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The Middle East Regional Cooperation (MERC) Program

Nick Anthis

U.S. Agency for International Development
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Presentation Overview

- MERC Overview
 - What is MERC, and why does it exist?
- Applying for a MERC grant
 - How to increase your chances of success
 - How MERC puts results into practice
- MERC review criteria
 - Arab/Israeli cooperation
 - Relevance to development and impact
 - Technical merit and innovation
 - Management approach and capacity building



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MERC overview

What is MERC, and why does it exist?



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MERC Overview

Joint Arab/Israeli Research on Development Topics

- MERC supports Arab/Israeli cooperative research in a range of scientific disciplines.
- Each project includes at least one Israeli and one Arab institutional partner.
- Open to all topics, but investigators must demonstrate development relevance.
- The most common subjects for MERC projects are:
 - water resources
 - agriculture
 - environmental science
 - health & medicine



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MERC History

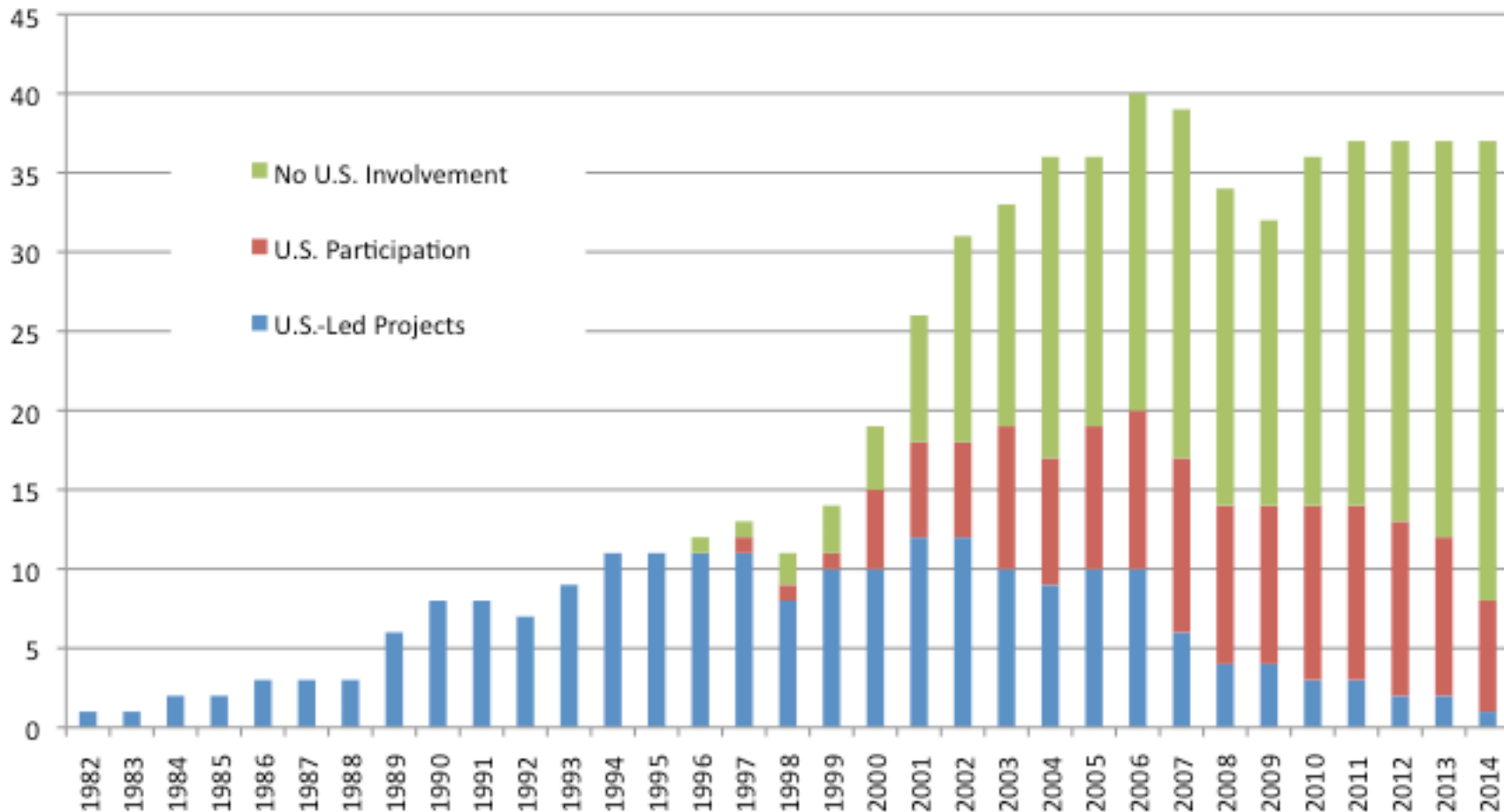
- 1978 Camp David Peace Accords
- 1979 MERC established by US Congress
 - » Egyptian/Israeli cooperation
 - » US-led projects
- 1981 First MERC grant
- 1993 MERC expanded to other Arab countries
- 1998 Changes to MERC program
 - » Scientific peer review introduced
 - » Move away from US-led projects (direct Arab/Israeli cooperation)
- 2006 Record number of active MERC projects (40)
- 2008 Record number of pre-proposals submitted (103)
- Today 30 to 40 active projects at a time



