



Climate Change Education atThe University of Technology, Jamaica

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Presentation Outline

- Introduction to the University of Technology Jamaica (UTech)
- Climate Change Education at UTech
- Some Factors Affecting Climate Change Education in Jamaica
- Opportunities for Partnerships



University of Technology, Jamaica

<http://www.utech.edu.jm>

- President Hon. Prof. Errol Morrison
- The University of Technology, Jamaica (UTech) dates its beginning from 1958, originally as the Jamaica Institute of Technology. Accorded University status on September 1, 1995 as the University of Technology, Jamaica (UTech)
- UTech is a major national institution with a student population of over 12,000 and offers more than 50 programs at certificate, diploma and degree levels



Mission

- To Stimulate Positive Change in Caribbean Society through the Provision of High Quality Learning and Research Opportunities and Service to our Communities



Vision

In 2015, The University of Technology, Jamaica will:

- Provide innovative and expanded access to learning
- Offer innovative, transformational, profession-driven and leading-edge programmes
- Have in place high quality staff who are professionally competent, innovative and leaders in their own field
- Operate with high quality, relevant resources and facilities

Resulting in:

- Recognition for its leadership in entrepreneurship, research, technology innovation and exceptional customer care
- The well-known and respected UTech brand
- Globally competent, versatile, innovative entrepreneurial graduates
- A positive impact on society



Vision

- Flexibility in its academic programmes is reflected in the various modes of course delivery, which include **full-time and part-time** (day release and evening) and **cooperative work-based programmes**. Several credit and non-credit courses are offered during the **Summer Session** from mid-May to August. In addition, several programmes are **franchised through links with community colleges**, and most programmes are linked to national and international professional organizations.

Five Faculties and Two Colleges



College of Health
and Science



College of
Business and
Management



Faculty of Education
and Liberal Studies



Faculty of Science and
Sport



Faculty of Engineering
and Computing



Faculty of the
Built
Environment



Faculty of
Law



Climate Change Education at UTech

- A module in undergraduate degree program - Urban and Regional Planning (URP1001) *Introduction to Environmental Planning*
- Climate Change is introduced in the unit that deals with global environment phenomena. This module is delivered to first year students in URP programme and is offered as an elective to other university students in other faculties.
- Students are introduced to the causes of climate change (both natural and man-made), the consequences for climate change in planning/built environment, solutions, a review of efforts/policy/programmes to minimize the impacts of climate change and future trends/thinking.
- Similarly the concept of Sustainable development is introduced.



Climate Change Education at UTech

- A new Masters course was introduced in 2011- M.Sc. in the Built Environment which offers a core course in Sustainable Land Management
- This course has a strong focus on Climate Change impacts , Mitigation and Adaptation in the built environment
- 19 students specializing in construction management, urban design/architecture , community development, law ,renewable energy



Climate Change Education at UTech-SLM

- Sustainable Land Management Principles , Sustainable Livelihoods, Renewable Land Resources
- Land use types and their challenges. Understanding the importance of sustainability in various land uses-agriculture forestry, conservation, cities . Risk analysis in SLM
- **Critical Thinking about Conflicts, Barriers, Incentives in SLM**
- The world of the soil , Degradation processes Deforestation and land use change , farming systems. Case studies analysis . PESTEL and other analytical tools
- Policy and interventions for sustainable land management e.g. Agricultural Policy, Land Use, Forestry, Environmental



Sustainable Land Management

Ecosystem Services : Land management in in Small Island Developing States

- Multi-functional land use in different land use systems, Impact of Climate Change on land uses
- Water , Carbon and Biodiversity –disaster risk mitigation
- Food versus Energy security – energy crops vs. food integrated agricultural development
- Initialising Sustainable production. Synthesis of concepts and principles to prepare a SLM model applicable to a selected land use e.g. agriculture, waste management
- **Understanding the Role of the Resource Manager in SLM**



Student Volunteers

- Energy Monitoring and Auditing Team is a voluntary group of students (>80) from various faculties- Engineering, Science and Sports, Education, Business and Management, Built Environment
- Students are trained by the Director of Sustainable Energy to conduct Level 1 Energy Audit and Environmental Sustainability
- Climate Change is integral to the sensitization and students are encourage to calculate their carbon footprint, reduce reuse and recycle.



