

What Can We Do?

There are many things that we can do personally, as a community, and as a nation to diminish the threats to the Northern Range and the wider environment.



Primrose
Photo Courtesy Robyn Cross



Deer
Photo Courtesy Robyn Cross



Every Person Can Make a Difference

- Don't ever litter, and don't ever condone it when others do;
- Reduce your consumption of material goods and look for goods with less packaging;
- Support eco-tourism here in T&T and specifically on the Northern Range;
- Buy green products by looking for products with an eco-friendly label;
- Start a compost heap in your garden at home.



Galap
Photo Courtesy Robyn Cross



Pelican
Photo Courtesy Robyn Cross



As a Community

- Start an environmental club in your community for sharing and improving your knowledge about preserving the environment and the Northern Range;
- If your home, workplace, or school has the space, start a vegetable or herb garden;
- Put signs next to light switches, computers, photocopiers and other electrical equipment in your homes and workspaces to remind everyone to switch off and save energy.



As a Nation

- Attend and support public lectures and debates on issues which affect the Northern Range and the environment in general;
- Support the establishment of parks to protect ecosystems and wildlife;
- Report and boycott companies that are doing harm to the environment;
- Write to our leaders in government to demand that laws be enforced and that stronger laws be created.



Matura River
Photo Courtesy Robyn Cross

people and the northern range

Findings of an Assessment of the Northern Range of Trinidad



Northern Range Assessment

The Northern Range Assessment, coordinated by The Cropper Foundation, was published in November 2005 as the Environmental Management Authority's State of the Environment Report 2004. It was carried out by about 30 colleagues, from the University of the West Indies, public agencies and non-governmental organizations, who volunteered their time and expertise.

For more information on the Northern Range Assessment contact:

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Think of the Northern Range and you probably picture lush green forests, clean air and rivers ideal for weekend 'liming'. Most Trinidadians and Tobagonians have, at some point, visited the Northern Range; and many of us, through our daily lives and activities, benefit from, affect, or are affected by this natural system (or ecosystem). Yet, we may not be aware of the relationships between the Northern Range and our well-being, either to us as individuals, or collectively as a society.



Why is the Northern Range Important?

The Northern Range covers approximately one-quarter of Trinidad's land area, and it spans the entire width of the northern part of the island.

As a whole, it might be regarded as Trinidad's most important natural system because of the wealth of resources that it provides:



Biodiversity

- The Northern Range is rich in biodiversity, that is, the **different types of natural systems**, as well as the variety of plant and animal life that they support.
- These include various **forest types**; many **coastal areas**; and **freshwater systems** such as rivers, streams, reservoirs, which are themselves home to a mixture of species from the Caribbean islands, as well as from Continental South America.
- A few of the plants and animals within the Range are thought to be **endemic** (found nowhere else in the world). Popular examples include the Golden Tree Frog, the Luminous Lizard, and the Pawi.
- These species have come about because of separation from parent populations, and because of their ability to specially adapt to climatic and ecological factors in certain areas of the Range. Endemic species are most often found in **remote areas**, such as the higher altitudes.
- The biodiversity of the Northern Range also provides opportunities for **education** (eg. on endangered or threatened species like the Pawi and oilbirds) and for **medical research** (for example with the Howler Monkey which has been shown to be important in Yellow Fever research). Several plants are also of potential medicinal value such as aloes, wild senna, and fever grass.
- Some Northern Range species are of economic value:
 - deer, agouti, lappe and quenk are hunted and sold; Pawi, oilbirds and leatherback turtles provide a source of income for a few Northern Range communities through eco-tourism by offering guided tours;
 - some plants are used for handicraft products (eg. bamboo, calabash and screw pine).
 - other plants are potentially of value if they are grown for sale (eg. orchids, and a plant called *Ryania speciosa* which is used for manufacturing an organic pesticide and which we currently export in small quantities).



forests

- It is estimated that forests cover **approximately 68%** of the Northern Range.
- There are several different types depending on **altitude, soil conditions and rainfall**.
- The forests are most important because they serve as **watersheds** (areas that collect rainfall and give rise to our rivers and streams, as well as replenish groundwater sources), and thus they contribute significantly to Trinidad's water supply.
- During times of heavy rainfall, **forest vegetation and root structure** also help to reduce excessive soil erosion and flooding in the low-lying areas.
- Forests also provide opportunities for **recreation** (such as hiking) and education, (eg. at the Asa Wright Nature Centre).



