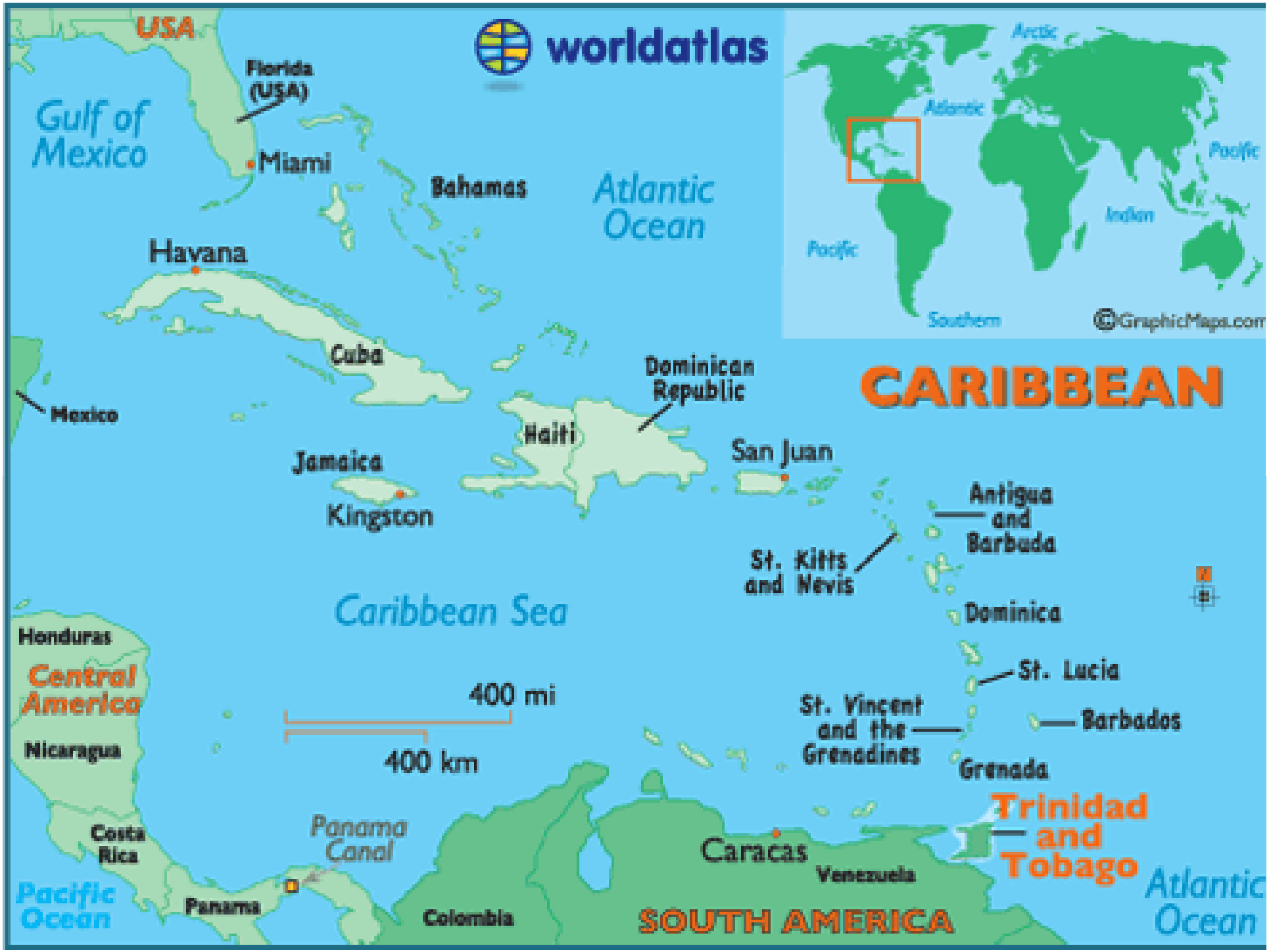
System of Environmental-Economic Accounting (SEEA) Experimental Ecosystem Accounting

