

UGGI QUARTERLY DIALOGUE

Inclusive
Growth in a
Resource abundant
Economy and
ENvironment

UGGI - University of Guyana Green Institute

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**Dr. Paulette Henry, Dean,
Faculty of Social Sciences**



A Message from the Dean, FSS

Since its establishment in 2019, the University of Guyana Green Institute (UGGI) as a policy research institute has stuck to its core values which espouses a transdisciplinary approach involving the domains of economy, society, and the environment for sustainable development, inclusiveness, diversity, innovation and evidence-based solutions in its functions. Nhamo (2014) adeptly articulates the role of higher education in promoting green economy (including climate change) readiness globally since it is an important knowledge generation and acquisition platform where skills can also be developed for the future we want. Higher education must therefore play a significant role in building a green economy. I think that Gao, Ding, Chen & Min (2019) captured the essence of the role of higher education and institutes like ours in their study on the nexus between higher education and a green economy. They articulated that higher education contributes to green economic growth and comprehensive sustainable development through the provision of knowledge and skills, that changes people's daily behaviors and shape their views and values in a myriad of ways. The Institute through its multiple discourses is a hub of knowledge and maintains its responsibility to bring fresh knowledge insights and innovative methodologies and processes pertinent to Guyana as we negotiate climate change and the evolving energy landscape.

I am excited about the launch of this newsletter. It will provide the space and opportunity to analyze the range of issues in varying sectors that impacts both climate change and energy and sustainability. We must expand our tripartite approach that pulls together our teaching and research and social dialogue. The interdisciplinary and transnational approach of UGGI to identify local priorities and learn from the global context must be applauded. This in itself recognizes that we stand to benefit from the expertise and lessons learned by others. Additionally, UGGI must take on an advocacy role since all stakeholders may not be cognizant of the newly emerging priorities, or may not be convinced of their importance. We have a moral obligation to stimulate constructive discourse and to increase awareness around these pertinent issues. Important within this discourse is the dialogue on social justice. The energy wealth being accrued in Guyana must be seen to be equitably dispersed since this has important ramifications for social order and our national well-being if not properly addressed. Waghid, (2014) reminds us that social justice must account for the basic rights of citizens, and "educators need to constantly instill the underlying principles of social justice to ensure that the future youth are able to enjoy a world in which economic, social and political boundaries no longer coincide, and in which people are given the freedom to be responsible and democratic citizens" (p:1451). The UGGI as a think-tank must give place to these important discourses. The thoughts and ideas of our stakeholders, and academics must be allowed to shed some new light continually on these diverse issues so that we develop new ideas and new ways of seeing and doing.

References

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Save the Date! Upcoming UGGI Webinars

	Government Regulation of Guyana's Offshore Oil industry	Feb-18
	The LCDS 2030: A Green Economy Scorecard	Mar-04
	Green Building in Guyana: Challenges & Potential	Mar-25
	Local Fisheries in An Oil Producing Guyana: A Livelihoods Perspective	Apr-08
	Oil Revenue Management for Economic Diversification and National Investment	Apr-22
	Guyana Hotels: Oil and Gas and Green Branding	May-06
	Enhancing Resilience with Natural Infrastructure and Green Building	May-20
	Navigating the impact of Covid on Social work field education	Jun-03
	Renewable Energy: Guyana's Cellulosic Ethanol Potential	Jun-17
	Transportation	Jul-01
	Urbanization	Jul-15
	Guyana's changing demographics: Socio-political Implications	Jul-29
	Electoral/Constitutional Reform	Aug-12
	Politics, Diversity and Inclusion	Aug-26
	Social Economics: The Trust Effect	Sep-09
	Pricing Carbon	Sep-23
	Food Security in a Transitioning Economy	Oct-07
	The role of youth in a green transitioning economy	Oct-21

UGGI as a Policy Research Institute

by Thomas Singh, (Ph.D)

The UGGI is first and foremost a policy research institute which intends to be a National Centre of Excellence for rigorous discourse and public awareness on how learning-led development can lead to a Green Economy. Ever since its formal establishment in February 2019, the UGGI has sought to bridge research and policy on green economy issues, with a particular focus on Guyana. To this end, it held its first Advisory Board Roundtable on Nov. 27-29, 2019 (AB Roundtable-2019) that was conducted as a hybrid event, with some AB members joining online. At the end of the roundtable, the UGGI had a draft strategic plan and an outline for its first “green economy workshop,” which should have been held in 2020 but due to the pandemic, was held instead on Oct. 18-20, 2021.

Two main issues emerged during this first AB Roundtable:

1. That cooperation and social order could not be taken for granted in Guyana given the prevalence of rents in the economy - arising from its resource abundance and from inflows of remittances, development aid, and even illegal activities - that had to be shared among competing groups in a non-homogeneous society; and
2. That Guyana was faced with a deep paradox as a bio-diversity rich country, with some 85% its land covered by forests, that was soon to become an oil producer and exporter, ExxonMobil having made a significant discovery offshore, in the Stabroek Block.

In response to the first of these issues, it was also decided that a symposium would be held to mark Guyana’s 50th Republic Anniversary. The Symposium “Social & Political Cooperation: What Will It Take to Accelerate Guyana’s Green Economy?” was held on Feb. 19-20, 2020. It was noted then that Guyana is a middle-income country, rich in natural resources, but with a history of ethnic rivalry, relatively weak institutions, and a relatively large public sector. The

timing of the Symposium coincided with Guyana’s first exports of oil in December 2019, and general elections in March 2020 that would have given the winner control over the windfall revenues from oil. That coincidence of events had in it the ingredients for the unravelling of cooperation at various levels of the society, precisely as we witnessed during the 2020 elections.

Among the topics addressed at the February 2020 Symposium were “Political Cooperation and Electoral Systems in (Ethnically) Divided Societies: The Experiences of Guyana and Suriname,” by Prof. Jack Menke of Anton de Kom University; “Behavioural/Experimental Economics Insights on Cooperation and Social Learning,” by Prof. Edward Cartwright of De Montfort University; “Direct Cash Transfers and Oil Revenues,” by Prof. Jay Mandle (Colgate University) and “An Upstream Carbon Tax on Oil Companies in Guyana,” by UGGI Director, Dr. Thomas Singh.

After the global pandemic (COVID-19) emerged in the first quarter of 2020, the UGGI mounted its webinar series to address the policy issues that were evolving. The virtual presentations by Prof. Jack Menke and Prof. Ed Cartwright at the February 2020 Symposium gave us confidence that, with the right speakers, the UGGI Webinars would provide an excellent opportunity for us to execute our mandate of being a National Centre of Excellence for rigorous discourse and public awareness on how learning-led development can lead to a Green Economy. Admittedly, our Webinars did not specifically address the issues identified in the first ABR Roundtable (see above), but instead, attempted to address current and emerging issues. Our Webinars to date are given in Table 1.

UGGI as a Policy Research Institute

UGGI’s Completed Webinars

No	Title of Webinar	Panelists*	Date*
1	The Resource Curse & democracy: Lessons for Guyana	Prof. Michael Ross (UCLA)	June 2, 2020
2	Follow-Up -The Resource Curse & democracy: Lessons for Guyana	Dr(s) Desmond Thomas, Pauline Bullen, Rishee Thakur, Timothy Laing	June 23, 2020
5	The Evolution of Democracy and Governance in Guyana and Suriname	Prof. Jack Menke Anton de Kom	July 24, 2020
6	Suriname’s Electoral Shift: From Mono-ethnicity to Multi-ethnicity	Prof. Jack Menke Anton de Kom	Aug 5, 2020
7	Climate Change & Democracy in Guyana	Prof. Jay Mandle Emeritus, Colgate	Aug 7, 2020
8	Challenges of Oil Development and Wealth Management	Dr. Todd Moss (Energy for Growth Hub) Dr. Francisco Monaldi (Baker Institute)	October 12, 2020
9	Guyana’s Land Sovereignty: A Geopolitical Review	Dr. Janette Bulkan U. of British Columbia	October 20, 2020
10	Guyana’s Exclusive Economic Zone (EEZ): A Geopolitical Review	Dr. Janette Bulkan U. of British Columbia	October 27, 2020
11	Collecting Marine Megafauna data within EEZ waters: a look at French Guiana and Suriname	Marijke de Boer Wageningen University & Research	Dec. 8, 2020
12	Urbanization and Socioeconomic Development: The Long View	Prof. Jose Lobo Arizona State University	Dec. 21, 2020
13	Measuring Climate Change with the Actuaries Climate Indices	Mr. Stephen Kolk Kolkulations, LLC	May 19, 2021
14	Understanding the Challenges of Corrosion and Materials Specifications in Deepwater Oil and Gas Exploration	Prof. Norman Munroe Florida Int. University	June 9, 2021
15	Putting a Price on Carbon Emissions in Guyana: A License to Pollute or the “Polluter Pay” Principle?	Dr. Thomas B. Singh UG GREEN Institute	June 16, 2021
16	Impact of Climate on the Guyanese Built Environment	Mr. Komalchand Dhiram Hydrometeorological Service	June 23, 2021
17	Decision Making in Transport Infrastructure Planning	Mr. Moshan Khan WSP Transport Group	June 30, 2021

Table 1

UGGI as a Policy Research Institute

The Green Economy Workshop 2021 (GEW-2021), held on Oct. 18, 20 and 21, 2021, was intended to address the second issue identified (rephrased) by the ABR Roundtable-2019, Climate Change and Energy Transition: Challenges and Paradoxes of Resource Abundance. Highlights of the GEW-2021 are given below:

1. Can Guyana be a Model for Climate Resilience: Aligning Oil and Gas with a Green Economy?

An Interactive Panel organised by Prof. Edward Greene, current Chancellor of the University of Guyana. This Panel squarely addressed the second issue identified by the AB Roundtable-2019.

