

HOUSE OF REPRESENTATIVES*Friday, November 22, 2019*

The House met at 1.30 p.m.

PRAYERS[MADAM SPEAKER *in the Chair*]**LEAVE OF ABSENCE**

Madam Speaker: Hon. Members, I have received communication from the hon. Brig. Gen. (Ret.) Ancil Antoine, MP, Member for D'Abadie/O'Meara, who has requested leave of absence for the period November 16—29, 2019, and Dr. Lackram Bodoë, MP, Member for Fyzabad, who has requested leave of absence from today's sitting of the House. The leave which the Members seek is granted.

BAIL (AMDT.) (NO. 2) BILL, 2019

Bill to amend the Bail Act, Chap. 4:60, brought from the Senate [*The Attorney General*]; read the first time.

PETITIONS**Tobago Council for Handicapped Children**

The Minister of State in the Office of the Prime Minister (Hon. Ayanna Webster-Roy): Thank you, Madam Speaker. Madam Speaker, I beg to present a petition on behalf of the members of the Tobago Council for Handicapped Children, of 43-45 Signal Hill, Scarborough, Tobago.

I move that the Clerk be allowed to read the petition.

Petition read.

Question put and agreed to: That the petitioners be granted leave to proceed.

PAPERS LAID

1. Appointment of the Commissioner of Police and Deputy Commissioner of Police (Qualification and Selection Criteria) (Amendment) Order, 2019.

UNREVISED

[The Deputy Speaker (Mr. Esmond Forde)]

2. Annual Report of the Police Service Commission for the year 2018. [*Mr. E. Forde*]
3. Report of the Auditor General of the Republic of Trinidad and Tobago on the Financial Statements of the National Agricultural Marketing and Development Corporation for the year ended September 30, 2016. [*The Minister of Finance (Hon. Colm Imbert)*]
4. Report of the Auditor General of the Republic of Trinidad and Tobago on the Financial Statements of the National Agricultural Marketing and Development Corporation for the year ended September 30, 2017. [*Hon. C. Imbert*]

Papers 3 and 4 to be referred to the Public Accounts Committee.

5. Annual Report of the Public Service Commission for the year 2018. [*The Minister of Planning and Development (Hon. Camille Robinson-Regis)*]
6. Administrative Report of the ExporTT Limited for the year ended September 30, 2016. [*Hon. C. Robinson-Regis*]
7. Administrative Report of the ExporTT Limited for the year ended September 30, 2017. [*Hon. C. Robinson-Regis*]
8. Administrative Report of the Vehicle Management Corporation of Trinidad and Tobago for the period October 2015 to September 2016. [*Hon. C. Robinson-Regis*]
9. Ministerial Response of the Ministry of Trade and Industry to the Eleventh Report of the Joint Select Committee on State Enterprises on an Inquiry into the Activities, Administration and Operations of National Flour Mills including the Company's role in the processing of rice from Local Farmers. [*Hon. C. Robinson-Regis*]

10. Ministerial Response of the Ministry of the Attorney General and Legal Affairs to the Twelfth Report of the Joint Select Committee on Human Rights, Equality and Diversity on the Sexual Exploitation of Children in Trinidad and Tobago with specific focus on Child Prostitution and Child Pornography. [*Hon. C. Robinson-Regis*]
11. Ministerial Response of the Ministry of Education to the Twelfth Report of the Joint Select Committee on Human Rights, Equality and Diversity on the Sexual Exploitation of Children in Trinidad and Tobago with specific focus on Child Prostitution and Child Pornography. [*Hon. C. Robinson-Regis*]
12. Ministerial Response of the Ministry of Health to the Twelfth Report of the Joint Select Committee on Human Rights, Equality and Diversity on the Sexual Exploitation of Children in Trinidad and Tobago with specific focus on Child Prostitution and Child Pornography. [*Hon. C. Robinson-Regis*]

1.40 p.m.

JOINT SELECT COMMITTEE REPORTS

(Presentation)

Local Authorities, Service Commissions and Statutory Authorities

(including the THA)

National Emergency Ambulance Service

Ms. Ramona Ramdial (*Couva North*): Madam Speaker, I have the honour to present:

Thirteenth Report of the Joint Select Committee on Local Authorities, Service Commissions and Statutory Authorities (including the THA) on an Inquiry into the Efficiency and Effectiveness of the National Emergency Ambulance Service.

Public Administration and Appropriations

UNREVISED

Ministry of Works and Transport

The Minister of State in the Office of the Prime Minister (Hon. Ayanna Webster-Roy): Madam Speaker, I have the honour to present:

Nineteenth Report of the Public Administration and Appropriations Committee on an Examination of the Expenditure and Internal Controls of the Ministry of Works and Transport.

The Minister of Finance (Hon. Colm Imbert): Thank you very much, Madam Speaker. I have the honour to present the following reports:

Mutual Administrative Assistance in Tax Matters Bill, 2018, the Tax Information Exchange Agreements Bill, 2018 and the Income Tax (Amdt.) Bill, 2019

Report of the Joint Select Committee appointed to consider and report on the Mutual Administrative Assistance in Tax Matters Bill, 2018, the Tax Information Exchange Agreements Bill, 2018 and the Income Tax (Amdt.) Bill, 2019 in the Fifth Session, Eleventh Parliament.

Gambling (Gaming and Betting) Control Bill, 2016

Report of the Joint Select Committee appointed to consider and report on the Gambling (Gaming and Betting) Control Bill, 2016 in the Fifth Session, Eleventh Parliament.

PRIME MINISTER'S QUESTIONS

State Lands to Former Petrotrin Workers

(Update on Issuance)

Mr. David Lee (*Pointe-a-Pierre*): Thank you, Madam Speaker. Given the Prime Minister's parliamentary statement on December 17, 2018, which committed to provide state lands to former Petrotrin workers for both housing as well as

agricultural use, could the Prime Minister give an update on how many of these workers have received land 11 months later?

The Prime Minister (Hon. Dr. Keith Rowley): Madam Speaker, the distribution of land under the circumstances is not as easy as distributing “hops bread”. It requires a certain amount of identification of the lands, preparation of the lands and eventually, when those works are finished, those plots will be available.

Madam Speaker, I want to advise you, that having learnt from the Caroni experience, where a similar undertaking was given and actions were taken to provide lands for employees in similar circumstances, and which resulted in huge scandals and losses to the taxpayer, we are making haste to ensure that such is not repeated. But we give the assurance, that having identified parcels of lands, and now we are in a move towards getting the relevant approvals and then there will be the infrastructural works that go in that eventually, and those workers would be allowed to have those plots as per the commitments given. It is not an overnight thing.

Mr. Lee: Thank you, Madam Speaker. Hon. Prime Minister, based on your response, could you state if a committee has been set up or formed to look at the allocation of these lands, where it will be in the assets of Petrotrin? And if so, who are the members of that?

Madam Speaker: So, I will allow one question.

Mr. Lee: Sorry.

Hon. Dr. K. Rowley: Madam Speaker, yes, in order to begin the process, a committee has been set up and to identify suitable lands. And that committee is at work.

Mr. Lee: Thank you, Madam Speaker. Based on your response, Prime Minister, could you state who are the members of that committee and headed by whom?

Hon. Dr. K. Rowley: Madam Speaker, I cannot at the moment remember exactly who is on the committee, but I seem to recall that there were persons we took from the HDC. There were persons from the HDC and professional persons who would have been given the assignment, and I do not want to guess. But if the certain Member asks the question with the appropriate notice, I can give all those details.

Mr. Lee: Thank you, Madam Speaker, to the Prime Minister. Do you have a deadline date or a specific timeline for the country to get a response, or the Petrotrin workers to get a response?

Hon. Dr. K. Rowley: Madam Speaker, as I tried to point out, these are not things that have deadline dates on them. We approach it in a reasonable and responsible way and there are step by step—and the first thing is to identify across the southern and central parts of the country, lands in the hands of the State which can be utilized. And then seek to find out whether approvals can be had for those lands to be developed, and then we have to do surveys, then we have to do the structure and so on. So to ask for a deadline date now, Madam Speaker, is just being mischievous.

Paria Fuel Trading Company

(Receipt of VAT Write-Offs)

Mr. David Lee (*Pointe-a-Pierre*): Thank you, Madam Speaker. Could the Prime Minister state if the Paria Fuel Trading Company has been the recipient of any Value Added Tax (VAT) write-offs from the Government of Trinidad and Tobago?

The Prime Minister (Hon. Dr. Keith Rowley): Madam Speaker, words have different meanings to different people. I do not want to talk about tax write-offs. But what I can tell you, Madam Speaker, is that Paria Trading is exempted from the payment of VAT on fuel. This avoids the complication of sizeable refunds as is normal in the energy sector, and there is no net loss of revenue.

Sexual Misconduct Allegations

(Compensation to Committee Members)

Mr. Rudranath Indarsingh (*Couva South*): Thank you very much, Madam Speaker. Could the Prime Minister inform this House what compensation if any, was paid to Mrs. Jacqueline Wilson, former Permanent Secretary and Human Resource expert, Ms. Folade Mutota, Director of the Women's Institute for Alternative Development and Ms. Elaine Green, Attorney-at-Law for serving on the Committee appointed to look into allegations of sexual misconduct at the Ministry of Sport and Youth Affairs?

The Prime Minister (Hon. Dr. Keith Rowley): Madam Speaker, contrary to the misinformation and the mischief being spread by the Member for Couva South and others about payment being made to these public spirited officers, no payment has been made to any of those persons.

Mr. Indarsingh: Yes, Madam Speaker, and I am just searching for information and at no point in time have I been involved in spreading any mischief.

Madam Speaker: Is that a question? Is that a question, Member for Couva North?

Mr. Indarsingh: I will now, I will ask—

Madam Speaker: Member for Couva North, Member for Couva North, can we move on to the next question, please. Member for Couva North, next question.

Caroni (1975) Limited Former Workers

(Receipt of Residential and Agricultural Leases)

Ms. Ramona Ramdial (*Couva North*): Thank you, Madam Speaker. Whether there are Caroni (1975) Limited former workers yet to receive residential and agricultural leases?

The Prime Minister (Hon. Dr. Keith Rowley): Madam Speaker, I was told that under the last Government all of these workers had received their leases. It turns

out not to be true. The bottom line is, Madam Speaker, that arising out of the Caroni closure and the 2003 agreement, 8,855 residential plots were to be made available to Caroni workers. To be able to deliver on that commitment, Madam Speaker, 16 sites were identified for development of lands, meaning the building of infrastructure and so on. And of the 16 sites, 4,000—and in fact, Madam Speaker, I correct that, it was 30 sites that were identified. Sixteen of those sites would have accommodated 4,504 workers. And of those 4,504 workers who could have been accommodated on those 16 sites on which certain works were completed, 4,274 have been completed, and there are only 230 leases still have to be executed on those sites, once those persons are properly identified and located.

Fourteen sites are subject to incomplete works and are involved in serious litigation and major scandals with respect to the infrastructural development works, there are certain court matters, there are certain investigations and so on, going on. On and off those sites, Madam Speaker, we are aiming that by 2020, 355 of those leases can be distributed in exchange to a site by May 2020, a further 900 leases at the exchange 2B site and Picton 1, and after that there will be 2,271 sites that will be available.

Mrs. Gayadeen-Gopeesingh: Hon. Prime Minister, are you aware that on the 28th of June, 2019, the Minister of Agriculture, Land and Fisheries answered an oral question I had asked him, and he said 400 leases were going to be brought in next week, which would take us to the first week in July, to Cabinet for approval. Can you let us know how many of those 400 leases were approved?

