

The University of the West Indies

**A Review of World University
Ranking Methodologies
What UWI must do to Improve Its Ranking in
Latin America and the World**

University Office of Planning and Development

February 04, 2011

OVERVIEW

At the Mid-Term Review held in Barbados on August 18-20, 2010, it was agreed that the PVC responsible for Planning and Development would coordinate an effort with PVCs responsible for Undergraduate Studies, Graduate Studies and Research respectively to prepare a document on university rankings. The idea was to examine how Ranking Agencies went about their work, identify the most important criteria which determined the rank of an institution, make an assessment of the value and relevance of rankings criteria to UWI and to look at how rankings criteria might be useful to UWI in improving its own performance in areas that are measured internationally.

A much larger and detailed document on this subject by Anand Dass, Planner at the University Office of Planning and Development preceded this and this was circulated among the PVCs and the Vice Chancellor with a request for comments and feedback.

The PVC Planning and Development expresses gratitude on behalf of the University Office of Planning and Development for all feedback.

Following feedback, the document was thoroughly revised by the PVC Planning and Development and is now laid as a document for information and discussion at F&GPC.

F&GPC is asked to consider and approve the nine (9) recommendations at the end of the report as follows:

1. Implement faithfully and diligently recommendations emanating out of Mid-term Review (August 2010) and identified in the nine (9) domains for action.
2. Implement items identified under “the Critical Areas UWI needs to Focus on to Improve its Ranking in Latin America and the World” in earlier pages of this document (pp19-22).
3. Strategically assess gains and gaps in terms of our key objective of building up and sustaining a top class research enterprise at UWI, design a specific achievable plan going forward over the next five (5) years and establish the framework, infrastructure and personnel required to achieve this i.e. a viable and sustainable Research Enterprise with minimum expectation of output.
4. Spend strategic thinking time on the reports and recommendations emanating as institutional research from the University Office of Planning and Development so that quality, relevance and responsiveness across the University can be improved through specific targeted initiatives that are effectively managed at both University and Campus levels.

5. Make a multimode, learner-centred environment central to education at UWI and meticulously examine in a holistic manner the things that are required to be done to strengthen the role of e-learning, to leverage the strategic role of the Open Campus in a better integrated delivery system for UWI and to support an enlightened and enriched learning environment.
6. Transform curriculum to embrace critical thinking strategies, a sustainable development framework, an entrepreneurial disposition and an appreciation of the requirements of competitiveness and think through the sequence of interventions that might be pursued not just to create an ideal UWI graduate for work but an ideal citizen with skills, competencies, disposition and orientation to be a catalyst for development interventions in government, business and civil society that can be value creating and wealth generating.
7. Mandatory compliance to populate the University Performance Management System with the relevant data to support analysis of departmental progress and to facilitate assessment and evaluation of comparative performance across UWI.
8. Establish a clear strategy for the financial sustainability of UWI with a plan for predictable government funding; a well-defined, well-demarcated set of strategies and responsibilities for non-governmental funding with annual targets and a specific comprehensive student support system based in scholarships, work study and loans.
9. Executive management to establish a framework for monitoring eight (8) items identified above.

Bhoendradatt Tewarie
Pro Vice Chancellor
Planning and Development

TABLE OF CONTENTS

INTRODUCTION 1

**The Academic Ranking of World Universities (ARWU) -
Shanghai Jiao Tong University, China 1**

Selection of Universities..... 2

Ranking Criteria and Weights..... 2

The QS World University Rankings - Quacquarelli Symonds (United Kingdom-Firm)..... 3

Ranking Criteria and Weights..... 4

The Times Higher Education World University Rankings..... 5

Selection of Universities..... 5

Ranking Criteria and Weights..... 5

**The "Webometrics Ranking of World Universities" - Cybermetrics Lab
(Research Group), Spain..... 6**

Selection of Universities..... 6

Ranking Criteria and Weights..... 7

**The Performance Ranking of Scientific Papers for World Universities - Higher Education
Evaluation and Accreditation Council of Taiwan (HEEACT)..... 8**

Criteria for selection..... 8

COMPARISON OF METHODOLOGIES 9

Some Criticisms of Ranking Methodologies..... 11

COMPARISON – ACTUAL RANKINGS 2010 12

Where does UWI currently rank?..... 13

WHAT ARE THE KEY ATTRIBUTES OF WORLD CLASS UNIVERSITIES 14

IMPROVING UWI RANKINGS: CRITICAL AREAS OF FOCUS 15

AN ASSESSMENT OF THE ALIGNMENT OF THE IMPERATIVES AND AIMS OF STRATEGIC
PLAN 2007-12 WITH MANDATED RANKING CRITERIA OF VARIOUS RANKING AGENCIES 18

CONCLUSION 25

RECOMMENDATIONS FOR ACTION BEGINNING IN 2011 35

LIST OF TABLES

Table 1 – Summary of Criteria, Performance Indicators and Weights used for ARWU World Rankings..... 3

Table 2 – Summary of Criteria, Performance Indicators and Weights used for QS World Rankings..... 4

Table 3 – Summary of Criteria, Performance Indicators and Weights used for The World Rankings..... 6

Table 4 – Summary of Criteria, Performance Indicators and Weights used for Webometrics World Rankings..... 7

Table 5 – Summary of Criteria, Performance Indicators and Weights used for HEEACT World Rankings 9

Table 6 – Comparison of Ranking Criteria/Indicators used in World University Rankings 10

Table 7 – Comparison of Actual World Rankings – Top 20 for 2010..... 12

Table 8 – Alignment of Ranking Criteria to Aims of Strategic Plan 2007-12..... 19

INTRODUCTION

There is increasing interest worldwide in university rankings, as can be witnessed by the growing number of annual rankings being published across the world. Higher education institutions use these rankings as a promotion tool that shows their educational, research or business excellence and many candidate students use them as a guide to help them make a choice about the institutions to which they will apply. Marketing based on rankings may facilitate increased options for funding and may assist an institution in attracting high quality scholars which in turn can further enhance a University's reputation. Institutions can also employ ranking criteria for strategic planning and quality improvement purposes as well as to stimulate a culture of quality.

This paper reviews and compares the methodologies used by five top World University rankings organizations. The top ranked universities are compared for 2010 and the key attributes of world class universities are identified. The paper also looks at the critical areas on which UWI needs to focus in order to enhance its reputation based on the methods identified by the five (5) ranking agencies. Finally, an assessment to determine the alignment of the imperatives and aims of UWI's Strategic Plan 2007-12 with the mandated ranking criteria of various Ranking systems is looked at.

In this study we consider the rankings criteria of five Top World Ranking organizations. They are:

1. ARWU—the rankings of the Shanghai Jiao Tong University - (<http://www.arwu.org/>).
2. QS— The QS World University Rankings by Quacquarelli Symonds – (<http://www.topuniversities.com/home/>).
3. THE—the rankings of the Times Higher Education - (<http://www.timeshighereducation.co.uk/>).
4. WR—Web Ranking of World Universities by the Cybermetrics Lab at CSIC - (<http://www.webometrics.info/>).
5. HEEACT—the rankings of the Higher Education and Accreditation Council of Taiwan (<http://ranking.heeact.edu.tw/>).

THE ACADEMIC RANKING OF WORLD UNIVERSITIES (ARWU) - SHANGHAI JIAO TONG UNIVERSITY, CHINA

The *Academic Ranking of World Universities (ARWU)* founded and compiled by the *Centre for World Class Universities of Shanghai Jiao Tong University* was the first multi-indicator ranking of global universities commencing in 2003. Although the initial purpose of ARWU was to find

the global standing of the top universities in China, it has attracted a great deal of attention from universities, governments and public media worldwide.

SELECTION OF UNIVERSITIES

ARWU considers every university that has any Nobel Laureates, Fields Medalists, Highly Cited Researchers, or papers published in Nature or Science. In addition, universities with significant amount of papers indexed by Science Citation Index-Expanded (SCIE) and Social Science Citation Index (SSCI) are also included. In total over 3000 Universities are actually analyzed, more than 1000 universities are actually ranked and the best 500 are published on the web. Categories of rankings done for 2010 are:

- Top 500 Universities
- Top 100 Universities by Region
- Top 100 Universities in each of the following 5 subject areas – Mathematics, Chemistry, Physics, Computer Science and Economics/Business
- Top 100 Universities in each of the following 5 Fields – Natural Sciences and Mathematics, Engineering/ Technology and Computer Sciences, Life and Agriculture Sciences, Clinical Medicine and Pharmacy and Social Sciences

See (<http://www.arwu.org/index.jsp>)

RANKING CRITERIA AND WEIGHTS

The Shanghai's Academic Ranking of World Universities uses measures based mainly on research output and excellence to rank Universities. Universities are ranked by several indicators of academic or research performance, including alumni and staff winning Nobel Prizes and Fields Medals, highly cited researchers, papers published in Nature and Science, papers indexed in major citation indices, and the per capita academic performance of an institution.