2. Oil and Gas Revenue Management: Institutions and Experiences

Economic Implications of Oil and Gas Revenue Fluctuations and Weak Institutional Frameworks: Middle East, Africa, and Caribbean Experience

This panel focussed on revenue management institutions (and systems) in other oil-producing countries, with a view to giving Guyana an opportunity to learn lessons from these experiences.

3. Economic Diversification in Resource Abundant Countries

Conference Keynote Address by Prof. Michael Ross, Professor of Political Science, UCLA and author of *The Oil Curse: How Petroleum Wealth Shapes the Development of Nations*. Countries like Guyana that have been long recognised to be resource-rich have for an equally long time been talking about economic diversification, but with little to show for it. With the recent oil discoveries, it becomes more urgent to improve the country's diversification performance, especially with energy transition already occurring.

4. An Upstream Carbon Tax at the Wellhead in Developing Oil Producing Countries

Among the issues identified to advance the adoption of an upstream carbon tax, was getting South-South cooperation in ensuring that the Draft Rulebook for Article 6 of the Paris Agreement was not finalised with an institutional architecture that precluded the upstream carbon tax at the COP 26 meeting in Glasgow. The panel considered these issues.

5. Transport and Spatial Economic Behaviour in an Emerging Oil and Gas Economy

Keynote Lecture by Roger Vickerman, Visiting

Professor and Chair, Transport Strategy Centre, Department of Environmental and Civil Engineering, Imperial College. Most of the country's population is concentrated on the coast, which is vulnerable to flooding; electricity supply is high-cost, high-pollution, intermittent and unstable. The transportation network is antiquated and dilapidated, and "spatial economic behaviour" is hardly considered. This Keynote Lecture focused on infrastructure and economic development, with some particular attention being paid to transportation.

6. Urbanization and Sustainable Development: What We Know, Policy Implications and Citizen Engagement

This Session was organised by Prof. Jose Lobo, Clinical Associate Professor, School of Sustainability, College of Global Futures, Arizona State University. As Guyana surges ahead with an agenda that is strongly influenced by its new "oil producer" status, urbanisation will increase. This session involved a Roundtable that addressed both the challenges and the opportunities that are associated with this.

7. Community-Based Natural Resource Management for The Sustainable Governance of Wildlife

Keynote Lecture by Brian Child, Asst. Professor of Geography, University of Florida. Prof. Child is also African Councillor for the International Union for Conservation of Nature. Guyana has a rich biodiversity that must be managed well as its new oil producer status will increase this encroachment. The argument for devolution of rights from the centre to communities and the governance of these rights by communities - beyond the issuing of land titles that attempt to define property rights over some resources that really cannot be reduced to pieces of private property - was addressed in this lecture.

UGGI as a Policy Research Institute

The recent charge on the Flaring Emissions in the Stabroek Block was the UGGI's first, and to date, its most significant, engagement in the policy process in Guyana. In June 2020, the Director submitted a UGGI Policy Brief, "Towards a Green Petro-State: A Carbon Tax at the Wellhead in Guyana as a Measure to Reduce Pollution (Singh and Liang, 2020)" to the Guyana Environmental Protection Agency (EPA). Subsequently, on Nov. 5, 2020, the EPA requested assistance to:

"1. Identify the most appropriate methodology to determine the quantity of CO₂-equivalent emitted from the flaring of natural gas in an offshore environment, through a comparative analysis on the alternative options available and justifications for the most appropriate option; and

2. Develop an appropriately designed carbon tax for the emission of CO₂-equivalent from the flaring of natural gas in an offshore environment, through a comparative analysis of the standards and best practices of other petroleum states, particularly those with a socio-economic context similar to that of Guyana."

To respond adequately to this request, several discussions were held with a technical group assembled by the Advisory Board so that (remarkably!), by December 2020, a document "Notes on the Design of a Carbon Tax for Guyana" was submitted to the EPA. In doing so, the UGGI has not just contributed to the regulation of the flaring of associated gas in the Stabroek Block, but we have also "brought carbon pricing to the Caribbean," to quote from one of the experts we consulted when we were designing the charge on flaring emissions.

These achievements have not been easy, and the story of the formidable challenges that had to be overcome is yet to be told. What can be said now, and said emphatically with an eye on a future of even better results for the UGGI, is that all this has only been possible because of the committed support, guidance, and vision of some particularly special people: the Dr. Anna Perreira - UGGI Coordinator, the members of UGGI's Advisory Board, Dr. Paulette Henry, Dean, and members of the Faculty of Social Sciences!



The EPA's Flaring Emissions Charge:

Recent Developments



by Thomas Singh, (Ph.D)

On May 13, 2021, EPA issued a statement indicating that “the Modified Permit was issued to EEPGL having been signed by both EEPGL and EPA. The Modified Environmental Permit includes revised terms and conditions relating to emissions reporting requirements, technical considerations for flaring, timelines for flaring events and an obligation on the company to pay for the emission of Carbon Dioxide equivalent (CO₂e) as a result of flaring in excess of these timelines (emphasis added).”

The current charge is US\$45 per tonne of CO₂ equivalent. In this brief comment, an argument is made for a significant increase in the charge. This recommendation is made in response to two recent developments:

1. The January 2022 litigation instituted against the EPA by three environmental advocates, Sinkka Henry, Sherlina Nageer and Andriska Thornton, to have the Agency stop flaring by EEPGL.
2. The January 2022 statement by Esso Exploration and Production Guyana, Ltd. (EEPGL). that “the installation of the new gas compressor for the Liza Destiny FPSO will no longer occur in January, as previously stated [but that] the upgraded equipment will now be installed by mid-year.”

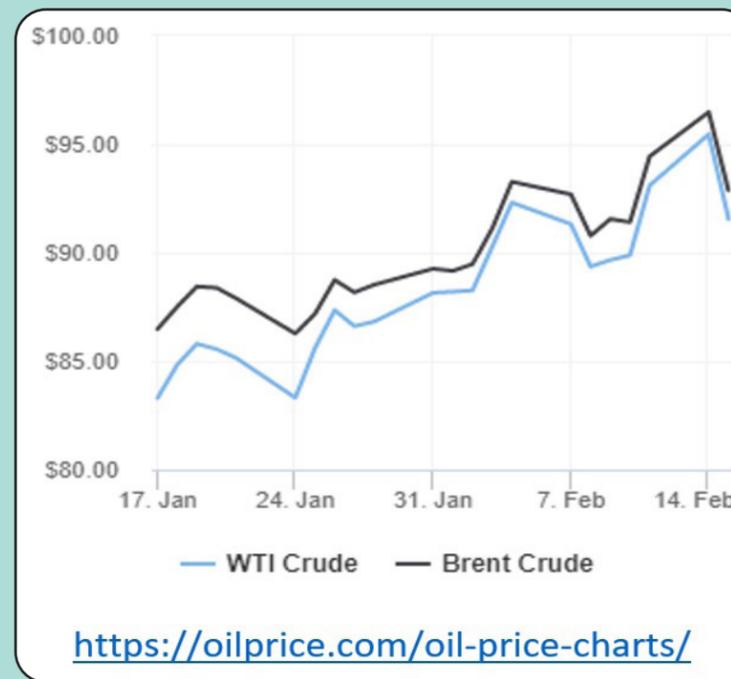
The latter announcement by EEPGL will quite probably, unless addressed immediately, seriously compromise the EPA's ability to mount a strong

legal defense against the former legal challenge of the emissions charge as one that allows EEPGL to flare or is a payment in exchange for flaring or any other version of the litigants' claim.