Hon. Dr. K. Rowley: Madam Speaker, considering the nature of that question I would advise my colleague to place that question to the appropriate Minister in the appropriate notice and you will get the appropriate answer.

Natural Gas Downstream Industrial Plants

(Prevention of Closure)

Ms. Ramona Ramdial (*Couva North*): Thank you, Madam Speaker. Could the Prime Minister state what plan is in place to prevent other downstream industrial plants dependent on natural gas from shutting down?

The Prime Minister (Hon. Dr. Keith Rowley): Madam Speaker, it is important to note that NGC has completed new gas supply contracts with Nutrien, CNC, and N2000, eight plants in all, and is currently in advanced commercial negotiations with other downstream operators, which is a long way from having these plants on month-to-month contracts. And, of course, having them with no gas supply. We have made tremendous progress here, Madam Speaker, and the progress continues.
[Desk thumping]

Dr. Tewarie: Hon. Prime Minister, what is the situation with the methanol plants that we have here in Trinidad and Tobago? How many of them are up and are negotiations being engaged for all of these?

Madam Speaker: Member for Caroni Central, I do not see this as a supplemental arising out of the question that was asked. Member for Couva North.

New Tobago Airport Terminal**(Status of Land Acquisition Process)**

Ms. Ramona Ramdial (*Couva North*): Thank you, Madam Speaker. Could the Prime Minister state at what stage is the land acquisition process for the new Tobago Airport Terminal?

The Prime Minister (Hon. Dr. Keith Rowley): Madam Speaker, after significant investigations and preparations the Cabinet has approved NIDCO's progress with respect to the publishing of section 3 notices on the parcel of land which is of interest for this project. So NIDCO is progressing along those lines.

Ms. Ramdial: Sure, thank you. Prime Minister, can you say how soon before

these lands are dealt with properly?

Hon. Dr. K. Rowley: The lands are being dealt with properly at this time, Madam Speaker. [*Desk thumping*]

Mrs. Gayadeen-Gopeesingh: Hon. Prime Minister, are the valuation reports already prepared and presented to those land owners? Valuation reports.

Hon. Dr. K. Rowley: Madam Speaker, if the Member will consult what section 3 means, that answer has been given. We are at the stage of section 3 process and certain actions are mandated by law and valuations are an integral part of that at a particular stage. The Government is acquiring these lands under law and the questions are, in fact, to be answered by saying that we are proceeding under the law.

Ms. Ramdial: Prime Minister, can you say what is the cost to Government so far?

Hon. Dr. K. Rowley: Madam Speaker, at this stage we are not in a position to answer that question. The cost will emerge as the valuations appear and at that stage, Madam Speaker, if the appropriate question is asked with the appropriate notice we can give the end to the cent.

Mrs. Gayadeen-Gopeesingh: Hon. Prime Minister, surely I know what section 3 means. [*Desk thumping*]

Madam Speaker: Member.

Mrs. Gayadeen-Gopeesingh: My question, my question I need to ask.

Madam Speaker: You are allowed a question, thank you. One minute, please. Member for Couva South.

Mr. Indarsingh: Yes.

Madam Speaker: Member for Couva South.

Mr. Indarsingh: Yes.

Madam Speaker: I am sure if you exercise the proper protocols, you will be

observed.

Mr. Indarsingh: I will.

Madam Speaker: This is not a conversation.

Mr. Indarsingh: Well, I—

Madam Speaker: It is not a conversation.

Mr. Indarsingh: I am hearing you.

Madam Speaker: Member for Couva South, this is the last time I am going to warn you. If you wish, if you wish, there are options that you can voluntarily exercise, please do not let me have to have regard to the Standing Orders. Member for Oropouche West.

Mrs. Gayadeen-Gopeesingh: Are you aware that section 3—with section 3, valuations are done simultaneously. [*Crosstalk*] So the question I am asking, is that what is the cost per square foot? What is the cost per square foot, assessed for the land owners? Cost per square foot for the land?

Hon. Dr. K. Rowley: Madam Speaker, I have said all that I intend to say to the people of Trinidad and Tobago on this question. I do not know what lesson my colleague is trying to give me, I have no interest in fireside law.

Magdalena Grand

(Status of Negotiations)

Ms. Ramona Ramdial (*Couva North*): Thank you, Madam Speaker. Could the Prime Minister state whether negotiations for a new operator of the Magdalena Grand are complete?

The Prime Minister (Hon. Dr. Keith Rowley): Madam Speaker, I did not hear the question.

Ms. Ramdial: Could the Prime Minister state whether negotiations for a new operator of the Magdalena Grand are complete?

Hon. Dr. K. Rowley: Madam Speaker, as of yesterday the advice to the Cabinet is that the lawyers are finalizing this matter. They are on the last stages, I would say, and there is one document being finalized, because they would have exchanged certain documents, and there is one document being finalized now. And upon completion of that in the very near future—

Hon. Member: This month.

Hon. Dr. K. Rowley: This month. In the next few days I presume. On completion of that final document we expect that Apple Leisure would be in a position to execute. [*Desk thumping*]

Mrs. Newallo-Hosein: Thank you. Hon. Prime Minister, could you advise who the lawyers are?

Hon. Dr. K. Rowley: No, I cannot advise that, but if you give notice I will tell you who they are. It is not in the Prime Minister's Office so I do not have that information with me.

National Lotteries Control Board

(Acting Director - Leave Status)

Mr. Ganga Singh (*Chaguanas West*): Could the Prime Minister indicate if he is aware that the Acting Director of the National Lotteries Control Board has been sent on leave and/or suspended this week, and if so can he indicate the reasons for same?

The Prime Minister (Hon. Dr. Keith Rowley): Yes, Madam Speaker, my apologies. I was just searching through my papers. Acting Director proceeded on two weeks' vacation leave to allow the Central Audit Committee of the Ministry of Finance to conduct an audit into transactions and payments involving the lotto agents attached to the NLCB.

Fence-Line Communities

(Unemployment and Underemployment of Youth)

Mr. Rodney Charles (*Naparima*): Thank you very much. Given the high rates of unemployment and underemployment of our youth in fence-line communities due to the closure or downsizing of major employers such as Petrotrin, can the Prime Minister state what specifically is being done to create jobs that align with the qualifications and experience of those affected?

The Prime Minister (Hon. Dr. Keith Rowley): Madam Speaker, I am not aware, other than the closure of the Petrotrin refinery, I am not aware of any closure of Petrotrin and closure and downsizing of major employers such as Petrotrin. So if that is the question, I am simply going to refer to the refinery which has been closed. What we have done, Madam Speaker, is to have invited the international community which involves local interests, to put proposals for the possible restart of the refinery. Once that becomes successful, Madam Speaker, we anticipate that certain kinds of jobs will become available to persons who have those skills. And other than that we have taken steps to have certain projects initiated in and around the San Fernando area.

And I can point out, Madam Speaker, for the first time actual work is under way towards the operation of a San Fernando waterfront project which will grow in strength and character with a number of other projects in housing. [*Desk thumping*] We are also in the private sector, at the Ministry of Planning and Development, approving a number of private sector initiatives for the San Fernando and environs area and, of course, overall we work towards growth in the national economy. And we expect, at the end of the day, all such persons as mentioned in this question would have the opportunity for advancement. Thank you.

Mr. Charles: Prime Minister, has any study been done at all to identify the jobs that have been lost and specific possible replacement opportunities or are we

leaving it to “vaps”?

Hon. Dr. K. Rowley: Madam Speaker, this Government does nothing by “vaps”, we do it by order, reason and competency. [*Desk thumping*]

Mr. Charles: Then in proper, proactive mode, could the Prime Minister identify who is doing this study that would identify the gaps that have been created by the closure of the company?

Hon. Dr. K. Rowley: Madam Speaker, I made no reference to any study. We have a whole-of-government response to this. And all Government Ministries that are engaged in advancement of the economy are involved in this matter, Madam Speaker. [*Desk thumping*]

Mr. Charles: Clearly, Prime Minister, there are skill gaps that exist and in a proactive mode, one would have identified the gaps and developed industries consistent with the displaced jobs. [*Desk thumping*]

Madam Speaker: Member for Naparima, next question.

Current Point Lisas Model

(Possible Revision of)

Mr. Rodney Charles (Naparima): Given comments that the Point Lisas model has outlived its usefulness, can the Prime Minister state whether the Government is considering any review of this model?

The Prime Minister (Hon. Dr. Keith Rowley): Madam Speaker, comments are available a dozen for a dime. Some comments are not even worthy being read. So unless the Member is prepared to tell me which of the comments in particular, it puts me in a difficult position. I cannot respond to every comment being made, especially coming from him. But what I can say, Madam Speaker, is that the Point Lisas model has not outlived its usefulness. It has been a very successful model, called the “Trinidad Model”, and is acclaimed internationally. It has been adopted

by several countries especially the developing gas-based economies in Africa.

What is happening at this time is that the gas value chain has been evolving to meet new circumstances. The upstream producers, BPTT, Shell, EOG, et cetera, the aggregator NGC and downstream operators are redesigning the gas value chain in complex and sensitive commercial negotiations. And, Madam Speaker, any person paying attention to what is happening in Trinidad and Tobago will see a model alive and well, and flexible as against the misinformation being spread by those who should not be stressing Trinidad and Tobago—[*Desk thumping*]

Madam Speaker: Supplemental, Member for Naparima.

Mr. Charles: According to commenters, and I recall immediately—

Mr. Al-Rawi: Question.

Mr. Charles: Mr. Mariano Browne—[*Laughter*] The Point Lisas model—

Madam Speaker: Member for Naparima, please continue.

Mr. Charles: The Point Lisas model is based on abundant cheap gas and high commodity prices. Given systemic challenges and abundant cheap shale gas, how do we intend to compete with the US and other major suppliers of cheap natural gas?

Hon. Dr. K. Rowley: I know you intend for it to collapse and close down.

Mr. Charles: Not at all.

Hon. Dr. K. Rowley: This Government will do everything possible for that not to happen. [*Desk thumping*]

Mr. Charles: Yes. Madam Speaker, it is important that we do the necessary studies and we are not caught unaware. Is the Prime Minister doing any study and scenarios to cater for any eventually?

Hon. Dr. K. Rowley: I am studying your attempt to undermine the national interest, Madam Speaker. That is all I have to do. [*Desk thumping*]

Mr. Charles: Madam Speaker, it is my intention to point Trinidad and Tobago in a proactive Singaporean mode, and therefore we are not caught by scratch.

[*Crosstalk*] What is your study? What is the study?

Madam Speaker: Member for Naparima. [*Continuous crosstalk*]

Mr. Charles: What is the study and who is doing it?

Hon. Dr. K. Rowley: Madam Speaker, I have answered that question—

Mr. Al-Rawi: Four times.

Hon. Dr. K. Rowley:—I have answered the question. I am simply not agreeing with the attitude and ridiculousness of the Member for Naparima. The Point Lisas model is a model which we can defend and which we hold out very proudly. As a matter of fact, as I speak to you now, the Equatorial Guinea, the Minister of Energy and Energy Industries from Trinidad and Tobago has been invited and so was I to Equatorial Guinea because they are so enamored with our model. And that, Madam Speaker, it is the same model that was there while they were in government for five years and did not negotiate a single gas contract, not a single contract. And all of a sudden they are now talking about “study”. The only study they know is Cambridge Analytica. Cambridge Analytical is their study.

