



Middle East & North Africa

Science & Technology Engagement Program

SAND2012-0144P

Global Initiative for Proliferation Prevention – GIPP

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SNL Annual Symposium – Middle East & South Asia

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GIPP NA-242 Program Goals

Reduce proliferation risk through science engagement, capacity building, and addressing knowledge & technology dissemination

- Focus on capacity building in the Iraq & Libya science and technology community
- Reduce “brain drain” of skilled individuals
- Provide technical advice, direction, and training
- Create sustainable commercial ventures
- Integrate the Iraq & Libya science & technology populace into the international community

MENA – Engagement Activities

Libya

Iraq

**Former WMD Scientists,
Engineers, & Technicians**

Program Focus
Areas

- Research
- Training
- Business Development

Iraq – Engagement Activities

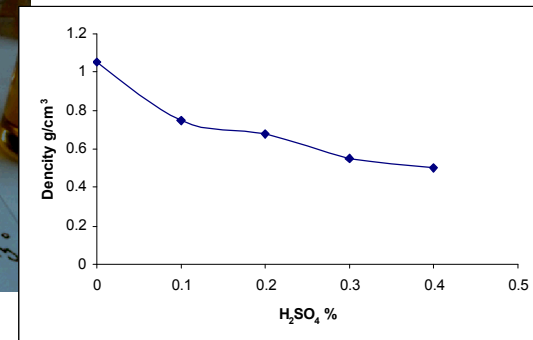
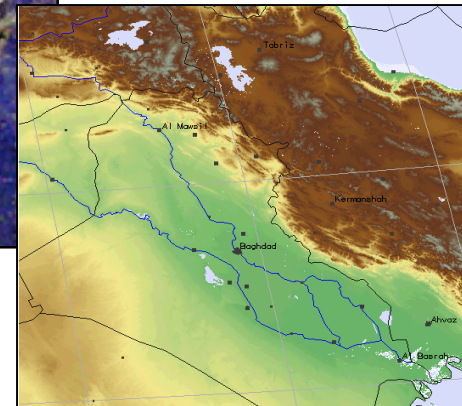


Iraq

- Research
- Training
- Business Development
- Commercialization

Iraq Research & Development Initiative (IRDI)

- **Research Projects**
 - \$15,000 – \$50,000
 - 1 Year duration
 - Dozens of Projects:
 - Energy
 - Environment
 - Materials
 - Water
 - Public health
 - Agriculture
 - Radiation safety



Iraq – Training & Engagement

- **Training**

- Variable cost & duration:

- Environmental sampling
 - Radiation safety & emergency response
 - Basic & Advanced food safety
 - Food irradiation
 - ISO 17025 certification for testing laboratories
 - Proposal writing
 - Business Development & Commercialization

- Possible future training topics

- Lab management
 - Safety of food additives
 - Chemical lab safety & security
 - Depleted uranium in the environment
 - Radioactive waste management



Iraq – Business Development Activities

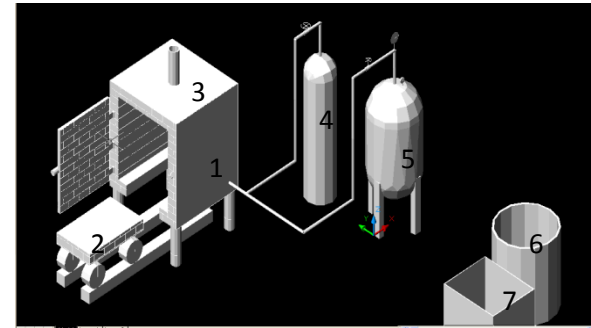
- **Small-Scale Business Projects**

- \$15,000 – \$100,000

- 1 Year duration

- Projects in:

- Solar energy
 - Material science & Alloys
 - Activated carbon
 - Ozone generation
 - Fire retardant building materials



Libya – Engagement Activities

(Completed)

Libya

- Research
- Training
- Field Testing

SNL – Libya Desalination Pilot Plant

- **Field Research Project**
 - Training
 - In US & Libya
 - Research Pilot Plant
 - Field Testing
 - Hands-on



(Completed)



Libyan Scientist Engagement Program

(Completed)



- US Department of State
 - US Department of Energy
 - Labs – NREL, LLNL, SNL

Looking Forward

Research &
Development

Business
Development

Training

Areas considering expansion:

- GIPP Program is being updated in 2012 to address:
 - New Regions – South Asia, Central Asia, others
 - Broader Threats
 - Wider Ages of Expertise
- New Applied R & D projects and areas
- Developing new Training topics & Engagement opportunities
- Commercialization of promising technologies