



THE UNIVERSITY OF THE WEST INDIES

CAVE HILL CAMPUS, P. O. BOX 64, BRIDGETOWN, BARBADOS
CENTRE FOR RESOURCE MANAGEMENT AND ENVIRONMENTAL STUDIES

THE FACULTY OF SCIENCE AND TECHNOLOGY

TEL: (246) 417-4316/4339 E-mail: cermes@cavehill.uwi.edu

FAX: (246) 424-4204 Website: www.cavehill.uwi.edu/cermes



Future Foresight Scenarios

Caribbean 2050

Socioeconomic Development Pathways

Presenter: Ms. Crystal Drakes

Date: April 12, 2017

MAGIC Conference

Presentation outline

1. What is foresight and scenario analysis? (Definitions)
2. Water-aCCSIS project
3. Why use scenarios?
4. Multi-scalar methodology
5. Macroeconomic Systems Dynamic Model
6. Caribbean Scenarios 2050
7. Future Research Areas

Futures/Foresight Studies

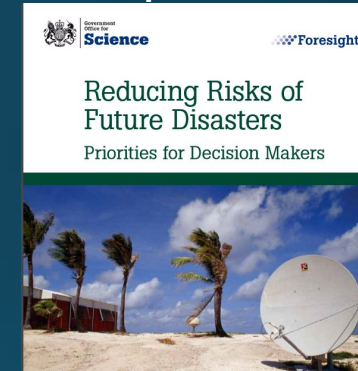
Foresight is the process of developing a range of views of possible ways in which the future could develop and understanding these well enough in order to decide what decisions can be taken today to create the best possible tomorrow (Horton 1999).

Scenarios are plausible descriptions of how the future may develop, based on coherent and internally consistent set of assumptions about key relationships and drivers (IPCC 2000)

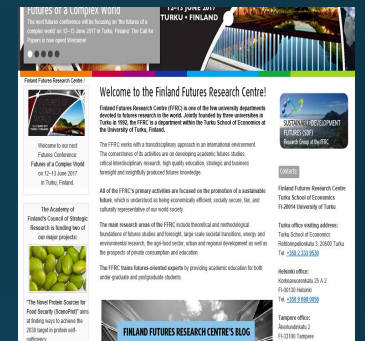
Other methods: Roadmapping, multi-criteria analysis, simulation gaming, etc.

Latin America and the Caribbean 2030: Future Scenarios (IDB, 2016)

UK Foresight
Government
Department



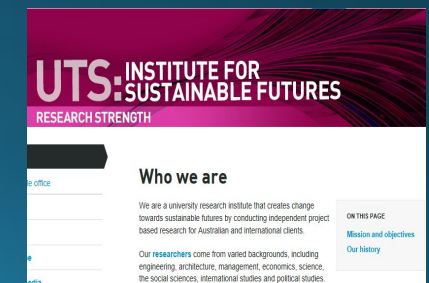
Finland Futures
Research Centre-
University of Turku



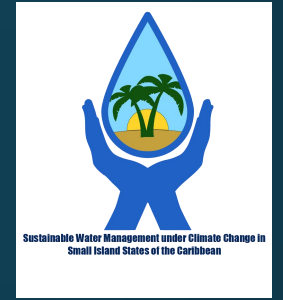
Russia Science and Technology Foresight
Program



University of
Technology
Sydney, Australia



Water-aCCSIS Foresight Scenarios



Sustainable Water Management under Climate Change in Small Island States in the Caribbean (Water-aCCSIS)

Project Aim- contribute to the improvement of water management and climate change adaptation of Caribbean states and the development of adaptive management strategies that will balance the sustainability of ecosystems and societal needs.

Work Packages- climate downscaling, livelihood and vulnerabilities, hydrological modelling, vegetation modelling etc.

Catchment Areas- Nariva, Speightstown, Rio Cobre, Carriacou

Future Foresight Work Package- generate future foresight scenarios comprising of quantitative and qualitative descriptions of possible future socioeconomic, political and societal conditions and arrangements that reflect different developmental trajectories

Why Scenario Analysis?

