

# From Silos to Synergy: The Global FEW Alliance and the Nexus Approach in Action

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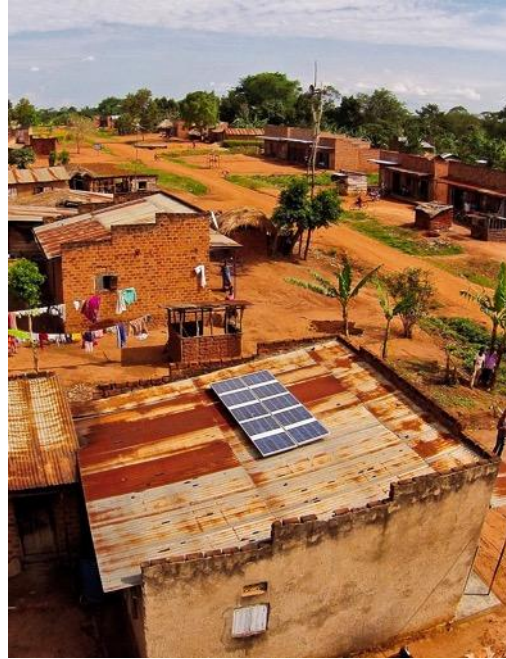
Director, Global FEWture Alliance, CONSERVE Center, UMD Global STEWARDS NSF NRT

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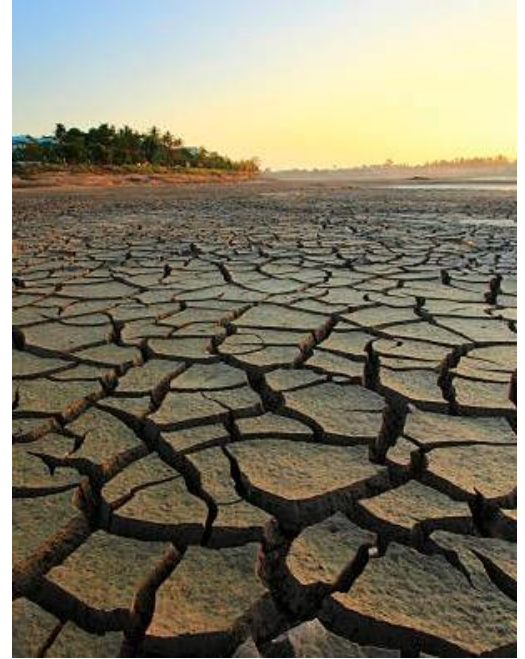
# Global Grand Challenges



