



Report on the Process Undertaken towards the Institutionalization of Green Economy Course/Training at the University of the West Indies

**“ Understanding and Operationalizing the Green Economy into National
Development Planning in the Caribbean Context ”**



January 31, 2016

Table of Contents

Background and Introduction	3
The Process of Institutionalization	5
Steps in/Methodology for Institutionalizing the Green Economy Course at UWI	5
Step 1: Development of Green Economy Curriculum	6
Step 2: Development of the Green Economy Training Manual	8
Step 3: Delivery of Pilot Training course in Two Countries – Jamaica and Saint Lucia	10
Step 4: Participant Evaluation of Pilot Training Course	11
Step 5: Undertaking of a Knowledge, Attitudes and Practices Study	12
Step 6: Review and Revision of Manual and Curriculum (2nd Draft)	15
Step 7: Undertaking an Assessment of the Courses at UWI to Facilitate Institutionalization	15
Steps 8 & 9: Hold Meetings and Consultations to advance the Institutionalization Process	17
Step 10: Undertaking consultations to Advance Online	17
Step 11: Revise training manual and curriculum based on consultations with key stakeholders (lecturers and heads of departments), incorporating their comments and feedback	18
Step 12: Prepare UWI Course Content	18

Background and Introduction

Within the past five years, Caribbean governments have been discussing the movement of the region towards a “green economy” (GE) to support the sustainable development of the region. In 2014, the Green Economy Caribbean Political Advisory Group (GEPAG) was formed and held its first meeting in May at the University of the West Indies (UWI). This group is being supported by the United Nations Environment Programme (UNEP) within its Green Economy Initiative (GEI). The GEI, launched in late 2008, has an overall objective *to provide the analysis and policy support for investing in green sectors and in greening environmentally unfriendly sectors.*

UNEP defines a green economy as one that results in “improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities”¹. A green economy can reduce carbon dependency, improve climate change resilience, promote resource and energy efficiency and lessen environmental degradation and at the same time improve people’s livelihoods and reduce poverty.

To make the transition to a green economy, enabling conditions will be required at the national, regional and international levels. These enabling conditions include national regulations, policies, subsidies and incentives; regional policies and standards and international markets, trade, capacity building and technical assistance.

To support the Caribbean’s movement towards a green economy, the GEPAG is charged with undertaking research, outreach and capacity building in the public and private sectors in key areas that are needed to support different steps of a green economy transition. As a starting point, the group will conduct a needs assessment to evaluate the capacity needs among decision makers in the Caribbean required to enable the transition to a green economy including:

- substantive capacities, such as the understanding of the green economy concept and the ways and means to incorporate green economy in national planning processes and sectoral policies and plans, highlighting the potential of green economy policies for achieving sustainable economic growth, poverty reduction and environmental conservation
- institutional capacities, including the ability to identify, design and introduce enabling conditions and tools relevant for a green economy transition, such as trade and investment policies
- process-related capacities (understanding of planning processes leading to the implementation of the relevant tools).

¹ UNEP Green Economy Initiative –www.unep.org/greeneconomy/AboutGEI/WhatisGEI/tabid/29784/Default.aspx

A training programme on moving toward a green economy was developed as part of the overall project to address the capacity needs identified to date. This training programme was delivered in 2014 to professionals in two countries – Jamaica and Saint Lucia – currently working in areas such as policy development, economic analysis and development, environmental management, in the public sector, private sector and in non-governmental and community organizations.

This training programme provided a model for integration of GE training within academic institutions and particular the University of the West Indies. This Paper details the process for the institutionalization of the Green Economy Course at UWI. Delivery of the green economy course titled “*Understanding and Operationalizing the Green Economy*” will be offered to students at the Mona Campus of the UWI starting in academic year 2016/17. Options for an online version of the course will also be presenting. The course which will be offered as a stand along will be part of a degree programme at the Masters level.

The institutionalization of this GE training programme within UWI is being pursued as part of a plan to ensure that over time there will always be a set of skills in the region to implement actions in various sectors and disciplines to transition to a green economy. Also, this training programme will be a model for adaptation for small island developing states in other areas of the world, for example in the Pacific, Indian Ocean, Asia or Africa.

The Process of Institutionalization

From the inception of the design of a capacity building component of the Green Economy project, it was the intention of the United Nations Environment Programme and UWI Consulting for the green economy course to be institutionalized at the University of the West Indies.

Whilst it is customary for training programmes to be designed and developed in the non-formal training sector, that is, by institutions whose core mandate is not training, the sustainability of the information and training content could be institutionalized in the formal education sector. In fact, for sustainability it is wise to do this. The design, development and delivery of training in the non-formal sector is often undertaken to meet a specific short-term need of an organization or an entity to better implement specific aspects of their core mandate or to undertake the implementation of a specific project or short-term intervention.

In this case, UWI Consulting with support from UNEP, sought to develop this GE training programme for key officials in the public and private sectors and civil society organizations to be better placed to understand the importance of a transition to a green economy and to be able to effectively contribute to the development of policies and programmes to enable the countries of the Caribbean toward achieving economic development that also facilitates the accomplishment of social and environmental goals.