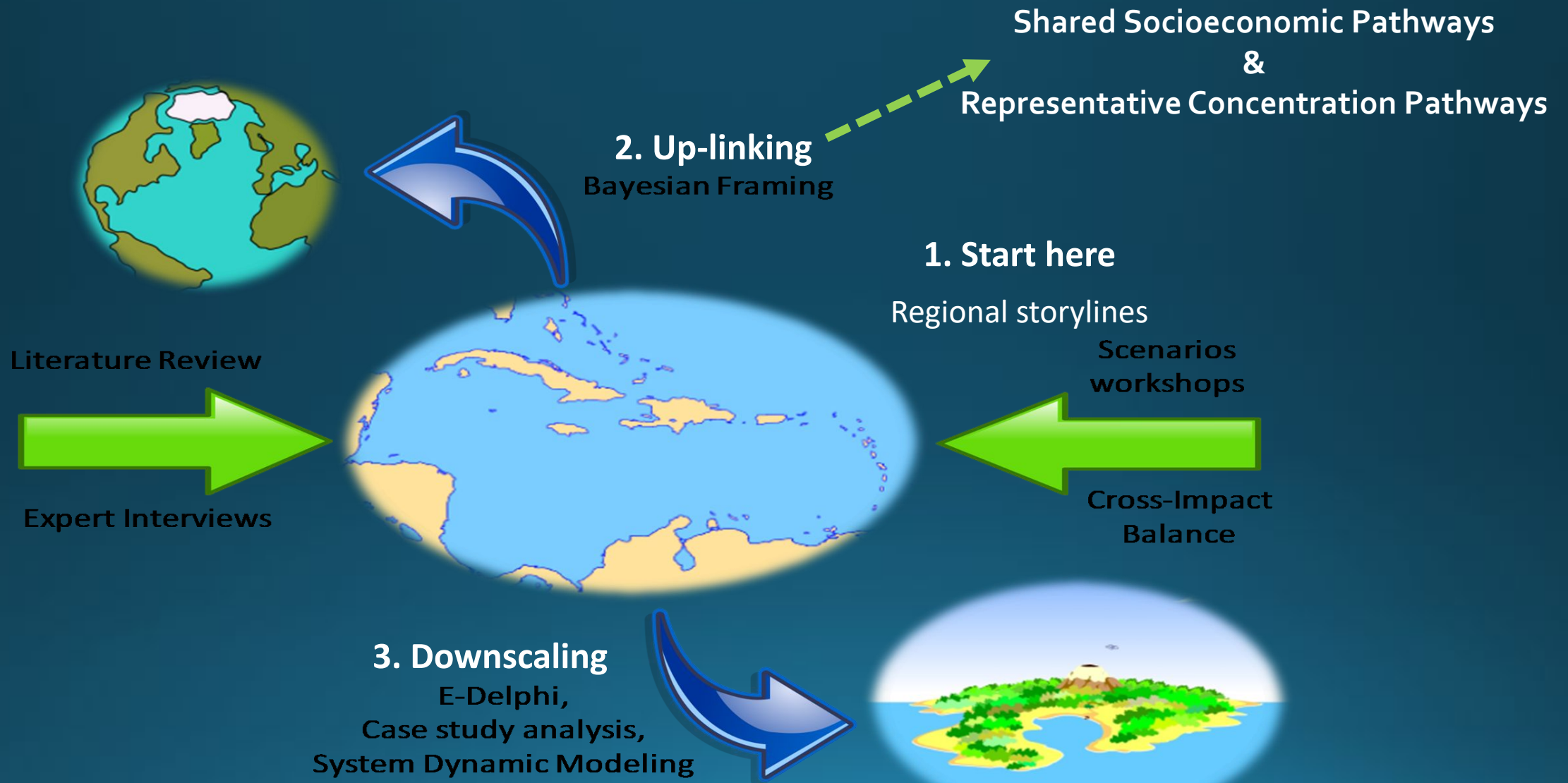
Context for climate projections and resource management