For each indicator, the highest scoring institution is assigned a score of 100, and other institutions are calculated as a percentage of the top score. The distribution of data for each indicator is examined for any significant distorting effect; standard statistical techniques are used to adjust the indicator if necessary.

Scores for each indicator are weighted as shown below to arrive at a final overall score for an institution. The highest scoring institution is assigned a score of 100, and other institutions are calculated as a percentage of the top score. An institution's rank reflects the number of institutions that sit above it.

Table 1 – Summary of Criteria, Performance Indicators and Weights used for ARWU World Rankings

Criteria	Indicator	Code	Weight
Quality of Education	Alumni of an institution winning Nobel Prizes and Fields Medals	Alumni	10%
Quality of Faculty	Staff of an institution winning Nobel Prizes and Fields Medals	Award	20%
	Highly cited researchers in 21 broad subject categories	HiCi	20%
Research Output	Papers published in Nature and Science	N&S	20%
	Papers indexed in Science Citation Index-expanded and Social Science Citation Index	PUB	20%
Per Capita Performance	Per capita academic performance of an institution	PCP	10%
Total			100

THE QS WORLD UNIVERSITY RANKINGS - QUACQUARELLI SYMONDS (UNITED KINGDOM-FIRM)

The QS World University Rankings is a ranking of the world’s top 500 universities by *Quacquarelli Symonds* using a methodology that has been published annually since 2004. Originally published in collaboration with Times Higher Education, and known as *the Times Higher Education-QS World University Rankings (THE-QS World University Rankings)*, QS assumed sole publication of the existing methodology when *Times Higher Education* split in order to create a new ranking methodology that it first published in 2010. These rankings are the second longest-running global effort of their type.

Selection of Universities

QS World University Rankings first began in 2004 and one of the first challenges was to identify an initial list of institutions to study further. For simple practical reasons, it would have been impossible to execute a methodology such as that set forth in these pages for every university in the world. Beginning with the world's top 500 universities based on citations per paper, the list has evolved since 2004 in response to a number of stimuli as follows:

- **Domestic Ranking Performance** – the QS Intelligence Unit tracks a growing number of domestic rankings in an attempt to ensure that prestigious universities are not excluded in Surveys of Performance – respondents to the Academic and Employer Reputation Surveys are invited to suggest any institutions they feel may have been omitted.
- **Geographical Balancing** – acknowledging that universities have different priorities and characteristics in different parts of the world, the balance of institutions from given countries and regions is periodically reviewed.

- Direct Case Submission – from time to time institutions approach QS directly to request inclusion, QSIU evaluates each case on its merit drawing comparison against institutions already included in the ranking and, subject to certain pre-requisites and performance indicators being met is open to including additional institutions In 2010, the surveys featured over 2,500 institutions, with 660 being evaluated at either an indicator or overall level.
- Categories of rankings done for 2010 are:
 - Top 500 Universities
 - Top 100 Universities in each of the following 5 Fields – Arts & Humanities, Natural Sciences, Technology and Engineering, Life Sciences and Medicine and Social Sciences

RANKING CRITERIA AND WEIGHTS

The QS World University Rankings has a different approach to ranking using peer review as the main criteria. The cornerstone of this approach is the awareness that active academics know about good universities. A unique academic review process with rigorous quality control asks them where the best work is being done in the field they know about. In 2009, about 200,000 pieces of academic review data from just over 9,000 people were aggregated.

The Academic Reputation Index is the centerpiece of the QS World University Rankings carrying a weighting of 40%. It is an approach to international university evaluation that QS pioneered in 2004 and is the component that attracts the greatest interest and scrutiny. In concert with the Employer Reputation Index it is the aspect which sets this ranking most clearly apart from any other. The results are based on the responses to a survey distributed worldwide to academics from a number of different sources including previous respondents (peer reviewers) World Scientific an academic publishing company which publishes about 500 titles a year as well as 120 journals in a variety of fields, Mardev-DM2 one of the world’s leading providers of business information and services.

Table 2 – Summary of Criteria, Performance Indicators and Weights used for QS World Rankings

Criteria	Performance Indicator	Weight
Reputation/Impact	Academic Reputation Index – Survey	40%
Reputation/Impact	Employer/Recruiter Review - Survey	10%
Teaching Quality	Faculty-Student Ratio	20%
Internationalization	the proportion of international students and faculty	10%
Quality of Faculty/Impact	Total citation count	20%

THE TIMES HIGHER EDUCATION WORLD UNIVERSITY RANKINGS

The *Times Higher Education World University Rankings* is an international ranking of the world's top universities published by London-based *Times Higher Education (THE)*. A publisher of international education rankings since 2004, *Times Higher Education* split from its original partner *Quacquarelli Symonds* in 2010, creating a new ranking methodology whose citation database information is compiled in partnership with *Thomson Reuters*. The rankings previously published by THE, in collaboration with *Quacquarelli Symonds* between 2004 and 2009 under the name "Times Higher Education-QS World University Rankings", have been cited as one of the two most prominent world university rankings, along with the Academic Ranking of World Universities compiled by *Shanghai Jiao Tong University*

SELECTION OF UNIVERSITIES

An initial list of 600 - which will be expanded - was chosen largely on the basis of research strength in six broad subject areas (arts and humanities; clinical, pre-clinical and health; engineering and technology; life sciences; physical sciences; and social sciences), according to Thomson Reuters' citations data, and on the basis of the preliminary results of the reputation survey.

In the second phase of the data-gathering stage, many more universities and regions would be included.

Institutions will be able to upload the data to a dedicated, secure website. Thomson Reuters has produced a guidebook to ensure that consistent definitions are used so that data are properly comparable.

Exclusions

Universities were excluded from the World University Rankings tables if they do not teach undergraduates; if their research output amounts to less than 50 articles per year; or if they teach only a single narrow subject

RANKING CRITERIA AND WEIGHTS

THE magazine has implemented a complete review of its old rankings data and methodology. The new global rankings document, which has been published in September, 2010 is more comprehensive with balanced emphasis on teaching, research and impact and is built on 13 separate performance indicators, compared with just six used in the old ranking system.

These 13 separate performance indicators are designed to capture the full range of university activities, from teaching to research to knowledge transfer. They are brought together into five headline categories, which are:

- **Teaching** — the learning environment (worth 30 per cent of the overall ranking score)
- **Research** — volume, income and reputation (worth 30 per cent)
- **Citations** — research influence (worth 32.5 per cent)
- **Industry income** — innovation (worth 2.5 per cent)
- **International mix** — staff and students (worth 5 per cent).

Table 3 – Summary of Criteria, Performance Indicators and Weights used for THE World Rankings

Criteria	Performance Indicator	Weight
Teaching -The Learning environment	Reputational Survey-Teaching	15%
	PhD Awards per Academic	6%
	Undergraduates admitted per Academic	4.5%
	Income per Academic	2.25%
	PhD awards/Bachelor's Awards	2.25
International Mix – Staff & Students	Ratio of international to Domestic staff	3%
	Ratio of International to Domestic students	2%
Research – volume, Income and Reputation	Reputational Survey – Research	19.5%
	Research Income(scaled)	5.25%
	Papers per Academic and Research Staff	4.25%
	Public Research Income/Total Research Income	.75%
Citations – Research Influence	Citations Impact - Normalized Average Citations per paper	32.5%
Industry Income/Innovation	Research Income from Industry(per academic staff)	2.5%

THE "WEBOMETRICS RANKING OF WORLD UNIVERSITIES" - CYBERMETRICS LAB(RESEARCH GROUP), SPAIN.

The "Webometrics Ranking of World Universities" is an initiative of the Cybermetrics Lab, a research group belonging to the Consejo Superior de Investigaciones Científicas (CSIC), the largest public research body in Spain. CSIC is among the first basic research organizations in Europe. The CSIC consisted in 2006 of 126 centers and institutes distributed throughout Spain. CSIC is attached to the Ministry of Education and its main objective is to promote scientific research as to improve the progress of the scientific and technological level of the country which will contribute to increase the welfare of the citizens.

SELECTION OF UNIVERSITIES

The unit for analysis is the institutional domain, so only universities and research centres with an independent web domain are considered. If an institution has more than one main domain, two or more entries are used with the different addresses. About 5-10% of the institutions have no independent web presence, most of them located in developing countries. Institutions include not only universities but also other Higher Education institutions following the recommendations of UNESCO. Names and addresses are collected from both national and international sources including among others. A total of 12,000 Universities are ranked. Top universities are also ranked by the following regions – USA and Canada, Latin America, Europe, Asia, Arab World, Oceania and Africa.