The Experience of Trinidad & Tobago

Central Statistical Office

Opportunities and Challenges


worldatlas
USA
Florida (USA)
Gulf of Mexico
Miami
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Havana
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Haiti
Jamaica
Kingston
San Juan
CARIBBEAN
Antigua and Barbuda
St. Kitts and Nevis
Caribbean Sea
Dominica
Honduras
Central America
Nicaragua
400 mi
400 km
St. Lucia
St. Vincent and the Grenadines
Barbados
Grenada
Trinidad and Tobago
Costa Rica
Panama Canal
Caracas
Venezuela
Pacific Ocean
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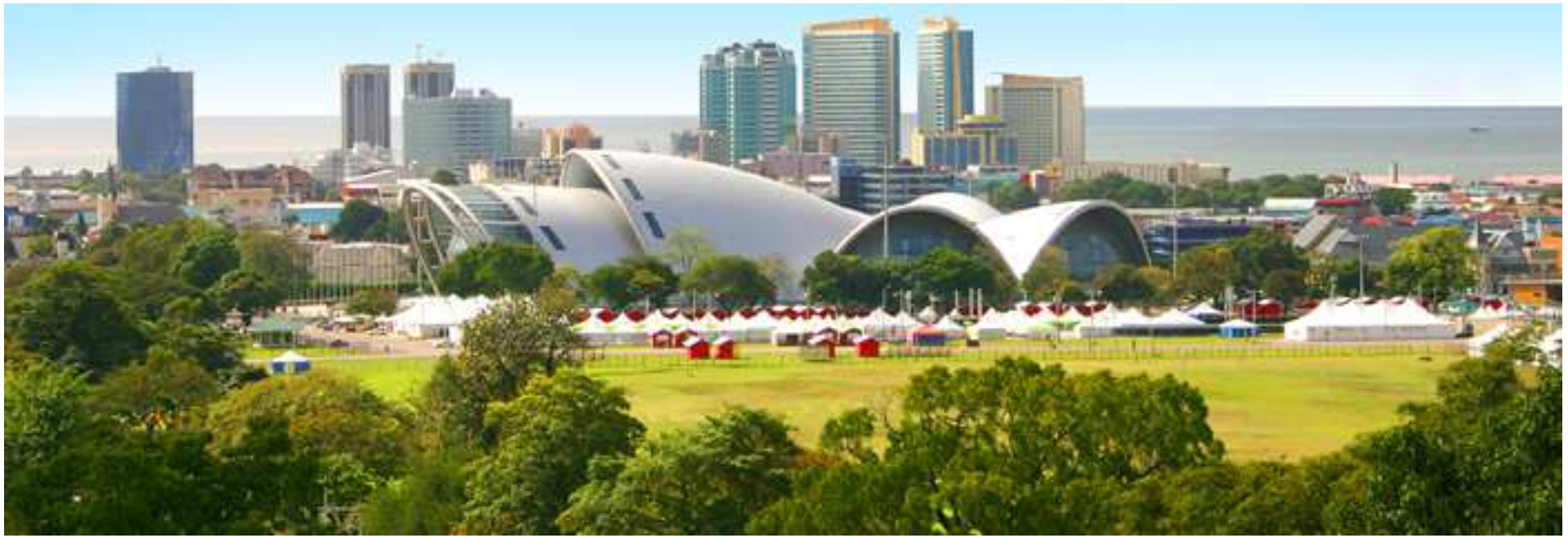

Trinidad & Tobago: Context

40% of GDP arising through the extraction of oil and gas.

Around 60% of T&T remains forested

Does your country have a national plan to implement and monitor the post 2015 development agenda, and what is the nature of that plan?

Statement By The Honourable Kamla Persad-Bissessar, S.C., MP Prime Minister of the Republic of Trinidad and Tobago At the 68th Session of the United Nations General Assembly

"We agree with you that it is an opportune moment to begin the discourse on setting the stage for *the post 2015 development agenda.*

Some of the preparatory work has already been done.

At the Rio+20 Conference, world leaders pledged action on sustainable development.

We recognized the shortcomings of the MDG process and the need to embrace a new partnership involving governments, the private sector, civil society, and multilateral banks, amongst others, to advance action on sustainable development.

