Measuring Environmental and Climate Pressures on Water

Strengthening the Evidence for Resilient Development



Mrs D. Mewa Hurdowar

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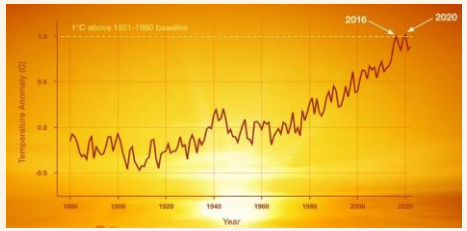
Climate Change and Environmental Pressures



Rising global temperatures



Devastating floods



Prolonged droughts



Unpredictable rainfall patterns



Rapid Urbanisation

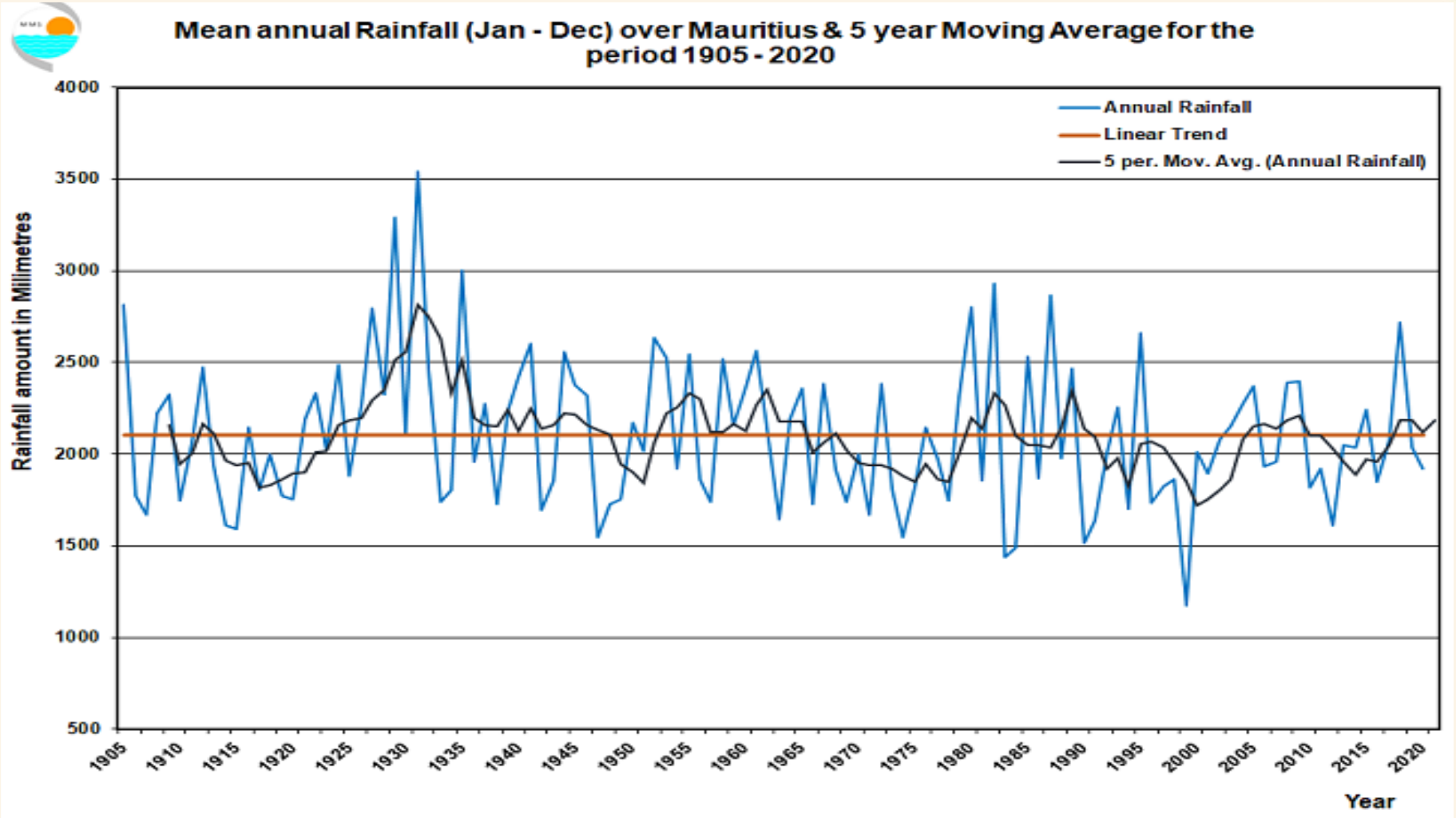


Land Use Change



Pollution

Precipitation



Source: Mauritius Meteorological Services

Drought

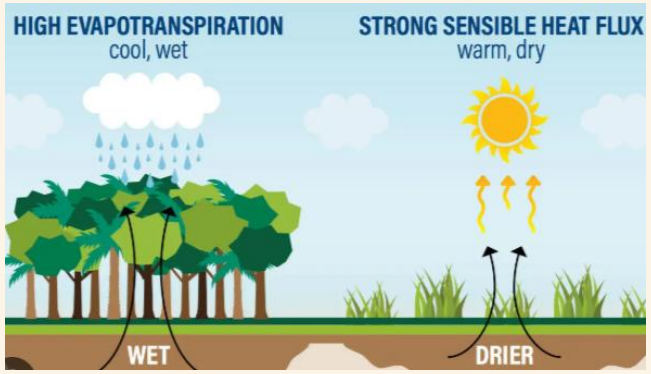
- Dry years are years marked by severe deficiency in annual precipitation.
- Over the past five years, our island has witnessed prolonged dry months in the years 2020/2021, 2022/2023 and 2024/2025.
- A lengthening of the intermediate dry season, the transition period between winter and summer, has been observed.
- There has been a shift in the start of the summer rains.
- Pressure on the water sector to meet increasing demands of the agricultural, tourism, industrial and domestic sectors.
- Utilisable water resource is expected to decrease by **13%** by **2050** and Mauritius is projected to become a **water scarce** region by **2030**.

Source: Biennial Transparency Report 2024

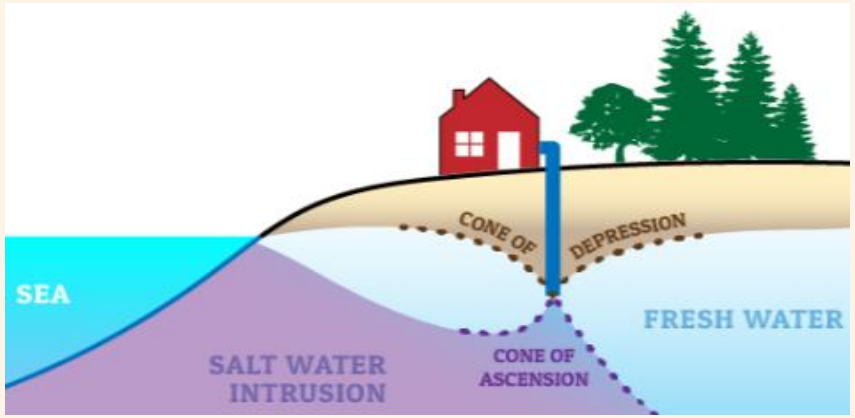
Main causes of Freshwater Scarcity



1. Increasing Water Demand



2. Disrupted Water cycle due to Climate Change



3. Water Pollution and sea water intrusion

Core Indicators for building Water Resilience

Water quantity

Indicators

1. Percentage water level by reservoir
2. Daily per capita domestic and potable water consumption
3. Water supply by economic activity
4. Water utilisation by source and economic activity

