



Concept Note

What is *Securing Water for Food: A Grand Challenge for Development*?

On September 2, 2013 in Stockholm, the United States Agency for International Development (USAID) and the Swedish International Development Cooperation Agency (Sida), (collectively, the “Founding Partners”) will launch *Securing Water for Food: A Grand Challenge for Development (GCD)*. **This is the third GCD that Sida is supporting in partnership with USAID’s Office of Science and Technology. It is a demonstration of our continued commitment to stimulate science, technology, innovation, and entrepreneurship.**

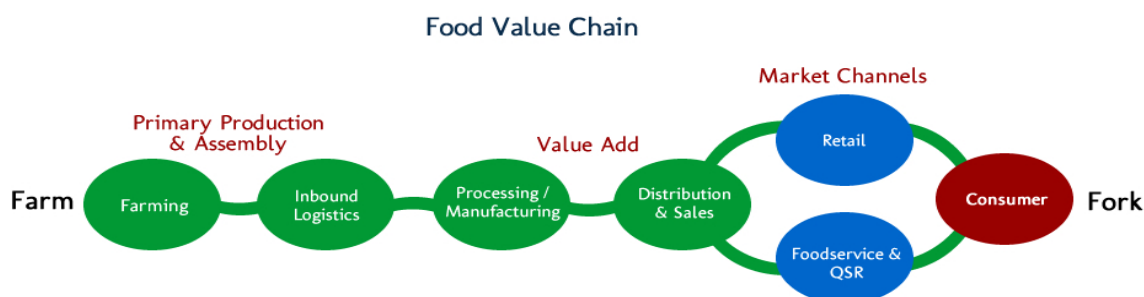
Through this GCD, we will identify and accelerate science and technology innovations and market-driven approaches that improve water sustainability to boost food security and alleviate poverty. We are focusing on three areas that are critical to reducing water scarcity in the food value chain:

- **Water Efficiency and Reuse** will become a greater necessity as water availability is threatened by competition between industrial, agricultural, and energy uses. Improving water efficiency and reuse in the food value chain has tremendous potential water-saving benefits that will have multiplier effects at various levels of the economy.
- **Water Capture and Storage** is in high demand in many regions where rain occurs at limited times. With projected variations due to climate change and increased pressure on agriculture production, the ability to store water during dry periods will become even more relevant.
- **Saltwater Intrusion**, especially in coastal aquifers or deltas and estuaries – as well as the increased need for marginalized farmers to irrigate with water containing high levels of salt – is a major threat to sustainable food production. Aggravating this basic condition is the forecasted rise in groundwater, delta, and estuarine salinity, which must be addressed to protect the food value chain in coastal communities where more than 30% of people live.

Why Are We Trying to Secure Water for Food?

Water scarcity is one of the most pressing development challenges of the early 21st Century.

Approximately 2.8 billion people – more than 40% of the world’s population – live in river basins impacted by water scarcity. Nearly half live in areas of physical scarcity, where demand is greater than the available supply; the remaining 1.6 billion face economic water scarcity, where institutional, financial and human factors limit access to water despite an available natural supply. Both physical and economic water scarcity can lead to negative outcomes related to health, agricultural productivity, environmental degradation and growth of the commercial and industrial sectors. Between 2000 and 2050 water demand is projected to





increase by 55% globally, meaning that the number of people impacted by water scarcity and stress will continue to rise. Most importantly, more than 70% of global water use occurs in the food value chain.

Technological and business model innovations could substantially reduce water scarcity. Many of these innovations already exist, but are not reaching developing and emerging countries due – in part – to:

- The high cost and/or inappropriate design of technologies for use in low-resource settings;
- Poorly developed supply chains;
- Lack of distribution networks;
- High upfront investment costs;
- Lack of confidence that developing countries have the market mechanisms necessary for growth;
- Absence of proper financing tools;
- Limited access to information that would enable entrepreneurs to make informed investment, management, and marketing decisions; and
- Lack of information about and training on how to use the technologies.

Together, We Can Change This

Who Are We Engaging?

We want to find and support the best science-and technology innovators, entrepreneurs, businesses, students, and other organizations that can help solve this Grand Challenge for Development. Innovators can come from anywhere in the world. Implementation must take place in a developing or emerging country.

What Will the First Round of the Program Look Like?

The Founding Partners will select up to 30-40 winners in the first round of competition, based on a rigorous evaluation process. Winners will receive funding and acceleration support. Our strategy for *Securing Water for Food* includes the following core elements:

- **All innovations must be sustainable.** Our goal is to use our resources, not as a subsidy, but rather as a resource to catalyze investments by others. All *Securing Water for Food* innovations must be sustainable (financially, institutionally, environmentally, technologically, and socially). In addition, applicants must directly or indirectly benefit the poor (i.e. increased income, increased adoption of products or services, increased economic opportunities) and must avoid negative environmental effects and negative local market distortions.
- **We want to facilitate market-driven partnerships:** *Securing Water for Food* will facilitate partnerships between entrepreneurs, investors and funds, corporations, and others to accelerate innovations by building business-to-business and business-to-customer relationships, as well as buyer/supplier and distribution connections.

SECURING WATER FOR FOOD:

A GRAND CHALLENGE
FOR DEVELOPMENT



- **We want to leverage market-based financing:** Funding provided by the Founding Partners under *Securing Water for Food* will be milestone-based. Additionally, all winners will be required to have market-based matching funds.
- **Local presence is critical.** Successful applicants must either already have presence in a developing country, or identify a local partner with whom they will work.
- **We want to stimulate innovative financing to scale water technologies and businesses.** We anticipate using investment bridges, credit guarantees, advanced market commitments, and other innovative mechanisms to support the commercialization of water generation, storage, salinity reduction, and more efficient end-use technologies in the food sector.
- **We believe that scale doesn't happen through financial support alone:** *Securing Water for Food* is our fifth Grand Challenge for Development. In no previous Grand Challenge have we found financial support to innovators to be enough. We have therefore built a robust, hands-on acceleration “track” into the fabric of *Securing Water for Food*. This will include a mix of hands-on acceleration work planning, one-on-one mentoring/coaching, facilitation of debt and equity financing, and facilitated participation in Investors’ Circles, marketplace presentations, trade shows, and technology fairs. Additionally, we anticipate providing financial support to business acceleration entities or brokers that will deliver technical assistance to water innovators.

What Will We Fund in the First Round of the Program?

We are looking to source, fund, and accelerate the development of scientific, technological, and business innovations that will enable us to secure water for food. We will fund innovators that exist in two “stages” of the innovation lifecycle:

- **Stage 1, Validation:** This targets innovations that have been verified in at least one market and now need to be tested and adapted to a different developing or emerging market and/or that need input from the industry or potential clients to confirm acceptance and technical viability.
- **Stage 2, Commercial Growth/Scaling:** These innovations need support for commercial growth. This may include efforts to adapt the innovations for larger scale production, market adoption, and distribution.

I Have a Great Innovation. When Will I Find Out More?

The Founding Partners anticipate issuing multiple “calls for innovations” for *Securing Water for Food*. The first “call” will be released in *draft form for comment* in conjunction with the launch at World Water Week in Stockholm in September 2013.