EMAT

- EMAT is a student oriented movement to help the University to go green by focusing on :
 - Energy savings
 - Carbon Foot print reduction
 - Climate change
 - Recycling



EMAT Earn and Study Students

- Students volunteers and earn and study students monitor classrooms to reduce energy costs
- Post energy saving and water conservation tips across the campus
- Conduct surveys on student and staff perception on energy conservation and efficiency
- Visit schools in surrounding communities and teach students about energy and water conservation and environmental principles



Community Service Program (CSP)

- UTech actively encourages volunteerism as a way of life .
- The CSP is mandatory for all students (40 hours).
- Energy Monitoring and Auditing Team (EMAT) is one of the many programs students serve. Some activities :
- >500 students impacted in 3 months



Assessment of Climate Change Knowledge in Jamaica

- A Study entitled “*The Jamaica Climate Change Enabling Activity (JCCEA)*”, conducted by The Meteorological Services of Jamaica in 2005 assessed the Jamaican population’s knowledge, attitude and behavioural practices with regards to climate change

- The study found:

The fact that most respondents from the general public and children stakeholder groups worked or spent most of the days outside their communities should be of critical importance when dealing disaster planning. This tendency to pass the buck to someone else is a real issue that will have to be overcome in any efforts to get the general public to start behaving in a more environmentally responsible manner.



Assessment of Climate Change Knowledge in Jamaica

- *In addition, some felt that the media could exercise more creativity in imparting the messages about the environment and climate change. The use of billboards was also suggested.*
- *The schools are ideal for starting this process of awareness and responsible environmental usage and thus should be used more for climate change education.*
- *With the regards to media usage, the most popular methods chosen for transmitting information about climate change were television and radio. Almost all the respondents who gave an additional opinion on how the media could be more effective in delivering this type of information and increasing public awareness felt that this could be achieved through the use of programmes specifically dedicated to informing about climate changes.*



Climate Change and Jamaica

- In 2009, German watch, a Non Governmental Organization (NGO), analyzed the vulnerabilities of 150 countries to the impacts of weather related loss events, such as hurricanes and floods.
- Jamaica was ranked among six Caribbean countries in the 40 most affected countries
- Climate Change has already caused major losses of natural and manmade resources, for example, studies have shown that the 2004 hurricane season resulted in an estimated loss to Bahamas, Grenada, Jamaica and the Dominican Republic of about US\$2.2 billion.



Climate Change Education in Jamaica

- Panos Caribbean – Focus on educating the media on Climate Change
- NGO and community focus
- Local Forestry Management Committees
- University of the West Indies (UWI) Centre for Climate Change Studies
- Northern Caribbean University
- Seminars and conferences



Local Forestry Management Committees

- 10 such committees across the island. They are in the Northern Rio Minho region in Clarendon; Pencar watershed in St. Mary; Dolphin Head in Hanover; Spring Bank in St. Thomas; Buff Bay in Portland and three in the Cockpit Country, Dallas Castle and Constitution Hill



Climate Change Education in Jamaica-Prospects

- A new Ministry of Water, Land, Environment and Climate Change – 2012
- Climate Change Advisory Committee to be established
- Local Forest Management Committees (LFMC)
 - The committees fall under the European Union (EU)-funded €4.13 million Climate Change Adaptation and Disaster Reduction Project, which comes under the Global Climate Change Alliance in African, Caribbean and Pacific (ACP) countries
- Five key elements: reduce, replenish, recovery, recycle and re-use



The Approach to Reduce the Effects of Climate Change

- Covers three main areas of activity
 - watershed management,
 - forest resource management
 - coastal and marine resource preservation.
- Billions of dollars already spent on a variety of projects to manage coastal areas and forests e.g. From Ridge to Reef, CWIP, Community Empowerment and Transformation Project etc.



Opportunities for Partnerships

Recommendations:

- Research in Climate Change issues to be forged to measure the effectiveness of selected interventions
- Structured courses in Climate Change to be offered or expanded at all levels of the education system
 - Primary
 - Secondary
 - Tertiary



Thank You