It is unlikely that the timing and very public nature of the announcement that EEPGL will not be fixing the gas compressor until mid-year 2022 was accidental. This announcement – and it was an announcement – was no doubt made in direct response to the filing of the litigation challenging in legality and purpose of the flaring emissions charge. If the litigation is successful, the EPA will have to scrap the flaring emissions charge and even to repay the amount paid to it by EEPGL on account of its flaring. It is therefore in the interest of EEPGL for the litigation to be successful. Indeed, the announcement made by EEPGL will have the effect of enhancing chances that the litigation will be successful if there is no response by the EPA. Without that response, the litigants will be able to argue that the emissions charge is effectively a “licence” that allows EEPGL to choose its rate of flaring emissions.

To understand why that response must be an immediate increase in the flaring emissions charge, we must understand the flaring emissions charge itself. The logic of the flaring emissions charge is based on the idea of a “Pigouvian tax,” on the CO₂ emissions released when gas is flared. In this case, the Pigouvian tax is not a tax on crude oil or even on associated gas; it is a tax on the external damage imposed on third parties, when that gas has to be flared because of the problem EEPGL claims to have with its gas compressor. Pigouvian taxes work by having entities, such as EEPGL, bear the full economic cost of their activities; in this case by having the company internalise the costs of, or bear financial responsibility for, damages imposed on third parties by the act of producing and marketing crude oil.

Before the EPA assessed the charge on flaring



emissions, EEPGL only bore the costs directly associated with the extraction of crude oil. With a charge of US\$45/tCO₂e on flaring emissions, EEPGL does bear some financial responsibility for the damage being done by the CO₂ released by flaring. But under current market conditions that charge is too low to achieve the objective of ensuring that EEPGL assumes full responsibility for the carbon emitted with flaring.

When unit costs rise on account of a carbon tax, EEPGL experiences a negative impact on its profitability caused by gas flaring. If the Pigouvian tax/flaring emissions charge is “right” and is working the way it should, the company could be expected to respond in one of two ways. First, it could reduce production of crude oil in order to avoid the charge assessed on the external damages; or alternatively, if it wanted to maintain or even increase production, it could adopt the appropriate technologies to reduce the flaring emissions even as production increases. This latter option would clearly involve addressing the problem of the gas compressor, and doing so urgently so as to avoid the flaring emissions charge.

If the company chose to exercise the first op-

tion, and to reduce production, then the firm's profit maximising decision will coincide with the firm's approaching the “optimal level of pollution” that society (and its regulatory agent, the EPA) is willing to tolerate. This would be achieved when the tax is equal to the Social Cost of Carbon (SCC).

However, holding the level of the tax constant when petroleum prices rise vitiates the impact of the carbon tax. Oil prices have now risen above US\$90, as shown below: With the tax held constant as the price of petroleum rising, the marginal benefit to EEPGL of extracting crude oil now exceeds the marginal cost of doing so, even after the flaring emissions charge is taken into account. That being the case, EEPGL is encouraged to increase both production and flaring. The incentive to fix the gas compressor is thereby reduced.

The effect of rising oil prices thus raises the interesting question of what is the “right” rate to use for the flaring emissions charge. Since the promulgation of the charge, there has been at least one increase, to US\$45 per tonne of CO₂ equivalent. However, the increased production of oil, associated gas, and flaring emissions suggest strongly that there is the need to adjust the emissions charge upwards. Increased emissions as well as rising oil prices effectively cause the Social Cost of Carbon (SSC) to increase, as the stock of CO₂ in the atmosphere rises. This is therefore one reason why the EPA should raise the flaring emissions charge. The EPA, like any other agency that seeks to use Pigouvian taxes, will be adjusting the emissions charge in search of the “right” SSC, which is never known in advance. In this case however, it would know that the emissions charge is too low, precisely because of the lack of urgency on the part of EEPGL to resolve its “gas compressor” problems.

Recognising that the charge on flaring emissions is itself an “upstream carbon tax,” albeit on a limited base, the EPA must therefore respond, and respond urgently, with an appropriate price for the carbon that is emitted with flaring, i.e., with an adequate increase in the flaring emissions charge.

Green Building: Four Underlying Challenges for Guyana's Built Environment



by Anna Perreira, (Ph.D)

Georgetown, Guyana's capital city, was once referred to as the garden city of the Caribbean, but has over the years witnessed the neglect and deterioration of its heritage buildings and monuments, clogged tree lined canals, and "mixed use development" which deviates from universal best practices. Similar concerns arise in other regions in the country where the government is now (rightly) focussing on improving and advancing the growth and development of the country's more remote towns and villages. Additionally, building design and practices have been, and continue to be, challenged due to the impact of climate change. But while Guyana is not the only country with problems of this nature, the situation here is compounded by its own set of peculiarities. These include inadequate and outdated national and regional building codes, non-regularization of professional architectural, engineering and construction (AEC) trades, collusion and adhoc coordination amongst housing officials and agencies, and poor public compliance with existing policies which aim to protect both natural and physical environments and general public health.

National Building Codes

Back in the early 2000s efforts were made to update and formulate inherited British building codes. These efforts took almost a decade to produce and yet failed to address/include many aspects relevant to physical infrastructural development. For this reason, the existing codes are elusive to developers, architects, engineers, and the general public. This lack of adequate building codes hinders proper physical development and worse, compromises public health

and hinders environmental protection. Codes however provide AEC professionals with the guidelines to ensure physical structures are designed and constructed based on a certain set of standards. While the general public may consider them to be limiting and hindering their own objectives, codes provide the regulations needed to ensure environmental and human protection. Building codes need to be comprehensive, locally sensitive, account for climate resiliency, and must be revised/updated continuously. Those responsible for compiling the codes must have the requisite knowledge to do so and must undergo reviews to ensure best practices and international standards are applied. Finally, for them to make a difference, they should also be readily available to anyone even if there is a fee attached to access them.

Non-regularization of professional trades

The AEC industry comprises professional practitioners whose competencies must be assured through formal training and certification. It is common knowledge that in Guyana, anyone who can 'draw a house plan' is allowed to design structures beyond their knowledge or training. They even (are allowed to) use titles (e.g. architect) reserved for those actually trained to do so. In many parts of the globe this is considered unethical and even illegal and one can even be prosecuted, but not so in Guyana. The regularisation of professional trades is a compounded issue –let me explain. One becomes an architect or professional engineer based on training through an accredited academic programme. Upon graduating (and not before!) she is allowed to register with a local professional association as an 'Engineer-in-Training' or a 'Graduate Architect'. The individual must then acquire some industry experience (duration varies depending on domain), the completion of which would make her eligible to write an exam or a series of exams to determine her competency to become a full professional engineer or architect. Upon successful completion of examination one is granted a license to practice as a full professional engineer or architect.

In Guyana's case however, academic programmes are not regionally or even internationally recognised, though the University of Guyana has taken the first step in ensuring that quality education is available – it

is now working to get all its engineering programmes internationally accredited via Accreditation Board for Engineering and Technology (ABET) accreditation. A concurrent step is to ensure that all regulating associations, e.g. the Guyana Association of Professional Engineers (GAPE) or the Guyana Institute of Architects (GIA), have the requisite legal statutes to ascertain and certify graduates' educational training and industry experience in order to issue professional licensure. In fact, a Bill was recently about to make its way to Parliament before the change in administrations after the (highly controversial) March 2020 elections, but to date, nothing further has been done. Those responsible should aggressively strive complete this process so to ensure that quality professionals are practicing as best and ethical practitioners.

Collusion and ad hoc coordination amongst housing officials and agencies

The Central Housing and Planning Authority (CHPA), housed in the Ministry of Housing has overarching responsibility for physical development in Guyana. Other entities such as the Ministry of Public Works, City Hall, Guyana Lands and Surveying Commission, and the Environmental Protection Agency (EPA) all have their various mandates and jurisdictions that also pertain to the country's physical infrastructure development. However, multidisciplinary coordination amongst agencies appears lacking, as is evident in the ad hoc planning and development of our built environment. Design and development controls and regulations change behaviour and directly affect construction and design of the built environment. Without coordinated policies, strategies, initiatives and a shared vision for a sustainable and climate responsive built environment, much of the country's resources will be wasted.