RANKING CRITERIA AND WEIGHTS

University activity is multi-dimensional and this is reflected in its web presence. So the best way to build the ranking is combining a group of indicators that measures these different aspects. Almind & Ingwersen proposed the first Web indicator, Web Impact Factor (WIF), based on link analysis that combines the number of external inlinks and the number of pages of the website, a ratio of 1:1 between visibility and size. This ratio is used for the ranking but adding two new indicators to the size component: Number of documents, measured from the number of rich files in a web domain, and number of publications being collected by Google Scholar database.

Table 4 – Summary of Criteria, Performance Indicators and Weights used for Webometrics World Rankings

Criteria	Performance Indicator	Weight
Visibility/Impact	External in-links	50%
Size/Impact	Web pages	20%
Research	Rich files – Academic and Publication activities	15%
Research	Google Scholar- papers and citations for each academic domain	15%

THE PERFORMANCE RANKING OF SCIENTIFIC PAPERS FOR WORLD UNIVERSITIES - HIGHER EDUCATION EVALUATION AND ACCREDITATION COUNCIL OF TAIWAN (HEEACT)

The Performance Ranking of Scientific Papers for World Universities is produced by *the Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT)*. This project is done by professor Mu-hsuan Huang at National Taiwan University. It employs bibliometric methods to analyze and rank the **scientific papers** performances of the top 500 universities worldwide and the top 300 worlds' universities **among six fields**. This performance ranking system is designed for research universities. The objective indicators used in this ranking system measure both long-term and short-term research performance of each university. The 2007 ranking methodology favored universities with medical schools. From 2008 HEEACT began to provide fields based rankings in addition to the overall performance ranking of each university. The rankings of six fields are based on the subject categorization of WOS, including Agriculture & Environment Sciences (AGE), Clinical Medicine (MED), Engineering, Computing & Technology (ENG), Life Sciences (LIFE), Natural Sciences (SCI) and Social Sciences (SOC)

CRITERIA FOR SELECTION

The selection of the 500 universities for inclusion in this ranking system was based on information obtained from the Essential Science Indicators (ESI). Of the more than 4,000 research institutions listed in ESI, this ranking system first selected the top 700 institutions based on the numbers of published journal articles and numbers of citations. Non-university institutions were then removed from the list, and the project staff compared the remaining universities to those included in other ranking programs such as ARWU, THE-QS, and U.S. News. It resulted in 820 universities for this ranking system. Data used to assess the performances of the universities was drawn from ISI's ESI and Web of Science (WOS), which included SCI and SSCI, and Journal Citation Reports (JCR).

The 2010 performance measures are composed of eight indicators. The indicators together represent three different criteria of scientific paper performance: research productivity, research impact, and research excellence.

Table 5 – Summary of Criteria, Performance Indicators and Weights used for HEEACT World Rankings

Criteria	Performance Indicators	Weighting	
Research productivity	Number of articles of the last 11 years	10	20
	Number of articles of the current year	10	
Research impact	Number of citations of the last 11 years	10	30
	Number of citations of the last 2 years	10	
	Average number of citations of the last 11 years	10	
Research excellence	H-index of the last 2 years	20	50
	Number of highly cited papers	15	
	Number of articles of the current year in high-impact journals	15	

COMPARISON OF METHODOLOGIES

It is very clear that all methodologies used by world ranking organisations are heavily weighted in favour of research indicators and international reputation. Research indicators include academic papers, citation impact, research income, research income from public sources or industry. Various methods are also employed to determine reputation.

- ARWU - Research Output and Impact (60%)
- QS – Research Impact (20%), Reputation Survey (40%)
- THS – Research Output, Impact and Income (62.5%)
- WEBOMETRICS – Research Output (30%)
- HEEACT – Research Productivity, Impact and excellence (100%)

Each ranking agency has its own distinctive feature as follows:

- ARWU - Prizes for Measuring Excellence
- QS – Peer Review Surveys for Prestige Recognition
- THS – Emphasis on Teaching, Research and Knowledge Transfer
- WEBOMETRICS – Web Publication as Performance Indicator
- HEEACT – Research Excellence

Table 6 – Comparison of Ranking Criteria/Indicators used in World University Rankings

CRITERIA	ARWU-Shanghai Jiao Tong University,China	QS-Quacquarelli Symonds,UK	THE-Times Higher Education,UK	WEBOMETRICS-CSIC,Spain	HEEACT-Higher Edu. Accred. Council of Taiwan
Teaching Quality and Learning Environment	<ul style="list-style-type: none"> Alumni Nobel Prizes/Field medals – 10% 	<ul style="list-style-type: none"> Faculty/Student Ratio – 20% 	<ul style="list-style-type: none"> PhD awards per Academic – 6% Undergraduate admitted per academic – 4.5% Income per academic – 2.25% PhD awards/Bachelor's Awards - 2.25% 		
Research Output, Quality and Impact	<ul style="list-style-type: none"> Nature and Science Publications-20% Science citation Index/Social Science citation index – 20% Highly cited researchers in 21 broad categories – 20% 	<ul style="list-style-type: none"> Total citation count – 20% 	<ul style="list-style-type: none"> Research Income – 5.25% Papers per Academic/Research Staff – 4.25% Public Research Income/Total Research income - .75% Normalized Average Citations per paper – 32.5% Research Income from Industry per Acad. Staff – 2.5% 	<ul style="list-style-type: none"> Google Scholar – 15% Rich files – Academic and Publication activities – 15% 	<ul style="list-style-type: none"> Number of articles of the last 11 years – 10% Number of articles of the current year-10% Number of citations of the last 11 years-10% Number of citations of the last 2 years-10% Average number of citations of the last 11 years H-index of the last 2 years-20% Number of highly cited papers-15% Number of articles of the current year in high-impact journals-15%
Internationalization		<ul style="list-style-type: none"> % of international students and faculty – 10% 	<ul style="list-style-type: none"> Ratio of international to Domestic staff – 3% Ratio of international to Domestic staff – 2% 		
Web Impact/Visibility				<ul style="list-style-type: none"> External in-links to website – 50% Web pages – 20% 	
Prestige/Peer Review	<ul style="list-style-type: none"> Faculty Nobel Prizes/Field medals – 20% 	<ul style="list-style-type: none"> Academic Reputation Index – Survey – 40% Employer/Recruiter review Survey – 10% 	<ul style="list-style-type: none"> Reputational Survey – Teaching – 15% Reputational Survey – Research – 19.5% 		

SOME CRITICISMS OF RANKING METHODOLOGIES

QS— The QS World University Rankings by Quacquarelli Symonds

- Peer review system is a subjective assessment criteria which depends on past performance and could lead to bias depending on the origin of respondents
- Lack of information on what questions were asked in reputation surveys
- Bibliometric indicators are biased towards Science and downplay the weights of Social Sciences and Humanities
- Student/Faculty ratio is a crude measure of teaching quality especially if it is the only criterion used

ARWU—the rankings of the Shanghai Jiao Tong University

- In terms of highly cited researchers in 21 disciplines, only 2 belong to Social Sciences.
- Number of papers published by staff covers only hard sciences
- It is in some respects essentially historical, recording past achievements such as Nobel awards and the Fields prizes for mathematics awarded decades ago rather than current activities.
- It lists only 500 universities and therefore tells us nothing about the thousands of other universities except that they did not make it into the top 500.

The Webometrics World University Ranking

- Universities of high academic quality may be ranked lower than expected if they have a restrained web publication policy
- It has a traditional linguistic bias as more than half of the internet users are English-speaking people.
- It has a new disciplinary bias since technology gets more coverage in the web-world as compared to biomedical and some other disciplines.
- Measures quantity without sufficient qualitative checks and balances

THE – Time Higher Education World University Ranking

- Selection of universities is limited based on Thomson Reuters' citations data, and on the basis of the preliminary results of the reputation survey.
- Reputational survey is subjective in nature and could lead to biased responses depending on the origin of respondents

COMPARISON – ACTUAL RANKINGS 2010

Table 7 below shows that most universities ranked in the top 20 and recognized as world-class originate from a very small number of countries, mostly Western. The University of Tokyo, ETH Zurich (Swiss Federal Institute of Technology), Australian National University, University of Toronto and Mc Gill University are the only non-U.S-U.K. universities among the top 20 in all the rankings.

These world-class universities are recognized for their superior outputs. They produce well-qualified graduates who are in high demand on the labor market; they conduct leading-edge research published in top scientific journals; and in the case of science-and-technology-oriented institutions, they contribute to technical innovations through patents and licenses.

