

Engaging Iraq's Science and Technology Community: An Update

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Iraq S&T Cooperation Program Goals

Local Rebuilding

Engage Iraqi experts to rebuild key elements of the Iraqi infrastructure, including water resources, public health, environmental sectors

International R & D

Develop S&T projects that engage Iraqi scientists in peaceful research and development in collaboration with international partners

Business

Develop new Iraqi business opportunities that capitalize on Iraqi technological and scientific expertise and provide long-term sustainability to Iraqi S&T



Arab Science and Technology Foundation

- **Arab Science and Technology Foundation (ASTF)**
 - Arab NGO located in the United Arab Emirates
 - Goal: identify and support outstanding scientific research activities conducted by Arab scientists
 - Neutral organization with extensive Iraqi contacts
 - Personnel from academic and research institutions in the Arab countries, the United States and Europe
- **New ASTF capabilities as a result of this project**
 - Operational Baghdad office with support personnel and satellite internet access
 - Network of Iraqi scientists
 - Registered NGO in Iraq



Project Description

- **Project Phases**

- Phase 1: Initial Survey to contact and engage members of Iraq's S&T community
- Phase 2: Pilot Projects
- Phase 3: Prepare Detailed Project Proposals
- Phase 4: S&T Forum
- Phase 5: Project Implementation (current phase)

- **Project Funding (NNSA Office of Global Security Engagement and Cooperation)**

- \$1.25M in FY04
- \$1.0M in FY05
- \$1.5M in FY06

- **Distinction from other S&T Efforts in Iraq**

- Strong Iraqi participation and support
- Participation of Arab countries
- Actively working in Iraq now



Phase 1: Survey Findings

- Interviewed nearly 200 scientists and engineers
- Analyzed, grouped and prioritized over 450 project ideas
- Highest priority subject areas:
 - *Improving public health*
 - *Water resources (quality and re-use)*
 - *Restoring the environment*
- Other priorities
 - Bridging gap in education between older and younger generations
 - Capacity building to bring Iraqi science and technology up to date
- Received strong support of Iraqi S&T community at all levels, including cabinet ministers in Interim Government



Phase 2: Pilot Projects

- **Demonstrate**
 - Viability of the funding process
 - Functioning of merit-based approach to project selection
 - Ability of Iraqi scientists to accomplish research activities now
- **Call for proposals in water & public health/epidemiology**
 - ASTF call for proposals - May 25, 2004
 - Project award decision - July 5, 2004
 - ◆ 4 research teams, 2 for each topic
 - ◆ 20 scientists and students
 - Research complete – November 2004 and January 2005
 - Data should be useful for further efforts on these topics
 - ◆ USAID has used water data to improve baseline knowledge



Lessons Learned and Need for New Approach

- Iraqi scientists not yet ready to compete for large programs
 - Skills in proposal writing are lacking
 - Scientists are out of date with international developments
 - Equipment and infrastructure nonexistent or outdated
- Must be creative to make contribution within existing constraints
 - Highest priority is to do meaningful work with Iraqi scientific community and to provide scientists with the means to do scientific work in the future
 - Communications infrastructure is a necessary condition (email, video-teleconferencing, ...)



Focus for FY05

- **Focus on connectivity and preparedness**
 - Establish communications among Iraqis and with the international community
 - ◆ Collaborators/mentors
 - ◆ Project website
 - Improve skills of Iraqis in competing for S&T dollars in the international community
 - ◆ Proposal writing
 - ◆ English development skills
- **Seek additional support from Europe, Arab countries for specific activities**
 - Funding projects
 - Supporting PIs
 - Funding mentors
 - Training



Phase 3: Preparing Detailed Proposals

- **Topical focus areas selected based on Iraqi priorities**
 - Health
 - Environment
 - Water
 - Agriculture
 - Material Technology
- **Effort to identify sources of funding**
- **Nomination and Selection of Iraqi participants**
- **Selection of Collaborators/mentors from the international community**
- **Proposal development workshop**
 - May 15-18, 2005 in Amman
 - 20 teams (Iraqi PI and Intl. collaborator)
 - 30 proposals for further development
- **Proposal refinement process**
 - Online collaborations through August 2005