- Economic structure
- Governance
- Societal construct

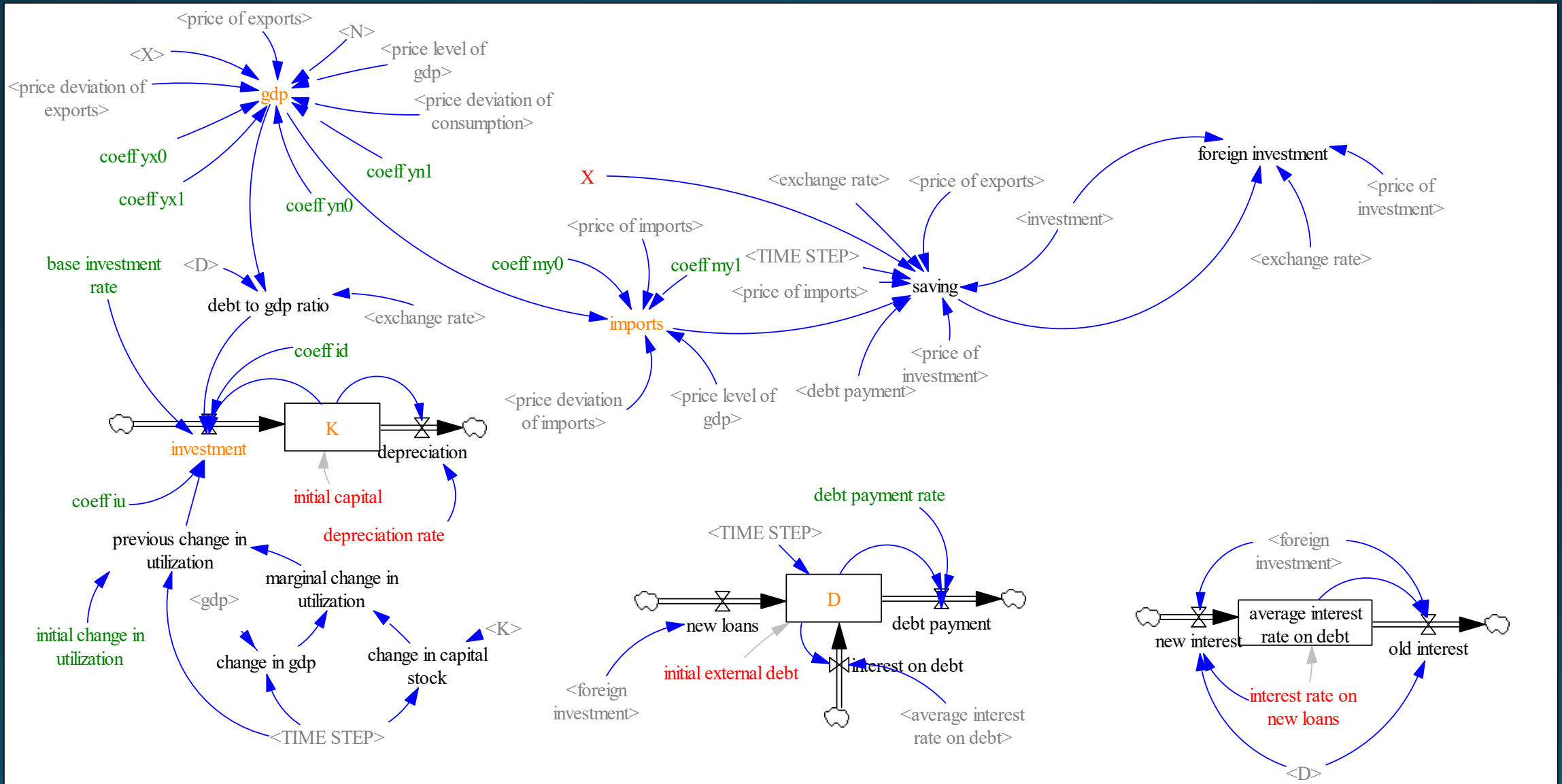
DROUGHT



Multi-scalar Methodology



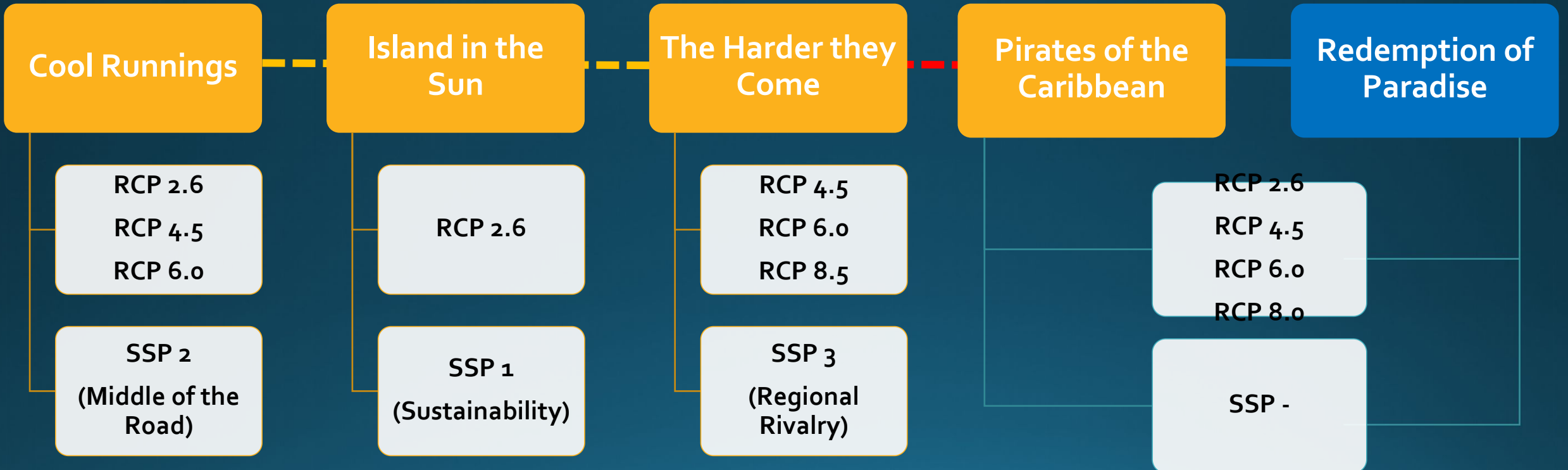
Macroeconomic Systems Dynamic Model



Caribbean Scenarios 2050



Caribbean Scenarios 2050



Caribbean Scenarios 2050

Scenario	Economy	Society & Environment	Water	Health	SDGs
Cool Runnings (SSP₂)	Uneven economic growth, private public partnerships, luxury tourism, high value small scale manufacturing, regional economic integration	Small governments (horizontal), regional migration, gender equality, modern families, energy mix (renewable & non renewable), high urbanization, lack of environmental protection	Stable water availability, focus on technological efficiency, water and wastewater services are guided by a Common Water Framework Treaty and One Health Policy	Regional policy drives the health sector, PPPs increase the efficiency of health services, technology drives monitoring and control of VBDs.	By 2030 the Caribbean was close to achieving SDGs related to poverty, education, economic growth and gender equality
Island in the Sun (SSP₁)	Rapid investment in renewables, growth is constrained by environmental protection, health and wellness tourism, barter systems	Communal governance, family oriented business practices, physical and mental wealth, high levels of education, sustainable environmental practices	CSOs play major role in provision of services. Water supplies are locally driven. There is recycling and integrated management of water and wastewater services.	Wholistic approach to health, sector is diverse with greater emphasis on prevention. Short periods of outbreaks VBD quickly controlled by community led health officials	Caribbean meets SDGs for poverty alleviation, health and environment
Harder they Come (SSP₃)	Prolonged low growth, limited FDI, regional trading blocs and rivalry, obsolete tourism products, limited activity in financial services and agriculture	Centralized national governance, limited resources for social services, widening income inequality, high rates of migration, weak civil societies, reactionary environmental policy	Governments provide poorly managed and maintained water and wastewater services. Uneven distribution and quality of service with poor highly disadvantaged.	Limited resources to the health sector, monitoring and control of VBD is poorly managed and reactionary in nature	Some SDGs are achieved by 2030