It is clear that the skill set for GE will continuously be needed in the near term and a one-off training programme will not be sufficient to build this cadre of individuals in the Region. It is therefore necessary, given limited human and financial resources, to seek ways in which this training can be delivered outside of a one-off training programme but by an entity whose core mandate is education/training and capacity building. This will ensure that there is a continuous increase in the stock of professionals who are able to infuse GE issues into national development initiatives or in private sector endeavours.

It must be noted that ongoing opportunities for learning are essential to effectively increase knowledge, improve attitudes and skills, and strengthen capacities over time. One-off training is insufficient to build the required cadre of professionals over time who are able to fully understand the methodologies and the tools that need to be employed in transitioning to a green economy.

Steps in/Methodology for Institutionalizing the Green Economy Course at UWI

The 12 steps undertaken towards the institutionalization of the Green Economy Course at UWI will be listed and each step and the methodology employed described.

Step 1: Development of Green Economy Curriculum

Step 2: Development of the Green Economy Training Manual and other related materials

Step 3: Delivery of pilot training course in two countries – Jamaica and Saint Lucia

Step 4: Participant Evaluation of Pilot Training Course

Step 5: Undertaking of a Knowledge, Attitudes and Practices Study to inform green economy initiatives in the region as well as the content of a green economy training programme to be delivered over the long term

Step 6: Review of Manual and curriculum to take into account comments and issues arising during the pilot delivery

Step 7: Undertaking an assessment of the faculties and courses at the universities and determining which courses would provide a fit for the course to be institutionalized

Step 8: Hold meetings and consultations throughout the institutionalization process with the Pro-Vice Chancellor (a university position that covers all campuses) for post graduate studies to assist with the institutionalization process as well as engaging key faculties and lectures to better understand the content of the course and the rationale for introducing the course

Step 9: Undertaking consultations with faculties, departments and key stakeholders to review the curriculum, training materials as well as determine the department that will have the preferred fit to offer the training

Step 10: Undertaking consultations with the centre at the UWI responsible for online training delivery on the possibility of including the green economy course as part of the university's online platform

Step 11: Revise training manual and curriculum based on consultations with key stakeholders (lecturers and heads of departments), incorporating their comments and feedback

Step 12: Prepare UWI Course Content and liaise with department that would be offering the course to recommend a course code and provide same to the Pro-Vice Chancellor for tabling at the UWI Senate Committee for final approval.

Step 13: Delivery of course at UWI 2016/17

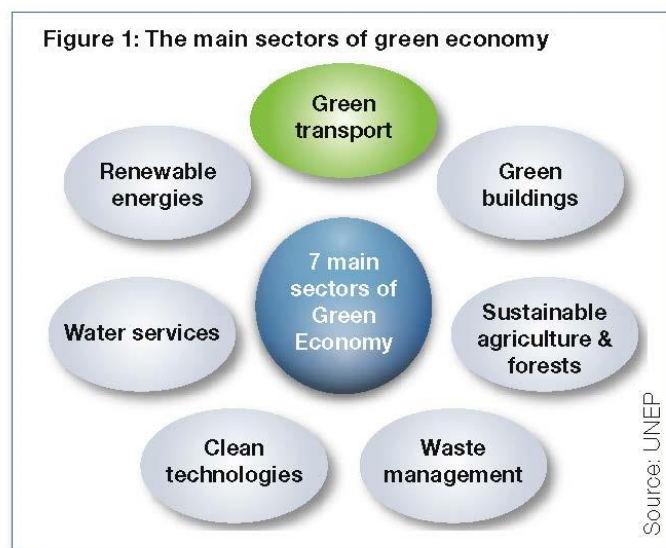
Step 1: Development of Green Economy Curriculum

Step 1 was part of the overall Green economy project which led to the development of a curriculum designed to introduce green economy concepts to persons employed in the public and private sectors of two countries. The original curriculum was titled *“Understanding and Operationalizing the Green Economy into National Development Planning in the Caribbean*

Context” and was designed to build capacity of key individuals in the public and private sectors to understand the importance of a transition to a green economy and to provide them with an understanding of the tools to do so. The curriculum was designed to ensure that when the course was developed, it would be able to equip participants to develop policies and programmes to move the countries of the Caribbean toward achieving economic development that also facilitates the accomplishment of social and environmental goals.

The construct for the curriculum was based to a large extent on the work undertaken prior to Rio+20 on the Green Economy and the work on the subject advanced by UNEP. The curriculum also took into consideration discussions within the Caribbean that are aimed at facilitating the emergence of the region’s own unique development pathway towards a green economy.

Since in the Caribbean, the green economy is generally being used to represent both an approach to development as well as a vision of an economy in which the three pillars of sustainable development – social, economic and environmental development – are in synergy and working at the community, national and regional levels – the curriculum was developed in tandem with these ideologies.



