Management**

- The course started on time as delineated in the JUST agenda with more than 10 students registered for the course,

#### **Advanced Biosolids Laboratory Training**

- During the first two weeks in November, 2006 two RSS staff attended a training session at U of A on advanced laboratory testing,

#### **Activities Summary for the following period (January 1 – March 31, 2007):**

##### **2006/2007 SOW and BRDC Sub-contract**

- The Year 4 sub-contract between IALC/UoA and BRDC will be finalized and signed from both sides.

##### **Water Conference:**

- The conference sessions' abstracts will be finalized and announced,
- Conference proposal will be prepared and transfer of funds to the BRDC will be facilitated,
- Organizational arrangements (including venue, lodging and others) will be started.

##### **Distance Learning Course on Reclaimed Water Irrigation Management**

- The course will be concluded as per the JUST agenda late January 2007,
- Evaluation of the course including content, technical facilities, students-instructor interaction and general setup of the course will be prepared and analyzed by JUST staff.

##### **Required Biosolids Laboratory Training**

- The RSS staff who attended the advanced laboratory training at U of A during November, 2006 will prepare a training course for WAJ lab technicians on the required testing of biosolid according to the new standards.

### **Development of Drying Bed Sludge Treatment Method**

- This activity will be initiated by RSS working with the drying bed method whose aim is to arrive at a permitted “Process to Further Reduce Pathogens” (PFRP),
- The project will be at the Madaba WWTP (Madaba),
- Dr. Akrum Tamimi will be the lead for this activity,
- The proposal for this activity will be prepared and will undergo the review process at U of A

### **Modeling Biosolids Treatment in Jordan**

- This is a continuing activity,
- Dr. Tamimi will be the lead for this activity with the RSS team,
- The proposal for this activity will be prepared and undergo the review process at U of A.

### **Application of Treated Biosolids to Land Irrigated with Effluent (Madaba)**

- Dr. Tamimi will be the lead for this activity with the RSS team,
- This activity will test the use of treated effluent to irrigate areas with biosolid application,
- The project will be at Madaba WWTP and (Madaba),
- The proposal for this activity will be prepared and undergoes the review process at U of A

### **Management Practices of Sludge and Biosolids in Jordan**

- This activity is a continuation of the survey done by the biosolid ad hoc committee on the management practices at the WWTP’s,
- The project will develop three volumes: Manual for Management of Biosolids in the Drying Beds at the WWTP Level (Volume I), Management Practices of On-farm Biosolids Application Manual (Volume II), and Laboratory Procedure Manual (Volume III),
- The Volumes will be developed by RSS in coordination with JUST for Volume II and WAJ for Volumes I and III
- Work plan for developing this activity will be prepared by RSS and sent to U of A for review

### **The Development of Anaerobic Wastewater Treatment Technology for Jordan**

- Sampling and analysis for septage samples and UASB reactor will start,
- First progress report is due at the end of March 2007,

### **Characterization of Septage at Ein Ghazal**

- This activity will be with WERSC to characterize the septage and liquid biosolid that is dumped at Ein Ghazal station,
- Proposal for this activity will be prepared by WERSC and sent to U of A for review.

### **Rangeland Responses under Biosolids Application**

- Dr. Saad Al-Ayyash from BRDC will lead this activity
- The activity will look at the hydrologic response of areas treated with biosolid,
- The activity will be between BRDC and Hashemite University (HU),
- Proposal for this activity will be prepared and sent to U of A for review.

### **Linkages for On-Farm Applications and Technology**

- First progress report will be submitted,
- A number of workshop will be organized for different stakeholders in the farming sector

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