WILD CARD Pirates of the Caribbean	US economic collapse, economic depression, drug trade and human trafficking, large underground economy	Corrupt political systems, Caribbean Security Task Force, increased poverty levels and drug use, low levels of formal education, absent environmental policy	Poorly maintained and operated government water and wastewater agencies, with poor levels of service.	Heavy reliance on humanitarian aid and services and local volunteers. Poor management of VBD frequent and prolonged outbreaks	SDGs are not maintained and global and Caribbean institutions are fragmented or disbanded
Redemption of Paradise	Economic depression, regional cooperation, Trinidad and Jamaica regional leaders	Good governance, vulnerable groups are prioritized in social service provision, heavy presence of security and law enforcement	Water and wastewater services provided by trans-regional corporations with full cost recovery	Basic health services are present, focus on women and children. Monitoring and control systems present for emerging VBDs	SDGs are not achieved but Caribbean region unites to combat global insecurity

Future Research Areas

- EVALUATE robustness of existing policies and strategies using scenarios
- EXPAND scenarios to include other countries e.g. Cuba and Guyana and sectors e.g. transportation, energy etc.
- IMPLEMENT foresight/scenario analysis as a monitoring tool to assess the allocation of scarce resources and to identify future opportunities and threats (roadmapping)
- IMPLEMENT foresight/scenario analysis as a development tool within institutions i.e. public sector agencies to affect change



THE UNIVERSITY OF THE WEST INDIES
CAVE HILL CAMPUS, P. O. BOX 64, BRIDGETOWN, BARBADOS
CENTRE FOR RESOURCE MANAGEMENT AND ENVIRONMENTAL STUDIES
THE FACULTY OF SCIENCE AND TECHNOLOGY
TEL: (246) 417-4316/4339 E-mail: cermes@cavehill.uwi.edu
FAX: (246) 424-4204 Website: www.cavehill.uwi.edu/cermes



THANK YOU!

<https://vimeo.com/188425016?ref=em-share>