

SECURING
WATER
FOR FOOD:
A GRAND CHALLENGE
FOR DEVELOPMENT



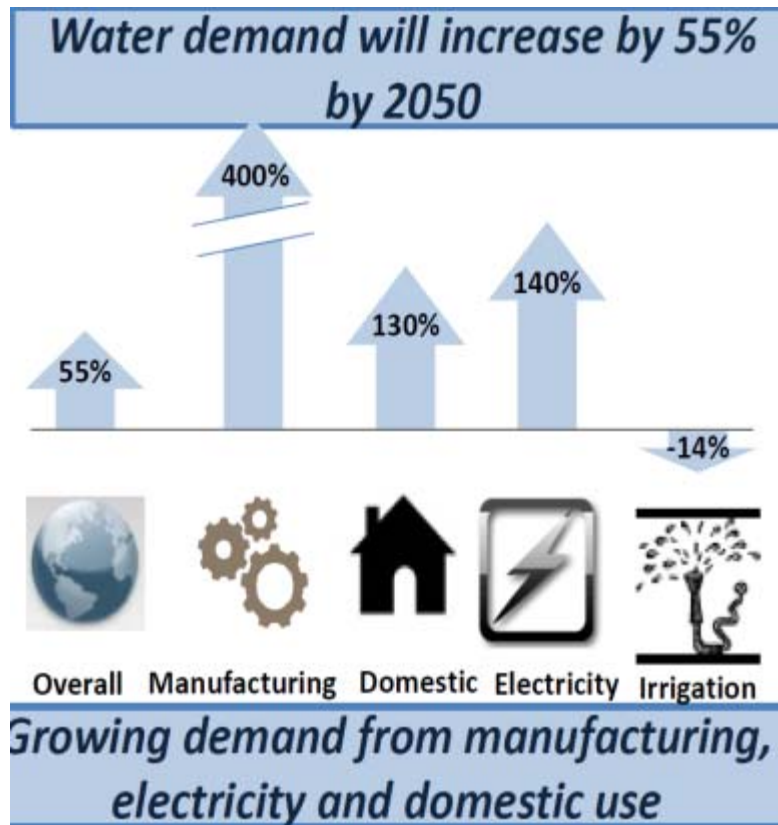
AIARD Session 5: Creative Models for the Future

Dr. Ku McMahan
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Challenges and Opportunities



- Water is the “petroleum of the next century” according to Goldman Sachs
- Developing country water markets are expected to grow by over 10% for the next 5-10 years
- Ag represents 70% of global water demand; 55% of traditional irrigation water is wasted
- Revenues of water-related businesses focused on disruptive technologies will grow from \$522B -\$1T by 2020



Securing Water for Food

- \$32 million Grand Challenge for Development funded by USAID, and Sida, and the Ministry of Foreign Affairs of the Kingdom of The Netherlands
- Water/Food nexus with 3 broad focus areas: Re-use, capture/storage, & salinity
- Goal: enable the production of more food with less water and/or make more water available for food production, processing, and distribution.
- Multiple “calls” for innovations
- Technology and business model innovations
- Financial and non-financial assistance to winners



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Securing Water for Food will:

- Develop/advance prototypes, products, and business models that can promote economic growth and community stability.
- Pilot/test solutions on-the-ground that will improve health and economic well-being of local communities
- Launch point solution prizes that can apply the most innovative technology to overcome key business barriers



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The Focus Areas:

New and Sustainable Water Solutions for the Food Value Chain

Salinity

- Low-Cost
- Low-Energy
- Brackish Water Focus/Reducing Saline Aquifers
- Small Community Systems
- Applicable to one or many parts the food value chain

Water Capture and Storage

- Low-Cost
- Low-Energy
- Applicable to multiple parts of the food value chain
- Improve Water Sustainability

Water Re-Use and Efficiency

- Low-Cost
- Low-Energy
- Reduce water demand in the food value chain
- Improve water use and crop yields



First call for innovations: BAA Round One

- \$15 million call for innovations in all three focus areas
- Innovators can come from nearly anywhere; implementation must take place in developing or emerging country
- Released November 2013
 - Concept Note submission closed January 2014
 - 83 Semi-finalists were announced on World Water Day- March 21, 2014
 - Winners to be announced September 2014
- Received 520 applications from over 90 countries



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BAA Round One Process:

Source

- Understand the state of innovation in our three focus areas
- Clearly define barriers that we're asking innovators to solve
- Focus on solutions that have been proven in full scale operational pilots

Select

- Convene diverse panel of qualified judges from private sector, academia, and government
- Judge applications on innovation, sustainability, and business viability

Scale

- Intensive financial and technical support to winners
- Mentoring from private sector coaches
- Structured pitch days with investor circles
- Rigorous media/PR effort to shine a light on most promising innovations