As leaders, we agreed to an outcome document to chart, *"The Future We want"*, that is, a more sustainable future for the benefit of present and future generations.

"The Future We want", addresses many facets of what is required to stimulate sustainable development for all countries.

Trinidad and Tobago was an active partner at that Conference.

Mr President, Trinidad and Tobago will continue to support the emphasis placed on poverty eradication, as the greatest global challenge facing the world today, and an indispensable requirement for the achievement of sustainable development.

We are also committed to work already underway on the establishment of the sustainable development goals:

- The development of the green economy as a tool for achieving sustainable development;
- The development of measures which go beyond GDP in assessing development;
- The adoption of a framework for tackling sustainable consumption and production; and
- A focus on gender equality and the need for greater engagement of civil society in national efforts for sustainable development."

Does your country have a national plan to implement and monitor the post 2015 development agenda, and what is the nature of that plan?

National Sustainable Development Strategy

Policy Document "Working for Sustainable Development."

Three Pillars of Sustainable Development

Economic Social Environment

Does your country have a national plan to implement and monitor the post 2015 development agenda, and what is the nature of that plan?

Sustainable Development

"The sustainable development report is also aligned with the seven (7) thematic areas which the Rio +20 Conference has identified as being of priority. These seven (7) areas include decent jobs, energy, sustainable cities, food security and sustainable agriculture, water, oceans and disaster readiness.

Currently the Ministry of Planning and the Economy, through the Town and Country Planning Division, is involved in a number of projects and initiatives which will allow for sustainable land use, wiser planning and a focused developmental plan, rooted in rational policy making. These projects include the National Physical Development Plan, the ProEcoServ Project and the Land Use Policy.

In pursuing sustainable development, the process of achieving our priorities must be aligned with the two (2) themes of the Rio +20 Conference: (1) Green Economy; and (2) Institutional Framework for Sustainable Development."

National Spatial Development Strategy

12 Objectives, 24 Policy Prescriptions

View Document

Does your country have a national plan to implement and monitor the post 2015 development agenda, and what is the nature of that plan? What are the institutional mechanisms in place? What are the policy priorities at the national level?

UNEP Project for Ecosystem Services (ProEcoServ)

Work commenced 2011 Official Launch 2012

Development of Natural Capital Accounting in Trinidad & Tobago

Consultation report prepared for the University of the West Indies

What are the institutional mechanisms in place? What are the policy priorities at the national level?

Institutional Mechanisms

- DPS of the Min. of Planning and Sustainable Development – Chairperson of T&T ProEcoServ Steering Committee
- T&T ProEcoServ Nat'l Co-ordinator appointed to the Development Planning Steering Committee to aid in the development and oversee formulation of the NSDS
- Development Planning Steering Committee of the National Planning Task Force. (The Cabinet appointed committee established to manage the NSDS Process).
- A multi-stakeholder National Planning Task Force was established in 2011. Worked on preparing the Planning and Facilitation of Development (PAFD) Bill of 2013.
- Trinidad and Tobago Climate Change Policy (2011)

  The Elaboration of a Strategy for the Reduction of Carbon Emissions in T&T

  Low Emissions Capacity Building Programme (LECB)
- National Spatial Data Infrastructure Council

Some key National Policy Documents and Strategies with regards to the Environment. Coming out of these, various Programmes and Projects have been initiated.

- National Environmental Policy (adopted 1998, revised 2006)
- Trinidad and Tobago Climate Change Policy (2011)
  Project: The Elaboration of a Strategy for the Reduction of Carbon Emissions in T&T
  Low Emissions Capacity Building Programme (LECB)
- Draft Air Pollution Rules (2010)
- National Forest Policy (2011)
- National Protected Areas Policy (2011)
- National Tourism Policy (2009)
- Draft Waste Management Rules (2008)
- National Policy and Programmes on Wetland Conservation for Trinidad and Tobago (2001)
- Environmentally Sensitive Areas Rules (2001)

- Carbon Reduction Strategy Initiative (Ministry of Energy and Energy Affairs)
- National Energy Policy (Green Paper)
- National Wildlife Survey (2014) part of the redesigned National Restoration, Carbon Sequestration, Wildlife and Livelihoods Project.