Hon. Member: Yes. [*Desk thumping*]

Mr. Forde: More questions? [*Crosstalk*]

Madam Speaker: Member for Naparima, you have one more supplemental?

Mr. Charles: Yes.

Madam Speaker: Yes, please.

Mr. Charles: Is the Prime Minister aware at all that companies, downstream industries, a number of them are moving to the United States, because of cheap shale oil gas and this is threat. What are we doing to deal with that?

Madam Speaker: I will not allow that as a supplemental question. [*Crosstalk*] I

would just ask all Members to abide by Standing Order 53, please.

URGENT QUESTIONS

Maxi-Taxi Drivers

(Protest of Outstanding Payments)

Mr. David Lee (*Pointe-a-Pierre*): Thank you, Madam Speaker. To the hon. Minister of Education: Given the threat by maxi-taxi drivers to cripple public transportation on Monday in protest of outstanding payments to some drivers who are contracted by the Ministry to transport school children, could the Minister state when the Ministry intends to settle these debts as well as the cause for this delay in payments?

The Minister of Education (Hon. Anthony Garcia): [*Desk thumping*] Thank you very much, Madam Speaker. The Ministry of Education has received releases from the Ministry of Finance to facilitate payments to the Public Transport Service Corporation for services received from the maxi-taxi concessionaires. Over the last three days the Ministry has paid PTSC in excess of \$4.7 million, a breakdown as follows: payment for the first fortnight in September 2019, totalled approximately \$1.8 million and was made to PTSC on Thursday the 21st of November, 2019. A second payment of \$1.8 million was also paid to PTSC on that same date, Thursday 21st of November, 2019. A third cheque of \$1.165 million was handed over to PTSC this morning.

Meanwhile, the latest invoices received from the PTSC for the period 14th to the 25th of October, 2019, are being processed and are expected to be completed soon. Thank you very much. [*Desk thumping*]

Mr. Karim: Thank you very much, Madam Speaker. Supplemental question. Hon. Minister, could you say how much more money will be outstanding to the number of providers, maxi-taxi school operators?

Urgent Questions (cont'd)

2019.11.22

Hon. A. Garcia: Madam Speaker, I am not in a position to say the amount, the exact amount that is outstanding. What we do, we pay in accordance with the claims that are submitted by the PTSC drivers. Thank you.

Mr. Indarsingh: Thank you, Madam Speaker. Minister, could you advise this House how many times this provision of the private contractors' services has been disrupted under your watch?

Madam Speaker: I will not allow that as a supplemental question. Member for Chaguanas East.

Mr. Karim: Thank you, Madam Speaker. Hon. Minister, can you tell us how long it takes to process these claims that are put forward to PTSC for payment?

Hon. A. Garcia: Madam Speaker, it is a long process, but I have been advised that on some occasions depending on the accuracy of the claims they can take as much as two and a half months.

Claxton Bay Junior Anglican School

(Replacement of Textbooks and Teaching Material)

Mr. David Lee (*Pointe-a-Pierre*): Thank you, Madam Speaker. To the hon. Minister of Education: Based on reports that numerous textbooks and teaching material belonging to the Claxton Bay Junior Anglican School were destroyed due to poor storage by a contractor during recent work on the now abandoned school building, could the Minister inform the House whether the Ministry and/or the contractor will be replacing these items given their importance to the school's teaching operations?

The Minister of Education (Hon. Anthony Garcia): Thank you very much, Madam Speaker. The Ministry of Education will replace all textbooks and teaching materials belonging to the Claxton Bay Junior Anglian School that were damaged or destroyed.

Urgent Questions (cont'd)

2019.11.22

Mr. Karim: Thank you very much, Madam Speaker. In the interest of teaching, learning, and the effective delivery of the curriculum, could the Minister state by when we could expect these matters to be resolved?

Hon. A. Garcia: Thank you very much. At this time the Ministry of Education is undertaking an assessment of the textbooks and teaching materials that have been damaged and as soon as that assessment has been completed, they will be replaced. Thank you.

2.10 p.m.

STATEMENT BY MINISTER

Dangerous Drugs (Amdt.) Bill 2019

And

Cannabis Licencing Authority 2019

(Establishment of)

The Attorney General (Hon. Faris Al-Rawi): Thank you Madam Speaker. [*Desk thumping*] Madam Speaker, I have been authorized by the Cabinet of Trinidad and Tobago to make the following statement.

Trinidad and Tobago is in the midst of one of the most aggressive and profound reformations of the criminal justice system. No other government has sought to attack the scourge of crime by improving the whole system comprising plant and machinery, people, processes, and law, simultaneously.

Taking decisive action on the expansion of the Judiciary, the increase in the number of judges, masters, registrars and courts, the creation Divisions of Court, the introduction of Rules of Court, the merger of jurisdictions of the court, the hiring of hundreds of professionals across the court system, the expansion of the prosecutorial system at the Office of the DPP and the Trinidad and Tobago Police Service, the establishment of a public defenders system, the protection of

UNREVISED

Statement by Minister (cont'd)
Hon. F. Al-Rawi (cont'd)

2019.11.22

witnesses, the introduction of laws to remove bottlenecks in the criminal justice system, laws to fight hard and bloody crimes, and laws to follow the money and take the profit out of crime, have been driven by dedicated data capture and rigorous analysis with a focus, Madam Speaker, on the effect to the lives and consciousness of the people of Trinidad and Tobago.

Madam Speaker, in addressing the reform of the criminal justice system, many have ignored the profound effect that decriminalization of certain offences can have in the criminal justice system. The Judiciary in its publications has demonstrated that approximately 146,000 cases come to the Magistrates' Court each year. Of that number, 104,000 cases are in respect of motor vehicle and road traffic matters alone. As you are aware, the Government took the decision to amend the law to move road traffic offences into violations, and shortly, with the operationalization of the U-turn system of the Ministry of Works and Transport, Trinidad and Tobago will witness the removal of these road traffic matters out of the Magistracy and into an electronic demerit system.

Madam Speaker, the Judiciary data also reveals that in the period 2007 to 2018, 84,668 cases came before the Magistracy under the Dangerous Drugs Act, for possession of marijuana for the purposes of trafficking, cultivation of marijuana, and the gathering of marijuana; 71,964 of these cases were for possession of marijuana alone. In the law term 2017/2018 the Judiciary reported that 9,553 marijuana-related cases came before the Magistrates' Court, with 8,316 being for possession of marijuana alone in one year.

Many of these cases relating to marijuana demonstrate that mostly poor and underprivileged men suffer the brunt of the hard side of the law, with 3,429 people having been remanded for marijuana-related offences in the period 2010 to 2018,

Statement by Minister (cont'd)
Hon. F. Al-Rawi (cont'd)

2019.11.22

being approximately 500 people each year unable to access bail, even though granted bail by the courts. The burden to the taxpayer of hundreds of millions of dollars expended in remand incarceration is as atrocious as the effect to the lives of the accused and their families. Convictions for possession of marijuana have derailed many lives as they stand as a bar to education, travel, and employment, just to name a few.

The Government after significant research, wide stakeholder consultation and careful legislative scrutiny, is of the firm view that it is the correct time to amend the Dangerous Drugs Act and to cause the strict licensing and regulation of the research, cultivation, supply, commercialization of marijuana through the establishment of a Cannabis Control Authority.

Whilst others have flirted or failed in the 25 years since the passage of the Dangerous Drugs Act, I am pleased as Attorney General of this Government to therefore witness the introduction of two Bills today, namely the Dangerous Drugs (Amdt.) Bill, 2019, and the Cannabis Control Bill, 2019. Together, these Bills will amend the Dangerous Drugs Act and birth a new regulatory regime which will move our laws from a colonial archaic past and into the future.

The Dangerous Drugs (Amdt.) Bill, 2019, seeks to define marijuana comprehensively as cannabis; to decriminalize certain quantities of cannabis and cannabis resin, to prohibit the use of the substance in public spaces, all educational institutions, and places of work. It also seeks to abrogate the present strict prohibition of the administration of the substance to children in medical cases only. It also modernizes the criminal justice system by introducing a tiered penalty system, premised upon the quantum of the substance in possession.

Madam Speaker, under this amendment Bill, a person may now lawfully

Statement by Minister (cont'd)
Hon. F. Al-Rawi (cont'd)

2019.11.22

grow no more than four cannabis male plants at his residence without a licence. Under the tiered possession scheme the Bill proposes the abolition of the present regime whereby possession of any amount is an arrestable offence. This tiered possession scheme will establish lawful limits for possession and use, hence under the new scheme, a person found in possession of 30 grammes of cannabis or less will no longer be arrested for possession.

That being said, the Government also proposes to impose an upper limit for lawful possession of cannabis or cannabis resin respectively. That limit will be 60 grammes as proposed by this Bill, Madam Speaker. The Bill proposes that possession of more than 30 grammes but not more than 60 grammes of cannabis, or more than five grammes but not more than 10 grammes of cannabis resin is to now be treated by a fixed penalty ticket system, with the brunt of the law being applied only where there is a refusal to pay the fixed penalty, and only after the possibility of community service as an alternative remedy is explored. The Bill strictly criminalizes smoking or using cannabis resin in a public place. The Bill also establishes specific penalties for the possession and trafficking of dangerous drugs such as amphetamines, ketamines, and LSD, only recently introduced as dangerous drugs under the Dangerous Drugs Act by this Government.

The Dangerous Drugs Act will also strictly criminalize acts involving children. Hence, for example, a person who possesses cannabis even within the allowable limits, will be prosecuted for having the substance on a school premises, a bus, or schoolyard. He will be liable upon summary conviction to a fine of a maximum of \$250,000 and to imprisonment for five years.

The Government is also concerned about the effect of the substance upon persons during the course of their work and operation of certain machinery, thus

the Bill proposes to prohibit persons who whilst under the influence of cannabis do anything which constitutes negligence professional malpractice or professional misconduct. A similar prohibition applies to any person who operates, navigates, or is in physical control of any motor vehicle, aircraft, ship, whilst under the influence of the substance. In both instances, the conduct attracts a summary conviction to a fine of \$250,000 and to imprisonment for five years.

It follows that in the interest of justice, persons with charges before the court for new upper limit of 60 grammes of cannabis and 10 grammes of cannabis resin, may apply to be discharged and that the criminal records of persons with convictions for possession of the substance will be expunged, and that they will be able to apply for pardon under section 87 of the Constitution.

Under the Cannabis Control Bill, the other Bill, a state entity, the Trinidad and Tobago Cannabis Authority will be established to administer a licensing and registration regime to legitimize, establish accountability and transparency, for the use of cannabis by persons and bodies engaged in religious, sacramental, medicinal and commercial activities. The authority will have the power to issue eight types of licences, namely: a Cultivator Licence; a Research and Development Licence; a Laboratory Licence; a Processor Licence; a Retail Distributor Licence; an Import Licence; an Export Licence, and a Transport Licence. Notably, as their names imply the licences represent different points. That is, from growth to that involving therapeutic use.

There will be strict control for medicinal use and for religious purposes, which are separately addressed in the Bill. Only certain persons will be eligible for licensing and registration, and there is a guaranteed minimum local content of 30 per cent of ownership for companies and co-operatives, so as to avoid the abuses

that occurred with multinational domination in other territories.