Table 7 – Comparison of Actual World Rankings – Top 20 for 2010

	WEBOMETRICS	ARWU	QS	THE	HEEACT
1	Harvard University	University of Cambridge	Harvard University	Harvard University United States	Harvard University
2	Massachusetts Institute of Technology	Harvard University	University of California, Berkeley	California Institute of Technology United States	Stanford University
3	Stanford University	Yale University	Stanford University	Massachusetts Institute of Technology United States	Johns Hopkins University
4	University of California Berkeley	UCL (University College London)	Massachusetts Institute of Technology (MIT)	Stanford University United States	University of Washington – Seattle
5	Cornell University	Massachusetts Institute of Technology (MIT)	University of Cambridge	Princeton University United States	University of California – Los Angeles
6	University of Michigan	University of Oxford	California Institute of Technology	University of Cambridge United Kingdom	University of California – Berkeley
7	University of Minnesota	Imperial College London	Princeton University	University of Oxford United Kingdom	Massachusetts Institute of Technology
8	University of Washington	University of Chicago	Columbia University	University of California Berkeley United States	University of Michigan - Ann Arbor
9	University of Wisconsin Madison	California Institute of Technology (Caltech)	University of Chicago	Imperial College London United Kingdom	University of Toronto
10	University of Texas Austin	Princeton University	University of Oxford	Yale University United States	University of Oxford
11	University of Pennsylvania	Columbia University	Yale University	University of California Los Angeles United States	University of Pennsylvania
12	Pennsylvania State University	University of Pennsylvania (UPenn)	Cornell University	University of Chicago United States	University of California - San Diego

	WEBOMETRICS	ARWU	QS	THE	HEEACT
13	Columbia University New York	Stanford University	University of California, Los Angeles	Johns Hopkins University United States	Columbia University
14	Carnegie Mellon University	Duke University	University of California, San Diego	Cornell University United States	The University of Tokyo
15	University of Illinois Urbana Champaign	University of Michigan	University of Pennsylvania	Swiss Federal Institute of Technology Zurich Switzerland	University of California - San Francisco
16	University of California Los Angeles	Cornell University	University of Washington	University of Michigan United States	University of Cambridge
17	Texas A&M University	Johns Hopkins University	University of Wisconsin - Madison	University of Toronto Canada	University of London - University College London
18	University of Maryland	ETH Zurich (Swiss Federal Institute of Technology)	The Johns Hopkins University	Columbia University United States	Yale University
19	Purdue University	McGill University	University of California, San Francisco	University of Pennsylvania United States	Duke University
20	University of North Carolina Chapel Hill	Australian National University (ANU)	The University of Tokyo	Carnegie Mellon University	University of Wisconsin - Madison

WHERE DOES UWI CURRENTLY RANK?

A check through the list of ranked Universities of all five organizations for 2010 shows that University of the West Indies is ranked **ONLY** by Webometric which placed it 862 out of 12,000 universities worldwide ranked by *Webometrics* and is placed at 33 in the Latin American Region and at 7 in the Central America and Caribbean sub-region. That put UWI in the top 7% if 12,000 world ranked universities and we are respectably ranked among universities from Mexico to Argentina.

UWI is not placed in the top 500 of *ARWU*, top 500 of *QS*, Top 200 of *THE* or top 500 of *HEEACT* rankings however.

The most recent rankings of Webometrics (January 2011) ranks UWI at 705 out of 12,000 universities worldwide (top 6%), 31 in the Latin American region and 6 in the Central America and Caribbean sub-region. In the Caribbean UWI ranks number 2 behind the University of Puerto Rico. Clearly, there is increasing recognition for the value and work of UWI in the world. However rankings can be deceptive, criteria can change and UWI needs to be sanguine about those things which are fundamental to its own unique success model which needs to be carefully thought through and clarified. At the same time UWI cannot

divorce itself from world standards and standard expectations of the world which signify excellence nor from reasonable criteria on which other universities are assessed.

WHAT ARE THE KEY ATTRIBUTES OF WORLD CLASS UNIVERSITIES

In a recent World Bank report entitled '*The Challenge of Establishing World-Class Universities - Jamil Salmi- The International Bank for Reconstruction and Development / The World Bank(2009)*' the following were identified as key attributes of World Class Universities:

Key Attributes of World Class Universities

- Has an international reputation for its research;
- Has an international reputation for its teaching;
- Has a number of research stars and world leaders in their fields;
- Is recognized not only by other world-class universities (for example,U.S. Ivy League) but also outside the world of higher education;
- Has a number of world-class departments (that is, not necessarily all);
- Identifies and builds on its research strengths and has a distinctive reputation and focus (that is, its “lead” subjects);
- Generates innovative ideas and produces basic and applied research in abundance;
- Produces groundbreaking research output recognized by peers and prizes (for example, Nobel Prize winners);
- Attracts the most able students and produces the best graduates
- Can attract and retain the best staff;
- Can recruit staff and students from an international market;
- Attracts a high proportion of postgraduate students, both taught and research;
- Attracts a high proportion of students from overseas;
- Operates within a global market and is international in many activities(for example, research links, student and staff exchanges, and throughput of visitors of international standing);
- Has a very sound financial base;
- Receives large endowment capital and income;

- Has diversified sources of income (for example, government, private companies sector, research income, and overseas student fees);
- Provides a high-quality and supportive research and educational environment for both its staff and its students (for example, high-quality buildings and facilities/high-quality campus);
- Has a first-class management team with strategic vision and implementation plans;
- Produces graduates who end up in positions of influence and/or power(that is, movers and shakers such as prime ministers and presidents);
- Often has a long history of superior achievement (for example, the Universities of Oxford and Cambridge in the United Kingdom and Harvard University in the United States);
- Makes a big contribution to society and our times;
- Continually benchmarks with top universities and departments worldwide; and
- Has the confidence to set its own agenda.

Source: Alden and Lin 2004.

It is evidently clear that there is a close alignment between the criteria and performance indicators outlined by the five rankings organizations and the key attributes of world class universities or critical success factors outlined above.

IMPROVING UWI RANKINGS: CRITICAL AREAS OF FOCUS

In order to improve its position in the world rankings, UWI must improve its output and quality of research to higher levels of international recognition. It must continue to strive vigorously to enhance its teaching quality and learning environment to produce high quality graduates capable of winning international recognition and develop world class departments in niche areas. Significantly advancing teaching quality and research excellence as well as deepening of the internationalization process would greatly enhance the international recognition and prestige. All of the above cannot be done without significantly higher levels of funding for research and innovation and it is imperative that UWI diversify and expand its funding base.

The following are the broad areas identified by the ranking agencies that UWI must focus on to improve its international rankings:

1. **Research Output, Relevance and Excellence** - UWI must become internationally recognized as the centre of excellence in research for issues relating mainly, but not confined to, the Caribbean and other small developing countries and small island states. Such research must impact on policy formulation, economic development, solutions to

problems and challenges and must probe the future to ask difficult questions and formulate the next generation of important questions to stimulate cutting edge research.

- Research capacity must be expanded and deepened with an intensification of focus on selected areas and involving international collaboration in a handful of strategically chosen areas
- Research and publication productivity of Faculty/Centres and Institutes by facilitating interdisciplinary and collaborative scholarship must be improved (increase publications in internationally recognized journals that are included in the ranking's assessment.)
- Focus on relevant research of high quality by establishing sustainable clusters especially in the Sciences and in Social Sciences. The impact of the output of publications in terms of citations is important.
- Foster an innovative culture and reward excellence in research and innovation within the University system.
- Significantly increase research funding from non government sources, local, regional and international by sustained, proactive strategies.
- Effect a full scale transformation of graduate studies through strategic management initiatives, strengthening supervision linked to the strategic building, rebuilding and transformation of research clusters and establishing an effective monitoring system to ensure sustained quality and effective throughput rates.

