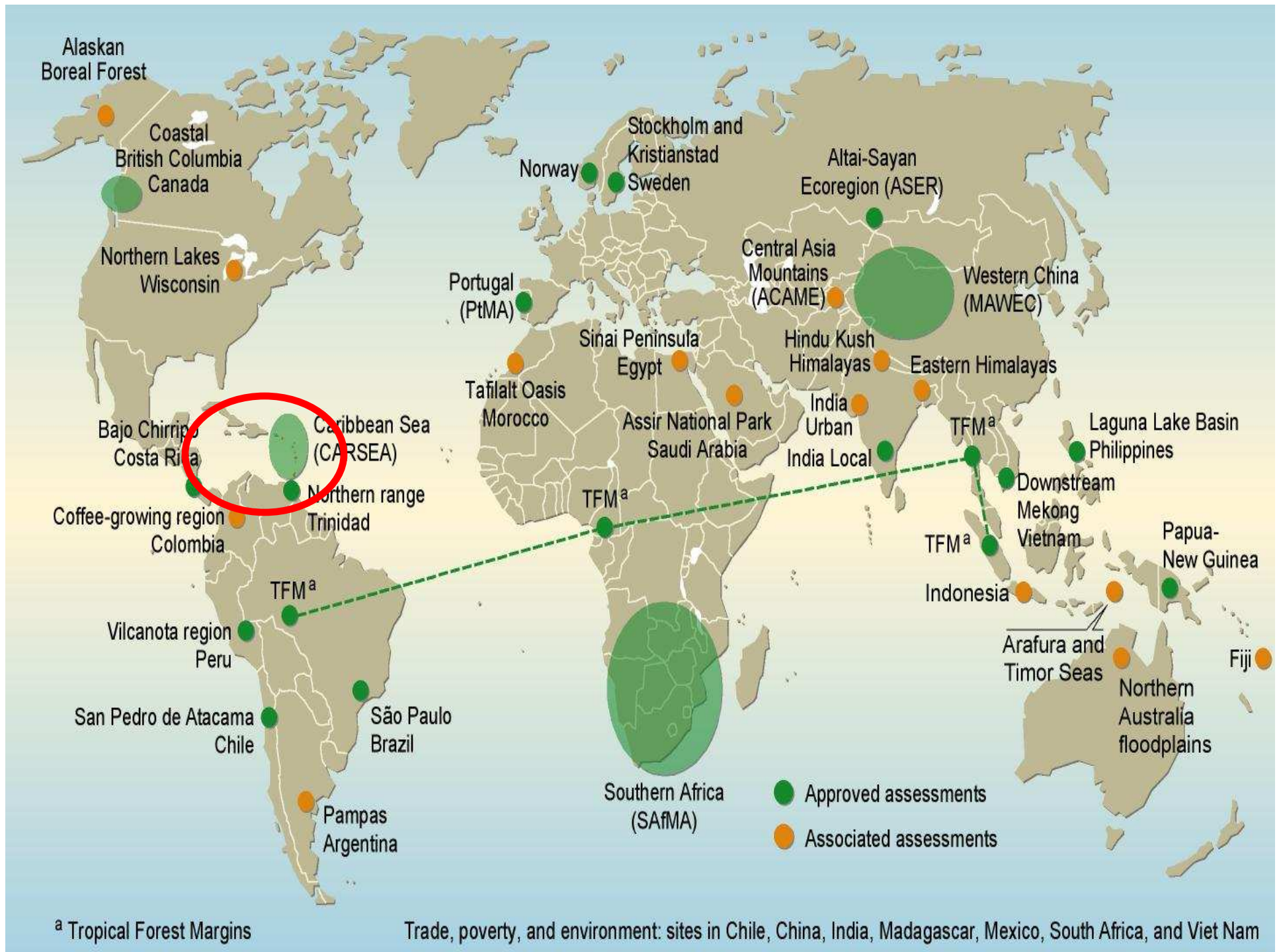




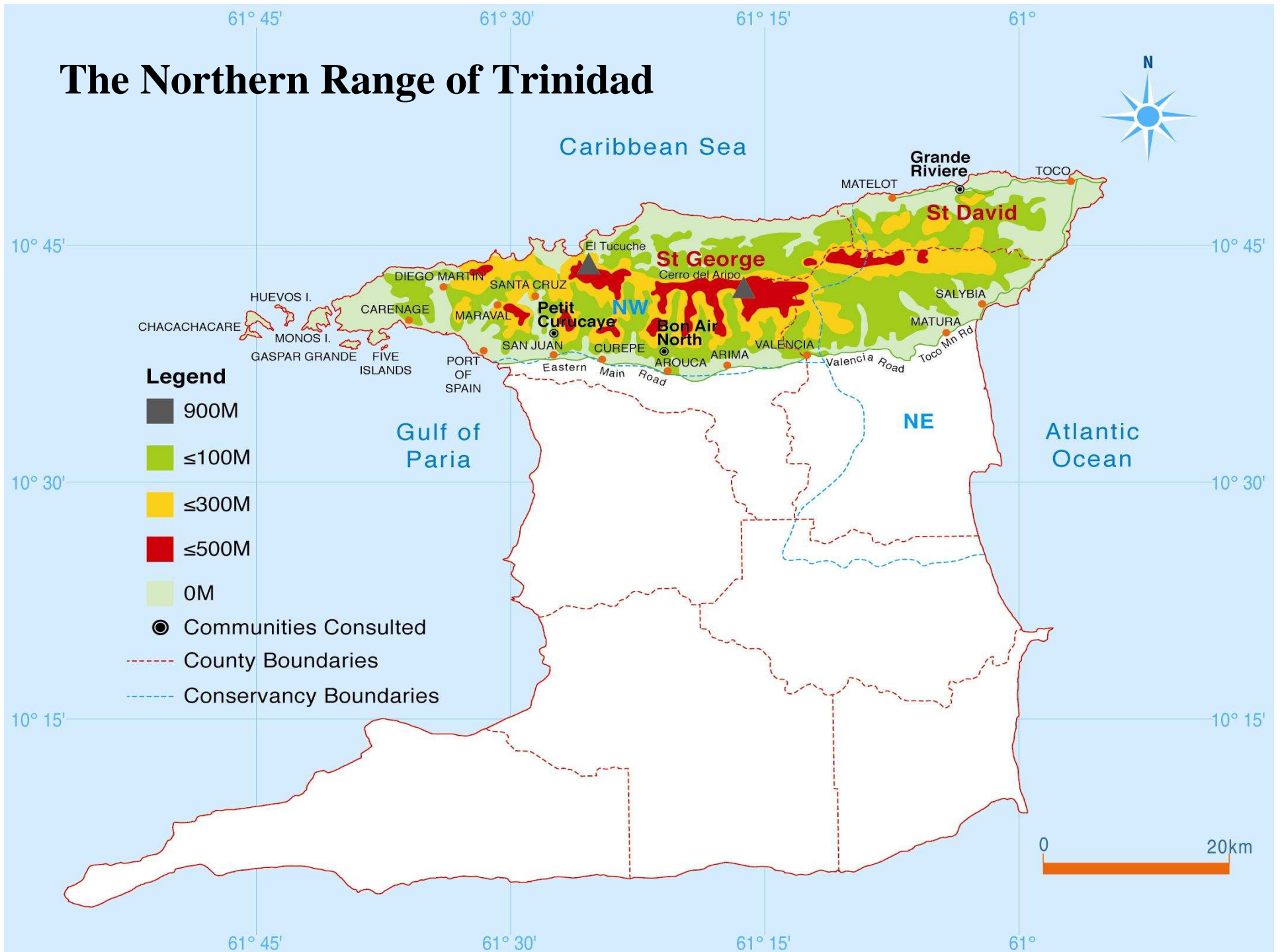
Follow-up to the Millennium Ecosystem Assessment