The curriculum was designed to target the following key groups for the training:

- Professionals who have responsibility for developing national finance, economic and development policies
- Professionals who have responsibility for developing policies that have impacts on the natural environment or interact with the natural environment (e.g. tourism, energy, agriculture, land use planning etc.)
- Professionals working in areas of natural resources conservation and management (e.g. in forestry, fisheries, agriculture, coastal ecosystems, watersheds etc.)
- Professionals in key sectors such as tourism, energy mining, transport and manufacturing – sectors that have the potential to impact the natural environment – but also sectors that can contribute to sustainable use and management of natural resources

The curriculum included the following key areas:

- Course Description
- Target Group
- Course Objectives / Learning Outcomes
- Course Modules

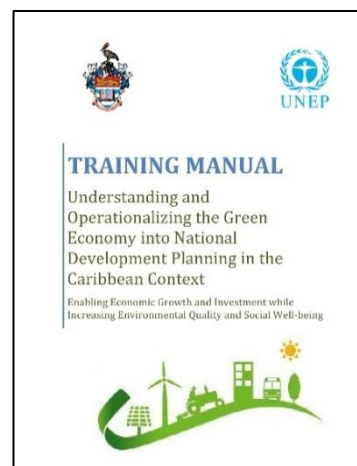
- Delivery Methodologies
- Assessment Methodologies
- Learning Resources
- Certification

The curriculum formed the basis for the development of the green economy training manual, fact sheets, a green economy workbook as well as the identification of appropriate resources to support course delivery as well as the overall institutionalization process.

Step 2: Development of the Green Economy Training Manual

Step 2 involved the development of the green economy training manual and other associated materials such as fact sheets and a green economy workbook. A listing of resources that would be of relevance also were identified.

The manual developed to support the green economy course was titled *“Understanding and Operationalizing the Green Economy into National Development Planning in the Caribbean Context: Enabling Economic Growth and Investment while Increasing Environmental Quality and Social Well-being”*. The 188-page manual is made up of 5 modules as follows:



Modules	Overview of Module	Objective of the Module
Module 1 – Introduction to the Green Economy Approach	Module 1 presents an introduction to the green economy. It describes some of the international discussions that have given rise to the term and discusses varying definitions. This module presents a rationale for moving toward a green economy by describing current prevailing conditions which are not meeting the environmental, economic and social goals of sustainable development. The module examines the drivers and opportunities for change in the Caribbean that have led towards embracing a green economy approach and identifies some challenges to do so. This module also describes linkages between the natural environment and major economic sectors to provide a basis for understanding some of the necessary changes that must be made.	<ul style="list-style-type: none"> • Generate discussion about concepts, definitions and principles related to a green economy within the Caribbean context • Make the case for moving toward a green economy • Identify drivers within the Caribbean which are facilitating the move toward a green economy • Discuss barriers that must be overcome to transition to a green economy • Examine ways of strengthening and supporting intra-Caribbean and intra-SIDS cooperation on the green economy
Module 2 – Creating an Enabling Environment for the Transition to a Green Economy	Module 2 presents the requirements for Caribbean countries to move toward a green economy. The module describes a variety of policy tools that will help to undertake a successful transition and	<ul style="list-style-type: none"> • Identify the key conditions that must be in place for transition to a green economy • Examine different policy tools that can

Modules	Overview of Module	Objective of the Module
	<p>describes some supporting conditions that need to be established that will facilitate effective policy implementation.</p> <p>Module 4 provides sector-specific discussion and policy recommendations.</p>	<p>enable the green economy transition</p> <ul style="list-style-type: none"> • Understand how to account for market externalities • Determine appropriate market-based tools to facilitate the green economy transition • Examine finance for the transition to a green economy
<p>Module 3 – Creating New Business in a Green Economy</p>	<p>Module 3 presents an overview of how a transition to a green economy can create new employment opportunities and reduce poverty. The module discusses issues related to the creation of green jobs and what are some of the enabling conditions for this to happen.</p> <p>Module 4 provides some sector-specific examples related to the issues described in Module 3.</p>	<ul style="list-style-type: none"> • Identify specific interventions in a green economy that can help to alleviate poverty • Examine the green jobs discussion • Identify the sectors which offer the best opportunities for employment in a transition to a green economy • Examine issues related to trade and the green economy
<p>Module 4 – Transitioning to a Green Economy in Key Sectors</p>	<p>Module 4 presents an analysis of six key economic sectors in the Caribbean – energy, tourism, transportation, agriculture, fisheries and health – and how they can be repositioned to facilitate a green economy. This module examines energy and transportation as cross-cutting issues and identifies areas for development and use of renewable energy as well as increasing energy efficiency. The module presents issues and strategies for transitioning to a green economy in tourism, agriculture and fisheries, examining issues related not only to energy but also to the use of the natural capital upon which they are based. Also, the module addresses how health underpins a green economy.</p> <p>Module 4 provides some sector-specific examples of general tools and approaches described in Module 2.</p>	<ul style="list-style-type: none"> • Identify the key issues related to five key economic sectors in the Caribbean • Discuss enabling conditions required for transitioning to a green economy in these sectors • Explore sector-specific approaches to move toward a green economy
<p>Module 5 – Measuring Progress towards a Green Economy</p>	<p>Module 5 presents indicators which can be used to track progress towards social, economic and environmental outcomes of a green economy and links green economy indicators to the post-2015 development agenda which seeks to move beyond the Millennium Development Goals (MDGs) to the new Sustainable Development Goals.</p>	<ul style="list-style-type: none"> • Examine which green economy indicators are appropriate for the Caribbean in general as well as for individual countries in the region. • Discuss how green economy indicators can be linked to the post-2015 development agenda and the new Sustainable Development Goals.

Each module contains relevant case studies as well as group exercises and complements the green economy work book that also was developed.