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MERC History

Number of active MERC projects by year



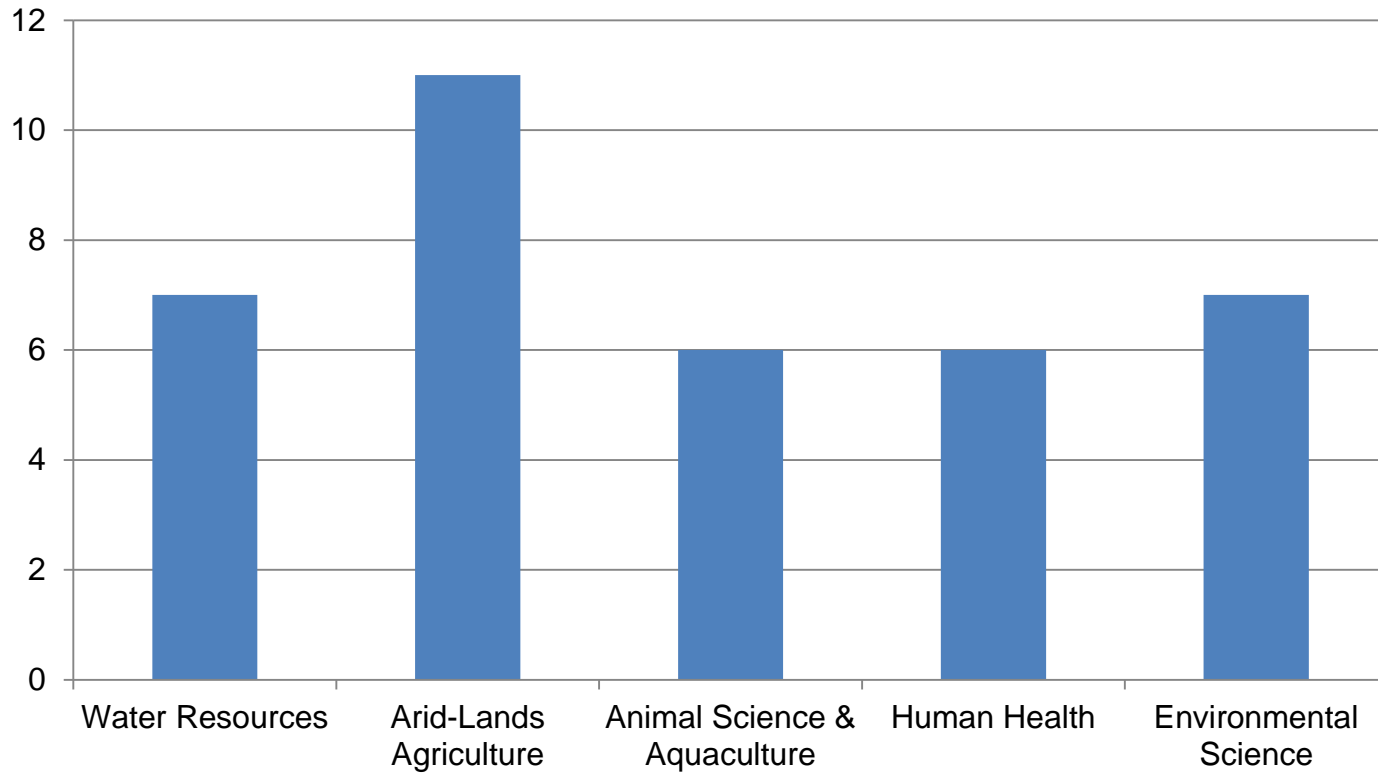
Total MERC budget/year: <----- \$7M/year -----> <----- \$5M/year ----->