There are careful safeguards in the Bill, Madam Speaker. With respect to religious organizations, there is the prescription for a requirement for registration under the Non-profit Organisations Act, 2019, as well as strict dispensary regime. Similarly, only persons licensed as a medical practitioner may lawfully dispense and administer medicinal cannabis.

While cannabis growth and its use has desirous implications for the national purse, and will surely be welcomed by the medical, patient and religious communities, the Government will curtail opportunities for abuse of the new licensing and registration regime. This is effected through criminalization of behaviour which adversely impacts the administration of the authority. Breaches of confidentiality, unlawful disclosure of information, and undisclosed interests in businesses seeking a licence, and dealing with cannabis without a valid licence.

Furthermore, the Government is mindful that while the reform allows the wider population to have greater access to albeit limited purposes, it remains concerned that reform should account for the interest of nation's children. They must be protected from misuse of the substance. To that end, the Cannabis Control Bill, 2019, protects our children by criminalizing certain activities involving children.

Firstly, to all parents and guardians or caregivers of children, please note, if a child under your care suffers from a medical problem for which medical cannabis can be helpful, you are required to exercise due diligence and care. You may be criminally liable if you fail to obtain written certificate from the child's medical practitioner certifying that the child requires medicinal cannabis to remedy his ailment.

Statement by Minister (cont'd)
Hon. F. Al-Rawi (cont'd)

2019.11.22

Secondly, to all persons who accompany children to places of worship or similar environments, you may face the court if you cause or permit that child to use cannabis at a place of worship, a sacramental dispensary, or at an exempt event. The penalty that you may be subjected to is a fine of \$250,000 and to imprisonment to a term of five years.

Madam Speaker, these Bills laid in the House of Representatives today represent the work of a progressive government, dedicated in the mission of, quite simply, getting it done. The benefits to the people of Trinidad and Tobago are so obvious now, that the work has been done and put into context. It is axiomatic that the criminal justice system should focus on serious crime, and that all roadblocks to justice should be immediately removed so that judicial and law enforcement time can concentrate where it matters most. It is equally axiomatic that Trinidad and Tobago should be anxiously conscious of the development across the world. And those developments of course informing us, that there is a recognition of the economic potential of cannabis production once unshackled from the mid-19th Century colonial values.

Whilst others have slumbered, Madam Speaker, we have toiled. We shall get it done. I thank you Madam Speaker. [*Desk thumping*]

Madam Speaker: Member for Oropouche East.

2.25 p.m.

Dr. Moonilal: Thank you very much, Madam Speaker. Madam Speaker, to the hon. Member, pursuant to 24(4). Member, could you indicate given your statement that there are clearly some complex issues and provisions and new institutions to be established to bring this regime into force, given that the Opposition Leader and Members of the Opposition, in particular, I think, the

Statement by Minister (cont'd)
 Hon. F. Al-Rawi (cont'd)

2019.11.22

Member for San Juan/Barataria has already pronounced? Could you indicate, with no pun intended at all, whether these measures will go to a joint select committee?

Hon. F. Al-Rawi: Madam Speaker, it was without mistake that I referred in the statement to whilst others slept that we have toiled. The newfound love by the Leader of the Opposition for this decriminalization and commercialization, perhaps [*Crosstalk*] not as new as one may think, betrays the fact that for a full five years and three months the Leader of the Opposition as Prime Minister and Senior Counsel with the capacity to amend law, did absolutely nothing to the benefit of people of this country. [*Desk thumping*]

In having created this Bill, and that to develop the cannabis authority Bill, we intend to take this to the floor of the Parliament, Madam Speaker. We intend to have the debate ensue. Like any good Government would, we must listen to the concerns that come out on a fairly complex issue that is the reason why it has taken us and in the AG's Office, in particular, some time to perfect the work product now before us. We welcome the newfound enthusiasm of those opposite to the reform of law. We will simply get it done. Thank you, Madam Speaker. [*Desk thumping*]

INSURANCE (AMDT.) BILL, 2019

Bill to amend the Insurance Act, 2018 [*The Minister of Finance*]; read the first time.

KABIR ASSOCIATION OF TRINIDAD (INC'N.) ORDINANCE, 1932

Question put and agreed to: That a Bill to amend the Kabir Association of Trinidad (Inc'n.) Ordinance, 1932, be now read the first time.

Bill accordingly read the first time.

CANNABIS CONTROL BILL, 2019

Cannabis Control Bill, 2019

2019.11.22

Bill to provide for the regulatory control of the handling of cannabis for certain purposes, the establishment of the Trinidad and Tobago Cannabis Licensing Authority and connected matters [*The Attorney General*]; read the first time.

DANGEROUS DRUGS (AMDT.) BILL, 2019

Bill to amend the Dangerous Drugs Act, Chap. 11:25 [*The Attorney General*]; read the first time.

CLIMATE CHANGE

(GOVERNMENT'S RESPONSE TO)

Dr. Bhoendradatt Tewarie: Thank you very much, Madam Speaker. Madam Speaker, I beg to move the following Motion standing in any name:

Whereas Climate Change is a matter of global concern which threatens all nations;

And whereas small island states and coastal states are especially susceptible to the impact of climate change;

And whereas the Caribbean region has, from time to time, experienced cycles of drought, heavy rainfall, hurricanes and floods;

And whereas earthquakes and other natural disasters must be anticipated and prepared for; Be *it resolved* that this House agree that the Government develop a holistic and sustainable national response to climate change inclusive of solutions to the perennial flooding in Trinidad and Tobago and the effective management of drought conditions and the impact of such disasters on the quality of human life.

Madam Speaker, climate change and sustainable development are deeply connected, and the connection of these two things has changed the conversation about economic development and successful progress. The once held argument that about capitalism being totally driven by consumer demand is waning under the

weight of the concerns of issues such as climate change and sustainable development.

Now, the essence of discussion about climate change is about carbon emissions CO₂ and in our particular case, in Trinidad and Tobago, the culprits you might say are the energy industry; secondly, the other industries in the country including manufacturing, because we are a relatively highly industrialized country compared to the rest of region and, of course, vehicles which travel the roadway. And the easy way of thinking of this solution is that we need to reduce pollution and emissions from the energy industry; we need to reduce pollution and emissions from the manufacturing and other sectors and we need to find a transportation solution that will create the conditions in which the amount of CO₂ that emanates from the cars that we have here—almost a million cars—not every day on the road, but which they emit everyday will be reduced, because all of this affects the quality of life, the air that we breathe, the water that we drink, the food production and food security.

It takes a toll on the quality of shelter we have to design; it takes a toll on the conservation of the environment, on land and water, and on waste management and, therefore, in taking a toll on the quality of life of our people like this, and taking into account what is happening, is that we now have to manage and to worry, not only about the economy but also the environment, the people, and you might say even all living organisms, because the philosophical base of the concern about climate change and sustainable development, is that there is a connectivity among all things as well as a connectivity among all living things. So that, the talking about the weather, Madam Speaker, which we would say was “small talk” has become really very, very serious business not just in this country, but in the

entire world, because of the issue and the impact of climate change.

Now, climate change is also associated with global warming, and this was identified, Madam Speaker, as a problem for humanity, since about 1979. Of all environmental issues this—that is to say, climate change and global warming—is, perhaps, the most challenging and worrisome. The situation is so alarming now that the condition is described as climate emergency. And yesterday the Oxford Dictionary, through *The Guardian* in London, informed us that the term “climate emergency” has soared in usage by about 10,000 per cent and that “climate emergency” is now the word of the year in 2019, and it describes a situation in which urgent action is required to reduce or halt climate change—[*Crosstalk*] They also explained that. They explained that you could put two words together to form one word. [*Crosstalk*]—or halt climate change and avoid potentially—

Madam Speaker: Hon. Members, I would like to hear the Member for Caroni Central. Please continue Member.

Dr. B. Tewarie: Thank you, Madam Speaker. So, there is a concerted effort to reverse environmental damage that is caused by climate change and its consequences. So, a considered and holistic climate response from any country—and in this particular case we are talking about Trinidad and Tobago—is very urgent.

Now, for a long time, there were two legal frameworks that governed global climate change: One was the United Nations Framework Convention on Climate Change, UNFCCC, and the focus of that was stabilization of greenhouse gas concentration in the atmosphere. The second one was the Kyoto Protocol, which was a legally binding framework that required developed countries to reduce their aggregate greenhouse gas emissions by a percentage target.

As a small island developing state, since 2005 Trinidad and Tobago has been guided also by the Mauritius Declaration and the Mauritius Strategy for the Implementation of SIDS. In these two reports, 10 areas were identified of critical importance to the development of SIDS, and within this framework 10 problem areas were identified for Trinidad and Tobago. These issues identified are still relevant to the country and require urgent attention. First of all, climate change and sea level rise, natural and anthropogenic or man-made hazards, management of waste, coastal and marine resources, freshwater resources, land resources, energy resources, tourism resources, biodiversity and transportation.

In the year 2013, Madam Speaker, when I had the opportunity and privilege to serve as Minister of Planning and Sustainable Development, that Ministry which I led, prepared a document on behalf of the Government and people of Trinidad and Tobago, entitled “Working for Sustainable Development, Progress, Gaps and Opportunities for Action”. This document was prepared for the Rio+20 conference in Brazil of that year. I do not see this document listed in the EMA’s list of consulted documents for their presentation of the 2018 National Environmental Policy, and I have the EMA’s list of entities and documents here. I also do not see the EMA taking note of the National Spatial Strategy for planning, which was laid in Parliament in 2013, and which accompanied the Planning and Facilitation of Development Bill, which we had the opportunity to debate the amendment for, not so long ago. So much for government continuity and good governance.

The document “Working for Sustainable Development of TT” identified some of the most pressing concerns. I mentioned 10, but I will just mention a couple that are related: the rise in sea levels, increased flooding, unpredictability of weather conditions, hillside erosion, coastal erosion and the loss of coastal habitats

Climate Control (cont'd)
Dr. Tewarie (cont'd)

2019.11.22

and, of course, the management of waste and garbage. Now, the IDB, The Inter-American Development Bank, took note of that same document in 2017, four years after we had prepared and presented it to the world, and made reference to the fact that the working for sustainable development document for TT, had also highlighted the economic impact of climate change on Trinidad and Tobago which included agriculture, coastal zones on health, which could directly impact on tourism as well as other aspects of the wider community.

So, in 2013, we understood clearly that if climate change can undermine the environment, if it could undermine human and community health, if it could undermine aspects of the economy, then climate change was detrimental to sustainable development in Trinidad and Tobago and, therefore, as a country, we needed to manage climate change if we were to succeed at sustainable development of Trinidad and Tobago. In other words, if we, as a country do not manage and make adaptations to climate change, there is no chance of us becoming a sustainable nation.

The NDC Global Outlook Report of 2019 of the UNDP—NDC in this instance means, nationally determined contributions—makes this position clear on page 22, and I quote:

“Governments increasingly recognize that action to address climate change is inseparable from delivering Sustainable Development Goals.”

This is why as a government we undertook, at that time, the Mayaro Coastal Studies Project to identify the causes of erosion and to produce solutions to arrest the rate of erosion there. That is why in order to preserve the Manzanilla coastline, our government embarked on the Manzanilla Sea Wall Project, executed by the then Minister of Works, the Member for Tabaquite. These are but two small

interventions on the eastern coast that can make a difference on the coastline, in the lives of people as well and enhance the environment and support economic activity.