2. **Teaching Quality** - Produce high quality graduates for an innovation-driven economy and the global knowledge society capable of entrepreneurial intervention and new business creation and of making an early impact on industry and society

- Institute mechanisms , infrastructure, systems and pathways to strengthen critical and creative thinking skills, entrepreneurship and innovation, non classroom exposure and experience, internships and externships

3. **Internationalization** - One way of accelerating the transformation into a world-class university is to use internationalization strategies effectively Also the international reputation of universities can be enhanced through their international connections. The following are key strategies to be implemented:

- An increase of quality foreign students can be instrumental in upgrading the academic level of the student population and enriching the quality of the learning experience through the multicultural dimension. This is especially true in the case of graduate students.
- UWI needs to be able to offer incentives, including flexible remuneration and employment conditions, to recruit top academics from other countries with clear mandates for achievement. These talented individuals can help upgrade existing

- departments or establish graduate programs and research centers in new areas of competitive advantage
- Attracting leading scholars from the Diaspora is another internationalization strategy which can be used effectively
 - The entire approach to recruitment linked to upgrade of quality, a carefully thought through and realigned research agenda and building an international reputation needs to be transformed.
 - Expand international collaboration and partnerships as follows:
 - Research collaboration with world class universities in specific areas that can help us to strengthen competence, build capacity increase impact, and strengthen a collaborative network
 - Collaboration in research supervision across UWI and with other institutions with supportive infrastructure
 - Collaboration in teaching programmes within UWI and with international institutions through Open Campus
 - Visiting scholar programmes made to be sustainable in vital areas that support wider strategy
 - Student exchange programme linked to UWI strategic objectives
 - Shared professional development of staff to build capacity
 - Benchmarking collaboration – sharing of information
 - Better and more effective use of technology and using the Open Campus in a more strategic way to cut costs, build synergies and improve reach
4. **International Branding** - Improve UWI's visibility, presence and image both regionally and internationally by developing effective Marketing and Branding strategies that are linked to UWI's strategic objectives and rooted in the substance of UWI's strengths and forward thinking initiatives
- Expand and improve website to project UWI effectively in terms of the breadth and richness of the various dimensions. Research gains need to be highlighted in a strategic and effectively communicated manner. Teaching and learning highlights need to be emphasized. Planning and development needs to be more accessible rather than hidden as it is now.
 - Target printed PR instruments more strategically so that there is effective reach to carefully targeted audiences
5. **Funding** - Create a sound financial base by diversifying sources of income funding and by setting annual targets over a designated period for fundraising by key individuals and units and establish a framework for predictable government funding.

- Link resource allocation with UWI to designated areas of achievement. Support performance and achievement and create a meritocracy. Depoliticize the appointment, assessment and promotion process.
 - Distinguish between cost centres and profit centres, service centres and entrepreneurial centres and reward income generating behavior, performance and creativity in a recognition of both individual and unit performance.
6. **Benchmarking** - Establish a benchmarking system that would include peer institutions and top universities worldwide
- Monitoring systems and outcome indicators must be put in place to measure success
 - Create a comprehensive database of UWI research publications in internationally recognized journals which can be easily accessed in one place
 - Create comprehensive database of citations of UWI scholars
 - Benchmark and share data with peer institutions and other top universities
 - Subscribe to publications that provide data on Research publications in internationally recognized journals, citations by subject area, papers, authors, universities and countries.

AN ASSESSMENT OF THE ALIGNMENT OF THE IMPERATIVES AND AIMS OF STRATEGIC PLAN 2007-12 WITH MANDATED RANKING CRITERIA OF VARIOUS RANKING AGENCIES

Table 8 below illustrates the alignment of UWI's strategic aims and objectives as outlined in the Strategic Plan with the critical success indicators for rankings. It is clearly shown that broadly defined there is a large measure of strategic alignment between ranking criteria and indicators of ranking organizations and the stated aims and strategies outlined in UWI's Strategic Plan.

However, UWI has just completed its mid-term review and what is clear is that there are significant gaps between the stated goals of the plan and actual implementation and progress. Arising out of this retreat a number of action items under the various themes were identified for urgent implementation, many of which are aligned to priority areas of focus determined during the mid-term review.

It is now abundantly clear that UWI must now concentrate on solutions and move forward with coherence and synergy to effect the critical transformative changes required. The talk at UWI must not be significantly ahead of what UWI actually does, or put another way, what UWI does should be aligned with and should keep pace with what UWI says that it wants to do and will do.

Table 8 – Alignment of Ranking Criteria to Aims of Strategic Plan 2007-12

Ranking Criteria	Performance Indicators	Alignment to Strategic Plan 2007-12 – Aims	Alignment to Strategic Plan 2007-12 – Examples of Strategies outlined in Plan	Alignment of Action Items arising out of Strategic Plan Mid-Term Review
<p>Output of High Quality Research</p>	<ul style="list-style-type: none"> • Papers published in Nature and Science (ARWU) • Papers per Academic and Research Staff (THE) • Rich files – Academic and Publication activities (Webometrics) • Google Scholar- papers and citations for each academic domain (Webometrics) • Number of articles of the current year in high-impact journals (HEEACT) 	<p>Under Strategic Aim 'Research and Innovation' and 'Graduate Studies' a number of Strategies outlined is intended to impact on research output and quality</p>	<ul style="list-style-type: none"> • Build research capacity and create environment for the growth of research activity • Strengthen and expand relevant research of international quality • Foster an innovation and enterprise culture • Strengthen academic supervision and overall programme quality in research training at the MPhil and PhD levels. • Build and strengthen relevant research clusters 	<ul style="list-style-type: none"> • PVC Graduate Studies to work with Campus Coordinators for Graduate Studies and Deans to strengthen Cross Campus supervision of graduate studies. Update reports to Board of Graduate Studies and Research. • PVC Graduate Studies to initiate two week intervention with graduate students across the system to change the culture of and approach to the management of Graduate Students at UWI. (<i>PVC Graduate Studies in collaboration with Campus Coordinators Graduate Studies</i>) • PVC Graduate Studies to establish a functioning progress tracker for all graduate students and seek to facilitate a four (4) year time frame for PhD completion. (<i>Graduate Studies to execute and deliver with support from University CIO</i>). • In order to effect a full scale transformation of Graduate Studies at UWI PVC Graduate Studies and PVC Research will work constructively with Campus Coordinators and Faculty Deans to strengthen and institutionalize best practice in the following areas: <ul style="list-style-type: none"> - Better and more effective management of programmes through for example clarifying and strengthening the role and responsibilities of programme leaders and ensuring that every graduate programme has a leader (<i>PVC Graduate Studies to lead</i>)

Ranking Criteria	Performance Indicators	Alignment to Strategic Plan 2007-12 – Aims	Alignment to Strategic Plan 2007-12 – Examples of Strategies outlined in Plan	Alignment of Action Items arising out of Strategic Plan Mid-Term Review
				<ul style="list-style-type: none"> - Strengthening the supervision regime for graduate students with an eye on effective throughput rates and on strengthening collaborative approaches through effective cross campus and international supervision. - Enhancing and deepening the research skills of all graduate students. - Ensuring follow up action on Quality Assurance Reviews and recommendations. - Embarking on an effective recruitment drive for regional and international research students. • PVC Research to work through a workable regime to boost publications output of Institutes and Centres, as well as individual faculty members, by having departmental staff assigned to Institutes and Centres for limited periods in a structured way and with clear expectations.<i>(Plan to Board for Graduate Studies and Research and F&GPC)</i> • Strengthen capacity in grant writing and provide research support training for Faculty and Graduate Studies through Campus Research support nodes.<i>(PVC Research to work with Library, Library to be guided by Deans with effective support from IT Units and University CIO)</i> • Four PVC's to determine the way forward to improve rankings and international reputation of UWI.<i>(PVC Planning and Development to coordinate).</i>

A REVIEW OF WORLD UNIVERSITY RANKING METHODOLOGIES

Ranking Criteria	Performance Indicators	Alignment to Strategic Plan 2007-12 – Aims	Alignment to Strategic Plan 2007-12 – Examples of Strategies outlined in Plan	Alignment of Action Items arising out of Strategic Plan Mid-Term Review
International recognition and impact of research	<ul style="list-style-type: none"> Papers indexed in Science Citation Index-expanded and Social Science Citation Index(ARWU) Highly cited researchers in 21 broad categories(ATWU) Total Citation count(QS) Normalized Average Citations per paper(THE) Average number of citations(HEEACT) H-index (HEEACT) Number of highly cited papers(HEEACT) Google Scholar- papers and citations for each academic domain(WEBOMETRICS) 	Under Strategic Aim 'Research and Innovation' a number of Strategies outlined is intended to impact on research quality and relevance and Impact	<ul style="list-style-type: none"> Strengthen and expand relevant research of international quality Foster an innovative and enterprising culture Build national, regional and international partnerships to support research training and supervision Build capacity for excellence in higher degree programmes Strengthen graduate intake for research limited to clusters 	<ul style="list-style-type: none"> Based on proposed clusters by Campuses and Faculties, establish and develop a plan for the establishment and sustainability of twelve (12) University wide Research Clusters including the three (3) already being established – renewable energy, food nutrition (agriculture) and security and climate change.(PVC Research to work with Faculties and Departments to achieve over the next twelve months. Update reports to Board for Graduate Studies and Research) Deans to strengthen and improve quality engagement with National and Regional public private and Civil Sectors to ensure that Research agenda, curriculum and training initiatives are in line with National and Regional needs.
Research Income from Public and Private sources	<ul style="list-style-type: none"> Public Research Income/Total Research Income(THE) Research Income from Industry per Acad. Staff(THE) 	Under Strategic Aim 'Funding the Enterprise' and 'Research and Innovation' a number of Strategies outlined is intended to impact on Research income	<ul style="list-style-type: none"> Design and advance new approaches for funding of expansion and strengthening of research activity on a sustainable basis Foster an innovative and enterprising culture 	<ul style="list-style-type: none"> PVC Research to develop a strategy and plan in collaboration with relevant stakeholders to increase per capita funding for research and to strengthen Research Enterprise with impact on commerce for wealth creation and innovation. This to take into account that patents, wealth creation and innovation are vital components of the Research thrust.
International Reputation – Research Quality	<ul style="list-style-type: none"> Academic Reputation Index – Survey Staff of an institution winning Nobel Prizes and Fields Medals 	Depends on implementation progress of Strategic Plan re: Graduate Studies and Research and Innovation	Build niches around Caribbean and tropical and small island states issues of relevance	Alignment of clusters to achieve such synergy, relevance, impact