As a case in point, a recent encounter at City Hall revealed that housing application fees have been revised, but this information is being withheld from public knowledge. When asked how a developer or architect would become aware of such revisions, the officer simply replied that "they simply find out when they submit their applications"! A clear criterion for the various building typologies' application fees

could not even be given by the Chief City Engineer. These decisions perpetuate transparency dilemmas and negate any substantial change in the building industry. Furthermore, and despite its name, the much vaunted Green State Development Strategy (GSDS), a major policy document for the previous administration, failed to clearly provide guidance on the vision for a sustainable built environment. Green buildings, sustainable architecture, climate responsive structures, etc. are concepts few in Guyana are familiar with (putting a few solar PV panels on the roof does not equate to that building being green!). Meanwhile, the rest of the region and the world are addressing them in various ways.

A clear vision for Guyana's built environment is needed, with requisite strategies and plans of how it will be accomplished. The institutional framework must be formulated to facilitate multi-agency and transdisciplinary coordination and planning with clear mandates that make sense. Legislative instruments must be drafted to support policies; and enforcement of adequate regulations must be a priority. Land management policies must be revised and public participation is paramount, not only for buy-in but also to ensure understanding and compliance with strategies.

Poor public compliance

The general public is also perpetuating a culture that might be described as the 'Dis is Guyana - DiG' syndrome. By this I mean that poor practices are tolerated to the point of becoming a norm - a culture of mediocre services and products that everyone expects to happen, and accepts and allows to happen. A portion of the public is aware of best practices, and they strenuously attempt to resist the DiG syndrome, strongly advocating for change. However, there is also a portion of the Guyanese society that is ignorant of their rights (as consumers). They are blissfully unaware that "best practices" for the built environment exist, and fail to explore and familiarise themselves with them.

This category of individuals is, however, key to affecting change as much education and awareness is

Continued on page 12

Summary of Selected Webinars from 2020-2021: Challenges of Oil Development and Wealth Management

October 12, 2020

by Dominic Gaskin



Prof. Francisco Monaldi, Baker Institute for Public Policy, Rice University

There have not been many countries in recent years that have moved from zero oil production and relatively low wealth, to becoming the highest per capita oil producer in the world. This makes Guyana a very special case in the history of oil wealth management and a big story for industry observers. It offers tremendous opportunities for the country, but also presents significant challenges. Despite the prevalent use of the term “resource curse”, very few countries are actually worse off as a result of oil discovery and production, however, the vast majority do not achieve optimal outcomes and this can be seen as wasted opportunities, especially in terms of quality of investments and saving for future generations.

The main challenge lies in developing the sector in a way that benefits the country. Effective contracts, taxation systems and overall frameworks, including the use of competitive bidding rounds are critical, and preferable to relying on contract renegotiation which can impact future investments in the sector. Renegotiation should not necessarily be dismissed, but can be dangerous if not properly done. Guyana should take note of the many national oil companies that become rent seeking machines rather than effective entities for building local capacity. Additionally, local content policies must be designed to promote economic development and not end up creating rent seeking opportunities for local crony capitalists. Guyana should also avoid massively subsidizing energy on the local market. The prospect of obsolescence i.e. the small window of opportunity for oil production before alternative energy sources reduce the value of oil, also provides challenges for how the sector is de-

veloped.

Another major challenge is price volatility, which can be hard to manage, since implementation of counter-cyclical fiscal policies (prudent spending during boom years), is not always politically expedient. Dutch disease also makes it hard for other sectors to become competitive. Additionally, rent seeking and corruption which are prevalent throughout the world are exacerbated by the flow of oil money.

Finally, control of resources can become the new political imperative by potentially allowing incumbent governments to remain in power indefinitely by spending their way back into office, rather than saving for future generations. This can also aggravate political divisions, especially in polarization societies, if spending is skewed towards government supporters’ and their communities.

In conclusion, Guyana needs to create a basis for long-term stability that is defined by basic rules regarding oil development and the distribution and saving of its oil wealth.

Dr. Todd Moss, Energy for Growth Hub

Dutch disease will make the local currency very valuable and over-priced, and this will affect all the country’s other industries making their products much more expensive and squeezing more jobs out of those industries, than are created in the oil and gas sector, which generally provides few jobs relative to its high earnings.

Political stakes become much higher and could end up concentrating power in a small number of people and give them an incredible amount of leverage over the economy and the country as a whole.

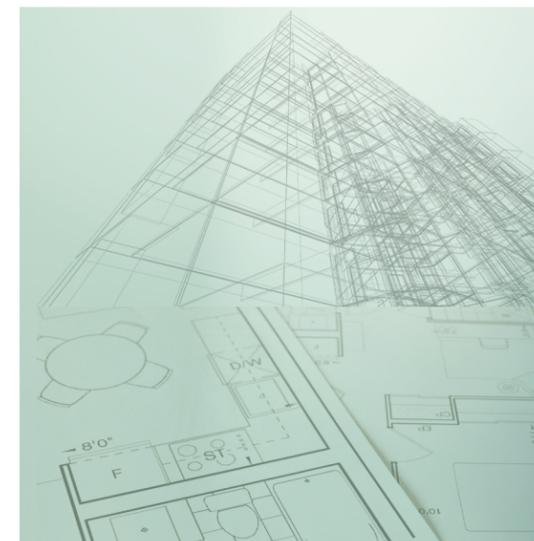
The social contract between the government and the people, whereby people pay taxes and in return receive government services, can be undermined by excessive oil revenues, which reduce government’s dependence on taxes collected from its citizens and by extension the bargaining position of the people in the context of the social contract and their ability to hold government accountable.

While strong institutions are essential for develop-

ment, it is important to note that Norway, often cited as the role model for the management of natural resources, had 150 years of democracy and strong institutions before it discovered oil, and this cannot be suddenly replicated in Guyana. There is no prescription for building strong institutions, however, there are steps that can be taken to minimize the impact of not having strong institutions. Transparency with contracts, revenues and government spending can help achieve this. So too can mechanisms such as a sovereign wealth fund or some special budget vehicle which create clear rules about spending and saving. Additionally, a sovereign wealth fund that is held offshore can help to mitigate Dutch disease effects.

Oil income can also be used to directly counteract the oil industry’s effect on jobs and competitiveness of other sectors. For example, commitments can be secured during contract negotiation for operators to convert associated gas to cooking gas, fertilizer or cheaper electricity instead of flaring.

“Oil to cash” is a form of cash transfer which turns citizens into shareholders and pays them dividends. Oil revenues can go into a special fund, a portion of which is used to pay every citizen cash. This transfer can be tied to bank accounts and subject to withholding taxes, and can be used to widen the tax net, thereby rebuilding the social contract. This incentivizes citizens to pay more attention to the oil sector and for the government to deliver, resulting in greater transparency.



Green Building: Four Underlying Challenges for Guyana’s Built Environment

Continued from page 10

needed to demonstrate how poor human decisions ultimately affect the built environment. For instance, the average person might not know that paving an entire house lot because it may seem low maintenance results in a reduced area for effective storm water management, contributes to a heat island effect, affects bio-diversity (e.g. hinders bee and butterfly presence which in-turn can reduce local food production), and increases carbon emissions, thereby contributing to global warming. Public education on these matters can change the behaviour of these persons. But there is another category of the society who simply do not care about the environment but rather submit to their own individualistic agendas. This set blatantly bribe officials to turn a blind eye on development, compromise human health and safety and destroy the natural environment because profits are more important than the planet in their minds.

So how do we change public opinion and increase public compliance? This author believes that we can only do this through education, active participation and empowerment, incentives, monitoring and evaluations, and prosecution when regulations are breached. All this must be continuously and consistently done if change is to occur and ensure a safe built environment. Coordinated effort amongst the public and private sectors including government agencies, academia, NGOs, community and youth groups, etc. is required to monitor and evaluate policies and progress. Without proper building codes much of the infractions witnessed will continue to perpetuate and contribute to many of the downfalls experienced in Guyana. Registration and licensure of technical and engineering professionals assures the required quality knowledge and skills to function in the field and avoid fraudulent and unethical practices. In addition, it is imperative that the institutional framework and policy infrastructure exist and is synergistically revised and updated amongst regulating agencies such as the central housing and planning authority and the ministry of housing for example.

An Upstream Carbon Tax at the Wellhead in the Guyana-Suriname Basin

(Note: This article was written just before the COP26 Meeting held in the UK, from Oct. 31 – Nov. 12, 2021)

by Thomas Singh, (Ph.D)

An Upstream Carbon Tax at the Wellhead (UCTW) will address all four objectives of COP26: Climate Mitigation, Adaptation, Finance and Cooperation. It will achieve the climate mitigation objective by ensuring that oil producers internalise the full cost of their activities, including the social cost of carbon emissions released upon combustion. As it is a tax, the UCTW will also generate revenues, which could be earmarked for climate adaptation in the jurisdictions that adopt it. In other words, the UCTW will achieve enhanced ambition without the usual concerns about a reduction in revenues. And cooperation as envisaged in Article 6 of the Paris Agreement will therefore be “incentive compatible” for Guyana and Suriname, which could be seen as achieving enhanced ambition as a regional climate club, an idea that has long been promoted by Economics Nobel Laureate, William Nordhaus.

