

# SEEVA

MAY 2021

**INSIDE**  
HEADING OFF  
GLOBAL  
WARMING

  
TOTAL  
MOM SENSE

BEASTS IN  
HER BELFRY

**PLUS**  
RIGHT ON  
THE MONEY

**THE MEASURE OF A MOTHER**  
**NANDANA SEN**  
ON HER LEGACY

# WATER WISE



PHOTO CREDIT: Children's Climate Prize

*Young Shreya Ramachandran is creating a more sustainable water future through The Grey Water Project*

**BINDU GOPAL RAO**

At the peak of a California drought, Shreya Ramachandran, 17, visited a particularly hard-hit county in central California. She spoke to people who were trucking in water even for their basic needs. Her heart broke when she heard stories of failed harvests and abandoned homes.

Soon after, while visiting India, Ramachandran met South Indian farmers who described how the monsoons had failed them for years. “The farmers had to abandon their ancestral lands and move to the cities to find whatever work they could,” she says. “It was through talking to



Shreya Ramachandran demonstrates the use of water filters at Ardenwood Elementary School

these people and hearing their stories that I realized what a global issue water scarcity is and how it was destroying lives.”

Ramachandran started The Grey Water Project in 2016 to create a more sustainable water future. Through the nonprofit, she encourages people of all ages to act, learn about and protect one of the most important resources ever.

Her goal was to find a way to reuse grey – or waste – water from irrigation. Approximately 60% of the used water in a home is uncontaminated waste water – or grey water. Reusing this

**“AFTER YEARS OF WORK, I FOUND THAT GREY WATER FROM SOAP NUTS WAS INDEED SAFE TO USE FOR IRRIGATION AND IT IS A VALID DROUGHT SOLUTION”**

outdoors could save large amounts of water. “I found that grey water often became unsuitable for reuse because there are harmful chemicals in soaps and detergents,” Ramachandran says. “That is why I was interested in testing soap nuts. I found out about them from my grandma, who wanted to use them to wash my hair. Instead, I made soap out of them and used it as a laundry detergent. My central question was, can soap nuts be an alternative laundry detergent whose grey water can be re-used for irrigation?”

“After years of work, I found that grey water from soap nuts was

indeed safe to use for irrigation and it is a valid drought solution,” Ramachandran says. “However, irrigation from grey waters with high levels of heavy metals like boron or containing soluble salts, like powder detergents, can be detrimental to plant health. It is important to be cognizant of the type of detergent you are using when reusing grey water, but my research shows that grey water reuse can be a solution. Furthermore, in addition to soap nuts being biodegradable, you can also reuse each nut up to ten times. They are cheaper than any organic or non-organic conventional detergent.”

Ramachandran conducts workshops and presentations for local, national and international audiences to demystify grey water reuse and encourage people to act.

“In my workshops for adults, I explain how to install simple no-permit grey water systems,” she says. “To younger students I explain the importance of water conservation and how to make an impact.” When Ramachandran started her project she knocked on doors and did workshops at every library and community event she could.

She also conducts water challenges that encourage people to reduce their household water use. Currently she is working on the Climate Ambassadors program. It teaches environmental leadership skills, public speaking and media communication, and the science behind solutions for various challenges caused by climate change. The ambassadors will also be given the tools to implement change in their own communities.

Ramachandran has also developed a Next Generation Science Standard aligned curriculum on grey water reuse that teaches students about grey water reuse and water conservation,

## “I WANT TO CONTINUE TO BE AT THE FOREFRONT – FIGHTING FOR A BETTER WATER FUTURE”



where their water comes from, how it is used in a home, and where it goes. She says during the pandemic she modified many hands-on activities for an online setting.

Ramachandran’s efforts won her the Children’s Climate Prize 2019 which acknowledges the importance of working on water issues. The

award also gave her a platform to reach people she usually could not.

Water scarcity is one of the most devastating effects of climate change, and one of the greatest issues facing today’s generation.

“I want to continue to be at the forefront – fighting for a better water future,” says Ramachandran.



## “IN MY WORKSHOPS FOR ADULTS, I EXPLAIN HOW TO INSTALL SIMPLE NO-PERMIT GREY WATER SYSTEMS”