A REVIEW OF WORLD UNIVERSITY RANKING METHODOLOGIES

Ranking Criteria	Performance Indicators	Alignment to Strategic Plan 2007-12 – Aims	Alignment to Strategic Plan 2007-12 – Examples of Strategies outlined in Plan	Alignment of Action Items arising out of Strategic Plan Mid-Term Review
International Reputation – Teaching Quality	<ul style="list-style-type: none"> • Academic Reputation Index – Survey(QS) • Employer/Recruiter Review – Survey(QS) • Reputational Survey – Teaching(THE) • Alumni of an institution winning Nobel Prizes and Fields Medals(ARWU) 	Depends on implementation progress of Strategic Plan re: Teaching and Learning	Cross campus collaboration in teaching Multimode strategies including through Open Campus Use of technology for international support and collaboration in teaching Paying attention to student-teacher ratio	Draw on information from institutional research, papers such as graduate tracer survey, employers' survey, retention and attrition, speak your mind in order to improve infrastructure for student support, delivery effectiveness, curriculum reform, etc.
Teaching Quality and Learning Environment	<ul style="list-style-type: none"> • Faculty/Student Ratio(QS) • PhD Awards per Academic(THE) • Undergraduate admitted per academic(THE) • Income per Academic(THE) • PhD awards/Bachelor's Awards(THE) 	Under Strategic Aim 'Teaching and Learning' and 'Graduate Studies' a number of Strategies outlined is intended to impact on teaching quality and learning environment	<ul style="list-style-type: none"> • Enhance teaching quality • Enhance Learning environment • Build capacity for excellence in higher degree programmes • Strengthen academic supervision and overall programme quality in research training at the MPhil and PhD levels. 	<ul style="list-style-type: none"> • The Registrar and Deans on each Campus will design and structure a Student Advising system from application to job placement to support student performance, development and career management including structured peer support and independent learning strategies. • All Faculties will institute mechanisms, infrastructure, systems and pathways to strengthen critical and creative thinking skills, entrepreneurship and innovation, non classroom exposure and experience, service learning opportunities and internships, externships and other opportunities for work readiness. • Establish a benchmark based on international standards for classroom design and technological support for an enhanced teaching and learning environment(<i>PVC Board for Undergraduate Studies to collaborate with Deans</i>)

Ranking Criteria	Performance Indicators	Alignment to Strategic Plan 2007-12 – Aims	Alignment to Strategic Plan 2007-12 – Examples of Strategies outlined in Plan	Alignment of Action Items arising out of Strategic Plan Mid-Term Review
International Branding	<ul style="list-style-type: none"> • External in-links(WEBOMETRICS) • Web pages(WEBOMETRICS) • Rich files – Academic and Publication activities(WEBOMETRICS) • Google Scholar- papers and citations for each academic domain(WEBOMETRICS) 	<p>Under enabler ‘Marketing and Branding’ strategies outlined to improve website</p>	<ul style="list-style-type: none"> • Prepare a Marketing and Communication Plan aligned to and fully supportive of UWI’s Strategic Plan • Develop an information strategy to promote UWI in the mass media as being the first in education, research and the provision of expert services • Formulate a web based strategy to project UWI effectively in terms of breadth and richness of its different dimensions 	<ul style="list-style-type: none"> • Bring clarity to bear on the constituent elements of the product/service which are being marketed (and the product/service itself) as University of the West Indies and how that particular product/service is being positioned and branded. Share with community the positioning which the Marketing Department is seeking to establish for UWI so that the internal community can become aligned with what Marketing is leading on UWI’s behalf. <i>(University Director of Marketing)</i> • Explain the key message that is being projected about the University of the West Indies and identify the key target markets/audiences that are receiving this message. Identify the reinforcing messages for the main message and how it is impacting through the major channels. • Align marketing strategy to Strategic Plan (2007-12) imperatives for the University and the achievement of impact indicators identified in the Strategic Plan for Marketing Communications. <i>(University Director of Marketing in collaboration with Vice Chancellor)</i> • Develop a plan to position UWI as THE place to pursue graduate studies in the Caribbean region and as the Research Leader on Caribbean matters. <i>(University Director of Marketing with PVC Grad Studies, PVC Research. To be agreed by end January 2011)</i>

Ranking Criteria	Performance Indicators	Alignment to Strategic Plan 2007-12 – Aims	Alignment to Strategic Plan 2007-12 – Examples of Strategies outlined in Plan	Alignment of Action Items arising out of Strategic Plan Mid-Term Review
Internationalization	the proportion of international students and faculty(THE) Ratio of international to Domestic staff(THE)	Under enabler 'International Partnerships' and 'Research and Innovation' strategies outlined to accelerate Internationalization	<ul style="list-style-type: none"> • Strengthen and expand inter-institutional relationships to support regional development priorities through resource acquisition, capacity building and enhancement of the knowledge infrastructure as follows <ul style="list-style-type: none"> - Increase the number of customized working relationships designed strategically to deliver specific benefits to UWI - Expand staff and student exchanges - Make greater use of visiting fellowships and professorships - Strengthen and expand academic programme offerings at the graduate level in priority areas through partnerships - Enhance the capacity for academic supervision linked to co-supervision arrangements with faculty from other universities 	<ul style="list-style-type: none"> • Strengthening the supervision regime for graduate students with an eye on effective throughput rates and on strengthening collaborative approaches through effective cross campus and international supervision • Finalizing policies on tuition fees for regional and international research students and embarking on an effective recruitment drive. • Develop a plan to position UWI as THE place to pursue graduate studies in the Caribbean region and as the Research Leader on Caribbean matters. (<i>University Director of Marketing with PVC Grad Studies, PVC Research. To be agreed by end January 2011</i>)

CONCLUSION

It can be said that none of the ranking methodologies outlined are entirely objective and definitive. Many criticisms have been made such as bias in terms of selection of universities, bias towards the Sciences while downplaying Social Sciences and Humanities and not focusing on aspects of university achievements other than research. It can also be said that rankings do not take into account a university's contribution to national development particularly those of developing countries and in the case of a university such as UWI would hardly take into account the regional mission of UWI.

Nevertheless, focusing on the various world rankings and aligning to its performance indicators as part of a wider set of indicators can be beneficial in many aspects:

- It helps to improve institutional performance
- It helps to provide accountability and transparency
- It helps in reshaping the university's goals and objectives by aligning to national and international priorities in education and research
- It helps to create a sense of urgency in accelerating and modernizing the university's agenda
- It challenges universities to think about performance measurement and evaluation as well as benchmarking.

In seeking to improve its ranking in Latin America and the World (the assumption is that UWI is the premier University in the Caribbean and the dominant force in this region in higher education), UWI cannot replicate every key characteristic of the world's top ranked universities but should seek to maximize its comparative advantage on issues relating mainly to the Caribbean and developing countries generally and small island states.

An assessment of the ranking criteria and performance indicators mandated by five (5) ranking agencies shows that the critical success factors required to be ranked as a world class university can be broadly defined as:

- **Research Volume, Excellence, Impact, and Relevance**
- **International Reputation and Prestige,**
- **Teaching Quality,**
- **Internationalization**
- **Web Presence.**

Alignment with these critical success factors would require UWI to focus on the following six (6) areas:

1. **Research Output, Relevance and Excellence** - UWI must become internationally recognized as the centre of excellence in research for issues relating mainly, but not confined to, the Caribbean, developing countries and small island states. Such research must impact on policy formulation, economic development solutions to problems and challenges and probe into the future to ask important questions and to formulate the next generation of important questions of value to the region and the world.
2. **Teaching Quality** - Produce high quality graduates for an innovation-driven economy and the global knowledge society who become known for their contribution and impact in an environment of competitiveness as well as cooperation.
3. **Internationalization** - One way of accelerating the transformation into a world-class university is to use internationalization strategies effectively. The international reputation of universities can be enhanced through thoughtful international connections, carefully crafted collaborative initiatives and meaningful and impactful comparative research.
4. **International Branding** - Improve UWI's visibility, presence and image both regionally and internationally by developing effective Marketing and Branding strategies that are linked to UWI's strategic objectives and rooted in the substance of UWI's strengths and genuine achievements and contributions. This marketing strategy must emphasise what UWI is achieving in the world that is making a difference in the region; it must position UWI as an institution with high aspirations that is constantly achieving to meet its aspirational goals.
5. **Funding** - Create a sound financial base by diversifying sources of income funding and by setting annual targets over a designated period with key responsibilities assigned in addition to predictable government funding.
6. **Benchmarking** - Establish a benchmarking system that would include peer institutions and top universities worldwide. UWI needs a mix of peer institutions and top institutions. Our standing in the region gives us access to collaborative opportunities with the best universities, allows us to play a leading role in collaboration with other developing country universities and allows us as well to mix and match with other good quality universities on the basis of strengths and/or needs in particular disciplines or areas of emphasis.