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MERC Research Topics

Number of projects in each sector/field (2014)





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MERC Participating Countries



Other Arab countries are also eligible: e.g. Algeria, Yemen, Iraq, the Gulf States



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MERC Goals & Criteria

Goals

- Fostering enduring Arab/Israeli cooperative relationships:
 - Scientists/engineers, students, networks, institutions, wider communities, nations
- Building science & technology capacity in less affluent countries
- Producing development impacts across multiple sectors
 - Putting results into practice

Project Selection Criteria

- Direct Arab/Israeli cooperation
- Relevance to development and impact
- Technical merit and innovation
- Management approach and capacity building



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Putting Results Into Practice

Basic Research

→ Applied Research

→ Tech Transfer / Product Development

→ Outreach / Extension

→ Adoption

→ Sustained Use

→ Wide Impact

How can we achieve broader impact with a one-time applied research grant?

The MERC Approach:

- Tech transfer and outreach included in project
- Specific links to mechanisms/institutions that implement research results
 - e.g. donors, government, NGOs, or private sector institutions
 - require these links as part of review process *before* grant is funded
- Limited follow-on funds for tech transfer, implementation, or outreach

Goals:

- Short/medium-term local impact directly from project
- Leave in place mechanisms to produce further, wider impact
- Leave in place S&T capacity to define/address/solve future problems



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Examples of Recent MERC Projects

- Water
- Agriculture
- Health
- Environment

Many projects are multi-disciplinary





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MERC: Water Resources

- Olive irrigation with reclaimed wastewater
- Low-volume precision irrigation techniques
- Artificial wetland wastewater treatment technology
 - deployed in small village
- Membrane-based wastewater treatment technology
 - deployed village-scale pilot treatment facilities
- Measuring endocrine disrupting compounds in wastewater
- Solar-powered desalination with nanofiltration membranes
- Measuring natural radioactivity in aquifers
 - avoidance and remediation strategies adopted by authorities





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MERC: Agriculture

- Technologies for rapid detection of viruses infecting crops and livestock
- Developing tomatoes resistant to yellow leaf curl virus; developing tomatoes resistant to heat, salt, and drought
- Control of the Mediterranean fruit fly
- Integrated aquaculture and mariculture systems
 - spawning of grey mullet in captivity
 - wider implementation of aquaculture to reduce pressure on fish stocks
- Bee habitats, diets, and diseases
 - introduction of new beekeeping and honey production methods to over 2,000 farmers, beekeepers, and extension agents

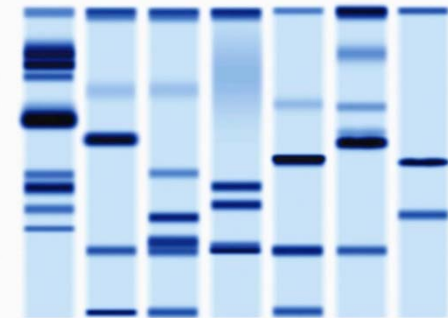




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MERC: Health & Medicine

- Mapping rare recessive genetic disorders
- Measuring exposure of pregnant women to pesticides; studying links between pesticide exposure and cancer
- Characterizing leishmaniasis parasites and their canine reservoirs
- Studying clinical and social factors leading to antibiotic resistance
- Reducing environmental lead exposure in children
- Developing physical therapy regimen for children with cerebral palsy
- Implementing smoking cessation program for high-risk youth





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MERC: Environmental Science

- Developing biodigesters to convert waste into biogas energy and compost
 - launched new company
- Identification of regional pollution patterns and the role of urbanization on air quality
 - developing policy solutions
- Seismic mapping and risk assessments of earthquake threats along the Dead Sea Rift
- Feasibility studies on the proposed Red/Dead conduit
- Building artificial coral reefs in the Gulf of Aqaba
- Studying effects of land development on biodiversity
 - identified several new species





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Applying for a MERC grant

How to increase your chances of success



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Why should you apply?