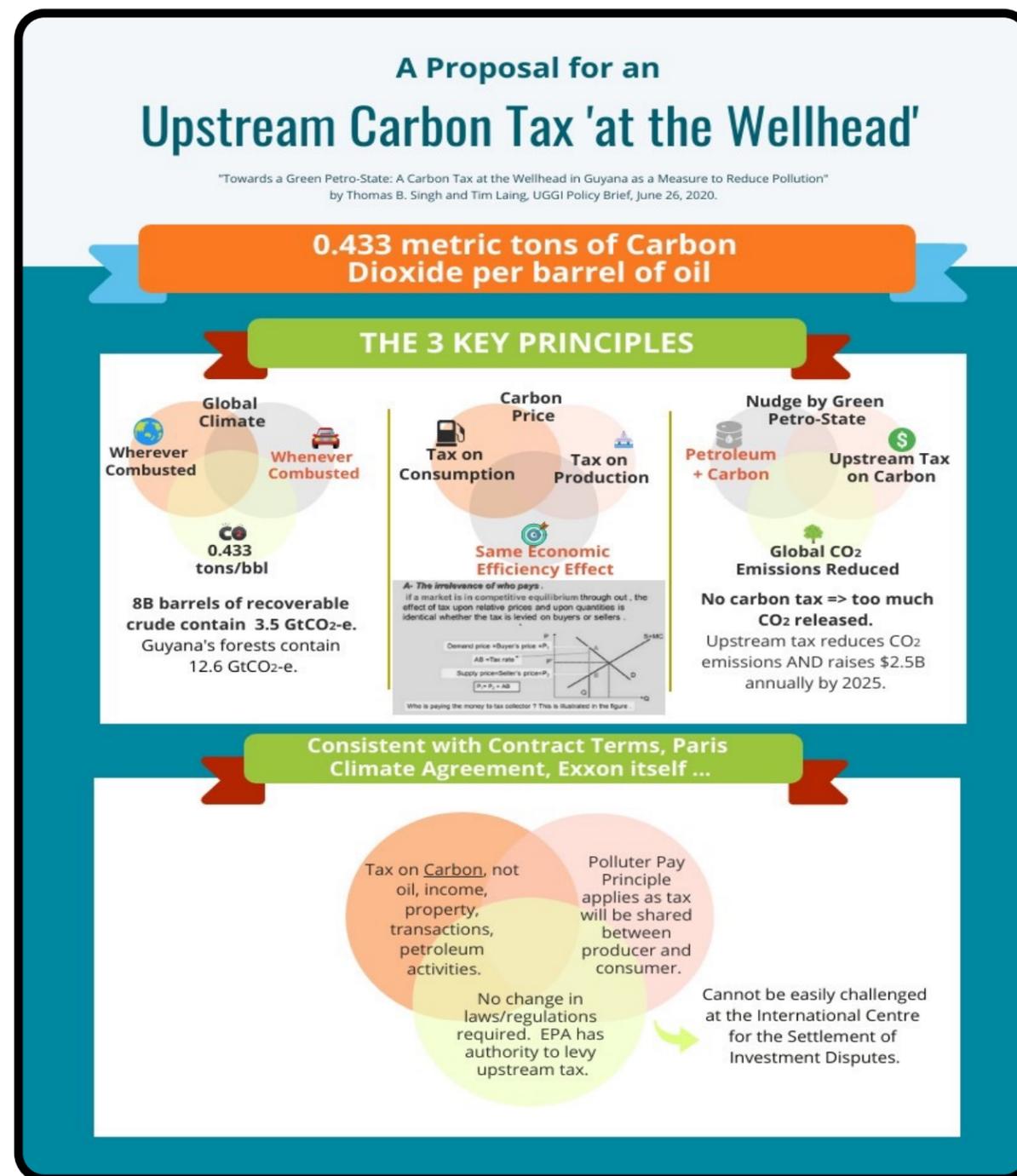
Given the “irrelevance of who pays a tax” principle, the downstream version of the carbon tax levied at the petrol pump would have the same mitigation effect as the UCTW. The downstream tax has become a focal point for the global effort to reduce emissions from fossil fuels, receiving strong support in the US from the bipartisan Climate Leadership Council (CLC) and wider support from governments, the private sector, academia, and civil society brought together as the Carbon Pricing Leadership Coalition. More generally, the World Bank and the IMF have endorsed carbon pricing, the Managing Director and staff of the latter even being more specific in their advocacy of a minimum carbon price floor to be adopted by the full G20.

From the perspective of Guyana and Suriname however, the UCTW is superior to the downstream version that is being advocated by the CLC, even though the mitigation effect will be identical in both cases if the same social cost of carbon (SCC) were adopted for determining the tax rate. What is wholly different is the distributional effect, because it is only in the case of the latter that Guyana and Suriname would earn revenues from the measure. A key design element of carbon taxes - upstream or downstream - relates to the use of these UCTW revenues, which can

be thought of as self-generated climate finance, to be used for adaptation, and perhaps for loss and damage, and climate resilience; and also for immediately fulfilling the unconditional and conditional Nationally Determined Contributions (NDCs) made under the Paris Agreement. Moreover, this self-generated climate finance will be controlled and distributed in an institutional framework that would allow countries that have generated the emissions reductions to have a say in the use of the funds. Finally, while the commitment by developed countries to US\$100 Billion annually to climate finance seems as elusive as the quest to limit the average global temperature increase to 1.5 degrees above pre-industrial levels, the Guyana and Suriname can generate enough climate finance for the region to even consider making subscriptions to start a Regional Climate Adaptation Fund to support other countries.

Action is needed now, however. This game-changing opportunity should be secured by ensuring its inclusion among the carbon pricing options that are currently being developed. Another concern is that if a developed country were to adopt a (downstream) carbon tax first, as indeed has already been done by Europe on some products other than oil and gas (<https://www.reuters.com/business/sustainable-business/eu-proposes-worlds-first-carbon-border-tax-some-imports-2021-07-14/>), then it will impose border adjustments on oil and gas imports from countries that do not have a carbon tax, causing those latter countries to anyway internalise these costs, but without earning any of the ensuing revenues. On the other hand, if the UCTW is adopted first in the Guyana-Suriname Basin, then importers of oil and gas from Guyana and Suriname will be penalised by having to pay higher, UCTW-inclusive prices and they would also lose the opportunity to earn corresponding revenues, unless they themselves adopted a higher carbon tax. Because carbon taxes cannot be successfully challenged either under WTO rules or international investment dispute settlement mechanisms, the adoption of the UCTW in the Guyana-Suriname Basin would therefore provide an important nudge to the process of putting a price on carbon.

Universal adoption of carbon pricing, which seems inevitable, would itself ensure that there will be no significant loss in the competitiveness of crude oil produced in the region, nor would there be any carbon leakage due to the transfer of oil production to other regions. For all these reasons therefore, and because of the resounding climate justice that would finally be infused in a mitigation mechanism, governments of the region give serious consideration to it in preparation for next year’s COP27 in Egypt.



Summary of Selected Webinars from 2020-2021:

Guyana's Land Sovereignty: A Geopolitical Review

October 12, 2020

by Dominic Gaskin

Dr. Janette Bulkan, University of British Columbia

Current Status: The hearing before the International Court of Justice (ICJ) began on 30 June 2020. That hearing is about the 1899 agreement which was on the land boundary and says nothing about the maritime boundary.

Historical overview

By 1905 both Guyana's western and southern borders are settled through international arbitration. In 1936 the British, Dutch and Brazilian boundary commissioners marked the Tri-Junction Point at an agreed position and in 1939 the UK submitted draft treaty to the Netherlands, however, World War II intervened. In 1961 the UK again submits draft treaty to the Netherlands confirming the status quo: title to the Corentyne going to the Netherlands, subject to fishing rights for British Guiana, and title to the New River Triangle remaining with the UK. This was rejected by the Netherlands which the following year presented a new draft treaty rejecting the 1936 Tri-Junction Point and claiming Guyana's New River Triangle. Another draft treaty was submitted by the UK to the Netherlands in 1965 and again rejected by the Netherlands with the added rejection of the principle of equidistance and the unilateral claim to the New River Triangle.

