

Small Island Developing States -Resilience in the face of Climate Change

Farah Nibbs, Graduate Student- Sustainable Construction, SUNY-ESF

ABSTRACT

Small Island Developing States (SIDS) together bear little responsibility for climate change, but their socio-economic, geographical and climate profiles make them particularly vulnerable to its impacts. The Alliance of Small Island States (AOSIS) has noted that “Climate Change is the single biggest long-term threat to the existence, human habitats, natural resources and economic prosperity of small island and low-lying coastal states.

The 2017 hurricane season has shown just how vulnerable SIDS have become. Hurricane Maria was the second major hurricane to crash into the Eastern Caribbean region in less than two weeks. Barbuda (of the twin island-nation, Antigua-Barbuda) was left like a pile of “rubble,” and for the first time in 300 years, the people of the island of Barbuda had to be completely evacuated. Puerto Rico and the U.S Virgin Islands were also severely damaged along with the island of Dominica. Dominica was so severely destroyed that the Prime Minister Roosevelt Skerrit, declared that “Eden is broken,”. He further pointed out to a UN audience that Dominica, an island with a population (73,000) already diminished by previous disasters, had paid the ultimate price for climate change.

In order to address the impacts of climate change, SIDS most effectively are using adaptation methods. Adjustments are being made in ecological, social, infrastructural and economic systems to respond to the actual and expected changes in climate, with a view to moderate damages.

One of the most vulnerable sectors within SIDS is its water resources. Climate impacts, coupled with expanding populations, high rates of urbanisation and water intensive economic sectors like tourism and agriculture, places further pressure on the island’s water supplies. Rainwater Harvesting (RWH) is therefore a vital low cost and low technology water supply augmentation method and is a means to improve resilience to water related climate impacts.

For SIDS, prone to earthquakes, volcanoes and yearly hurricanes, ferrocement-biosand rainwater tanks, offers an ideal and cheap solution to households and communities for the improvement of water security and resiliency in the face of climate change.

BIOGRAPHY

Farah is a graduate student at SUNY ESF, doing a Masters degree in Environmental engineering specializing in sustainable construction.

The focus of her master’s project is in creating a sustainable and affordable rainwater harvesting system for small island developing states (SIDS) and remote rural communities using Ferrocement and Biosand filters. This project hopes to offer an alternative path for climate change adaptation and resilience and water security in these communities. Towards this end

she has recently returned from Grenada where she built the first prototype of this tank. Ms Nibbs has been featured on Going Green which is a Spectrum news programme on sustainability. The link to this news clip can be found here:
<http://spectrumlocalnews.com/nys/central-ny/going-green/2017/11/19/going-green--rainwater-harvesting>.

Miss Nibbs is also a graduate assistant in the sustainability office at SUNY ESF where she works to assist the ESF campus community to improve sustainability using AASHE STARS while supporting the sustainability working groups. She is also employed as an academic consultant with the Dimensions Programme at Syracuse University. There, she engages with students of colour to provide support and direction, and to track their academic performance and offer help where needed. She also assists in developing and executing organisational programmes and workshops.

Miss Nibbs is a recipient of the first ever National Science Foundation SURGE fellowship (beginning January 1st 2018). She is also a LEED Green Associate, and the recent recipient of the Charles Lathrop Pack Memorial Student Grant, USGBC Greenbuild 2017 Regional Scholarship and the Jay and Olive Bentley Scholarship.