Four fact sheets were developed as follows:

- Enabling Environment for the Green Economy
- Green Economy and Employment
- Green Economy Indicators
- Introduction to the Green Economy

The curriculum and the training manual formed the context for the delivery of two pilot courses – in Jamaica and in Saint Lucia in 2014.

Step 3: Delivery of Pilot Training course in Two Countries – Jamaica and Saint Lucia

During the 3rd quarter of 2014, two workshops were organized in Jamaica and Saint Lucia to deliver the green economy training course and to obtain feedback on the course content as well as the manual itself. These workshops were 2-day workshops and involved persons from the public and private sectors as well as from civil society organizations. Overall, 78 persons attended the workshops – 41 in Saint Lucia and 37 in Jamaica.

All participants received the following documents:

- Caribbean Green Economy Training Manual
- Caribbean Green Economy Work Book
- Fact Sheets on the Green Economy

Throughout the training, which was highly interactive, participants also referred to their own national documents such as sector plans (for energy, agriculture, tourism, transportation, etc.).



Image 1: Participants at the Green Economy Training Workshop held October 2014

Step 4: Participant Evaluation of Pilot Training Course

The participant evaluation of the pilot training course provided inputs into the review and revision of the training manual. The table below shows a synopsis of the evaluation of the course for the two countries.

Saint Lucia	Jamaica
<ul style="list-style-type: none"> • 78.3% of the participants rated the workshop content as excellent or very good, with another 17.4% rating the workshop content as good • All participants felt that this workshop contributed to increasing their knowledge on the green economy • 82.6% of participants rated the Training Manual as excellent or very good, whilst 13.1 percent rated it as good • 70% of the participants rated the discussions as excellent or very good and 26.1% rated the discussions as good • 78.3% of the participants rated the facilitator as excellent or very good and 13.4% rated her as good. 	<ul style="list-style-type: none"> • 77.6% of participants rated the overall workshop as either excellent or very good • 84.7% of the participants rated the workshop content as excellent or very good, with another 15.4% rating the workshop content as good • All participants felt that this workshop contributed to increasing their knowledge on the green economy • 69.3% of participants rated the Training Manual as excellent or very good, whilst 23.1 percent rated it as good • 77% of the participants rated the discussions as excellent or very good and 23.1% rated the discussions as good • 92.3% of the participants rated the facilitator as excellent or very good

The specific comments received by participants also assisted with the revision and refinement of the training manual.

Step 5: Undertaking of a Knowledge, Attitudes and Practices Study

A Knowledge, Attitudes and Practice (KAP) Study was undertaken at both pilot workshops in an attempt to inform overall green economy initiatives in the region as well as the content of the green economy training programme to be delivered over the long term. The KAP questionnaire was distributed and completed by participants before the actual start of the green economy workshops in Saint Lucia and Jamaica. Undertaking the KAP prior to the start of the workshop was a good strategy to ensure that the information contained in the questionnaire was not influenced by the “new” knowledge they received during the workshop. The questionnaire comprised 22 questions which were designed to obtain information on knowledge, attitudes and practices of key stakeholders with respect to green economy and environmental issues in general. This KAP study employed both a quantitative and qualitative approach and was achieved through the use of a questionnaire that contained both closed-ended and open-ended questions.

This KAP study is designed to address the following key objectives:

- To understand knowledge and attitudes of key stakeholders in the public and private sectors with respect to issues and opportunities for the green economy
- To document actions and/or approaches/practices (e.g. strategies, initiatives and current projects) either being developed or undertaken by stakeholders, which are aligned to support the green economy and sustainable development
- To document existing capacities, such as the understanding of the green economy concept and if the notion of the green economy is being incorporated in national planning processes and sectoral policies and plans
- To document institutional capacities that currently exist or are being put in place (including the ability to identify, design and introduce enabling conditions and tools relevant for a green economy transition, such as trade and investment policies)
- To document process-related capacities – existing and future (for example, understanding of planning processes leading to the implementation of the relevant tools)
- To investigate potential change mechanisms and/or strategies and enabling conditions that will be required at the national levels to support a transition to the green economy

Conclusion – Knowledge

Saint Lucia

Of the 40 participants under consideration from the Saint Lucia survey, more than 50% of them can be classified as having low levels of knowledge on issues related to the green economy. This is based on the following findings:

- Participants' own perception of their knowledge of green economy issues – as many as 62% of respondents indicated that they had only fair knowledge of green economy issues.
- More than 45% of participants indicated that the green economy replaces sustainable development.
- More than 55% of participants were not aware of some of the main concepts relating to GE such as low carbon development and circular economy.
- Over 85% of participants were not aware of the linkages between the green economy and other sectors of the society – particularly economic and social – and were more inclined to link the green economy with the environmental sector.

Jamaica

Based on the forgoing analysis, it could be estimated that as many as 50% of participants have low to fair knowledge of green economy issues. This is based on the following findings:

- More than 40% of participants could not adequately define the green economy and could not accurately identify the principles related to the green economy.
- As many as 90% of participants were not able to identify that a green economy approach could result in economic, social and environmental benefits and not just environmental and climate change benefits.
- Participants' own perception of their knowledge of green economy issues showed that 87% of them felt that they had from no knowledge to fair knowledge.