The 'Trinidad' Experience

**The Cropper Foundation
04 November 2008**

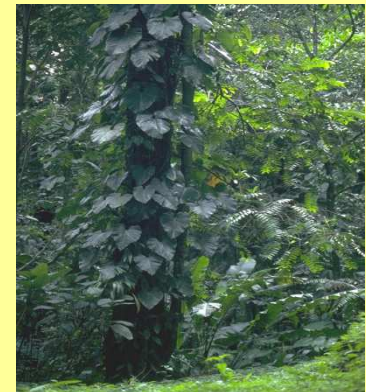


The Northern Range of Trinidad



Why the Northern Range

- 25 % of land area of Trinidad
- Many of major urban areas in or close to Range
- High dependence on NR for services
- Evident, high levels of degradation
 - Indicating ineffective management
- A lot of research on NR
 - But *ad hoc*
 - Not applying Ecosystem Approach



Northern Range: Importance

- Freshwater
 - 80% of Trinidad's freshwater supply
- Flood Regulation
- Recreation
 - Eco-tourism
- Food
 - Wildmeat, plants
- Timber and non-timber forest products
 - medicinal plants; landscaping
- Education
- Scientific research
 - endemic species; endangered species



Consequences for Water...

Source: Adapted from DHV Consultants BV (1999)

	1997		2025	
	Annual	Dry season	Annual	Dry season
¹ Total available	3,691	573	3,701	583
² PWS demand	1,044	224	1,651	328
³ AGS demand	10	10	145	145
Total demand	1,054	234	1,796	473
Demand as % of total availability	28.6%	40.8%	48.5%	81.1%
Remaining	2,637	339	1,905	110
⁴ Yearly balance	71.4%		51.5%	

.....in 20 years, Trinidad's water supply will be more closely met by demand

Substitution with water from desalination can potentially have serious economic costs (TT\$1,286 million per year at 2004 costs)

Forests and soil loss.....

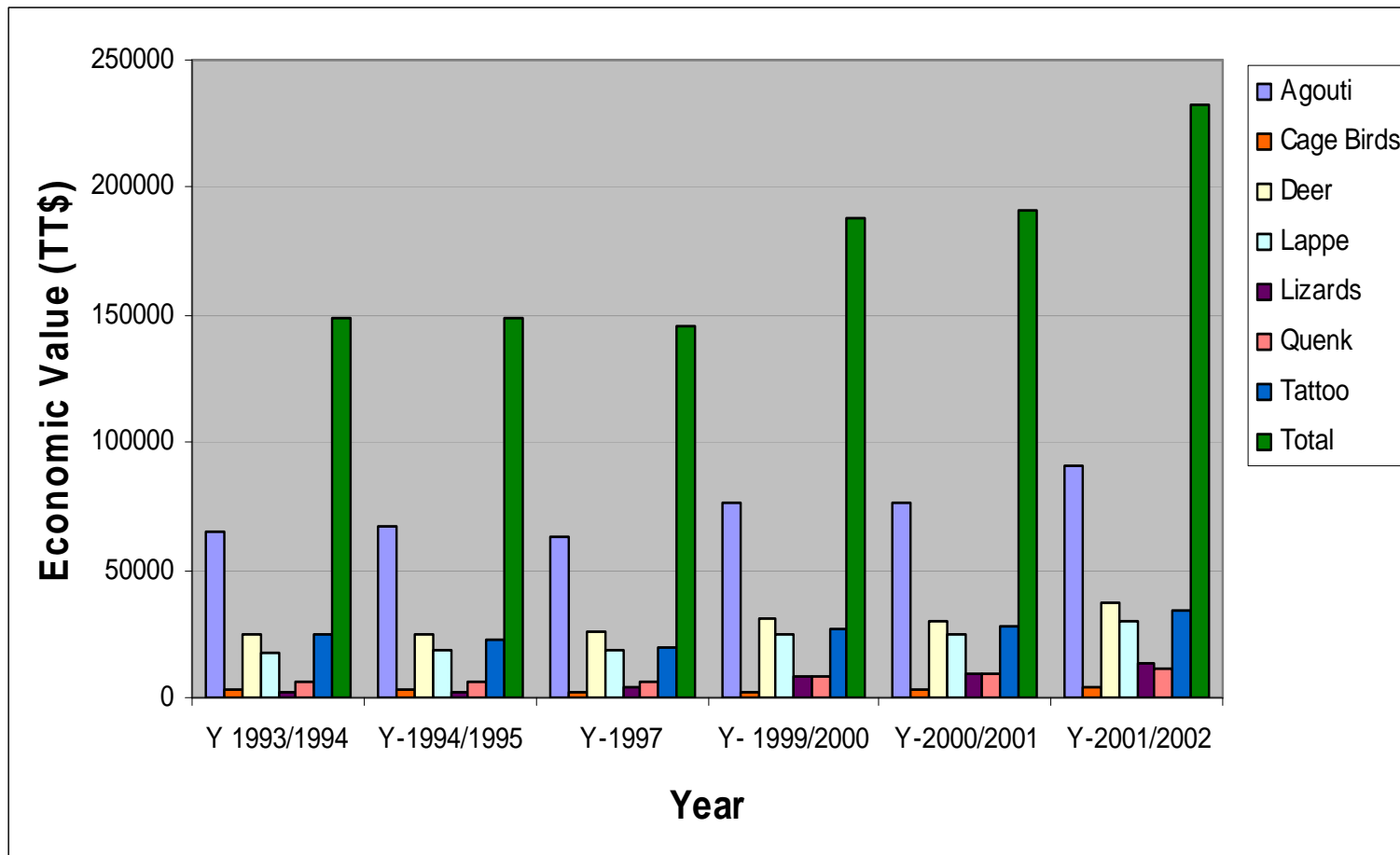
Land use	Average annual (t/ha ⁻¹ /year ⁻¹)	Loss factor
Natural forest	0.046	1
Degraded forest	0.516	12
Grassland	2.673	63
Cultivation	11.878	279