That is why as a government, we also took the decision not to allow construction on the hillsides above the 300-foot contour line, another small decision that could have a positive effect on soil erosion, silting of watercourses and water runoff that can contribute to flooding. That is why at the Ministry of Planning, we funded a biodiversity project, which brought UWI and Cambridge University UK to study and catalogue flora and fauna in a carefully identified area of the country. That is why we limited the development of Chaguaramas to only 11 per cent of the land in the Chaguaramas Master Plan, and established a nature reserve on the remaining 89 per cent of the 22 square mile peninsula. These are only a few of the things that we did but, as I said, we did prepare a National Spatial Strategy document which was laid in this Parliament in 2013. Since 2013, we have had a number of new initiatives and agreements.

In 2014, for instance, Cabinet sent a member of the Town and Country Planning Division, Ms. Marie Hinds, along with a representative of the UN Mission in New York to Samoa to a world Conference on Small Island States, where the blue economy and the importance of oceans, in general, were emphasized. The conference agreed on a Samoa pathway. There has been follow-up on this in 2018 and 2019 at the international level.

Following the Samoa pathway initiative, there has been the Paris Agreement signed in December 2015. The purpose of this accord is to accelerate and intensify the actions and investment needed for sustainable low carbon future, and the central aim of the Paris Agreement is to strengthen the global response to the threat

of climate change by keeping global temperature rise in this century well below two degrees Celsius and to try to contain temperature rise thereafter to even lower levels closer to 1.5 degrees centigrade.

This has largely been undermined, of course, by the pull out of the agreement by President Trump after the earlier commitment of the former President Obama, both Presidents of the United States. The US, by the way, is the world's second largest emitter of greenhouse gases, producing about 15 per cent of global annual carbon dioxide emissions. If it does not conform to agreements to which the entire rest of the world has made commitment, it makes a big difference in both fervour and to the results.

China is the highest emitter, in fact, higher than the US and close on the heels of the United States which is number two, there is India, Russia and Japan. Four of the five worst offenders say they remain committed to reduction of global warming. The United States, of course, has said that it will not go along. So the world's culprits in global warming and man-made acceleration of climate change have been and continues to be the industrialized and industrializing country of the world—the big countries, the big economic powers and the big geopolitical players. That is the fact of our life today, and these are the driving forces in global warming, and the need to deal with climate change.

Now, while—those of us who feel the impact of climate change most, however, are and will be island countries, coastal countries, developing countries, some of them landlocked. So, you might say the powerful are causing the problem, by and large; the weak and the vulnerable have to cope with the problems and find means of adapting and responding to climate change and its effects is also a costly process. So it costs a lot for small countries to try to look after themselves

and to contribute to the world.

Now, the citizens of Trinidad and Tobago may well ask, what does it matter if the world gets warmer? The ordinary citizen might ask that and it is a legitimate question. Well, scientific evidence suggests, Madam Speaker, that if the world temperatures rise by two degrees in cold areas, mountain glaciers will melt, rivers in warmer areas will dry up and mountain regions will see more landslides as the permafrost that held them together melts away. With a continuous rise in temperatures, sea levels could rise by a metre—it is said by 2,100—and 10 per cent of the world's population can be displaced. A lot of that population proportionately will be in nations such as ours that live with the sea around them.

I always remember the then Prime Minister of the Bahamas, Perry Christi, who pointed out at a conference that we were both present at in 2014, that the sea level around The Bahamas islands rose—that if the sea level rose by two feet, a full two-thirds of The Bahamas landmass would be covered by water. Since then, we have witnessed the devastation of Dorian, with its 185 miles per hour wind, seawater flooding, 65 people died and US \$7 billion in damages were caused. Climate change, therefore, is very real. It is close. It can spell disaster for small island countries.

Now, what is the relevance of climate change to countries such as ours? This is what our own Trinidad and Tobago Met Office says:

“Climate change is the long-term shift in average weather patterns”—I am quoting from them—“across the world. Since the mid-1800s, humans have contributed to the release of carbon dioxide and other greenhouse gases into the air. This causes global temperatures to rise...”

So climate change is man-made. It has consequences for the land, for the sea, for

hurricanes, for water, for humans and their communities and we must learn to manage it, reduce its impact, cope with it and adapt to it.

Adaptation has always been the key in the survival and triumphant of any species and the challenge for us in this era of accelerated climate change is to identify problems, clearly, and to solve them and to adapt to changing climatic weather conditions. Climate change occurs when changes in the earth's climate system result in new weather patterns that remain in place for an extended period of time. That means that we have to live with the reality once it occurs.

I asked the question earlier: What does it matter if temperatures rose? And we talked about glaciers, rivers and sea level rise, all of which happened in the northern colder areas, but with the effect and the consequences everywhere. But what would happen on the land itself with the rise in temperatures? According to Nassau, an increase of two degrees Celsius or 3.6 degrees Fahrenheit would almost double water deficit globally, and would reduce the amount of wheat and maize harvest. The message here is not about wheat and maize, the message here is that we can have water scarcity and difficulty in producing food no matter where we live, if global warming continues.

“The Intergovernmental Panel on Climate Change says 4°C of global warming could lead to ‘substantial species extinctions’”—I quote from them, from the report, and I quote again—“‘large risks to global and regional food security,’ and the risk of irreversibly destabilizing Greenland’s massive ice sheet.”

What does that ice sheet have to do with us? Well, it is said that if that ice sheet in Greenland is allowed to melt, the rise in seawater would be about 20 feet, and it is said that if the Atlantic ice sheet melted, the water rise would be 200 feet. So in

that situation what would happen to the Bahamas? What would happen to the Caribbean? What would happen to all the islands in the Pacific? What would happen to Trinidad and Tobago?

2.55 p.m.

Think of it in Trinidad and Tobago alone; think of it in the region; think of it globally and then think of what is likely to happen in terms of attitudes and behaviours if this were to become a reality. Rising temperatures and heat waves can exacerbate heat risks, respiratory ailments, increase in airborne diseases and viruses, gastrointestinal diseases, mosquito borne diseases, even liver and kidney can be affected. People with cardio vascular and cerebrovascular diseases can also be affected. People with depression and psychiatric disorders can also find their conditions exacerbated. Excessive heat can facilitate the spread of pests and pathogens and even what happens elsewhere, like Sahara dust from the African continent, for instance, can alter the health conditions of citizens in as far a place as Trinidad and Tobago from that continent.

When I was at the University of the West Indies, there were some important research being done there with children in the medical school and it was found that in a whole generation of children there was a significant increase in the number of diseases that had to do with their ability to breathe and breathe properly and so on, in the country, having implications not just for the generation, but for many generations possibly depending on what kind of treatments were done.

Loss of biodiversity can occur when flora and fauna fail to adapt fast enough to changes in temperature. Climate change affects therefore the air we breathe, the water we have to drink, the food we can produce, health, coastal erosion and land loss, human displacement, hillside erosion, flora and fauna destruction, trees

Climate Control (cont'd)
Dr. Tewarie (cont'd)

2019.11.22

destruction, housing and construction re-thinking. All of these on their own or in combinations can have economic impacts and can cause havocs in different ways, Madam Speaker.

When climate change elements combine to cause natural disasters what are the economic costs, first of all of dealing with the problem? Secondly, restoring some semblance of normalcy and then dealing with permanent damage and disaster. What is the human and economic cost in Trinidad and Tobago when floods occur and homes are devastated? What is the community cost, what is the economic cost of uprooted trees and demolished buildings in Dominica, wrecking the lives of thousands of people on a small island? And that same hurricane in the Virgin Islands, Puerto Rico, none of these islands have fully recovered yet from that hurricane, what about the devastation in Abaco in The Bahamas?

The human and economic cost of climate change and its direct and indirect impacts are immense and it is a problem for us and it is a problem that is quite significant. All this scientific evidence based on research that has been done here, up to 2010, show us that in fact we have global warming here, that we have warmer temperatures here, that it is happening here, that there is coastal erosion here, and these include local scientists who are stationed abroad, it includes the climate change centre in Belize, it includes other scientists who are doing work in this area.

Now, what the industrialized countries have done knowing that they are the biggest culprits and knowing that the greatest recipients of the consequences of climate change are in fact islands, small states and developing countries, is that they have put aside a fund, \$100 billion fund which one can tap in in order to deal with some of the problems here. I do not know what is the extent to which

Trinidad and Tobago has been able to tap into that, but I would think that not only do we have to fight these issues in the global fora and make the case that, for instance, the greatest responsibility and obligation is not too us but to the larger countries to do something about it, we need to fight that. But we also need to make the case that without the technical capacity, without the technological know-how and without the funds we will not be able to deal with the problems that attend us in this particular country, Trinidad and Tobago or in the other region.

But there is a fourth thing, which is that unless we have the capacity because sometimes these forms that you have to fill out, the package of things that you have to fill out are so onerous that it is very hard to even complete it to get the benefits from it. And in that kind of situation we need to build the capacity here to address issues in Trinidad and Tobago and to get the funds to be able to do it.

Now, when this Government joined the Paris Accord, it was on the 11th April, 2018, the Prime Minister then said we did not just rush into it, we looked very carefully at what was required of us, the cost and the effect on the country and when we were satisfied that the arrangement was what we could live with, we did it and we made certain commitments, et cetera. When you look at the Vision 2020 document you see things identified here, like, goal 1, environmental governance and management system will be strengthened; goal 2, carbon footprint will be reduced; goal 3, climate vulnerability will be assessed; goal 4, comprehensive waste and pollution management systems will be created; goal 5, national resource management will be improved. Now, all of these are fine and there is really no problem with it but the question is, when, how, where, who? All five of these seem without support rather vague and nebulous and without concrete action measures.

Now, there have been other things done by this Government I want to

Climate Control (cont'd)
Dr. Tewarie (cont'd)

2019.11.22

acknowledge. For instance, review and update of the National Climate Change Policy we did a policy in 2011, some attention to forests and protected areas, a ban on Styrofoam containers, a beverage container Bill. I am not sure if they did anything for plastic and, of course, you had the issue with the LED bulbs in the last budget. Now it also talks about a national climate mitigation monitoring reporting and verification system to track the reduction of greenhouse gas emissions.

Madam Speaker, the reason why a citizen will be skeptical about some of these initiatives or find them sometimes comical is because of the context and because of scale. It is not that anything is wrong with them. I think the issue is really a credibility about implementation problem and an issue of scale. So the will the LED bulbs have become a joke not because they do not work or they do not do what they are intended to, but because people considered the gesture too small and as a relatively isolated initiative. [*Desk thumping*]

Then, secondly, although they understand that the LED bulb is better for the environment they are skeptical about its introduction. So they think for instance, as people have said in the public space that the plan was really for an importer to benefit rather than the citizen to benefit. [*Desk thumping*] So, culture and experience drives the citizen to think in this way, which brings a lot of skepticism to even reasonable objectives.

Now let us take the reporting system for greenhouse gas emissions, for instance. Citizens will not take that seriously simply because the Government on the other side has not reported on performance for the last four years. Even in the midst of an election season the Government on the other side will not identify exactly what they got done. [*Desk thumping*] Everything is amorphous and vague and PR driven. I mentioned already that in the review and update on the National

Climate Control (cont'd)
Dr. Tewarie (cont'd)

2019.11.22

Climate Change Policy, you left out important national documents; the beverage container Bill is to come and we wait to see what will happen to Styrofoam and plastics and so on.