How can the SEEA inform policy questions and various initiatives on sustainable development in your country?

Natural capital accounting would provide:

- a broad framework for the ongoing measurement and assessment of long term trends
- a means to improve the quality of current national accounts (GDP) estimates*
- a basis for State of Environment reporting
- and be used as a tool to support assessment of sustainable development.

How can the SEEA inform policy questions and various initiatives on sustainable development in your country?

Areas in which the availability of natural capital accounts for Trinidad & Tobago would likely prove important for policy development and monitoring.

1. *Oil and gas sector and associated activities*
2. *Land use planning*
3. *Water availability and access*
4. *Tourism*
5. *Biodiversity protection and restoration*
6. *Food security*
7. *Policy monitoring*

How can the SEEA inform policy questions and various initiatives on sustainable development in your country?

Examples of current policy issues

1. *assessing trade-offs in land use*
2. *the potential for expansion in the agricultural sector*
3. *assessing the tourism sector in Tobago,*
4. *management of protected areas and hunting*
5. *long-term assessments of the oil and gas sector*
6. *management of specific water catchments*

In all of these cases, data organized via a natural capital accounting approach could be useful in decision making.

What are the opportunities and challenges faced by your country to derive SEEA-based information for integrated policy making?

Opportunities

- ✓ Good, underlying basis for the development of natural capital accounting with a suitable mix of skills and data sets.
- ✓ There are many policy areas for which information integrated using a natural capital accounting framework would be relevant. These include natural resource management, land use planning, tourism and food security.
- ✓ Availability and wide range of already existing Data

What are the opportunities and challenges faced by your country to derive SEEA-based information for integrated policy making?

Challenges

- Support for producing these Statistics
- Sharing of info across agencies
- Allocation of Resources
- Institutionalizing of Natural Capital Accounting

What institutional mechanisms are in place in your country to ensure that the implementation of SEEA and Experimental Ecosystem Accounting is done in a coherent manner across different ministries with the aim of establishing sustained production of accounts within an agreed statistical production architecture for the national statistical system?

Recommendations of the Report

Central Statistical Office

Strengthening of the National Statistical System

- Mechanism within government that would support cross-agency exchange of information

Need for programs to invest in development of data – issue of data gaps.

What institutional mechanisms are in place in your country to ensure that the implementation of SEEA and Experimental Ecosystem Accounting is done in a coherent manner across different ministries with the aim of establishing sustained production of accounts within an agreed statistical production architecture for the national statistical system?

Trial Demonstration Accounts

Proposed Outline and Structure for primary accounts

- Carbon
  - *Geocarbon Reserves*
  - *Forest Reserves*
- Land
- Water
- Biodiversity

Carbon stock account (Units: billion m3 carbon)

	GEOCARBON							BIOCARBON					TOTAL
	Oil	Gas Proven	Probable	Possible	Potential *	Other geocarbon	Total	Forest ecosystems Biomass	Soil	Other wooded land Biomass	Soil	Total	
1990-2000													
Opeing stock of carbon 1990								33.75	12.25	6.46	3.26	55.72	
Additions to stock													
Discoveries													
Natural growth													
Reappraisals													
Reclassifications													
Other additions													
TOTAL													
Reductions in stock													
Extractions								1.27					
Natural loss													
Downward reappraisals													
Reclassifications													
Other reductions													
TOTAL													
Exports of carbon													
Imports of carbon													
Closing stock of carbon 2000								32.54	11.87	7.15	3.6	55.16	
2000-2005													
Opening stock of carbon 2000								32.54	11.87	7.15	3.6	55.16	
Additions to stock													
Discoveries													
Natural growth													
Reappraisals													
Reclassifications													
Other additions													
TOTAL													
Reductions in stock													
Extractions								0.67					
Natural loss													
Downward reappraisals													
Reclassifications													
Other reductions													
TOTAL													
Exports of carbon													
Imports of carbon													
Closing stock of carbon 2005								32.2	11.68	7.39	3.72	54.99	
2005-2010													
Opening stock of carbon 2005		250.47	111.98	88.4			450.85	32.2	11.68	7.39	3.72	54.99	505.84
Additions to stock													
Discoveries													
Natural growth													
Reappraisals													
Reclassifications													
Other additions													
TOTAL													
Reductions in stock													
Extractions								0.6					
Natural loss													
Downward reappraisals													
Reclassifications													
Other reductions													
TOTAL													
Exports of carbon													
Imports of carbon													
Closing stock of carbon 2010		198.9	88.4	88.4			375.7	31.57	11.5	7.81	3.93	54.81	430.51