Conclusion – Attitudes

Generally, participants expressed a good and positive attitude towards wanting to improve the state of the natural environment as well as play a role in helping to transition their economies to becoming green. This positive attitude is emphasized by the following:

- 100% of participants indicated that it was important to place a value on ecosystems.
- 100% of participants felt that they had a role in shaping and/or changing their economy to one that is green.
- 93% of participants indicated that they had an interest in advancing the green economy in their country through the work that they did.
- Lack of political will and limited financial resources were identified as two of the main barriers transitioning to a green economy.
- Over 85% of participants indicated a desire to purchase environmentally friendly and green products.

Conclusion – Practices of Governments and Knowledge of Practices in Country

Whilst participants displayed a strong interest in the idea of transitioning to the green economy and in wanting to play a part in facilitating this transition, their knowledge and understanding of practices that are components of effecting this transition (for example, green public procurement, natural resource valuation) as well as the experience to undertake policy changes (e.g. infusing sustainability issues into non-environmental policies) to advance sustainability is limited.

Development of Enabling Conditions for Transitioning to the Green Economy

...Recommendations Emerging from the KAP Study

The KAP study provided valuable information on the knowledge, attitudes and practices of key technical officials with respect to green economy issues. By knowing the level of knowledge and the current attitudes of participants as well as their knowledge of, and experience in certain practices, carefully designed interventions, training and capacity building programmes can now be designed towards achieving better outcomes to effect this transitioning to the green economy.

The KAP study produced data that were informative, insightful and broadly useful. The results of the KAP study will play a critical role in identifying key strategies that should be developed and implemented to advance the green economy in the Caribbean.

A preliminary list of key initiatives is presented below:

- Increase information sharing and provide key platforms or knowledge networks or nodes for disseminating information on GE issues to technocrats as well as policy makers.
- Develop a training programme and consider peer-to-peer learning to build capacity of key stakeholders to be able to infuse sustainability issues into non-environmental-related policy areas and to advance the understanding and practice of undertaking strategic environmental assessment of national policies, plans and programmes.
- Create a framework that could better assess national institutional capacities necessary for the transitioning to the green economy.
- On an individual country level, create mechanisms that would enable the use of the GE principles to help guide practitioners in the application of the green economy concept.
- Enable the establishment of a GE node at the University of the West Indies that would be designed to provide national governments with a strong research and information base, for helping governments better understand the underlying causes of problems and playing a key role in advancing effective and efficient solutions; as well as promoting the free exchange of knowledge, data, lessons learned; provide guidance

between policy makers and technical officers, and provide technical officers and other practitioners with a mechanism to explore, evaluate, discuss and synthesize data relating to GE issues.

- Ensure that the regional university is able to sustainably develop a cadre of persons who are trained in GE issues.
- Create programmes that will help to generate the demand for a transition to the green economy by the political directorate – programmes that ensure that the lead policy makers of countries better understand and appreciate the linkages among economic, social and environmental issues as well as enable a more comprehensive understanding of the use of natural capital as engines of growth.
- Create awareness and sensitization programmes on GE issues so that the wider population understands the importance of a green economy and the implication for socio-economic development.
- Develop a toolkit of case studies, lessons learned and best practices from other country experiences as well as other useful resources such as fact sheets that would provide quick resource and reference tools to assist technocrats to easily incorporate green economy issues into national planning frameworks and policy development exercises.

The overall results of the KAP and the recommendations from participants illustrated the importance of institutionalization of a course on the green economy at UWI to create a cadre of individuals over time who would be able to advance the green economy process in the countries in the region.

Step 6: Review and Revision of Manual and Curriculum (2nd Draft)

Following the two pilot workshops, the evaluation from these workshops as well as the regional green economy workshop held in Jamaica 2015, both the curriculum and training manual were revised slightly to take into account comments and issues arising during these.

Step 7: Undertaking an Assessment of the Courses at UWI to Facilitate Institutionalization

Three approaches to guide the institutionalization of the GE course were considered. These were:

1. Infusing components of the GE course into already existing modules or courses currently being offered at the UWI
2. Offering the entire GE course as part of a degree programme, at the Masters Level
3. Using components of the GE course in regular seminar series (such as those offered at the Masters Level in the Department of Economics) as a means of presenting information on green economy issues

In order to assess the possible programmes at UWI that could incorporate a course on the green economy, or more specifically the course “*Understanding and Operationalizing the Green Economy into National Development Planning in the Caribbean Context*”, a complete review of all programmes (both at the undergraduate and graduate levels) at UWI was conducted, including a complete review within each programme of the types of courses offered. The identification of these programmes represents the first step of institutionalization.

From this review, a listing of programmes that could include this course on the green economy was determined and recommendations were made to the University. The table below shows the degree programmes that were reviewed to determine the best fit for the GE course.

Department	Degree Programme
Faculty of Social Sciences	
Department of Economics	MSc Economics MSc International Economics and International Law
Department of Government	MSc in International Public Policy and Development Management
Sir Arthur Lewis Institute of Social and Economic Studies	MSc Development Studies
Faculty of Science and Technology	
Department of Geography and Geology	MPhil/PhD Geography and Geology
Department of Life Sciences	MSc. Natural Resources
Faculty of Humanities and Education	
Department of Education	MEd in Geography Education

Through this review, seven degree programmes across three faculties and six departments were identified as being able to enhance their programme offerings to include either the full GE course or components of the said course. The review pointed to offering the course at the graduate as opposed to the undergraduate level due to the scope of the green economy course.