Source: Faizool 2002 (based on Forestry Division, Watershed Management Unit)

- Annual average rainfall – 1,617mm
- Years under study – 1984 to 1989

Some animals of **economic** value especially for communities:

- **game species** e.g. lappe, agouti, deer
- **ecotourism** e.g. leatherback turtles, Pawi, oilbird



Source: Forestry Division (1995, 1996b, 1998, 1999, 2002a, 2002b, 2002c, 2003)

Northern Range Driving Forces

- **Land use and changes in land cover**
 - Residential developments (approved and unauthorized)
 - Agriculture and agricultural squatting
 - Logging (legal and illegal)
 - Quarrying
 - Commercial / industrial developments
 - Wildlife/ fish harvesting
 - Wastewater treatment (e.g sewage treatment plants)
 - Fires
- **Indirect**
 - Governance
 - Economic
 - Demographic Factors
 - Increasing demand for recreation
 - Culture and behavior
 - Climate variability



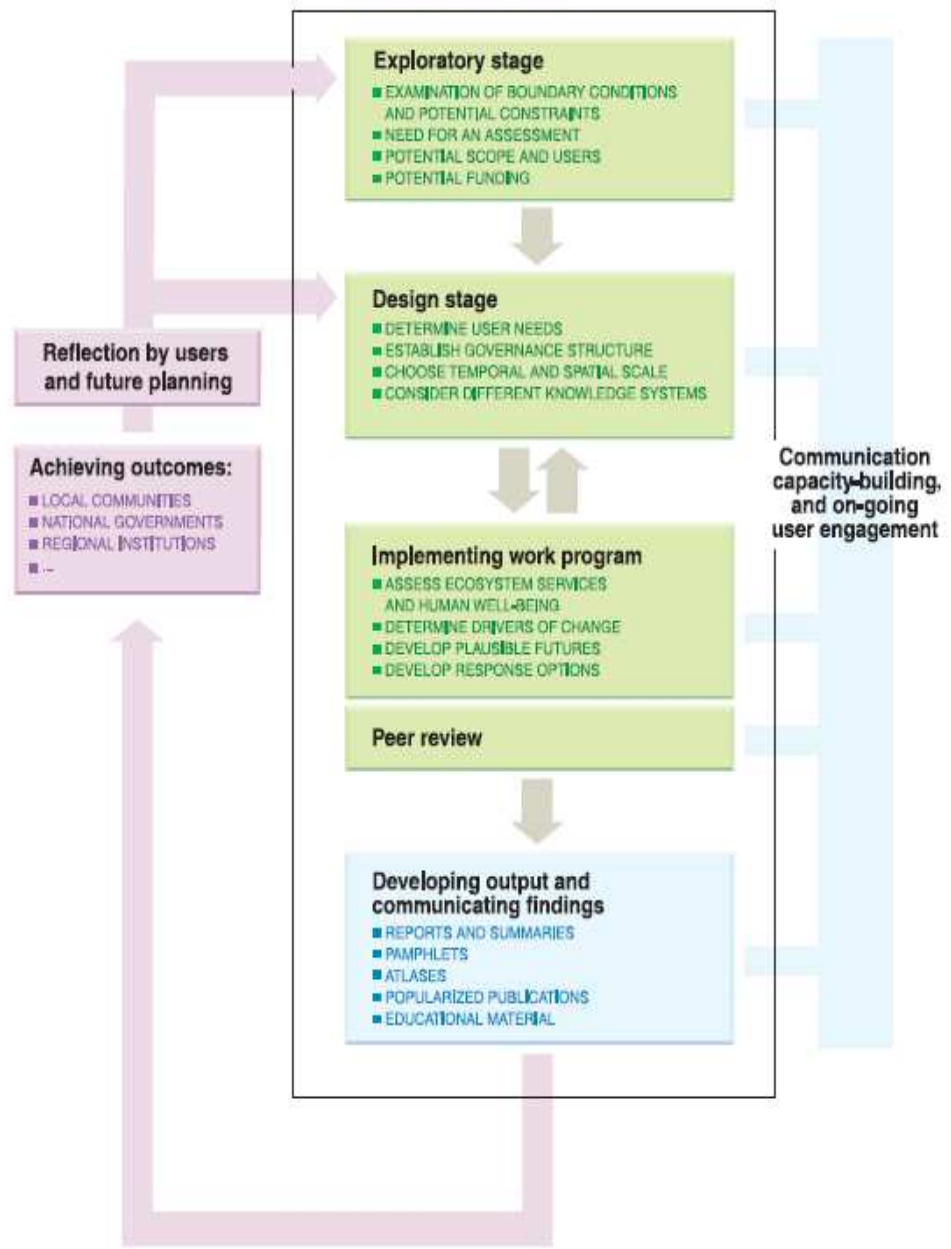
Assessment of Northern Range Responses

- Implementation of Policy; Enforcement of Regulations
- Integrated Planning; Co-ordination and Collaboration
- Governance Arrangements
- Public Responsibility and Public Education
- Financing Management of Natural Resources
- Research and Documentation
- Monitoring and Evaluation



Boundary conditions and limitations

IMPOSED BY FINANCIAL, POLITICAL, SOCIAL AND ENVIRONMENTAL CONTEXT



Main Northern Range Stakeholders

Assessment Work

- Academic/ Research institution
- Public sector entities