**1.2 BILLION**  
Food Insecure

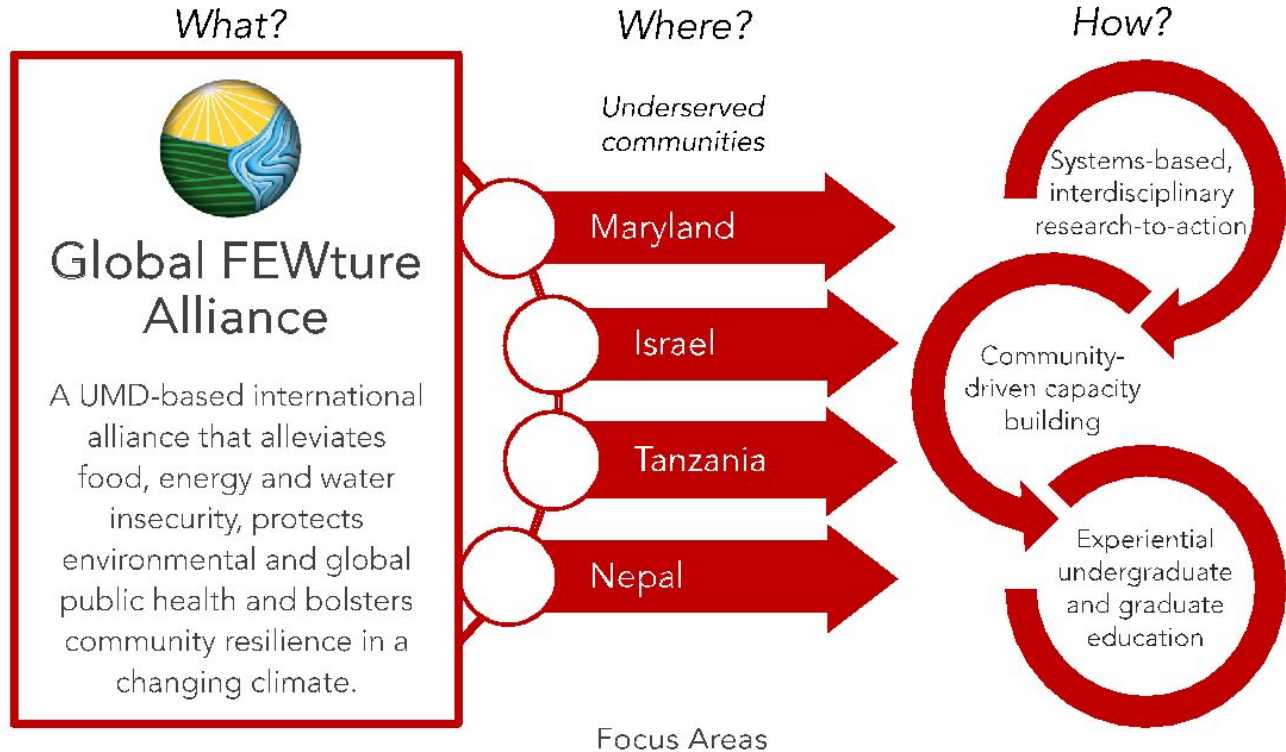


**750 MILLION**  
Energy Insecure



**2.2 BILLION**  
Water Insecure

# Global FEWture Alliance: At a Glance



*Water reuse and ingenuity • Horticultural innovations • Renewable energy technologies  
Bioprocessing • Decision support and early warning systems • Socio-behavioral drivers and barriers  
Economic, regulatory and governance drivers and barriers*