This analysis also provided a mechanism to begin discussions with the Office of Graduate Studies and to discuss with the Departments themselves.

The fact that the GE course had already been fully developed with a well-defined curriculum and associated training materials (a comprehensive training manual and other documents such as fact sheets), presented a unique opportunity hastened the process towards institutionalization of the course at UWI.

Steps 8 & 9: Hold Meetings and Consultations to advance the Institutionalization Process

Towards the end of 2015, UWI Consulting began to hold discussions with the Pro-Vice Chancellor, post-Graduate Studies to discuss the feasibility of institutionalizing the GE course. Discussions were held on the curriculum, and a review of the manual was undertaken. Following these meetings the departments identified above were provided with the curriculum and course materials and discussions and consultations ensued towards determining if the course would be a fit for the UWI and where it should be housed. The consultations also provided a mechanism for the departments mentioned above and key lectures to not only better understand the construct of the course but also to understand the concepts and issues around the green economy. Consultations and meetings were had with the following departments. The following departments at UWI were consulted and provided feedback:

- Department of Life Sciences
- Disaster Risk Reduction Centre
- Department of Geography and Geology
- Sir Arthur Institute of Social and Economic Studies
- Department of Economics

These consultations resulted in the review of the training manual as well as the curriculum. Importantly, though, these consultations also resulted in the decision to allow the course to be offered through the Department of Life Sciences and as part of the MSc. in Natural Resources Management. This was partially done to facilitate a higher uptake of students or enabling more students to benefit from being able to take the course. This is because, the Department of Life Sciences does not charge for persons in other faculties or departments to take courses. Other departments require persons to pay for the actual course. All departments expressed interest and commitment to allow their students to take this GE course as an elective to contribute to their overall master's degree.

The revised curriculum was also updated and placed in the UWI format for curriculum and provided with a course code - ENVR 6421 – Understanding and Operationalizing the Green Economy.

Step 10: Undertaking consultations to Advance Online

Discussions were held with UWI Open Campus - the centre at the UWI responsible for online training delivery - on the possibility of including the green economy course as part of the university's online platform. This was welcomed with the following recommendations:

- The initial budget for development, delivery and marketing costs would be approximately US\$15,000 – however this could be less if the three required e-tutors are provided by the Department of Life Sciences pool (that is the same persons who would lecture the face-to-face course also would lecture the online course) pool and also if the Department acts as Course Coordinator. The US\$15,000 is expected to cover costs

related to programme planning, Instructional Designer, Peer Reviewer and Production Assistant among others

- Additional meetings will need to be set up with Open Campus to discuss the shared responsibility costs, and to clarify how the costs and revenue sharing are calculated
- Further work to upload the course will be undertaken with the Academic Programming and Development (APAD) Division of UWI Open Campus

Step 11: Revise training manual and curriculum based on consultations with key stakeholders (lecturers and heads of departments), incorporating their comments and feedback

All training materials were revised taking into account comments and feedback.

Step 12: Prepare UWI Course Content

UWI Course content was prepared, the required consultations were undertaken which allowed for the identification of a department to house the course, a course code was provided and final course content was provided to the Pro-Vice Chancellor – Graduate Studies for final tabling at the UWI Senate. and liaise with department that would be offering the course to recommend a course code and provide same to the Pro-Vice Chancellor for tabling at the UWI Senate Committee for final approval.

The Course in the UWI Course format is presented below:



ENVR 6421 – Understanding and Operationalizing the Green Economy

Course Title:

Understanding and Operationalizing the Green Economy

Course code:

ENVR 6421

Course credits: 3

Course Overview – Aims and Distinctive Features:

This course on understanding and operationalizing a green economy has been designed to build the capacity of graduate students pursuing studies in economics, environmental management, geography, international relations and governance to understand the importance of a transition to a green economy

and to provide them with tools to do so. The course will equip these students to develop policies and programmes to move the countries of the Caribbean toward achieving economic development that facilitates the accomplishment of social and environmental goals.

Students who take this course will be able to focus on different economic sectors of interest and how these sectors can make the transition to a green economy and the enabling conditions (e.g. national regulations, policies, trade and technical assistance) that will be required at the national and international levels to make the transition. The course is expected to interest students who are preparing to undertake future work in, or establish careers in: developing national finance, economic and development policies and plans; developing policies that have impacts on the natural environment or interact with the natural environment (e.g. tourism, mining, land use planning etc.); natural resources conservation and management; sectors such as tourism, transport, manufacture, energy among others that have the potential to impact the natural environment but can contribute to sustainable use and management of natural resources.

Students reading this course will be exposed to topics including: concepts and definitions of a green economy; requirements for a transition to a green economy; policy tools to assist with the transition to a green economy; creating new business in a green economy; the requirements for transitioning to a green economy in key sectors; and, measuring progress towards a green economy

The course content is divided into five modules.

Whilst the course will draw on the work of various development agencies and academia, it should be noted that this course was developed and conceptualized by the Green Economy Caribbean Political Advisory Group (GEPAG) with support from the United Nations Environment Programme (UNEP) within its Green Economy Initiative (GEI).