In 1962 Venezuela disavows the 1899 Award which had settled Guyana's western boundary. In 1966 the Geneva Agreement is signed by the UK, Venezuela and British Guiana establishing a mixed commission with the task of seeking satisfactory solutions for the practical settlement of the controversy arising out of Venezuela's contention that the Arbitral Award of 1899 is null and void. The agreement also conferred on the Secretary-General of the United Nations the power to choose a means of settlement of the controversy consistent with Article 33 of the United Nations Charter. Despite never having produced any substantive evidence to back its territorial claim, Venezuela has acted aggressively on a number of occasions in furtherance of its claims, even issuing a new national flag in 2006 with an additional star purporting to represent the eastern province of Guayana.

In the meantime, Guyana has benefited from Venezuela's PetroCaribe Energy Cooperation Scheme through which it received oil on preferential terms

which allowed deferred payments to be made in rice. This may explain Guyana's muted responses to Venezuelan aggression during the life of the scheme and also the lack of robust support from many Caricom countries, which also benefitted from the PetroCaribe scheme.

Suriname has also acted aggressively with respect to its claim on Guyana's New River Triangle and has acted similarly to Venezuela in playing the border controversy card to deflect from domestic dissatisfaction.

Despite admirable efforts on the diplomatic front and the role played by the Guyana Defence Force, Guyana's indigenous peoples remain the ultimate guarantors of Guyana's territorial integrity. This is a debt that is not explicitly acknowledged and its acknowledgment would begin to fulfill the political promises of nationhood to build a social contract that is the cornerstone of a good life for all. The areas claimed by both Venezuela and Suriname are primarily occupied by Guyana's Indigenous communities, making them the frontline of defence and protectors of Guyana's sovereignty and property. Yet their lands are still invaded by miners and they are not sufficiently compensated for the wealth extracted from their territories, and the accompanying environmental damage. Successive governments have shown no interest in applying the laws and the constitution to address these violations.

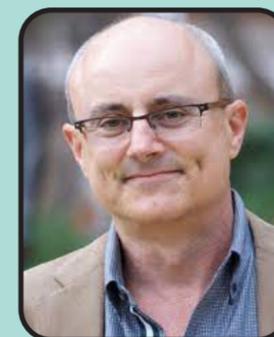
All of this raises the question: why have these sustained external threats not brought us closer to a national identity? The answer can be found in the dominance of ethnic politics since independence, that has resulted in rigged elections, weakened institutions and perceived ethnic marginalization arising out of a winner-takes-all system. Massive oil revenues flowing into the treasury can compound this problem by entrenching one political party.

Guyana's sovereignty is devoid of safeguards for public institutions and public property and with 85% of the Guyana's land mass being state owned, the approach of successive governments to privatization has allowed lands to pass into the hands of a small clique of Guyanese and foreigners at rock bottom prices with very little benefits going to the citizens. Governments have never negotiated fair returns to the Guyanese public and the treasury in return for the privatization

of public property.

Many countries have emerged from ethnic conflagrations with at least a partial democracy and a nascent social contract along with an appreciation for the values of a professional civil service and learning from other countries. Guyana is already part of a movement that should help this process along with anti-money laundering legislation, Extractive Industries Transparency Initiative, Forest Law Enforcement, Governance and Trade and the United Nations Conventions on Human Rights forming important frameworks to advance it.

The Resource Curse and Democracy



Prof. Michael Ross, Dept. of Political Science, UCLA

June 2, 2020

Other effective measures that can be easily implemented include direct cash transfers to citizens; fiscal rules for spending of revenues; and controlling the growth rate of government spending to avoid spending in excess of capacity to spend.

2. Whoever controls the government wins.

Oil wealth tends to produce rulers who remain in power for long periods of time as well as autocracies that become more powerful with time. Democracy often deteriorates in oil producing countries as a result of large non-tax revenues, lots of money for patronage and revenue secrecy.

3. Unequal benefits from booming labour markets. Dutch disease produces winners and losers, with winners including the oil industry, government and the service sectors such as construction and retail; and losers including farmers, manufacturers and the groups that are traditionally stuck in these sectors.

In conclusion, the challenge is turning below-ground wealth into above-ground wealth and there are no easy solutions to how this can be achieved. Oil companies are not your friends, but remarkably sophisticated organizations whose gains have been made by advancing their own interests, sometimes systematically, sometimes ruthlessly.

There is a need for extra safeguards for democracy in the face of newly developed oil wealth. This can be achieved through power sharing agreements, independent courts, transparency, strong civil society, and education along with academic freedoms.

Further reading – The oil curse: How petroleum wealth shapes the development of nations by Michael Ross.

The political dimensions of the resource curse can be broken down into three big lessons:

1. It's the government that wins.

Oil discovery tends to lead to a boom in government's revenues, spending and political power. This is demonstrated by a simple comparison of government spending as a percentage of the overall economy between oil producing and non-oil producing neighbouring countries.

Robust democracies tend to be undergirded by relatively diverse economies with relatively large private sectors. This relationship is undermined as government's share of the economy grows, and the private sector becomes more dependent on government contracts.

Diversification of the economy is the universal prescription for oil producing countries, however, empirically this rarely occurs. Data from a study shows that almost all oil producing countries had greater export concentration i.e. less diversification in 2010 than they did in 1995. In contrast, the data for non-oil producing countries show more than half with less export (greater diversification) concentration in 2010 than in 1995.

POVERTY

and the Environment

by Odessa Shako

In a 1987 report of the World Commission on Environment and Development, it was surmised that “poverty is a major cause and effect of global environmental problems” (Brundtland, G. H., et al. 1987) **Is poverty a major cause of environmental degradation?**

The World Bank in 2015 estimated that approximately 10 per cent of the world’s population can be categorized as poor i.e. the proportion of the world’s population that live on less than US\$1.90 per day. However, a review of global access to basic needs such as food, housing, water, education, employment and health

lication on the Hierarchy of Needs, he suggested that individuals will only seek to meet needs higher in the hierarchy, such as self-actualisation, after lower-tiered needs, such as physiological and safety needs, have been attained. However, this theory regarding the order of needs has been disputed by several researchers and revised by Maslow who later stated that there was no order to which needs identified in the pyramid are met.

Self-actualization is the only need in Maslow’s pyramid akin to problem-solving therefore, environmental protection has been associated with this Tier (Komal,

Safety and Physiological Needs	Percentage of the world’s population without access to physiological needs	Percentage of the world’s population without access to safety needs
Water	40 ¹	
Food	33 ²	
Shelter/housing	20 ³	
Access to water		
Employment		5.4 ⁴
Healthcare		50 ⁵
Sanitation		26 ⁶
Education		14 ⁷

Table 1

suggests that 5.4-50 per cent of the world’s population lack one or more basic needs and therefore are considered to be living in poverty (please see Table 1). ‘Basic’ needs are synonymous with physiological and safety needs (Tiers one and two) identified in Maslow’s (1943) needs pyramid (please see Figure 1).

Maslow identified five broad needs or goals which are common to all humans. This is the premise on which this analysis was done. In order of importance, these needs are physiological; safety; belonging and love; self-esteem and; self-actualisation (see Figure 1). As demonstrated in Figure 1, Tiers One to Four of Maslow’s hierarchy are associated with “self-centered” needs whilst the final tier, “self-actualisation”, is associated with problem-solving. In Maslow’s original pub-

2018).

Unfortunately, Maslow estimated that only two percent of people would achieve self-actualisation and therefore be genuinely committed to solving collective problems such as environmental degradation. This suggests that by nature more than 98 percent of the world’s population does not consider environmental protection of personal importance. This portion (98 percent) of the population are regarded as self-focused individuals also categorized by Hardin (1968) as “rational”.

The ‘rational’ individual strive only to “maximise his/her profits” (Hardin, 1968). Hardin (1968) theorized that individuals, left only to the direction of their conscience will not “restrain [themselves] for the general

good of the environment” as they seek to pursue their interests. These ‘rational’ individuals are believed to be the perpetrators of environmental degradation in pursuit of maximum profits.

However, only approximately 50 percent of ‘rational’ individuals are categorized as poor whilst the remaining (~48%) rational individuals comprise, amongst others, the wealthy such as owners of large corporations. Forests News (2012) concluded that corporations, not the poor, are the primary source of global deforestation. In Guyana, 69 percent of forestry concessions are allocated to large corporations/enterprises compared with 29 percent allocated to small-medium scale enterprises. (Thomas, et al., 2013)

In 2009, Barama, a large Malaysian company, was responsible for approximately fifty percent of Guyana’s timber export. Further, global coal production figures show that approximately sixty percent of coal is produced by the two largest global economies, the USA and China (Indexmundi, 2020).

