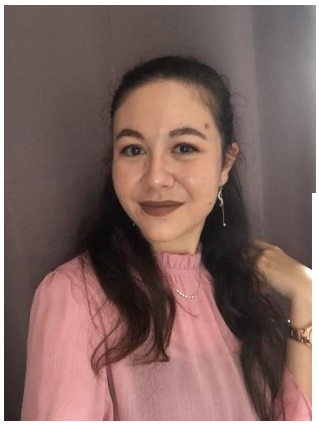
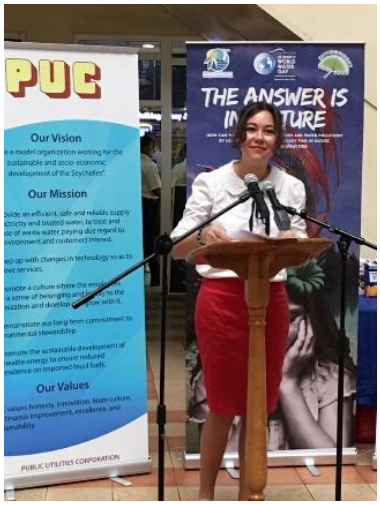


Spotlight
Interview with Ms Sophie Morgan
Senior Policy Analyst – Water and Climate Change
Department of Climate Change & Energy,
Ministry of Agriculture, Climate Change and Environment
The Republic of Seychelles

PUB: Please tell us about yourself and your company/organisation.

Sophie: I am working in the Ministry of Agriculture, Climate Change and Environment's Climate Change and Energy Department as a Senior Policy Analyst for Water and Climate Change. I have a Bachelor of Arts Double Major Degree in 'Climate Change and Society' and am involved in leading and supporting numerous national initiatives.



I am also the National focal point for the Institute of Environmental Analytics' Renewable Energy – Space Analytics Tool Project, Technical Working Group for the UN Strategic Partnership Framework, SADC infrastructure development Masterplan (RIDMP), IWRM indicator 6.5.1, International Blue Carbon and Forest Partnerships, TWG for UN Strategic Partnership Framework: meet the Sustainable Development Goals (SDGs) by the year 2030, and also sit on the National Climate Change Committee. Apart from that, I am also active on the local music scene as a strong youth advocate for climate action.

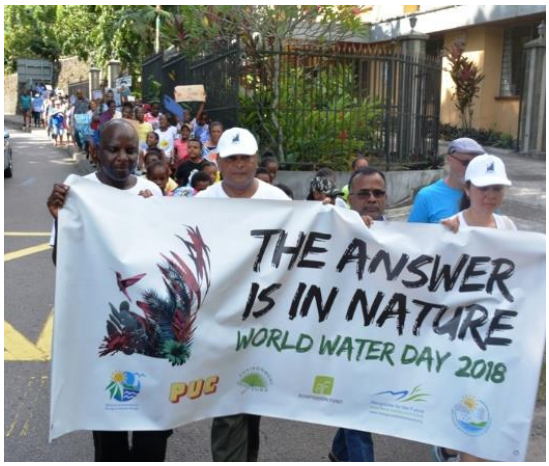
The Ministry of Agriculture, Climate Change and Environment is tasked with ensuring the constitutional right of every person to live in and enjoy a clean, healthy and ecologically balanced environment, the provision of a reliable, affordable and safe water and energy supply and build resilience against climate change and disasters.

The Energy and Climate change Department has the responsibility for Energy, water and other related issues pertaining to Climate change. The Climate Change Division has the responsibility to coordinate climate change issues, implement the National Climate Change Strategy, the Seychelles Sustainable Development Strategy and the international climate change cooperation and global Negotiations. It is made up of 5 different sections- Climate Adaptation Management, Climate Mitigation Management, Climate Science and Data Management, National Meteorological Services and International Climate Negotiation sections.

What are the issues that keep you awake at Ministry of Agriculture, Climate Change and Environment?

Since my focus at the Ministry is to do with the Climate Change and water issues, shifting rainfall patterns as a result of anthropogenic climate change are of the most concern to me. Climate change model predictions show an increase in extreme rainfall events in the wet season, as well as extended dry seasons, which will further reduce seasonal rainfall and water availability for storage in the medium to long-term, whilst at the same time

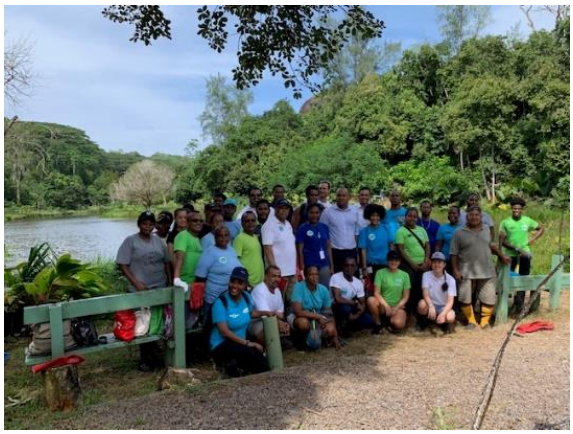
causing water related disasters such as flooding and droughts. It is therefore crucial that the available fresh water resources are effectively managed, especially since demand for water in Seychelles is increasing continuously.



Presently, there is wastage of water by consumers in the domestic, tourism and agricultural sectors since the cost of water is below the production cost, which does not encourage usage of water efficiently.