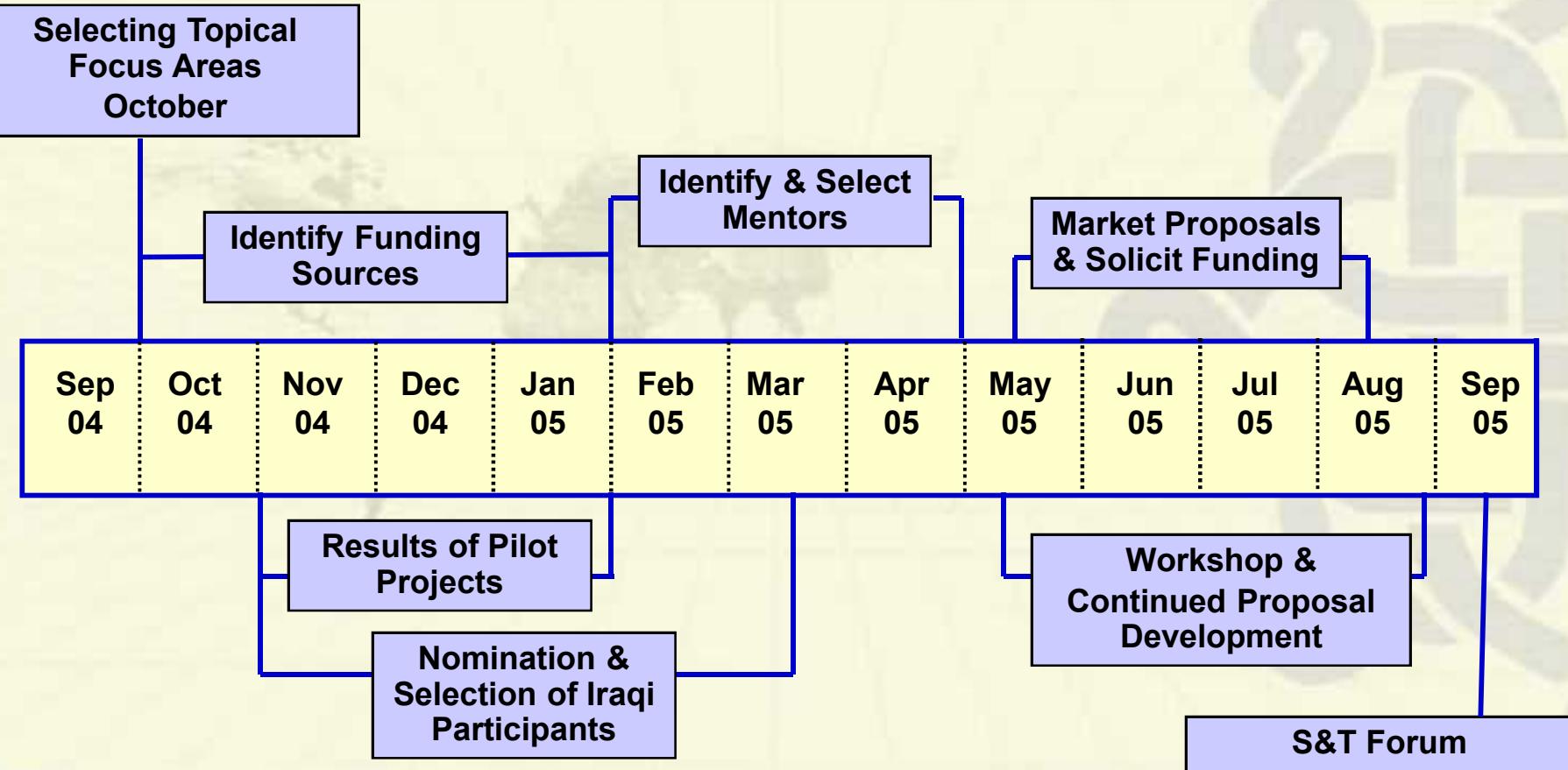


Phase 4: Forum

- **September 18-20, 2005 in Amman, Jordan**
- **Goals**
 - Present findings of initiative (Survey to current, Pilot projects, S&T developments)
 - Present Iraqi proposals for S&T projects
 - Identify areas where Iraq's S&T community can provide expertise to reconstruction projects
 - Announce international financial support for S&T in Iraq
- **Attendees**
 - Scientists and Engineers from Iraq
 - Iraqi Ministers and University Presidents
 - UN organizations
 - Arab League organizations
 - NGOs
 - USG personnel
 - ◆ DOE
 - ◆ DOS – STAS, OS, NP, Embassy personnel from Jordan & Iraq



FY05 Events & Activities



Focus for FY06

- **Funding projects**
 - Small scale projects in radiation safety & material science
 - Initial phases of metal recycling plant proposal (developed at May workshop)
 - Call for Energy proposals
- **Connecting Iraqis to ongoing projects**
 - USAID
 - WHO
 - CMC Projects
- **Promoting May proposals to potential funders**
 - Ministry of Municipalities and Public Works is negotiating with 2 of the PI's to fund water projects
 - DOE will fund a Material Science proposal
 - British Embassy considering 3 of the public health proposals
 - USAID considering the agriculture proposals



Current Challenges

- **Balancing the need to employ WMD scientists with project standards**
 - Funding the winning proposal vs. funding the winning proposal written by a former WMD scientist
 - Defining “WMD scientist” for Iraq
- **Securing funding beyond the DOE investment**
 - No financial support to date except for limited participation from Jordan's Higher Council for S&T
 - Expect others in near term, but have not materialized
- **Political visibility without endangering the Iraqi scientists**
 - Assassinations and kidnappings are part of the Iraqi's daily reality
 - US association can be problematic
- **Defining measures for success**