Whilst, it is acknowledged that the rural poor are heavily dependent on natural resources for their survival, the rate of global resource extraction by com-

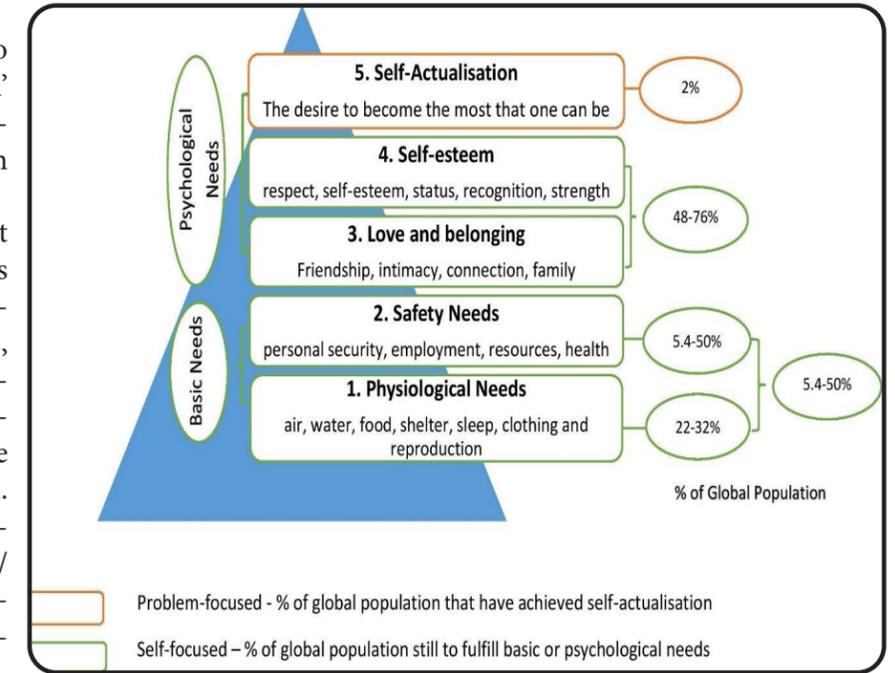


Figure 1

munities is negligible when compared with corporations. In fact, the evidence overwhelmingly indicates that, even in developing countries such as Guyana, the largest extractors of resources are the wealthy, not the poor. This suggests that the larger threat to our environment may not be poverty, but greed.

FOOTNOTES: from page 4

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Guyana 's Monitoring Reporting & Verification System for REDD+ Priority Areas

by Gavin Agard

The Guyana Forestry Commission (GFC) has the mandate of ensuring the sustainable management of the State Forest Estate and continues to revolutionize the way this mandate is achieved. The GFC produced National deforestation and degradation data through its Monitoring Reporting & Verification System (MRVS). This system is a combined Geographic Information

System (GIS) and field-based monitoring system. It seeks to provide the basis for measuring verifiable changes in Guyana's forest cover and resultant carbon emissions which will underpin results-based REDD+ compensation in the long-term. The MRVS has produced a historical assessment of forest cover as well as eight national assessments of forest area change to date.

Reporting Period	Year	Years	Satellite Image Resolution	Forest Area		Annualised Change	
				('000 ha)	(%)	(%)	(%)
Initial forest area 1990	1990		30 m	18 473.39			
Benchmark (Sept 2009)	2009	19.75	30 m	18 398.48	74.92	0.021	
Year 1 (Sept 2010)	2010	1	30 m	18 388.19	10.28	0.056	
Year 2	2011	1.25	30 m & 5 m	18 378.30	9.88	0.054	
Year 3	2012	1	5 m	*18 487.88	14.65	0.079	
Year 4	2013	1	5 m	18 475.14	12.73	0.068	
Year 5	2014	1	5 m	*18 470.57	11.98	0.065	
Year 6	2015-16	2	10 m & 30 m	18 452.16	9.20	0.050	
Year 7	2017	1	10 m & 30 m	18 442.96	8.85	0.048	
Year 8	2018	1	10 m & 30 m	*18 070.08	9.22	0.051	

Table SEQ Table * ARABIC 1: Annualized Deforestation rates as generate the GFC

Guyana 's Monitoring Reporting & Verification System for REDD+ Priority Areas

The importance of the system and the value of the data that it generates is immeasurable. Therefore, the GFC has prioritised a number of key areas for 2021 and beyond. These include:

Maintaining the overall sustainability of the MRVS

The continuation of the MRVS is viewed as is an essential component to Guyana's forest management, and in emerging areas such as enabling reporting under the Paris Agreement and on Guyana's performance on implementation of the Sustainable Development Goals. It was therefore determined as essential to examine options for the continuation of the MRVS regardless of the availability of REDD+ financing. These options include use of freely available 10 metre Sentinel imagery supplemented by Landsat 30m resolution imagery. This has greatly reduced not only the cost associated with purchasing high resolution imagery for the wall-to-wall mapping for forest change that is conducted by the GFC, but has also reduced Guyana's dependence on tasking of satellites for provision of high resolution imagery.

Broadening the application of the MRVS, to include informing wider forest and natural resources management and policy

As the MRVS continues to evolve, so too has the vision for the role of the MRVS in Guyana. With the continuous compilation, analysis and dissemination of MRVS results on a typically annual basis, the GFC recognized that while fulfilling its intended role in REDD+ reporting, the flexibility of the system design can be an invaluable tool for supporting natural resources management in Guyana.



Moving towards near real-time monitoring as part of Continuous Resources Monitoring System (CRMS)

The CRMS will seek to build on Guyana's MRVS design to provide analysis-ready data that allows alerts, proactive management of natural resources that leads to improved decisions and policies. The move towards a more near real time monitoring system will allow for the GFC to be better able to monitor and receive alerts on forest change on all drivers of change, of which mining continues to be the largest contributor. This will allow for more targeted interventions at the sector.