# Global FEWture Team Leaders



## Seven UMD Schools and Colleges, To Date

SPH AGNR ARCH APHL PSOS CMNS,



## Six International Institutions, To Date

Israel, Tanzania, Nepal



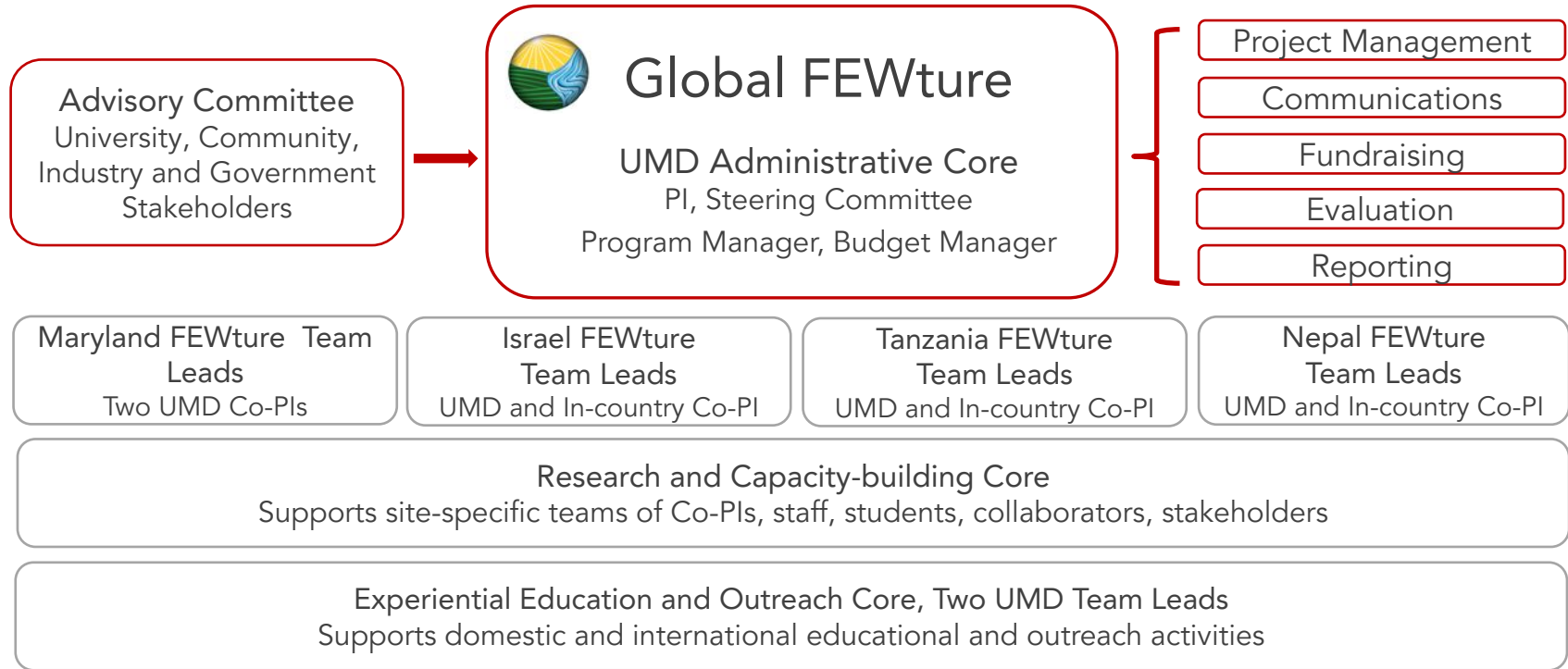
Initial work in four  
countries



# Communities and Stakeholders



# Organizational Structure



# Overarching Objectives

## Admin Core

**Objective 1, Coordination and connectivity:** To improve connectivity among UMD units, international partners and key stakeholders engaged in FEW-related work

## Research & Capacity Building Core

**Objective 2, Research-to-Action:** To carry out systems-based, interdisciplinary research that supports technology-based and policy solutions at the FEW nexus

**Objective 3, Community-Driven Capacity Building:** To leverage the partnerships and knowledge generated through Objectives 1 and 2 to foster community-driven capacity building approaches that result in networks of trained professionals with multi-sectoral knowledge in FEW solutions and increased self-determination among key local stakeholders

## Education & Outreach Core

**Objective 4, Experiential Education and Outreach:** To translate the knowledge and experience generated through Objectives 1, 2 and 3 into high-quality experiential educational and outreach programs that will teach, train and inspire the next generation of changemakers at the FEW nexus



# Example Outcomes & Highlights Since Program Inception

## Fundraising

- Submitted 41 external proposals
- 17 funded (\$22.1 million), 12 pending

## Communications

- Developed 28 news articles/videos

## Coordination & Connectivity

- Hold symposia, conferences
- Host monthly international webinars
- Organize multiple team visits

### RESEARCH UMD Researchers Help Hyattsville's Food Forests Look to the 'FEWture'

Pawpaws, Persimmons and Beach Plums: Edible Ecosystems to Become More Resilient

By Heidi Scott '09 / Sep 22, 2023





# Example Outcomes & Highlights Since Program Inception

15 ongoing projects in Maryland (5), Israel (3), Tanzania (3), and Nepal (4)

## *Example: Maryland FEWture*

- Baltimore City: Rainwater Harvesting at Plantation Park Heights Urban Farm
- Designed and built an updated rainwater harvesting and treatment system

## *Example: Israel FEWture*

- Bedouin Community outside of Be'er Sheva, Israel: Off-Grid Hub at Al-Furaa Regional School
- Established an off-grid hub based on a FEW nexus framework

## *Example: Tanzania FEWture*

- Dodoma, Tanzania: Unlocking the grape value chain in Dodoma
- Established 6 more demonstration sites reaching >1,000 farmers

## *Example: Nepal FEWture*

- Namobuddha, Nepal: Off-grid wastewater treatment at Shree Janak School
- Built Laguna system and conducted baseline sampling



# Example Outcomes & Highlights Since Program Inception

## Expanded UMD Global STEWARDS Graduate Program:

- *Five elements:* 1) Experiential coursework; 2) Webinars; 3) Summer Boost; 4) Winter Amp; 5) Student-led committees
- Supported SPH doctoral student in Tanzania
- Currently, piloting a graduate global classroom

**105  
Grad  
Student**

## Launched UMD Global STEWARDS Undergraduate Program:

- *Three elements:* 1) Experiential coursework/global classroom; 2) Webinars; 3) Summer internship or res

**162  
Undergrads**

## Massive Open Online Course (MOOC)

- Developing Coursera MOOC, “*Our Global FEWture: The Food-Energy-Water Nexus in a Changing Climate*”

I would like to express my sincere gratitude for bringing [this] course to Tanzania...The course has been incredibly enriching, and we have all enjoyed gaining new knowledge and insights...We are truly grateful for the opportunity! –Nicolaus Morisi



# Acknowledgements



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**Thank you**