- MERC funds **open-topic, investigator-initiated research.**
 - up to \$1 million total per award
 - average ~ \$500,000
 - duration of 3 to 5 years
- MERC funds projects with that will **make a difference.**
 - targeting regional development impact within a decade
 - implementation and outreach plans developed as part of the application process
 - can apply for follow-on grants for technology transfer or outreach
- Additional benefits:
 - Long-lasting international **research partnerships**
 - Opportunities for **student training** and development



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MERC Application Process

- Two-stage process:
 - Pre-proposal
 - The first step is a short, 6-page pre-proposal.
 - Describes proposed research and relevance to regional development
 - Reviewed by the MERC Committee (USAID and State Department)
 - Full proposal
 - Successful pre-proposals invited to submit more in-depth full proposal
 - Reviewed by an external scientific peer-review panel
- Pre-proposals are usually due on **December 15th** of each year
 - One submission deadline per year
 - There is currently lots of time to put together a proposal before the next deadline!



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MERC: How to Apply

- Pre-proposal instructions online:
 - <https://www.usaid.gov/where-we-work/middle-east/merc>
 - Click on “Learn about the MERC funding process.”
 - Click on the link to download the instructions (pdf).
 - Submit applications by email:
 - merc.copies@gmail.com
 - 6-page description of proposed research and relevance to regional development
 - Please read the instructions carefully!
- Eligibility:
 - at least one Israeli institutional partner and at least one Arab institutional partner
 - Projects with three or more regional partners are encouraged.
 - The proposal may be submitted by any party in the collaboration.
 - Partners may come from academic, private-sector, non-governmental, or governmental institutions.



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Tips to increase your chances of success

- Read the guidelines provided by the MERC office in full.
- Make sure your proposal is:
 - Submitted by the deadline;
 - In full compliance with the MERC guidelines.
- Pay attention to all four criteria:
 - Strength and Durability of Arab/Israeli Cooperation
 - Relevance to Development and Likely Impact
 - Technical Merit and Innovation
 - Management Structure and Capacity Building
- Pay particular attention to the budget.
 - Most of the requested funds should be for the partner(s) in the developing country(ies).
- For full proposals, make sure all invitation conditions are fully addressed.
- Keep lines of communication open between partners.
 - All partners should have a substantial role in the proposed research and in drafting the proposal.
- If you have a question or problem, please contact us in advance:
 - Nick Anthis (me): nanthis@usaid.gov
 - General MERC email: merc.copies@gmail.com



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MERC review criteria

Arab/Israeli cooperation

Relevance to development and impact

Technical merit and innovation

Management approach and capacity building



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Strength & Durability of Arab/Israeli Cooperation

- The project should be a cooperative effort, not parallel programs.
- Both Arab and Israeli institutions should have full intellectual roles in the partnership.
 - All partners should have a substantial role in the proposed research and in drafting the proposal.
- Project should include frequent joint activities
 - Meetings, workshops, training of students through exchanges between countries
- The role of a U.S. partner, if any, must be very limited.
 - Must only provide technical expertise that is essential to the project and unavailable in the region.
 - U.S. partners cannot serve as buffers between partners.



Relevance to Development & Likely Impact

- Project should advance practical applications to development in the Middle East and North Africa
 - Address a key problem in the region
 - Potentially benefit a large number of people in the region
- Benefits should target countries and populations of limited income (rather than wealthier countries or groups).
- Project should include specific mechanisms to put the research results into practice
 - e.g. outreach to farmers or clinician, linkages to local or national government offices, linkages with USAID missions



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Technical Merit & Innovation

- MERC funds hypothesis-driven applied scientific research.
 - Proposed work must have clearly stated hypothesis and objectives
- Proposal must have a sound, credible step-by-step technical workplan
 - Supported by technical background and documentation of relevant previous work
- Work should explore original concepts
 - Advance the state of the science
 - Provide an innovative regional application



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Management Structure & Capacity Building

- Project should be led by qualified investigators
- Project should have an effective institutional management structure likely to achieve its stated goals
- Project should advance the research capacity of scientists, students, and institutions
 - training, equipment, mentoring
- Inclusion of junior investigators in project leadership roles is encouraged, where appropriate
- Broader impacts are encouraged:
 - Enhancing the capacity of the end-users of project technologies (e.g. farmers, rural communities, underserved patients)
 - Providing new tools and data to decision makers; influencing policy
- Project must be cost effective
- Budget must be primarily directed toward building capacity in the less affluent partner countries and communities



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Thank you for your attention!

- Questions? Feel free to contact the MERC program:
 - Nick Anthis (me): nanthis@usaid.gov
 - General MERC email: merc.copies@gmail.com
- Stay tuned for the next pre-proposal deadline:
 - Probably **15 December 2016**