Making inroads in Environmental Compliance and Enforcement

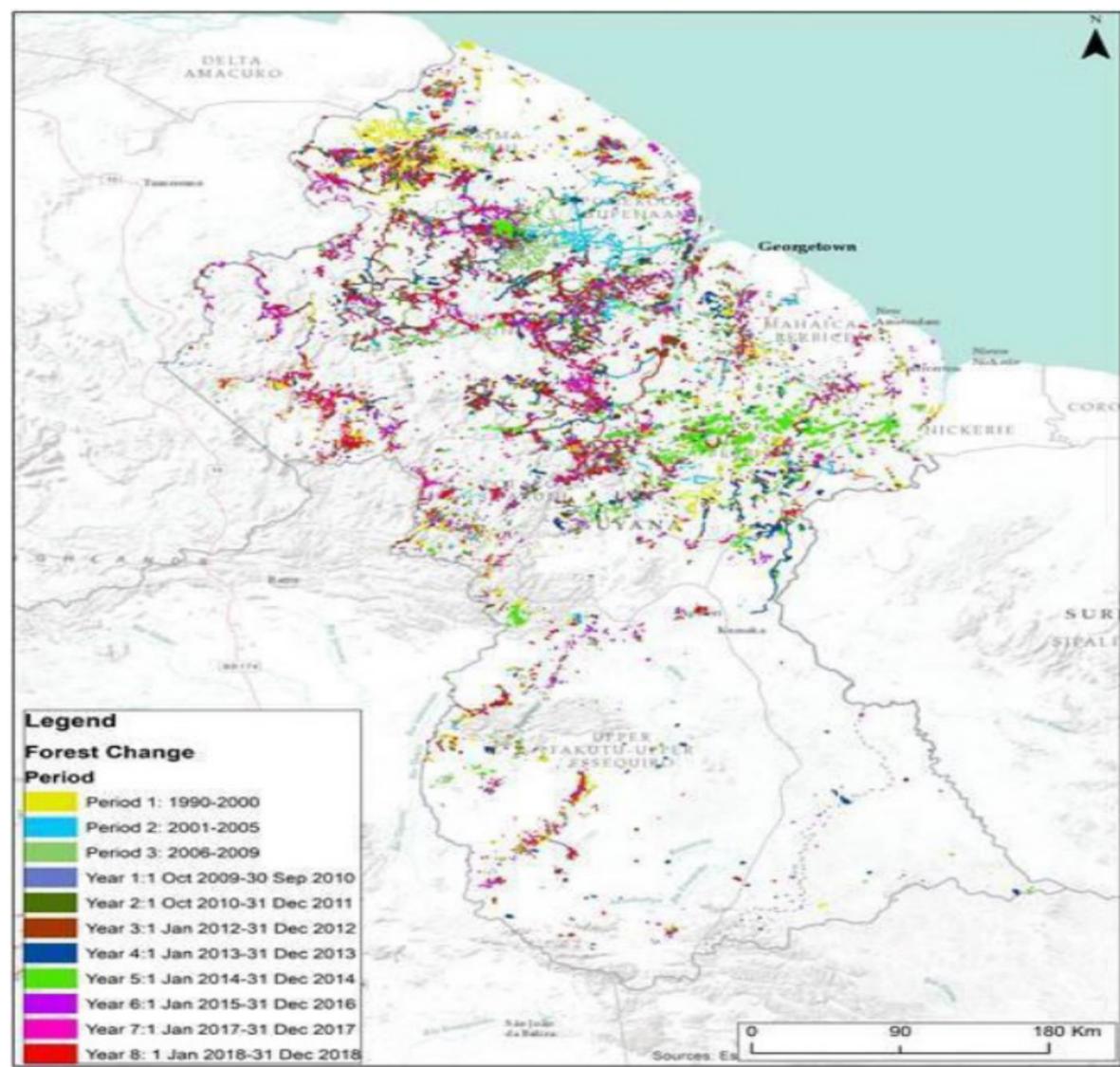


Figure 1: Forest Change by Reference Period

For the Environmental Protection Agency, superior, high quality, professional and timely service to customers are core to its strategic vision. Despite the COVID 19 pandemic this year, the Agency continues to serve developers and the public, while also implementing staff rotation and other measures recommended by the Ministry of Health. Through hard work, the EPA has made significant inroads in the areas of environmental compliance, enforcement and public participation in environmental decision-making.

Strengthening Environmental Compliance – In 2019, the Agency brought some 500 environmental and other types of permits that had expired into compliance. The value of a valid permit is that it prescribes measures to minimize environmental harm which may lead to a decrease in operating costs of projects. Bringing permit holders into compliance continues to be a priority for the Agency in 2020.



With the restrictions during this COVID 19 pandemic, the EPA commenced a process of thoroughly reviewing the files for over 2000 projects with the aim of identifying any information or corrective actions required.

Establishing Central Registry – A Central Registry was established at the Agency in 2019, to take custody of, account for, and efficiently process the high volume of project-related documents and communication. The Registry is now the repository of information on all projects, correspondence and documents entering and leaving the Agency. This year the Registry continues to build its electronic database for document management.

Enhancing public education and awareness – The Agency continues to stay visible by utilizing various forms of media. EPA through its weekly TV programme “The Environment Matters” continues to shed light on topical matters. Along with this programme, the Agency posts bi-monthly News Bulletins, daily Ads to over 10,000 social media followers. The Agency has also increased the airing of radio interviews from 1 to 5 stations, 3 of which serve interior locations. The Agency also published and distributed the 1st and 2nd editions of its environment magazine, The Green Note.

Policy development – The EPA in order to increase efficiency and establish synergies in its operation, developed a number of internal policies to guide its operations. These include fifteen guidelines (15) for the operation of various sectors. Moreover, the Agency in collaboration with World Wildlife Fund (WWF) Guyana Office and the Netherlands Commission for Impact Assessment completed amendments to its generic Environmental Impact Assessment (EIA) Guideline as well as, some sector-specific guidelines including mining and hydropower. Further,

through this collaboration a screening tool for projects was also developed to enable sound, scientific, evidence-based decision-making. Additionally, the internal review of the Environmental Protection Act was completed with the goal of having it amended.

Building capacity through webinars - During 2020, the Agency took advantage of and participated in forty-seven (47) webinars through networking and collaboration with local, as well as, internationally recognized professional associations.

In the face of the challenges presented by the COVID-19 restrictions, the Agency has focused its attention on aspects of its work that do not require travel, hence, only emergency field trips are currently being facilitated.





The Man in the Mirror Curse

by Karl Vanier

If we wish to experience a high quality of life, we must not mistreat our environment and our bodies. The way we treat our environment and bodies is often as a result of our weltanschauung. Our weltanschauung is developed over time, the embryonic stage is etched into our long term memory by our family, friends and relatives. As we get older our socialization in various strata of society will either strengthen what was earlier taught or force us to go through a metamorphosis.

The university community has a critical role to play in igniting the minds of its graduates to make positive changes in their communities regarding environmental enhancement. The cumulative effort of graduates can create a domino effect that may likely lead to a healthier, cleaner and aesthetic Guyana. There is a necessity for a revolution to create a paradigm shift as it relates to environmental protection; this revolution must begin with the man in the mirror.

Often as Guyanese, we do not understand the meaning of being patriotic and as such we treat our environment poorly. However, there is an amazing transformation as soon as we are afforded the opportunity of visiting another country. This anomaly, of mistreating our own whilst respecting another, must stop now! The dawn of a new era must be birthed at the university itself and then our vision for a better Guyana can be replicated throughout our ten administrative regions.

We can start by creating a means of recycling all plastic bottles used on the university campuses, encourage the use of biodegradable containers to place food into, enhance the ambience of each

faculty building at Turkeyen and Tain/Johns by planting more ornamentals. The presence of more plants will create an oxygen richer environment thereby contributing to a healthier university populace. There are laws enacted against littering with hefty fines attached to serve as deterrents to the would be litterbugs, however, enforcement and education is meagre. Therefore, littering and dumping of refuse into our waterways, roads and every conceivable locale continue unabated. Henceforth we need to lobby our Town Councils, RDCs and NDCs to ensure that they enforce by-laws continuously, without prejudice and bias.

Food security is important to the realisation of optimum health...

Food security is important to the realization of optimum health, however, with a steady increase in world population greater pressure is being placed on the environment to produce more food to meet the ever-increasing demand. To enable greater production of food, fertilizers and agrochemicals have become ubiquitous with agriculture.

The use of these substances lead to environmental degradation and therefore it has been advocated that fewer chemicals should be used. Consequently, scientists have been urged to develop more resistant varieties of crops resulting in farmers using fewer chemicals. This will help save our environment. I, therefore, advocate that as a nation we eat less (because we overeat often) and add exercise to our daily routine. Eating less will safeguard our environment, while daily exercise will help to alleviate the stress due to COVID-19 and other stressors in our lives.

University of Guyana - Green Institute (UGGI) Website

by Vejendra Datt

The University of Guyana – Green Institute’s website is the a principal forum for its the advancement of rigorous discourses and public awareness on learning-led developments in Guyana’s economy. Fundamentally, the Green Institute’s website is more than just a digital platform. Rather, it could also be considered a social transit to many other distinguished scientific papers, policy analysis, Green Economy researches, etc., all of which works in synchronicity to create significant communicative contents. The Green Institute's website ferments the digital feel for the Institute’s views on society, economics, environment, energy, and technology.

In 2020, the creation of this website was originally conceptualized by Dr. Thomas Singh, and the Institute’s coordinator, Dr. Anna Perreira. The website’s success could only be attributed to rigorous consultations that went into every design, decision, document, and other requirements, that were pivotal to its development. Despite the Covid-19 pandemic, the Institute was resolute in its drive to create this ‘digital parallel’. In August 2020, the Institute met with Mr. Brynmor Bowen, an affiliate from Greenheart Consulting Partners, who was particularly and fundamentally good-hearted in providing technical assistance in terms of the blueprint of the website. Additionally, the Institute also met with Ms. Sharron Morris, who was sophisticatedly knowledgeable in advising on many technological frameworks and content management software, that were instrumental to this project.

In mid-August 2020, the Institute was introduced to Ms. Allison Cassels, a Canadian visual and user interface designer, that coordinated all the pieces of advice and procedural requirements to build and create this prodigiously creative UGGI website. The Institute thanks Allison for her patience, commitment, and diligence throughout the process and for always being accessible still to UGGI to offer support. The Institute also was introduced to Mr. Vejendra Datt, a former student of the University of Guyana, who interned with the institute and assisted in the publication of the UGGI’s resources. Mr. Datt still offers his technical support to UGGI.

The website was launched on 1st August 2021 (Emancipation Day) and has since been highly trafficked and particularly instrumental in UGGI’s publication of its recently concluded four-day virtual 2021 Green Economy Workshop, which saw over 150 participants and reputable speakers from North America, South America, and Europe.

OUR MISSION

To engage in education and training, research and advocacy, including the introduction of relevant technologies and best-practices among stakeholders, within the domains of the society, the economy and the environment, in order to enhance the well-being of Guyanese as individuals living in communities and as a nation.

If you would like to make a contribution in the form of an article, cartoon, comment or clarification send us an email or message using one of the following ways:



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