A comparative analysis of the stated aims and strategies outlined in UWI's Strategic Plan with those critical success factors outlined by the ranking agencies shows that there is broad alignment in most strategic areas. The major issue for UWI therefore is to significantly reduce the gap between its stated goals and objectives and the actual implementation and progress by

accelerating the pace of transformative change that is required and to meticulously put in place the support infrastructure required to make sustainable progress and achievement possible.

There is an on-going debate about Ranking Institutions, their methodologies and criteria that they emphasise. This is of little relevance if we simply use their credible criteria as a guide for our own improvement while determining other more specific criteria important to us as a regional knowledge resource for the Caribbean region.

As we move towards the end of the 2007-12 Strategic Plan and into a new cycle of strategic planning, UWI must now focus on solutions and move forward with coherence and synergy to effect the critical transformative changes required. This will connect it pointedly to society as a catalyst of development through human capital formation, research and knowledge creation, through practical problem-solving and problem-finding, by providing the evidence basis for policy support and the intellectual capital inputs to support creativity, innovation and entrepreneurship.

UWI has just completed its mid-term review and arising out of the presentations, discussions and working group recommendations, a series of action items under nine (9) themes were identified for urgent implementation. Much of these are aligned directly to or are enablers to the four (4) priority areas of focus that were identified for urgent attention.

The action items arising out of the mid-term review require urgent attention at this point in time and are restated under the nine (9) broad themes as follows.

1. Strengthening Undergraduate Education and Developing the Ideal UWI Graduate

- Cross campus faculties will collaborate and co operate to achieve mutual recognition of course standards by Campuses to facilitate a ONE UWI programme framework thus facilitating student choice, easy student movement and programme coherence for students.
- The Registrar and Deans on each Campus will design and structure a Student Advising system from application to job placement to support student performance, development and career management including structured peer support and independent learning strategies.
- All Faculties will institute mechanisms, infrastructure, systems and pathways to strengthen critical and creative thinking skills, entrepreneurship and innovation, non classroom exposure and experience, service learning opportunities and internships, externships and other opportunities for work readiness
- The Library will create a single point of entry (working with University CIO and team) for on line searches to catalogues and data bases.

- The University Registrar will work through Campus Registrars with Deans on each Campus to determine which functions and services are to be devolved to Faculties and which will be retained centrally so that the student can be better and more effectively served and that due recognition is given in operational terms to the fact that the academic mission of the University is driven by Faculties and that the role of the Registry is to effectively provide services required to support the academic mission of the University.
- Foundation Course reform will be initiated through Board for Undergraduate Studies.
- A policy on English Language proficiency will be formulated including a rational approach to the harnessing and deployment of resources which would take into account online resources and capabilities of the Open Campus and effective face to face support on the physical campuses
- Suite of math courses to address undergraduate deficiencies through the Open Campus will be examined with a view to rationalizing support for students in mathematics and related areas across UWI.\
- Establish a benchmark based on international standards for classroom design and technological support for an enhanced teaching and learning environment
- Pursue Institutional Accreditation for UWI.

2. Strengthening Graduate Education System at UWI in terms of Quality, Coordination, Synergy, Relevance, Impact and Effectiveness

- PVC Graduate Studies to work with Campus Coordinators for Graduate Studies and Deans to strengthen Cross Campus supervision of graduate studies. Update reports to Board of Graduate Studies and Research.
- Deans will work constructively with Open Campus for multi campus collaboration and delivery of post graduate courses and taught Master's programmes. Update reports to Board for Graduate Studies and Research.
- PVC Graduate Studies to initiate two week intervention with graduate students across the system to change the culture of and approach to the management of Graduate Students at UWI.
- PVC Graduate Studies in collaboration with relevant stakeholders to establish a portal for Graduate Studies and students across the system.
- PVC Graduate Studies to establish a functioning progress tracker for all graduate students and seek to facilitate a four (4) year time frame for PhD completion.

- PVC Graduate Studies to work with Open Campus, Campus Coordinators and Deans to establish an ongoing online writing course for graduate students with discipline based tutor assistance, effectively sourced and managed
- PVC Graduate Studies to present paper on pros and cons of continuing with the MPhil degree with clear recommendations.
- In order to effect a full scale transformation of Graduate Studies at UWI PVC Graduate Studies and PVC Research will work constructively with Campus Coordinators and Faculty Deans to strengthen and institutionalize best practice in the following areas:
 - Better and more effective management of programmes through for example clarifying and strengthening the role and responsibilities of programme leaders and ensuring that every graduate programme has a leader.
 - Strengthening the supervision regime for graduate students with an eye on effective throughput rates and on strengthening collaborative approaches through effective cross campus and international supervision and working towards a four (4) year frame work for the throughput of PhD graduates.
 - Enhancing and deepening the research skills of all graduate students.
 - Ensuring follow up action on Quality Assurance Reviews recommendations.
 - Embarking on an effective recruitment drive to build the graduate student base of a sustainable Research Enterprise.
 - Take effective action to ensure that there is reasonable alignment of graduate programmes with the market; that the multidisciplinary approach is strengthened in each programme
 - Graduate student recruitment for research degrees should be aligned to priority clusters

3. Strengthening the UWI Research Enterprise to Support Knowledge Creation, Knowledge Applications and Innovation

- Based on proposed clusters by Campuses and Faculties, establish and develop a plan for the establishment and sustainability of twelve (12) University wide Research Clusters including the three (3) already being established – renewable energy, food nutrition (agriculture) and security and climate change.
- PVC Research and Innovation to think through and establish a workable regime to boost publications output of Institutes and Centres, as well as individual faculty members, by having departmental staff assigned to Institutes and Centres for limited periods in a structured way and with clear expectations.
- Strengthen capacity in grant writing and provide research support training for Faculty and Graduate Studies through Campus Research support nodes.

- Deans to strengthen and improve quality engagement with National and Regional public private and Civil Sectors to ensure that Research agenda, curriculum and training initiatives are in line with National and Regional needs.
- PVC Research to develop a strategy and plan in collaboration with relevant stakeholders to increase per capita funding for research and to strengthen Research Enterprise with impact on commerce for wealth creation and innovation. This to take into account that patents, wealth creation and innovation are vital components of the Research thrust.
- In order to effect a full scale transformation of Graduate Studies at UWI PVC Graduate Studies and PVC Research will work constructively with Campus Coordinators and Faculty Deans to strengthen and institutionalize best practice in the following areas:
 - Better and more effective management of programmes through for example clarifying and strengthening the role and responsibilities of programme leaders and ensuring that every graduate programme has a leader
 - Strengthening the supervision regime for graduate students with an eye on effective throughput rates and on strengthening collaborative approaches through effective cross campus and international supervision.
 - Enhancing and deepening the research skills of all graduate students.
 - Ensuring follow up action on Quality Assurance Reviews and recommendations.
 - Embarking on an effective recruitment drive for regional and international research students.
- Four PVC's to determine the way forward to improve rankings and international reputation of UWI.

4. Ensuring Administrative and Managerial Transformation and Enhancing Productivity

- The focus of the University Registrar will be to coordinate and manage a cross campus team and multidisciplinary teams to make administrative and managerial transformation happen.
- University Registrar to introduce metrics to measure performance of staff by Sep 30, 2010 working with key stakeholders.
- Campus Registrars in collaboration with University Registrar to create a Customer Service Charter on Mona and Cave Hill Campuses by September 30, 2010 working with key stakeholders.
- SCT Banner User Group to be reactivated by September 30, 2010 and to work in tandem with and in support of a subgroup (unit) to drive the process of continuous

improvement in all areas relating to operational and service excellence. These teams to also work collaboratively to execute all aspects of the project plan for administrative and managerial transformation prepared for execution in 2009. A revised, clear plan of action with time lines and performance and accountability requirements to be completed by September 30, 2010.