Land account : 1994 - 2007

Area in 1994 (ha)

Anderson Lvl 1	Urban or built up land	Agricultural land	Rangeland	Forest land	Water	Wetland	Barren land	**TOTAL**	of which: Protected areas
Trinidad and Tobago (Total)									
by Administrative areas									
e.g. Tobago									
...									

Area in 2007 (ha)

Anderson Lvl 1	Urban or built up land	Agricultural land	Rangeland	Forest land	Water	Wetland	Barren land	**TOTAL**	of which: Protected areas
Trinidad and Tobago (Total)									
by Administrative areas									
e.g. Tobago									
...									

Change in area 1994 to 2007 (ha)

Anderson Lvl 1	Urban or built up land	Agricultural land	Rangeland	Forest land	Water	Wetland	Barren land	**TOTAL**	of which: Protected areas
Trinidad and Tobago (Total)									
by Administrative areas									
e.g. Tobago									
...									

Water resources account

	Key catchment areas (Hydrometric areas)					
	Caroni	North Oropouche	Navet	Ortoire	Hillsborough	TOTAL
Opening stock of water resources						
Surface water - reservoirs						
Surface water - lakes						
Groundwater						
TOTAL						
Additions to stock						
Precipitation						
Inflows from other catchments						
Discoveries and net reassessments of groundwater						
Returns from economy/agriculture/households						
Treated						
Untreated						
TOTAL ADDITIONS						
Reductions in stock						
Evaporation						
Outflows to other catchments						
Outflows to the sea						
Abstraction to economy						
TOTAL REDUCTIONS						
Closing stock of water resources						
Surface water - reservoirs						
Surface water - lakes						
Groundwater						
TOTAL						

Water supply and use account

	TOTAL	Water supply	Water treatment/ Sewerage	Agriculture	Mining	Manufacturing	Electricity	Tourism	Other industries	Households
1. Water supply from environment										
Water abstracted from inland water										
Water from sea (desalination)										
Water from precipitation (e.g. captured by households in tanks)										
TOTAL WATER SUPPLY TO ECONOMY (Abstracted and available for use or										
2. Generation of wastewater										
Wastewater generated and collected by water treatment facilities										
Wastewater generated and collected for										
Other wastewater generated (returned directly to environment)										
TOTAL WASTEWATER GENERATED										
3. Water use										
Water distributed by water supply										
Water abstracted or produced for own										
Reuse of wastewater										
Use of wastewater from water										
Use of wastewater from own treatment										
TOTAL USE OF WATER										
4. Return of water to environment										
Returns to inland water sources by water treatment facilities										
Returns to sea by water treatment										
Returns to inland water resources by										
Other returns										
TOTAL RETURNS TO ENVIRONMENT										
of which: Losses in distribution										
5. Balance of supply and use										
Evaporation of abstracted water, transpiration and water incorporated into										

Species richness account for selected Kingdoms

Region	Land area (ha)	Reference populations (# species)				Number of species @ 1990				Number of species @ 2000				Number of species @ 2010				Change in # species 1990 - 2010			
		Mammals	Birds	Reptiles	Plants	Mammals	Birds	Reptiles	Plants	Mammals	Birds	Reptiles	Plants	Mammals	Birds	Reptiles	Plants	Mammals	Birds	Reptiles	Plants
Trinidad and Tobago																					
Ecological zones (or administrative areas) e.g. Northern ranges																					
Protected areas																					

Thank You