Key Barriers:

Objective

Increase private sector investment in water salinity, re-use, efficiency, capture and storage technologies development and deployment

Barriers

Lack of business models appropriate for developing world market

Distribution Systems aren't adequately disseminating water technologies

Difficult to find private investment to bring solutions to scale

Interventions

Provide funding for technologies and business model innovations

Build relationships between existing distributors and water tech companies and build new relationships through Water Innovation Accelerator

Incentivize private investment to scale solutions with risk mitigation and project development



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Round One Eligible Stages of Innovation





Round One Funding

- Awards made for “up to” amount based on stage in lifecycle

Stage of Innovation	Maximum Initial Financial Support	Maximum Future Financial Support (total)
Stage 1 – Validation	\$100,000	\$500,000
Stage 2 – Commercialization/Scaling	\$500,000	\$3 million

- Requires achievement of technical and financial milestones; we expect that not all innovators will get future financial support



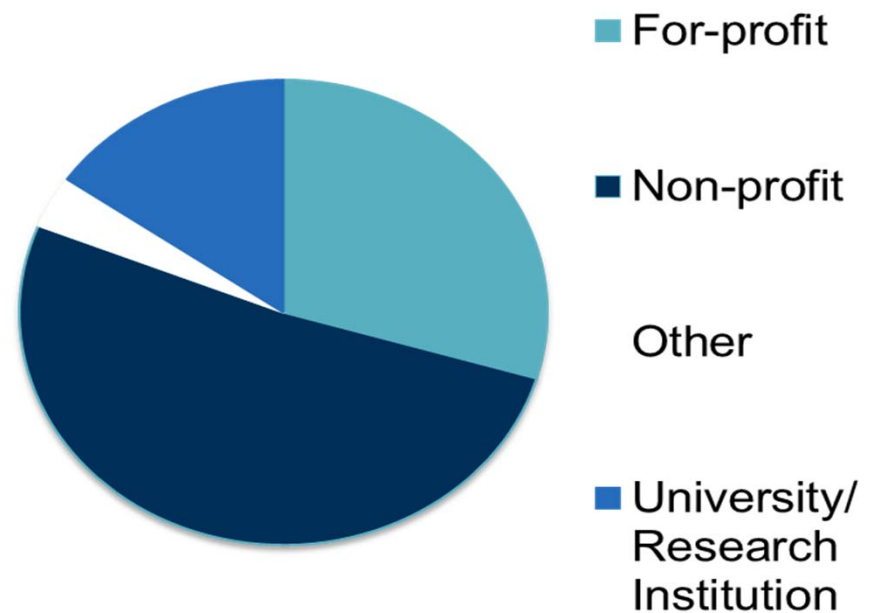
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Results

520
Applications

92
Countries

Types of Applicants





Acceleration Track

- \$3 million Acceleration Facility to help awardees reach technical and financial milestones
- Integrated acceleration track will include:
 - General business development – all awardees
 - Partnership facilitation – later stage awardees
 - Investment facilitation – later stage awardees
- Tailored acceleration workplans for all awardees specifying technical and financial milestones



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Round One Finalists

- Announced World Water Day (June 2, 2014)
 - 40 Finalists are collectively proposing to work in over 30 countries
 - Nearly 70% of the semi-finalists have proposed Stage 1 innovations; 30% have proposed Stage 2
 - Focus area concentration:
 - Water efficiency and reuse innovations: 41%
 - Water capture and storage innovations: 10%
 - Salinity/saltwater intrusion: 10%
 - Several have combinations of one or more focus areas
- Please see www.securingswaterforfood.org for full list of semifinalists, including country of implementation



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Second call: The Desal Prize

- Water demand growing beyond fresh water sources
- Existing brackish water desalination devices face many challenges:
 - High-energy use / cost
 - Non-sustainable brine waste disposal strategy
 - Low % recovery of product water
- Goal: develop single device that contains the functionality to provide potable water for humans and water appropriate for livestock and crops



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The Desal Prize

- Approximately \$1 million prize to develop workable prototypes for small-scale multi-use desalination
- Launched World Water Day (March 21, 2014)
- Semi-finalists will be announced September 2014
- Additional support from the US Bureau of Reclamation
- Launching the prize with Request for Information (RFI) to gather input on technical criteria. Technologies must:
 - Be appropriate for small-scale household and farm-use implementation
 - Provide water quality suitable for human consumption, livestock watering, and crop irrigation
 - Be powered by renewable energy to provide an affordable and autonomous desalination unit appropriate for developing and emerging countries
 - Be environmentally sustainable and minimize brine waste



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For more information, please visit

www.securingswaterforfood.org

**Thank you!
Any Questions?**



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