

Journey to Water

A walking meditation

The impacts of climate change on the lives of women in the world's arid regions

Nichols Arboretum March 27-29 and online at nickt80.wixsite.com/scienceclimateaction

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Climate Change and Water Scarcity

- **Climate change is increasing water scarcity in arid regions across the world because of decreasing water availability and quality**
 - **By 2025 1.8 billion people will be experiencing absolute water scarcity and two thirds of the population will be dealing with water stress that interferes with daily life**
 - **80% of illness in developing countries is attributed to unsafe drinking water**
 - **3 million people every year die from waterborne illness**



Water Scarcity as a Gendered Issue

- In many communities it is often the responsibility of women to gather water
- Therefore, increased water scarcity caused by climate change has a disproportionate impact on women
 - Physical dangers
 - Sexual harassment and assault
 - Attacks by animals
 - Health issues
 - Waterborne illness
 - Physical strain



“A Walking Meditation”

Project goal:

- Inspire thoughtfulness about climate change, water scarcity, and gender roles in arid regions

The project components were:

- A series of informational signs demarcating a “journey to water”
- An ending point with two water buckets painted to match signs which visitors were encouraged to lift
- A website with more information, links to other resources, and copies of our signs and references allowing others to re-create the installation elsewhere.





Roughly one third of the global population faces water scarcity.

Climate change is worsening water stress, especially in rural, low-income communities.

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The impacts of climate change on the lives of women in the world's arid regions

In many regions, the burden of scarcity falls to women and girls, who must walk increasingly long distances to collect water.

Follow these signs to learn more about their journeys along your own walk.



**Journey to Water:
A walking meditation**



Climate Change and Water Scarcity

Climate change is causing:

- An uptick in catastrophic weather events that threaten to destroy or contaminate water sources
- Rising ocean levels leading to freshwater salinization
- Warming temperatures that promote contamination of water sources with dangerous pathogens
- Regional decreases in rainfall, affecting water availability, particularly in already arid regions



QR code directed visitors to website



By 2025, 1.8 billion people will be living with severe water scarcity.

5 billion will contend with water stress that affects their daily lives.

Journey to Water: A walking meditation



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77% of school girls in Durganati are responsible for collecting water, often travelling 2-12 km to do so.

Maasai women frequently carry 50 pounds of water on their trips to water which can take from 1 to 2 hours and occur 4 times daily. These

Spinal injury, arthritis, and the contraction of water-borne diseases are common consequences of water collection duties with longer distances leading to heightened risk.

The Role of Women

Women and girls frequently serve as designated water carriers in many global regions.

They therefore tend to experience the burden of climate-caused water scarcity. They are spending more time walking to and from water sources, exposing them to risks of disease, injury, and violence and taking time away from occupational or educational opportunities.



The costs of climate change are not equally distributed...

Journey to Water: A walking meditation



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Scan the QR code or visit the URL above for more information on this art installation

Climate change is already profoundly affecting lives all over the world.



What will you do?

You have now reached the metaphorical end of your journey to water. Below you will find a bucket, similar in weight to full water vessels carried by women in sub-saharan Africa and other arid regions.

We invite you to lift it, imagine carrying it back your your journey's start, and reflect on the many ways we rely on easy access to water in our lives here.

Installation



Installation occurred March 27 on a busy day at the Arb

Water collected from Huron River and carried to installation endpoint

De-installation at the end of day March 31 (today)

Website



Home

Create your own installation

References

Installation Photos

Where

Photos of the Installation



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March 26 - 28, 2021

Science-Climate-Action
Project

University of Michigan
Nichols Arboretum

Gillian Moore
Anjali Thakker
Nick Tschlis

Interested in replicating this installation?

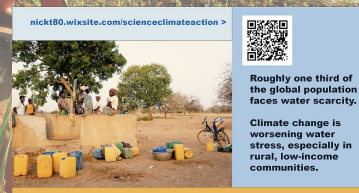
Use our informational signs in your own installation to spread awareness about climate change and water scarcity:

