# ADVOCATING FOR WATER EFFICIENCY, SAFETY AND RESEARCH

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## DISCUSSION OUTLINE

Our Global Water Challenges

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Access to Safe Water Water Scarcity & Climate Change Declining Water Quality/ Pathogens Research Needs

Putting Tools in Our Toolboxes

Emerging Technologies Standardization Workforce Development Women Needed ?

#### What's Your Role?

Get In the Game!

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**Research Needs** 





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#### What's Your Role?

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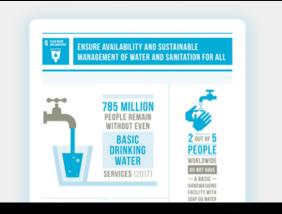




# arcentage of population using an unimproved drinking water source 11-20 =>20 Insufficient data or

Challenges

## Access to Safe Water and Sanitation



- United Nation's Sustainability Goals
- IAPMO / IWSH Foundation ulletadvocates to government and NGO's alike for grants
  - Get help with grant writing if you need it
  - Getting the first one is the toughest
  - Nail it! ullet

# Olobal Water Challenges



IWSH Foundation gaining experience!

- Consider Domestic and International projects
- Build a diverse team of

volunteers 당

- Push-Pull does it!
- Talk it up!

Access to Safe

Water and

Sanitation

**IWSH**O

 Utilize efficient products available locally
certified to international

standards

Build local skills!









Global Water Challenges

Legionella



Declining Water Quality / Pathogens

#### **Research Needs**



#### Be aware of unintended

consequences!

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- grossly oversized distribution and plumbing systems
- Increased diversity in materials
- Participate in the development of standards
- Advocate for water teams trained on risk management strategies
- Work with regulators on enforcement





Challenges

Research Needs



In for the the long haul! NIST report on the way!

- Don't go it alone Build coalitions!
- Be persistent and don't rush to judgement
- Water is apolitical!
- Be clear in what you want
- The hard part... Getting the \$  $\bigcirc$

### o Global Water Water Challenges



hallenges Water Scarcity



## Every Continent on Earth is impacted by water Scarcity

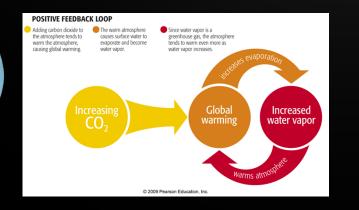
- Physical water scarcity inadequate water sources, ~20% of human population<sup>1</sup>
- Economic water scarcity lack of investment in infrastructure  $\sim 25\%$  of human population<sup>1</sup>

1. United Nations Development Programme

# o Global Water Challenges



Climate Change



# Climate change is making our job more difficult

- Increasing droughts, more severe storms, flooding
- ~35% all wetlands disappeared between 1975 and 2015<sup>2</sup>
- Increased water vapor in the air creating feedback loop
- Displaced populations lacking water and food.

2. Global Wetland Outlook by the Ramsar Convention, a globally treaty ratified by 170 countries

o Global Water Challenges



Water Scarcity and Climate Change



Advocating for water scarcity is relatively easy -Advocating for Climate Change is tricky... depending on who you're talking to

- Know who your advocating to and tailor your messages
- Don't forget World Plumbing Day!



## **Embrace Industry!**

- Support new technologies in standards & codes
- Standards lead the way, but participation is lagging
- SDOs need your knowledge
- Participate at conferences and symposiums ()

Putting New
Tools in Our
Toolboxes



Workforce Development

**Women Needed** 



Support training programs, build skills! () Advocating for Workforce Development has been a success!

- Politicians universally support
- But, need to start earlier
- Show me the money!



Pipefitter, Fabricator, Plumber, HVACR Tech GREAT SALARIES!

Take home annual salary by job title based on 2,000 hrs/yr.\*



Salary info according to Collective Bargaining Agreement between UA of Journeymen & Apprentices of Plumbing & Pipefitting Industry of the U.S. & Canada, UA 400 Pipe Trades, MCA & All Independent Signatory Contractors.

# Putting New Tools in Our Toolboxes



Workforce Development



### Women Needed



# Women remain underrepresented in the plumbing trades!

- Women plumbers report high job satisfaction
- Excellent advancement potential
- No wage gap!
- Profound need in developing nations