In addition, Madam Speaker, we should not blame climate change for the things that we can and should do and take action to address. For instance, if we know that climate change will make our country hotter and that the El Niño effect will sometimes result in drought conditions, then there are manmade things that we can do through Government action. We can and must first capture the water when it is abundant in the rainy season. We must store it and improve the distributions systems to deploy it when water is scarce in the dry season and that has nothing to do with climate change. In other words, we can get these thing done. We can work with farmers. We know who they are, we know where they are, we know what they grow, we can work with farmers to design irrigation systems, flood relief and flood alleviation systems including retention ponds to help them to be productive and protected throughout the year.

While we do that we might want to pursue various forms of protected agriculture as a strategy which in smaller spaces with smart systems and a controlled environment used less water and yield more produce. Remember one of the consequences of climate change is to manage agriculture and food production. It is a very important issue in the context of a scarcity of water together with floods. By clear action steps as a country we can effectively triumph over a heat wave and drought conditions, we can set up irrigation system for traditional farmers, young entrepreneurial types can be encouraged and supported to go into smarter, protected agriculture with control systems and a lot of problems can be solved together.

UNREVISED

In addition, for traditional agriculture, smarter systems can be designed which deal with irrigation in the dry season as well as flooding in the wet season. So Government must not be absolved from these basic responsibilities because climate change is a reality and it is affecting weather patterns. We must capture water in the wet season, harness it and have it ready for deployment. The perennial flooding problem, that is not something—my colleagues will speak on this, but that is not something we can simply say climate change. Yes we get a lot of rain, but what about all the issues that we can deal with in a comprehensive integrated manner in order to deal with these things. For instance—the management of land resources for instance, quarrying on the hills which denude the mountains and send sediment to the water courses, hillside construction by the well-to-do, slash and burn agriculture by the poor, we have to have a holistic approach to our mountains, hills and hillsides, which protect the natural landscape and which also protect the watercourses along the way and the human settlements below.

True, we have to address the issue of some people building on the river banks or too close to it, but this can be addressed in a solution-oriented, thoughtful and humane manner, with sound engineering knowledge and solutions as well. And we have to plant trees on the hills and the hillsides, good for everybody, trees absorb carbon dioxide and provide oxygen. Then we must address the issue of effective management of the limited land that we have. That is why it is important to have the Planning and Facilitation of Development Act, together with the reform of local government, the planning professionals Bill, the national spatial strategy, a national spatial capacity, the human development atlas information, which is about people and locations, clear decentralization and devolution policies, regional development plans that they come together so that you can holistically bring

coherence to the development process.

And, Madam Speaker, the way the world is going now, moving away from the traditional modes of engaging the business of development co-development is becoming a strategy in which you have to work with people. In this country there are 18 regions, there is Tobago and 14 regions in Trinidad, but you also have 600 communities. So there is no reason why you could not have macro-development, regional development, Tobago development, community development, sort of connecting and dovetailing with each other and people brought into it which means they are better educated, better informed, they are part of the solution and these kinds of things can make a truly great difference in terms of the management of climate change, in terms of the management of solutions to local problems and in terms of sustainable development as a policy and strategy.

I just want to say that we also did in our time a microzonation strategy which is now in motion. We thank the Minister of Planning and Development for continuing that and that relates to earthquakes, to which we are prone. We have had earthquakes in Trinidad and Tobago, one of them I think in the 1600s destroyed the then capital of the country which was St. Joseph and since then we since we have had them but the microzonation will allow us not just to figure out which areas are likely to be more earthquake prone or susceptible but it will help us with things like the building codes and things like that.

And therefore we need to introduce a number of very important and simple things that we can do that can make a difference. The use of solar heating, for instance, in homes would make a big difference. It is trite but we do have the sun every day. The issue of rainwater harvesting which you could start with, for instance, you could have solar and rainwater harvesting in every government

Climate Control (cont'd)
Dr. Tewarie (cont'd)

2019.11.22

development. You can do it in every mall that seeks to develop. You can do it in individual communities that you identify; all of these things can be done. It is true that we make our own disasters but we can also create our own solutions, Madam Speaker.

I do not want to offer at this point, if I ever get a chance to close the debate, I will raise some of those issues, but in this I simply want to point to the simple things that are possible that we can do. Whether it is rainwater harvesting, whether it is smarter systems for agriculture, whether it is solar development of homes and communities, et cetera, all of which we can do that can make a decisive difference and the big issue of course would be how to deal with the CO₂ which would mean that you need a new economy and you need also to deal with the traffic management and cars issue. [*Desk thumping*]

[*Madam Speaker stands*]

Dr. B. Tewarie: I beg to move, Madam Speaker. Thank you very much.

Madam Speaker: Member for Chaguanas West.

Mr. Singh: I wish to second it and reserve my right to speak.

Question proposed.

The Minister in the Ministry of Education (Hon. Dr. Lovell Francis): [*Desk thumping*] Madam Speaker, good afternoon, good afternoon to Members of the House on both sides. Madam Speaker, if there is any discussion or any debate in this Parliament that should not descend into a to and fro, into an adversarial discussion, it is the question of climate change. Madam Speaker, the worst case scenario that is before us, that if those scientists that are of the bleakest views are correct, is that there is the potential that we are facing basically a worst case scenario as a species and for the planet.

Climate Control (cont'd)
Hon. Dr. L. Francis (cont'd)

2019.11.22

Madam Speaker, when I was a child and questions of climate change and conservation and they were being debated, the whole concept, the idea was that we need to save the planet, that the planet was in danger and we would survive by saving the planet. Madam Speaker, very wisely in the generation since, we have grown beyond that to a broader understanding that the planet will be fine, the planet does not need to be saved. In fact, the planet would survive us without a concern.

Madam Speaker, I am a lover of science, I have been reading science since I was a child. Ended up not being a scientist because of a freak occurrence. But if you know any science you understand that this planet, according to the scientists, has faced a number of mass extinctions in its past. And unless we come to terms with what is facing us it might face another. So, Madam Speaker, it is a very serious concern, this is a very serious business. And I have no intention because of the gravity to get involved in any to and fro with the Member opposite.

I sat down and I listened to the Member for Caroni Central present his argument on the issue of climate change. And it contains some things I expected and somethings I did not expect. It contained what I will fairly call, and I do give Jack his jacket, a very coherent explanation of the situation facing the world, the situation facing the region and the situation facing us as a very small island. It also underscored some of the consequences of the climate change, the potentialities of it and so forth. It did contain some misinformation in the sense that he talked about the greenhouse emissions not being measured. In fact, the opposite is true. It is being measured to the point where we are actually being considered globally as a best practice in terms of the measurement of greenhouse [*Desk thumping*] gases and their emissions. So that is true. That is a correction I am sure he can amend,

UNREVISED

Climate Control (cont'd)
Hon. Dr. L. Francis (cont'd)

2019.11.22

because he might do the research to find out that what I am saying is accurate.

Madam Speaker, it also contained some, of course, some what I would call veiled jabs. Now the speaker talked about the things that were done when his party was in government and that they did make some attempt to deal with the climate change issue and he talked about some of the plans that they had and some of the things that were enacted. He did say, to be perfectly fair to him, that they were in minutiae. And then he did mention that this Government has done some things also in minutiae. He mentioned some issues of distrust and, Madam Speaker, I will end there because I am not going that way because we are not about that this evening and we really ought not to be about that.

I will take at face value the fact that the Member for Caroni Central in bringing this Motion forward is sincere about the threat posed by climate change and is concerned that as a society, not just as a Parliament or as a government or two opposing parties, as a society we ought to treat this with the seriousness that it deserves and then we ought to plan to deal with the circumstances that face us. And I will accept that as a fact and I will move on from there.

Madam Speaker, the Member said something very interesting and started me thinking about it. I liked that he tied the idea of the argument of climate change to the idea of sustainable development and that is very important. Madam Speaker, it used to be the notion on this planet, small economies, large economies, that there was a clear demarcation, they were mutually exclusive; the idea of developing your society and protecting the environment were considered mutually exclusive, they could not coexist.

Madam Speaker, I remember in secondary school a teacher saying to me—it had never occurred to me and it caused me to do some really deep thinking—that

Climate Control (cont'd)
Hon. Dr. L. Francis (cont'd)

2019.11.22

every time you see a picture of, for example England is the perfect example, but also parts of Western Europe, also parts of the United States, where you see these nice green rolling fields that looked very lovely, very pristine, as if they were massive golf courses. That at one point those things used to be forests. That would have been forested land and because of the industrial revolution and because of the need for fuel, those forest were destroyed in order to sort of catalyze progress.

So, Madam Speaker, it used to be on this planet that progress meant directly environmental derogation. And that was the norm. And there was a kind of hypocrisy involved in that. The hypocrisy was that nations that had destroyed their natural environment, because what they have is a sort of an end result of that, were criticizing upcoming nations, developing nations, or as they called them, “Third World Nations”, a term I have always disliked because people misunderstand what it means, or what it meant, you will be criticized for trying to do the same thing, which was using the resources you have to try to develop your nation. But the world has changed and times have changed and, Madam Speaker, we are living it now.

The Member talked about the typical citizen understanding or not understanding or mistrusting or trusting the Government in terms of climate change. Madam Speaker, I have a lot more confidence in our citizens and given the state of the world today as it impacts on us, the typical citizen in Trinidad and Tobago does not need to be overly convinced that the climate is changing. They live it, they see it, they talk about it every day. If you listen to them, Madam Speaker, they are aware that something is happening.

Madam Speaker, I remember the 1980s, you would live for a day of sun. And a day of really, really, hot sun was 31 degrees. And kill you dead you were in

Climate Control (cont'd)
Hon. Dr. L. Francis (cont'd)

2019.11.22

the hottest sun possible and it was really hot. Madam Speaker, 31 degrees is now a cool day in Trinidad. The average temperature in the shade as every Member here will know is now 34, 35 degrees and that is normal. Twenty years ago that would have been an anomaly. So one does not have to make an exaggerated case that the planet is warming and the climate is changing, citizens can see it.

Madam Speaker, when I was in school and doing geography we were taught something very simple in terms of the climate of countries like Trinidad and Tobago, that we had two seasons, a wet season and a dry season. If you live in this country now, that no longer exists. That is a remnant of the past. The fact that teachers are teaching that in geography is really history in geography they are teaching. Madam Speaker, that no longer exists. In Trinidad and Tobago today rain falls anytime, the sun shines anytime or worst the rain does not fall at all. And instead of one period of "Petit Carême" during the year, which used to be in September, which you could prepare for and predict it is now the case that you could have "Petit Carême" throughout the year.

Madam Speaker, right in front of our eyes and not my eyes as someone who is perhaps trained to observe, but right in front of the eyes of the average citizens, the typical person, this thing is happening. Madam Speaker, last week I was on the beach in Grand Chemin, well, two weeks ago on the beach in Grand Chemin. That is very close to the school I used to teach at. So, I taught literally maybe 200 metres from the coastline, literally. I would have lived three miles from there all of my life and the coastline I knew, Madam Speaker, in just my lifetime, I am 44 years old, place I would have visited as a child and basically spent all of my youth and much of my adult life around has changed so much that it is almost not recognizable.

UNREVISED

Climate Control (cont'd)
Hon. Dr. L. Francis (cont'd)

2019.11.22

Madam Speaker, I stood on the beach just two weeks ago after a CEPEP clean up and I looked at what used to be a headland. When I was a child and there was a bazaar or a harvest or something close to the Catholic church, which was the major church in the community, people would go and sit on top of that headland and they would basically be above the water because it is extended way out into the sea and they would go on top there and sit and picnic and fly kites and all of that.