- NGOs and CBOs
- Communities
- Private sector

Outreach/Follow-up

- Communities
- Schools & Public
- Public sector entities
- Academic/ Research institutions
- NGOs and CBOs
- Private Sector

Reflections - What we did right

- Strong leadership
- Governance structure
 - Advisory Committee established early in process
 - Public sector buy-in
 - Statement of user needs
- Steering committee
 - Mixed expertise – natural and social sciences
- Wide range of stakeholders
 - Participatory
 - Three Northern Range communities consulted
 - Different views

Reflections – what we did right

- Connected to Global MA
 - Transfer of learning – global and sub-global
 - Funding
- Adaptive process
 - Internalised and adapted MA Conceptual Framework
 - Assessment made best use of available data/information and capacity
- Review process
 - Build credibility and legitimacy
- Published as National State of Environment Report for T&T 2004
 - Official public document

Reflections – Lessons learned

- Difficult to maintain high level of volunteerism
 - Strong dependence on Secretariat for completion of work
 - Paid consultants for discrete portions
- NR Community perspectives limited
 - Did not effectively make incorporate perspectives of communities
 - scalar component limited
- Scenarios not included
 - Limited data and capacity
- Little connection to CARSEA
 - Did not explore cross-scale connections

The Challenge....

**Think strategically
but act specifically**

Thank you.....