Learning Outcomes:

Upon successful completion of this course, students should be able to:

Knowledge

- Understand the key concepts of a green economy and how they relate to SIDS
- Know the key economic, environmental and social issues facing SIDS and Caribbean countries in particular
- Understand the linkages between key economic sectors and the natural environment
- Understand the benefits of moving to a green economy
- Know best practice case studies for a green economy and how they may be adapted locally and regionally

Performance

- Develop recommendations for national policies and institutions to transition toward a green economy
- Be capable of infusing green economy and environmental issues into key national socio-economic policies as a first step to enabling these key sectors to be more sustainable
- Determine appropriate financial incentives to promote a green economy

- Develop policy recommendations for specific economic sectors
- Identify and develop appropriate indicators to measure progress toward a green economy

Attitude

- Value the importance of transitioning from the current economic paradigm to a green economy
- Appreciate that there does not need to be a trade-off between economic development and environmental quality
- Appreciate that a green economy is not a "luxury" and that small developing economies such as those in the Caribbean can and should move toward a green economy

Mode of Delivery - Teaching and Learning Methods

A variety of learning delivery and assessment methodologies will be employed to enable the course to be highly participatory and interactive and to allow students to effectively assimilate the new ideas and learning.

The course will include interactive classes, lectures, analyses of case studies and class discussions of illustrative case studies, group discussions, individual and group work/assignments, presentations (both oral and written) use of guest speakers, and a field trip.

Students will be provided with a Training Manual (participants' handbook and workbook).

Evaluation/Assessment Methods

Course work 50% - Group Project related to how a specific sector could transition to a green economy (25%) and an individual assignment that includes the preparation of a case study (25%)

Examination 50% - This would be a two-hour examination

Total 100%

Course coordinators:

Dr. Dale Webber and Dr. Vivienne Vassell

Teaching Staff:

- Elizabeth Emanuel
- Mr. Maurice Mason
- Dr. David Smith
- Mr. Travis Reid (senior economist at government entity)

Classroom Sessions:

30 hours (10 sessions of 3 hours each) of interactive classes/lectures, 15 hours of tutorials, discussions, seminars and guest lectures, plus one revision session of 3 hours, giving a total of 48 hours.

Course Modifications

Please note that:

- Minor modifications to the timetable or the reading list may be introduced into the course during the

- semester
- Any class that falls on a public holiday may be re-scheduled to an alternative date

Course Content

The course is divided into 5 main modules:

Module 1 –Introduction to the Green Economy Approach

Module 2 –Creating an Enabling Environment for the Transition to a Green Economy

Module 3 – Creating New Business in a Green Economy

Module 4 – Transitioning to a Green Economy in Key Sectors

Module 5 – Measuring Progress towards a Green Economy

Module 1: Introduction to the Green Economy Approach

Module 1 presents an introduction to the green economy. It describes some of the international discussions that have given rise to the term and discusses varying definitions. This module presents a rationale for moving toward a green economy by describing current prevailing conditions which do not meet the environmental, human development, economic and social goals of sustainable development. The module examines the drivers and opportunities for change in the Caribbean and why embracing a green economy would be beneficial. This module also describes linkages between the natural environment and major economic sectors to provide a basis for understanding some of the necessary changes that must be made. The objectives of Module 1 are to:

- Explore the linkages among sustainable development, the six forms of capital stock of a nation and transitioning to a green economy
- Generate discussion about concepts, definitions and principles related to a green economy and especially within the SIDS context
- Make the case for moving toward a green economy
- Identify drivers within SIDS which are facilitating the move toward a green economy
- Discuss barriers that must be overcome to transition to a green economy
- Examine ways of strengthening and supporting intra-Caribbean, intra-SIDS and south-south cooperation on the green economy

Lecturers: Elizabeth Emanuel/Maurice Mason

Main Topics:

- Understanding theory of sustainable development and green economy theory
- Concepts and definitions of a green economy
- Rationale for moving toward a green economy

- Linkages among the green economy and sustainable development and the Sustainable Development Goals
- Green economy, sustainable development and capital forms
- Linkages between key economic sectors and the natural environment
- Drivers of change and opportunities for change in different Caribbean countries and sectors
- Benefits of transforming to a green economy
- Barriers to change and the specific interventions and strategies that can overcome them
- Understanding the relationship between the green economy and the blue economy

Module 2: Creating an Enabling Environment for the Transition to a Green Economy

Module 2 presents the requirements for SIDS to move toward a green economy. The module describes a variety of policy tools that will help with a successful transition and describes some supporting conditions that need to be established that will facilitate effective policy implementation. The objectives of Module 2 are to:

- Identify the key conditions that must be in place for transitioning to a green economy
- Examine different policy tools that can enable the green economy transition
- Understand how to account for market externalities
- Determine appropriate market-based tools to facilitate the green economy transition

Lecturer: Elizabeth Emmanuel/Travis Reid

Main Topics:

- Requirements for a transition to a green economy
- The role of various stakeholders in the transition to a green economy (public and private sectors, civil society/non-governmental organizations)
- Policy tools for a transition to a green economy
 - Government investments
 - Market-based instruments
- Access to finance
- Tools to facilitate and promote decision making for a green economy (e.g. environmental impact assessments, SEAs, natural resource valuation)
- Ways of strengthening and supporting intra-Caribbean and intra-SIDS cooperation on the green economy