- Distribution of feedback forms in all service centres to encourage monitoring of customer service and establishment of an effective monitoring and evaluation capability for same linked to service level statements.
- Leadership development workshops and training sessions to be implemented beginning January 2011 focused on achievement of administrative and managerial transformation objectives, consolidation of gains, and leading a performance driven culture based on incentives, skills upgrade, talent fit for redesigned jobs and revised job descriptions and focused on outcomes.
- Student centeredness is the first pillar of change to be implemented with widest benefit and institutional buy-in. In keeping with recommendations by Canadian Consulting group there will be a focus on specific operational and technology details; with a start-up action plan themed around student centeredness.
- Enhance enterprise systems with document extender and e recruit and an online payment system for every service payment.
- Evaluation for all academics to be completed by the end of the Academic Year.

5. ICT Across UWI

- Proceed with strategy to enable a Single Virtual University Space (SVUS) and work with VC to secure funding for the project.
- Work supportively and collaboratively with University Registrar and team to map out a step by step plan with agreed timelines to transform administrative processes.
- Work with key stakeholders across the University system to provide accurate data and to strengthen the data capture capacity of the University.
- Support Vice Chancellor to provide business intelligence for decision making on an ongoing basis and share information with PVC Planning and Development and the University Office of Planning and Development so ongoing comparisons and analyses become possible.
- Provide accurate data as may be required from time to time to University Office of Planning and Development to facilitate University wide studies and reports.

- Collaborate with University Office of Planning and Development to determine what data we can now actually capture, what data sources are accurate and which are suspect with the objective of ensuring accurate data across the system, and determining, what additional fields of data which we are not now capturing, but needs to be captured by the system.
- Work with Open Campus and Faculties of residential campuses to enable on line learning and opportunities for research and innovation as we map out a roadway to the single virtual university space.
- Work collaboratively with Principal Open Campus, PVC Planning and Development, Principals of the residential campuses and CKLN technical staff to realize a genuinely beneficial partnership between UWI and CKLN and to strengthen UWI's capacity to leverage the partnership to expand opportunities and markets for UWI.
- Identify deficiencies in support requirements by individual campuses and UWI as a whole for the UWI Performance Monitoring and Management System (UWI PMMS) and ensure that they are fixed to ensure smooth functioning of the system.

6. Strengthening Open Campus through Rationalization: Harmonization and Integration with UWI and Enhancing the Effective Reach and Impact of UWI via Online Education and E Learning Strategies

- Identify any and all outstanding issues related to the role of Open Campus and Faculties and residential Campuses that stand in the way of creating a structured system for integrated application of a delivery strategy for on line education via the Open Campus in a competitive market place, where reducing costs and harnessing capacity are fundamental necessities.
- Work with Deans across the system to make available to all Faculties across the University the existing suite of English and Mathematics courses to address undergraduate deficiencies in these areas.
- Work through a system of stakeholder incentives to increase the number of courses delivered through the Open Campus and develop an equitable cost sharing model.
- Redefine with clarity the role of the Open Campus as Service Provider and Delivery Agent to all other Campuses and the corresponding roles of the residential Campuses in making the system work effectively.
- Consolidate and integrate the distributed ICT & ODL resources, assets, investments and elements of UWI.
- Create, maintain and continually upgrade a viable, efficient and cost effective common cyber-platform.

- Facilitate and enhance the seamless communication, exchange, flow and management of knowledge and information residing at or shared by the different nodes in UWI's disseminated physical environment. .
- Strengthen Open Campus/CKLN collaboration to enhance capability of Open Campus and to leverage opportunities.
- Each Faculty to meet an agreed target of courses for Open Campus delivery on a Semester by Semester basis.

7. Managing Funding and Financing of the Enterprise

Cost reduction initiatives:

- Consolidation of university-wide administrative services
- Restructure University Centre by removing the teaching departments
- Establish university-wide benchmarks for Human Resource efficiency
- Re-negotiate current benefits with unions
- Consider out sourcing (both in and out sourcing) for certain services e.g. security cost.
- Get full efficiency out of critical software applications
- University-wide re-design of administrative activities of departments.
- Focus on reduction in utility costs.
- Move to a paperless environment (or substantially reduce paper usage)
- Develop incentives to encourage savings from operational budgets to be shared between departments and campus.
- Review programmes in order to discontinue unprofitable programmes and re-deploy resources to new programmes.
- Establish a tuition savings plan for parents who want their children to attend UWI.
- Explore issuing UWI bonds.
- Work with Open Campus to expend UWI developed courses for intra-regional and international reach.
- Rationalize approach to funding.
- Project plan on these with timelines to be prepared by University Bursar by October 01, 2010

8. Marketing & Communications Strategy Going Forward

- Bring clarity to bear on the constituent elements of the product/service which is being marketed (and the product/service itself) as University of the West Indies and how that particular product/service is being positioned and branded. Share with community the positioning which the Marketing Department is seeking to establish for UWI so that the internal community can become aligned with what Marketing is leading on UWI's behalf.
- Explain the key message that is being projected about the University of the West Indies and identify the key target markets/audiences that are receiving this message. Identify the reinforcing messages for the main message and how it is impacting through the major channels.
- Identify the key strategic initiatives that need to be taken over the course of the next year and align operational day to day activities with these initiatives. Indicate what results are targeted for each initiative identified so that impact can be assessed.
- Align marketing strategy to Strategic Plan (2007-12) imperatives for the University and the achievement of impact indicators identified in the Strategic Plan for Marketing Communications.
- Inform the public about Strategic Plan (2007-12) progress, achievements, initiatives on an ongoing basis through collaboration with the University Office of Planning and Development.
- Develop a plan to support increased recruitment of students in UWI 12 countries and Bermuda in collaboration with key stakeholders.
- Develop a plan to support recruitment in collaboration with Admissions Offices across the system to increase the acceptance rate of students who are actually offered places working with Campus based Marketing Offices and targeting best performers.
- Develop a plan to position UWI as THE place to pursue graduate studies in the Caribbean region and as the Research Leader on Caribbean matters.
- Align Marketing, Branding, Positioning, PR, Communications and Advertising Strategy to the main message and positioning of the product/service that is UWI.

9. Single Virtual University Space

- Consider the final document prepared by Consultants and agree on the way forward to achieve single virtual university space
- University CIO to pursue funding based on achievement of 1 above with support of Vice Chancellor from Caribbean Development Bank (CDB).

- Address issues of governance and management at the university as a precondition for going forward with clarity on the single virtual university project but which have implications for the efficient, effective and harmonized functioning of the University in other areas.
- Determine technology and technical competence requirements to make the project successful and therefore the gaps and opportunities for skills and competence building at UWI.
- Reach clear, workable agreement on the role of the Open Campus and its relationship with other campuses so that the collective capacity and effective reach of the University of the West Indies are enhanced by a more strategic role for Open Campus as service provider and delivery agent to all other campuses and with corresponding adjustments and required actions by traditional campuses.
- Resolve all financial issues related to 5 above including cost and benefits sharing.
- Focus immediately to achieve in the short term a student-centered technology platform that is operationally efficient and student friendly.

RECOMMENDATIONS FOR ACTION BEGINNING IN 2011

1. Implement faithfully and diligently recommendations emanating out of Mid-term Review (August 2010) and identified in the nine (9) domains for action.
2. Implement items identified under “the Critical Areas UWI needs to Focus on to Improve its Ranking in Latin America and the World” in earlier pages of this document (pp19-22).
3. Strategically assess gains and gaps in terms of our key objective of building up and sustaining a top class research enterprise at UWI, design a specific achievable plan going forward over the next five (5) years and establish the framework, infrastructure and personnel required to achieve this i.e. a viable and sustainable Research Enterprise with minimum expectation of output.
4. Spend strategic thinking time on the reports and recommendations emanating as institutional research from the University Office of Planning and Development so that quality, relevance and responsiveness across the University can be improved through specific targeted initiatives that are effectively managed at both University and Campus levels.
5. Make a multimode, learner-centred environment central to education at UWI and meticulously examine in a holistic manner the things that are required to be done to strengthen the role of e-learning, to leverage the strategic role of the Open Campus in a

- better integrated delivery system for UWI and to support an enlightened and enriched learning environment.
6. Transform curriculum to embrace critical thinking strategies, a sustainable development framework, an entrepreneurial disposition and an appreciation of the requirements of competitiveness and think through the sequence of interventions that might be pursued not just to create an ideal UWI graduate for work but an ideal citizen with skills, competencies, disposition and orientation to be a catalyst for development interventions in government, business and civil society that can be value creating and wealth generating.
 7. Mandatory compliance to populate the University Performance Management System with the relevant data to support analysis of departmental progress and to facilitate assessment and evaluation of comparative performance across UWI.
 8. Establish a clear strategy for the financial sustainability of UWI with a plan for predictable government funding; a well-defined, well-demarcated set of strategies and responsibilities for non-governmental funding with annual targets and a specific comprehensive student support system based in scholarships, work study and loans.
 9. Executive management to establish a framework for monitoring eight (8) items identified above.