3.25 p.m.

Madam Speaker, that headland no longer exists. It is gone entirely. It is just a small stack, and I would suggest that maybe in a few years that stack will be gone. Madam Speaker, there is another school that was the neighbouring school of my school, that used to be a few metres from the beach, or maybe 50 metres from the beach, it is now on the beach. Literally, I could predict, before I leave this planet, where that school is now, which is the Moruga RC School, will be in the water, and the church, that is one of the most historical sites in Moruga, will be gone. And, that coastline is eroding so quickly. Because if you come to Moruga it is really sandstone. It is not rock like you would find in the northern Caribbean islands where there are igneous islands where it is really volcanic rock. It is not even limestone like Tobago or Barbados. It is literally sandstone, so it provides absolutely no resistance to water generally, and then given the fact that we might have minute rise in terms of the sea level.

Madam Speaker, my friends have been making a joke that the map of Trinidad that we knew as a child no longer exists, and that joke is not a joke. It is true. What we know as Trinidad is now maybe art more than geographical reality, and this is what we are living with. Madam Speaker, it used to be in the Caribbean that a hurricane would be a Category 2, a Category 3, a rare, rare, rare thing would

Climate Control (cont'd)
Hon. Dr. L. Francis (cont'd)

2019.11.22

be a Category 4. A Category 5 hurricane used to be a generational thing, something you only heard about. Madam Speaker, I grew up with my grandparents telling me that in 1966 some hurricane hit Trinidad and that you could literally see miles. So you could stand in Basse Terre and you could see all the way to Marac, which I find fantastical, was probably greatly exaggerated, but, I am wondering, I am wondering, '63, well, long before my time, but thanks. Madam Speaker, I am wondering, and that does not affect us so far, not because of that "God is a Trini" nonsense we like to say in Trinidad, but because we have the good fortune of geography. We are very southerly.

But, Madam Speaker, given the fact that a Category 5 hurricane is now the norm. We have them coming back-to-back like maxis in the Caribbean, to the point where many of our northern Caribbean neighbours, we wonder at what kind of sustainable civilization they will have going forward, because before they can rebuild, another one hits, and there is absolutely nothing you can do about it. Madam Speaker, I have been alive long enough not to be moved by disasters. I was in Montserrat and the volcano exploded. It was not a major explosion, but it was enough for me to test the strength of my heart, and being close to an ash and cinder volcano is a very illuminating and thought-provoking thing, but at least I could jump on a boat and come back to Trinidad. Madam Speaker, I saw the pictures of Bahamas, and even after being told verbally of the kind of devastations, seeing those pictures, seeing that footage is absolutely mind-boggling. You have to wonder about the force of wind that could rip a wing of a plane and hurl it into a terminal, the kind of force required to do that. And, Madam Speaker, that would have been something that happened every 30 years, or every 40 years, a freak occurrence. Now it is something that we can literally sit down and predict year

UNREVISED

Climate Control (cont'd)
Hon. Dr. L. Francis (cont'd)

2019.11.22

after year.

Madam Speaker, it is one of the case here. Well, so far, fortunately it is not the case here. For it is the case in many places in the world that now, when a fire starts, it is almost impossible to put it out. Fires are burning in California as I speak right now, or Australia. It used to be that there were some parts of the world that had dry winds. If you go to places like Portugal, Spain, there are dry winds that come across the Sahara, one called the Feng, and if that comes, fire starts, but you could predict that. You knew when they would come and you just had the laws in place, no lighting of fires, and you really hope for the best. But those things were predictable, and you could deal with them in a sort of a coherent and an organized way. Madam Speaker, this is now the world we live on

And, Madam Speaker, we have as a species, not a nation, not a people, not a region, as a species to understand what we are facing. Climate change appears to be a very big thing, a very complicated thing. Well, actually it is a very, very simple thing. We live on a planet that we have affected in ways that are not to our benefit, and unless we start changing the way we operate, the circumstances that we created would make our lives not sustainable, and that is a frightening and sobering fact. To some it sounds like something so fantastical, it could not be real, so that there are people who would label themselves as educated, and logical, and thinking, who do not believe the science of climate change, and their political thinking, for want of a better term, determines the actions of some of the most powerful countries in the world, putting all of us in peril.

But, Madam Speaker, we may not be able to affect what the United States does, what China does, what India does to some extent. We may not be able to affect that. We do not have the power, or the clout, or the size, or the military

UNREVISED

Climate Control (cont'd)
Hon. Dr. L. Francis (cont'd)

2019.11.22

backing, or the financial backing, to influence the policies of these large countries. But what we can do as a society, not as a Government, not as a Parliament, as a society, as a people in this country, is ensure that we do not add to the problem. [*Desk thumping*] Madam Speaker, my mother had a simple philosophy in life that she has passed on to me, and the philosophy was: In life you will face problems, there will be problems, there will be large problems that she would not be able to solve, but the least you should do is not add to the problem. So, if you cannot be the solution, do not add to the size of the problem.

And, Madam Speaker, that would be a very wise philosophy for us to follow. We cannot affect the global situation, because if we are being realistic—Madam Speaker, if this country does everything it can do, and we are doing, we are not sitting pat on our hands doing nothing and saying, “Well, it is out of our hands.” We are not doing that. We are doing. But, if you understand the situation as it is, we need to be realistic. If this nation with its 1.4, or 1.3, or whatever the number is, when the census comes out we will know the accurate figure. If this nation does every single thing it can do to combat climate change on a global scale, and the larger nations that are really central to the problem do not amend their policies and do not act differently, the impact will be so small as to be irrelevant, negligible, but that does not mean that we do not do our part, for many reasons.

Madam Speaker, one of the things we have to start doing now, today, going forward, is we have to start building differently, and in this case and in this area, education is a very good place to look at. Madam Speaker, in the last iteration of the last Government, and perhaps even before, we started making the cardinal error of building schools that are not suited to our climate. So it is not the case that we have these very large schools—and I went to one this morning, it is a very nice

Climate Control (cont'd)
Hon. Dr. L. Francis (cont'd)

2019.11.22

school, it looks attractive, but looks and purpose are not always the same thing. We build these very large shoe boxes that are attractive. They look like schools that you would see in the United States. To me, they look like big factories, but that is another issue altogether. That is a different argument in terms of the efficacy of buildings and aesthetics and what role they play in education, but that is another discussion for another day. They build these very big boxes that literally have no purview to allow air to pass through and they have to be air-conditioned. Now, that presents a number of problems, when current goes, school done. So if current goes at half past nine in the morning, that is the end of school for the day. So, we build something that is tremendously expensive, something like 200 million per school, and then half past nine in the morning current goes, school done, they have no school.

Madam Speaker, even in the midst of crisis, even in the midst of an extinction level event potentiality, I still believe that there is room for opportunity, not just to preserve the climate, but also to do the kind of sustainable development that the Member for Caroni Central was hinting at. Madam Speaker, we have to start building differently. We have to build different schools. We have to build schools in a way that require them to use less power, that require them to use space more effectively, that require them to have more natural lighting, that let them use more solar power. Maybe there is purview for wind power, natural ventilation. Now, the planet is warmer, so the whole “you open the window and you have normal class” may not be the same or may not be as possible if the planet keeps heating. But, this is an opportunity for us to develop technologies, develop, Madam Speaker. In the midst of a crisis, there is always opportunity. Even in an extinction level crisis, there is always opportunity, and it allows us to do something

Climate Control (cont'd)
Hon. Dr. L. Francis (cont'd)

2019.11.22

different that maybe the Member did not really explain or get to, what we really need to do.

Madam Speaker, the Member talked about sustainable development and tied it inextricably to climate change, and that is good, but the sustainable development argument is a larger argument. Part of the reason why we are not sustainable, or we should not really, if we are really honest with ourselves, consider ourselves to be a sustainable economy, is because we are still sort of trapped in that who paradigm of selling raw materials overseas. We do not really do any research, or enough research. We do not do sufficient development. We have not yet moved beyond that hewer of wood and drawer of water category. We might be selling a better product, we might be selling a more lucrative product, but we are still trapped in the same paradigm that started off our history. It is just not sugar and tobacco anymore. It is oil and gas. We have not add enough value, or there is potential for us to add more value with our ingenuity. If the planet keeps getting hotter, keeps getting warmer, certain adaptations will be made if we have to. But I would suggest in countries like ours, there is great scope for research into air conditioning. Perhaps we could develop new technologies, we could develop new ways of doing it, we could develop better, cheaper forms of air conditioning. We may have to. But it must not just be that we are always going to be the people who import a product from somewhere else wholesale, resell it here and we add no value. Perhaps, in the midst of this crisis and dealing with it there is a potential for us to become the innovators that we could be. The innovators that we can be, to add some value, to create something, to basically create the kind of technologies that will allow us to have a sustainable society here in midst of whatever turmoil is happening.

UNREVISED

Climate Control (cont'd)
Hon. Dr. L. Francis (cont'd)

2019.11.22

Madam Speaker, it is a cliché, but even clichés have their uses. We need to reduce our carbon output, and we need to do that nationally. We need to do it in terms of our industries which are polluters by their very nature. But, in a broader sense, we need to do it as people, and that is every single citizen doing or practising the kind of kind of conservation, or the kind of understanding that allows us to reduce the negative impact on the planet. And, Madam Speaker, central to that is education that builds upon what people already see and understand, but we need to get our society to understand the importance of this thing, and in there is a cultural problem. Madam Speaker, it always annoys me, it continues to annoy me, it will always annoy me to drive behind somebody and to see them throw trash out the window. I am sure it annoys all of us here? And the most jarring part is the same citizen who will throw garbage out their window in this country, will go to America or Canada and say, “Oh, this place is lovely and clean. It is so nice. Why could Trinidad not be like that?” While they throw their garbage the bin there and then they will come back here, go and buy their KFC, take a drive, and revert to throwing it out the window. Madam Speaker, there is a particular culture in that, and if I was really going down that road, I could talk about slavery and contempt for environment born out of slavery, and having a contempt for your surrounding and us not growing beyond that as a people, “but we eh here for dat today.”

Ms. Olivierre: Enslavement.

Hon. Dr. L. Francis: Enslavement, sorry. Enslavement, not slavery. I could talk about that as disassociation of the mind that allows you to not respect your environment and see it as yours, “but we eh here for dat today”. So what I would say, Madam Speaker, we need to educate. We need to educate. [*Interruption*]

Climate Control (cont'd)
Hon. Dr. L. Francis (cont'd)

2019.11.22

Nah, they does get bored when I talk sense, so I want to keep it simple.

Hon. Member: No, talk sense.

Ms. Ramdial: We like your nonsense.

Hon. Dr. L. Francis: It is always good. Madam Speaker, so, we have a culture that is problematic. We have people who litter, and the fact that they litter means that they have contempt for their environment, and the fact of that means that getting them to understand that how important this environment is, is going to be a bit of a challenge. But also, given the fact that they are facing the differences in environment, there is an opportunity for us to reach the common, what we ridiculously sometimes call the common man and the common women. Madam Speaker, we have to educate them, because it is going to be a leap taking the KFC litterer to become the person who reduces the carbon footprint, but we have to do it. Because, Madam Speaker, many of us tend to be pessimist by nature. We are a very complaining country, very, very complaining country, but as a species, and I do not mean Trinidadians alone, I mean the whole world, we have tackled this kind of problem before. All of us here who were born before the '80s, lived during the '80s, remember we need to stop the hole in the ozone layer? Madam Speaker, I am sure you remember that?