Compounding the wastage of water, the water resources of Seychelles are at risk from pollution and other environmentally harmful activities. Pollution is a threat to the environment because many rivers and streams are polluted by discharges from septic tanks (domestic and agricultural), civil works and the dumping of waste. The development of housing within the catchment areas has also increased the risk of pollution of the natural environment and the water supply. It also negatively impacts on the marine environment, which is a vitally important source of socio-economic benefits in Seychelles.

An estimated 80% of the Seychelles population are not connected to the sewerage system and the existing system is ageing and requires major renovation. The outdated system, coupled with leaks from septic tanks in areas unconnected to the sewerage network, has led to the pollution of rivers and water bodies. Therefore, further improvements in water treatment technology, combined with the upgrading of sewerage works, are urgently required.



Another threat to the integrity of water resources stems from the degradation of catchments as a result of economic and social activities that raise the risk of pollution of water sources, both legal and illegal. There are incidents of catchment degradation leading to erosion and causing high sediment loads in rivers, with risks for water infrastructure as well as the marine environment. Enhanced catchment protection through the establishment and enforcement of “reserves”, wetland rehabilitation, erosion prevention is needed.

As The Republic of Seychelles is an archipelago of 115 low-lying, granitic islands in the western Indian Ocean, what are some of the initiatives being taken to improve water supply in undeveloped areas?

Although a large archipelago of islands, the people of Seychelles only inhabit 3 islands - Mahé, Praslin, and La Digue. The other islands are reserved for conservation, scientific, agricultural or tourism related small-scale activities. In this regard, these operators install desalination plants, rainwater harvesting systems, re-treat waste water, construct their own boreholes or extract from the river catchment with approval from the Ministry.

To improve Praslin and La Digue Island’s water supply, there is a proposal for a dam at Plaine Hollandaise (Praslin), the construction of a second desalination plant (Praslin and La Digue), as well as the construction of new pipelines.

The two factors that lead to water scarcity in Seychelles are rising water shortage due to climate change and pollution. What are some of the initiatives taken to mitigate these challenges?

The Seychelles Water Development Plan (SWSDP) takes into account water shortages due to climate change and pollution through the following initiatives:

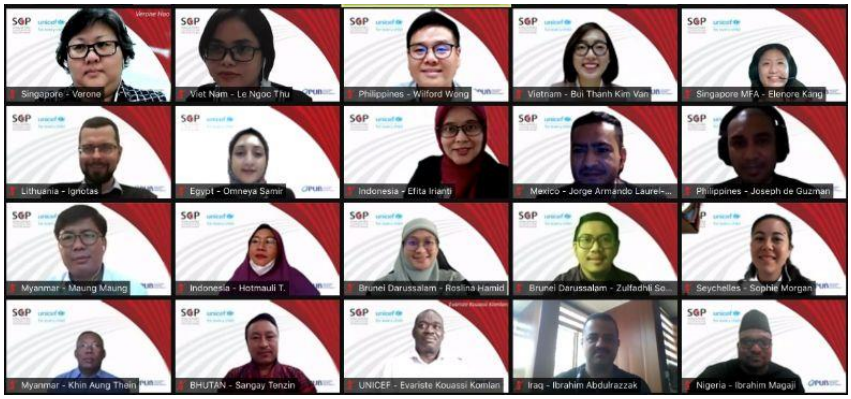
Technical Environmental and Climate Change Considerations	Institutional Environmental and Climate Change Considerations
Environmental impact of the identified development projects.	Catchment protection
Water recycling and rain water harvesting	Review of the water regulations and enforcement procedures
Construction methods and choice of materials, including water efficient technologies.	Strengthening of the River Committee
Use of local resources	Public water conservation initiatives
Security of supply from pollution	Public awareness and education
Cooperation with the on-going Sewage Development Plan	Public / private participation
Use of desalination plants	Training and development of PUC on environmental sustainability
	Drinking water safety plan

With the persisting drought during the dry season from May to September and water demand on the main island of Mahé is expected to grow by 130% by 2030, what are some of the plans and initiatives taken to ensure that water demand is met?

Water scarcity is a major concern for the Seychelles. As such, the SWSDP has plans to achieve the following by the year 2030 for Mahé island:

- La Gogue dam, (the country's largest dam), is being raised by 6metres. The 6-metre raise will increase the La Gogue dam storage capacity by 60% or by 600,000 m3 (from 1 million m3 to 1.6 million m3)
- NRW is now at 25%, the lowest economically viable level in the country. The goal is to maintain it at this level
- Augmenting the present withdrawal of the Grand Anse river, which has surplus flow, by remodelling the existing weir and raising the same by about 6 m
- Having a Combined Scheme from Lower Grand Anse to La Gogue to capture more water
- Improve the pumping capacity of Salazie
- Install three additional desalination plants.

The Singapore Water Academy has a broad alumni network, which presents opportunities to co-create solutions that address the world's water challenges. How can the SgWA alumni collaborate with Ministry of Agriculture, Climate Change and Environment in this regard?



The SgWA alumni can collaborate with the Ministry of Agriculture, Climate Change and Environment by offering technical assistance to help the Republic of Seychelles tackle our water issues effectively. Seychelles strongly believes in learning from others who have achieved results, applying and innovating ideas to suit our specific context in the country. In this regard if further trainings for our people could be provided, it would benefit us greatly.

The country is sadly lacking water issue geared datasets to help in the formulation of science-backed informed decision-making, so I would also suggest collaborations to help us in this regard to help us solve this problem.