freshwater

- Freshwater is perhaps the **most important resource** provided by the Northern Range to Trinidad.
- It is estimated that the **thirty-five watersheds** of the Range (or valleys that collect and drain water) provide 80% of the water that goes into rivers and streams, and 65% of the groundwater sources exploited for human use in Trinidad and Tobago.
- The rivers of the Northern Range are also important for **recreation** (river 'liming'), **spiritual and cultural events** (eg. the *Orisha Rain Festival* and the *Ganga Dhaara*), and as a source of **livelihoods** for some Northern Range communities through fishing (eg. for crayfish, mollusks and tilapia).



Bamboo Cathedral



Coastal Recreation and Tourism

- Some of the most popular recreational **beach sites** (eg. Maracas and Grande Riviere) and **vacation homes** (eg. Toco and Blanchisseuse) in Trinidad, are found within the Northern Range.
- Additionally, a few communities on the North and Northeast Coasts depend on coastal resources for their **livelihoods** (eg. fishing, leatherback turtle tours, seamoss collection and sale).



Maracas Beach



freshwater Pool at Asa Wright

What has been happening to the Northern Range resources and how does it affect us?

Many Northern Range resources are declining. The most noticeable and significant effects are:



Mangrove Loss due to:

- Demand of land for development;
- Lack of understanding of the importance of mangroves, especially for protection of the shoreline.



Children Bathing
Photo Courtesy Robyn Cross



forest Loss due to:

- Housing** (both approved and unauthorized) on the southern slopes of the Range, has led to deforestation. Housing continues to spread rapidly eastward and higher up the valleys.
- Agriculture**, which often uses land-clearing activities such as slash-and-burn. Sometimes, fires spread and affect large areas of forests.
- Quarrying**, for which large parcels of land are cleared, and generally not restored.
- Timber harvesting**, for which reforestation does not keep pace with rate of removal.



River and Coastal Pollution due to:

- Use of chemical fertilizers and pesticides, which pollute rivers and streams.
- Dumping of both solid and liquid wastes**, including household garbage and grey water, and industrial effluents, in amounts greater than can be assimilated and purified by the ecosystem. Some wastes are non-biodegradable.
- Recreational activities** e.g. a significant increase in the yachting industry has caused rapid expansion in coastal infrastructure and increased sewage pollution.



There are Serious Consequences to the Loss of forests, Pollution of our Waterways and Coasts, and Mangrove Loss, such as:

- Decreasing freshwater quantity**. With less forest cover to help trap rainfall within watersheds, we will in time experience a decline in the amount of water that is naturally available from the Northern Range. This may cause us to rely more heavily on expensive, technological methods (such as desalination).
- Decrease in the quality of potable water**. Soil erosion is increasing the amount of silt in the island's rivers, which increases the cost of water purification. Added to this is the pollution of waterways from agricultural, domestic, and industrial activities.
- Exacerbated flooding and landslides**. The sustained removal of forest cover (and other vegetation) contributes to the problems of flooding and landslides during the rainy months, and puts human security and health at risk.
- Loss of biodiversity** with the attendant loss in all the services and opportunities which it provides.
- Loss of amenity value**. Our opportunities for recreational activities in the forest are reduced. Pollution of rivers, siltation, and flooding impacts on beaches and coastal waters, further reducing the quality of recreational sites.



Diego Martin Valley
Photo Courtesy Robyn Cross



How are these issues being dealt with and how can they be improved?

Many policies and plans have been designed to guide our use of the Northern Range's resources. Some of these were written up to 30 years ago and have either been poorly implemented or not implemented at all. Local area plans which exist for Maraval (1974) and Santa Cruz (1976) never got beyond the draft stage.

Over the past 10 years, many more plans and policies have been put forward from a number of government ministries. However, the links between these policies are not made explicit and there is no clearly articulated common goal which they are working towards.

Unfortunately, these plans and policies have not translated into effective action. Improvements can be made by:

- Defining clear measures for the impact of a policy on the well-being of our citizens;
- By implementing policies effectively and rigorously enforcing laws;
- By ensuring all agencies operate consistently with these policies and make use of synergies.