nick180.wixsite.com/scienceclimateaction >

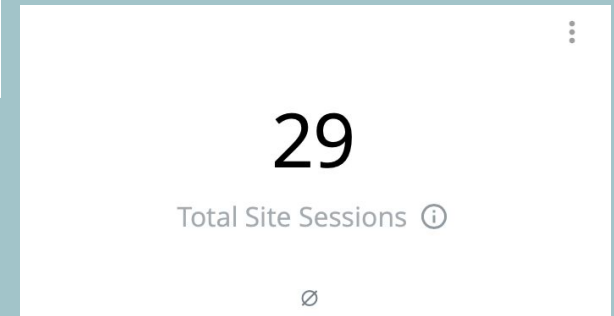
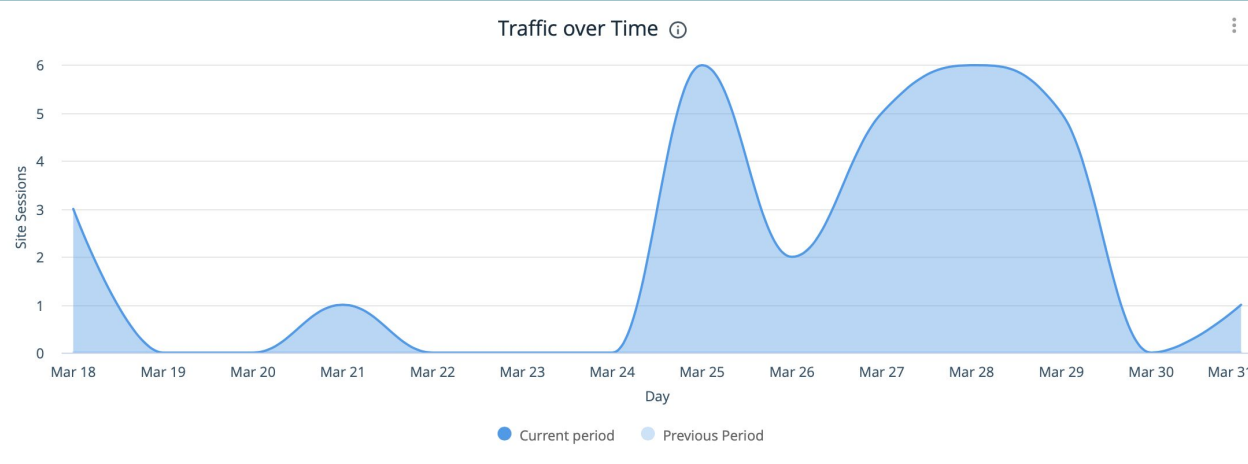


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Project in Review: Website analytics



- **Our website has had 29 site sessions (so far) from 12 unique visitors**
- **24 sessions were initiated directly from the QR code on the signs**

Project in Review: Lessons Learned

- **A physical installation coupled with a website was an effective means of communicating the information we wished to convey**
- **The project successfully motivated unsuspecting passers-by to consider the effects of climate change on vulnerable populations**
- **Utilizing multiple mediums for this installation allowed for individuals to have diverse experiences interacting with it**

References and Images

Additional Resources

Abedin, Md Anwarul, Abedin, Md Anwarul, Collins, Andrew E, Collins, Andrew E, Habiba, Umma, Habiba, Umma, Shaw, Rajib, et al. (2019). Climate Change, Water Scarcity, and Health Adaptation in Southwestern Coastal Bangladesh. *International journal of disaster risk science*, 10(1), 28–42. Beijing: Beijing Normal University Press.

Graham, J. P., Hirai, M., & Kim, S. (2016). An analysis of water collection labor among women and children in 24 sub-saharan african countries. *PLoS One*, 11(6)
doi:<http://dx.doi.org.proxy.lib.umich.edu/10.1371/journal.pone.0155981>

Sultana, F. (2018). Gender and Water in a Changing Climate: Challenges and Opportunities.

Zolnikov, Tara Rava. (2016). My Walk to Water. *American journal of public health* (1971), 106(4), 623–624. Editorial, United States: American Public Health Association.

See also:

<https://www.unicef.org/stories/water-and-climate-change-10-things-you-should-know>

<https://www.unwater.org/water-facts/climate-change/>

<https://blogs.ei.columbia.edu/2019/09/23/climate-change-impacts-water/>

Photo Captions in Order of Appearance

1. Collecting the morning drinking and cooking water at the central pump in Kinseré, Burkina Faso. 2012.

2. (Background) A Peace Corps Volunteer operating a water pump in Lanfiéra, Burkina Faso. 2012

3. Washing clothes in Koumbara, Burkina Faso. 2011.

4. (Additional Resources Background) Broken irrigation pump on the Sourou River near Koumbara, Burkina Faso. 2012.

5. (Reference Page Background) Approaching rainy season storm in Koumbara, Burkina Faso. 2013.