Module 3: Creating New Business in a Green Economy

Module 3 presents an overview of how a transition to a green economy can create new employment opportunities and reduce poverty. The module discusses issues related to the creation of green jobs and what are some of the enabling conditions for this to happen. The objectives of Module 3 are to:

- Identify specific interventions in a green economy that can help to alleviate poverty
- Examining green jobs and the new requirements
- Identify the sectors which offer the best opportunities for employment in a transition to a green economy
- Indicate how a green economy leads to the creation of new enterprises; and explore the role of SMEs

Lecturers: David Smith/Elizabeth Emanuel

Main Topics:

- Transitioning to a green economy to reduce poverty
- Transitioning to a green economy to create employment
- Business opportunities from transition to a green economy - new and emerging sectors that can be better facilitated by the green economy
- How community initiatives can support local green economy transformations
- Information and incentives for consumers and producers to encourage them to move towards more efficient and sustainable practices

Module 4: Transitioning to a Green Economy in Key Sectors

Module 4 will analyze key economic sectors – energy, tourism, transportation, agriculture, water, urban and regional planning, and fisheries – and how they can be repositioned to facilitate a green economy. This module examines energy and transportation as cross-cutting issues and identifies areas for development and use of renewable energy as well as increasing energy efficiency. The module presents issues and strategies for transitioning to a green economy in tourism, agriculture and fisheries, examining issues related not only to energy but also to the use of the natural capital upon which these industries are based. The objectives of Module 4 are to:

- Identify the key issues related to the key economic sectors in the Caribbean
- Discuss enabling conditions required for transitioning to a green economy in these sectors
- Explore sector-specific approaches to move toward a green economy

Lecturer: Elizabeth Emanuel/Maurice Mason/Travis Reid

Main Topics:

- Energy
 - Overview of energy in the Caribbean
 - Challenges and opportunities for decarbonisation, renewable energy and energy efficiency in a green economy
 - Enabling conditions - national policies, fiscal and economic incentives, capacity building
- Agriculture
 - Overview of agriculture in the Caribbean
 - Challenges and opportunities for agriculture in a green economy
 - National policies
 - Fiscal and economic incentives
- Tourism
 - Overview of tourism in the Caribbean
 - Challenges and opportunities for tourism in a green economy
 - Enabling conditions - national policies, fiscal and economic incentives, capacity building
- Fisheries
 - Overview of fisheries in the Caribbean

- Challenges and opportunities for fisheries in a green economy
- Enabling conditions - national policies, fiscal and economic incentives, capacity building
- Water
 - Overview of water resources in the Caribbean
 - Challenges and opportunities for water management in a green economy
 - Enabling conditions - national policies, fiscal and economic incentives, capacity building
- Urban and Regional Planning and Development
 - Overview of urban planning in the Caribbean
 - Challenges and opportunities for urban planning including issues related to the construction sector in a green economy
 - Enabling conditions - national policies, fiscal and economic incentives, capacity building

Module 5: Measuring Progress towards a Green Economy

Module 5 presents indicators which can be used to track progress towards social, economic, environmental and individual well-being outcomes of a green economy and links green economy indicators to the post-2015 development agenda which seeks to move beyond the Millennium Development Goals (MDGs) and advance the new sustainable development goals ratified in 2015. The objectives of Module 5 are to:

- Discuss what constitutes the desired outcomes in human development within a green economy
- Examine which green economy indicators are appropriate for the Caribbean in general as well as for individual countries in the region.
- Examine the indicators for the Sustainable Development Goals (SDGs)
- Discuss how green economy indicators can be linked to the sustainable development goals

Lecturer: Elizabeth Emanuel

Main Topics:

- Measures of Progress
- SDG indicators
- Caribbean indicators to track progress towards social, economic and environmental outcomes of a green economy
- Linking green economy indicators to the Sustainable Development Goals

Course Materials

The main course for the text will be a training manual developed by UNEP and UWI under the United Nations Green Economy Initiative and entitled “*Understanding and Operationalizing the Green Economy into National Development Planning in the Caribbean Context*”. Other prescribed texts and reading materials are listed below.

Other Prescribed Texts and Materials:

1. Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication, UNEP, 2011

2. UNEP Green Economy Briefing Papers
3. UWI/UNEP Green Economy Fact Sheets
4. Green Economy Developing Countries Success Stories, UNEP, 2010
5. A New Paradigm for Caribbean Development: Transitioning to a Green Economy, Caribbean Development Bank, 2014.
6. http://www.caribank.org/uploads/2014/05/Booklet_A-New-Paradigm-for-Caribbean-Development-Transitioning-to-a-Green-Economy.pdf
7. Transitioning to a Green Economy: Political economy of approaches in Small States. Commonwealth Secretariat 2014 <http://www.oecd-ilibrary.org/content/book/9781848599178-en>
8. Occasional papers and policy briefs by CANARI see <http://www.greeneconomycoalition.org/document-download-centre> and <http://pubs.iied.org/pdfs/16572IIED.pdf> and <http://www.canari.org/programmes/issue-programmes/green-economy.asp>

Other readings may be assigned in each module and participants will be provided with other documents, source materials and papers used in the development of the training manual, a range of websites from which they can find additional information and additional case studies.