Water quality

Indicators

1. *Freshwater quality from selected boreholes*
2. *River water quality by selected physico-chemical parameters*
3. *Physical and monitoring site chemical characteristics of coastal water by level*

Weather Metrics

Indicators

1.Monthly (24-hourly maximum) rainfall by station
2. Monthly mean maximum temperature

Ecosystem Health

Indicators

1. *Forest area by category*
2. *Areal estimates for the various Environmentally Sensitive Areas (ESA) by type and sub-category*

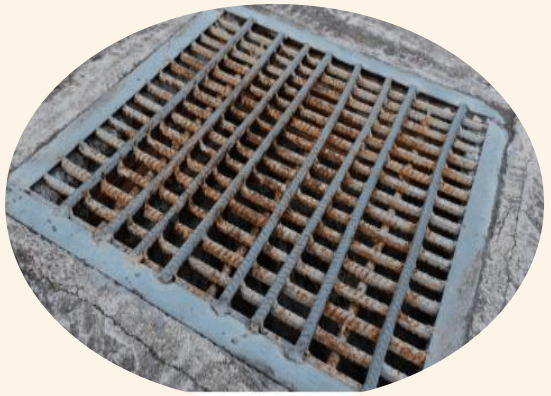
Adaptation for a resilient Mauritius



1.Soil moisture monitoring in agriculture

2.Rainwater harvesting and water conservation in tourism sector





3.New adapted drains



4.Mini reservoirs



5.Restoring wetlands and upland forests

Key Takeaways

1. Climate change is increasing pressure on the availability of water resources.
2. Reliable environmental and climate statistics are essential for monitoring risks and anticipating water shortages.
3. Water resilience requires coordinated action across households, agriculture, tourism, industry and government.
4. Evidence-based planning and investment in adaptation are essential to safeguard Mauritius' water security

Conclusion

- Reliable and timely statistics are fundamental to understanding our water resources, measuring climate and environmental pressures, and monitoring water stress.

- By integrating water accounting, environmental statistics and climate indicators, Mauritius can strengthen evidence-based policymaking, improve water resource management and build resilience to climate change.

- Statistics are therefore not merely numbers; they are essential tools for safeguarding our water future.

Thank you for your attention