Madam Speaker: "Eh mm."

Hon. Dr. L. Francis: That it was this hole in the ozone layer that was getting wider and wider. The ozone layer, of course, protects the planet from ultraviolet rays and other dangerous rays, and if we did not close that hole, it could have led to a previous extinction level event. And, Madam Speaker, as a species we got rid of the CFCs, we got rid of the dangerous chemicals that were exacerbating that situation, and whereas the hole is not entirely closed today, it is at a point where it

Climate Control (cont'd)
Hon. Dr. L. Francis (cont'd)

2019.11.22

is no longer a threat to life on planet earth. So, there is hope. and if we could educate the business people, not the citizens, you know, the business people, to understand that the things they put in their aerosols were dangerous to the planet, and they could understand it to the point where they were not just thinking profit, profit, profit, but they understood that saving the planet was, if you dug up a planet, you cannot make a profit, and they could make the adjustments, it means that we could educate everyone on the planet to understand this thing is serious and to deal with it.

Madam Speaker, I have seen a 16-year-old girl. She is 16, Thunberg is 16, sail across the Atlantic on a wind powered boat, to come to the United States and to make a point about climate change that was full of so much angst and so much anxiety and so much fear and so much emotion, that it was difficult for someone like me who tends to treat things a blasé sometimes not to be affected by it and not to see it through her eyes. Because, Madam Speaker, I am 44, I kinda old already, so I could simply say I “go” dead long before this thing happen. But to understand her paranoia as a young person who has to live her whole life with this threat, it kind of forced me to look at it through a very different lens.

So, Madam Speaker, if we are going to stand in this Parliament and talk about climate change, I am not coming here to have any argument with any Member about any minutiae, any minute details about what Government did not do, or what we are going to do, and we better than you on climate change, and you better than us on climate change, that is nonsense. That is absurd. That means we are treating something that should be of—we are treating with absolute gravity, with a sort of triteness and nonsense that is not deserving of any Parliament. Madam Speaker, as a species we have done very well to survive this far on this

Climate Control (cont'd)
Hon. Dr. L. Francis (cont'd)

2019.11.22

planet. We have modified the planet to suit our life—

Madam Speaker: Member for Moruga/Tableland, your original speaking time is now expired. You are entitled to 15 more minutes to wind up your contribution, so if you wish, you may proceed.

Hon. Dr. L. Francis: Madam Speaker, thank you. [*Desk thumping*] As a species we have done well on this planet. We have modified a harsh environment, to some extent. We have transformed it in our own way to make it amenable to us being here. On these very small islands where it was once thought there was no worth and no value, we have created value where none previously existed. And I have always said in this Parliament that Caribbean society was really meant to be a smash-and-grab thing. We were meant to produce sugar, and when it was done, we would just vanish. We are still here 500 years later, and even though the odds have always been stacked against us, we have always survived, and we have always found ways.

Madam Speaker, if there is any time in our history whereas a people we need to grow up. We need to mature. We need to stop fighting nonsensical fights on big issues. We could fight nonsense when it is nonsense time, and there is plenty time for that, but we need to come together collectively to deal with a big situation that affects all of us. Because, Madam Speaker, if the sea raises by 10 feet, it not going to ask, “Are you UNC or PNM, can I drown you?” It will drown all of us, and we will drown in our foolishness. If it is that as a people, as a collective, we could put our brains together and do the kind of thinking, do the kind of planning, do the kind of researching, maybe for once in our history not buy someone else’s technology, but create ours, then in our own small way, we will do our best to ensure that we do not add to the problem, and then we could hope that the larger

Climate Control (cont'd)
Hon. Dr. L. Francis (cont'd)

2019.11.22

countries elect politicians with brains in their heads that will make the decisions that would help to save all of us. And, Madam Speaker, if we do that, then as a species we have a chance, and then somebody else will not be looking at our bones in fossils and saying, "Ah, there were humans once here."

Madam Speaker, I thank you. [*Desk thumping*]

Mr. Ganga Singh (*Chaguanas West*): Thank you very much, Madam Speaker. Madam Speaker, I wish to congratulate my colleague, the hon. Member for Caroni Central, [*Desk thumping*] who is not only the author of the Motion, but also the author of a book on *Sustainable Development: Thinking it Through; Making it Happen*.

Madam Speaker, I rise to lend my support to this Motion, which reads as follows:

Whereas Climate Change is a matter of global concern which threatens all nations;

And whereas small island states and coastal states are especially susceptible to the impact of climate change;

And whereas the Caribbean region has, from time to time, experienced cycles of drought, heavy rain fall, hurricanes and floods;

And whereas earthquakes and other natural disasters must be anticipated and prepared for;

Be it resolved that this House agree that the Government develop a holistic and sustainable national response to climate change inclusive of solutions to the perennial flooding in Trinidad and Tobago and the effective management of drought conditions and the impact of such disasters on the quality of human life.

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

Madam Speaker, as I indicated, I want to express my heartfelt thanks to my colleague, the hon. Member for Caroni Central, for bringing this Motion. It is a very timely Motion in the context of what is happening globally, and I particularly liked the response of the Member for Moruga/Tableland, when he indicated that there is need for amity in this House in tackling such is a grave situation that this global phenomenon of climate change.

Madam Speaker, and I am particularly—I am interested in the lamentation of the Member about our culture, and we too share that point about littering, but littering has been with us since the Litter Act of the days of Kamaluddin Mohammed passing that as the Minister of Local Government, with the enforcement mechanism simply non-existent. The Member also spoke about a mechanism, spoke of the need for collective approach. I would like to find out, really, what is that mechanism? Is it going to be a joint select committee? It is going to be blue ribbon committee that would—and where is the leadership for that going to come from? Because we can speak and lament about the situation, and talk about the various correlation of events that are taking place from hurricanes to earthquakes, to fires, but we need to act locally while we acknowledge the global phenomenon that is taking place, and that therefore the mechanism for local action is absolutely necessary. Madam Speaker, I know my colleague, the Member for Moruga/Tableland, had a problem in what we said that we did during our period, but it is a matter of fact. It is not a matter of—

Dr. Francis: I do not have a problem.

Mr. G. Singh: Okay. Very well then, he says he does not. And I want to merely indicate that whilst I had the honour and privilege to be Minister of the Environment and Water Resources, we did certain things. For example, when the

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

Member spoke about the ozone layer and its depletion, we are members of the Montreal Protocol, and we had all the ozone depleting substances phased out. We placed a ban on all equipment using hydrofluorocarbons on January 01, 2015, introduced a quota system and phased out HCFC on January 01, 2013, and implemented a ban on the importation of methyl bromide to be used for fumigation, or any purpose other than quarantine and pre-shipment on January 01, 2015.

In the context of biodiversity, Madam Speaker, we took very public actions which are well-known, and which included a two-year moratorium on hunting, implemented in an effort to protect our wildlife population, a new wildlife policy, a transitional plan for the transformation of the Forestry Division into the new Forest and Protected Areas Management Authority, a programme of reforestation of the denuded state lands and forest reserves was implemented and started. Work began also on a national forestry inventory and forest cover map. Through the EMA, the Environmental Management Authority, we implemented the Nariva Swamp Restoration, Carbon Sequestration and Livelihood Project, which operates in the projects in communities of Biche, Cascadoux, Kernahan, and Plum Mitan.

Through the Institute of Marine Affairs, We instituted the Caribbean Coastal Monitoring Productivity Programme for the assessment of fishing communities; the monitoring of the coastal wetlands and sea grass beds of Trinidad and Tobago; mangrove monitoring; sea level monitoring; valuation of ecosystem services; investigation into bacteriological water quality at popular recreational water-use areas in Trinidad and Tobago; development of coastal vulnerable indices; development of satellite based indicators for marine ecosystem and management in Trinidad and Tobago; a coral reef early warning system on Speyside reef was also

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

installed to ensure coral reef monitoring; research on public awareness on marine invasive alien species—[*Interruption*]—and I reminded by my colleague, we dealt with the invasive species of the lionfish.

Through the MET services: An automated weather observing system; a new digital barometer at the forecast office; a weather pod at the forecast office; and a UV sensing system.

Madam Speaker, our climate change and environment policies went further to include, new initiatives with the coastal zone management in both Trinidad and Tobago, and a coral reef early warning system was installed at Buccoo Reef. Through solid waste management in February 2015 Cabinet approved the National Waste Recycling Policy which was developed by the Ministry of the Environment and Water Resources. Madam Speaker, and I can go on, with respect to the draft Waste Recycling Bill, which is the framework legislation for the establishment of the waste recycling management authority.

Madam Speaker, but we are faced with, cannot be dealt with in the context of only policy measures. Because we are faced with, really in the Caribbean, of which we are part, and in Caricom, an existential threat to the nature of our society, and to the existence of our communities. For example, Madam Speaker, in the period 2000 to 2017, there were about nine major disasters in the Caribbean. And those major disasters moved from about 33 per cent of GDP to 227 per cent of GDP. So that you have serious problems as to the existence of our small island developing states as a result of climate change.

3.55 p.m.

And, Madam Speaker, what is this concept of climate change? This concept of climate change, really, sometimes people—as my colleague, the Member for

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

Caroni Central spoke about it in the context of the weather. But it is clear, Madam Speaker, when you look at the learning worldwide, the unprecedented changes in climate are taking place. And if we continue on our present path, here and in other parts of the world, life on earth will be inextricably altered. The very sustainability of earth's life support system is now in question.

How did we arrive at this pivotal point in our history? Madam Speaker, the learning points us to indicate, for millennia, the earth's climate remain unchanged or with very little change. Early human beings thrived with the abundance of flora and fauna. They made their living and they domesticated animals for their own use. They had fire and they utilized the wood. They cooked their food with the wood, and in the northern hemisphere and cold climates they warmed their dwellings with wood. This wood was the product of photosynthesis, the removal of carbon dioxide from the atmosphere and its conversion into living organic matter. Burning the wood returned the same quantity of carbon dioxide to the atmosphere. In other words, human activities had little more than local impact.

Natural changes occurred in the earth's climate but they were gradual, occurring over tens of thousands of years, to millions of years. However, Madam Speaker, some 200 years ago things began to change. Modern medicine and improvements in technology led to a human population explosion, and at the same time, fossil fuels, coal, oil and gas became the energy source of choice, facilitating rapid industrialization and further fossil fuel consumption. Madam Speaker, it is scientifically acknowledged that fossil fuel burning over the last 150 years has increased the level of atmospheric carbon dioxide by 33 per cent. Carbon dioxide is a greenhouse gas that traps heat in the lower atmosphere, keeping our planet warm. Madam Speaker, it has been established that if we continue our heavy

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

dependence on fossil fuel, we will double the pre-industrial atmospheric carbon dioxide level in a few decades and perhaps triple it by the end of this century. As a consequence, by most estimates, the planet will warm to a level never experienced by human beings previously.

So it is clear that if we continue on our path, there will be consequences. So our welfare, as human beings, is inextricably linked to the health of the planet. Our health and survival depends upon a favourable climate for productive agriculture, supplies of fresh water, foist production fish. Climate change will impact upon the global economy and the local economy. So, Madam Speaker, this human-induced climate change is now a recognized phenomenon. The UN Framework Convention on Climate Change says this, and I quote:

“‘Climate change’ means a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.”

So what you have is that climate change, in the context of this warming, is directly related to human, and what is called anthropogenic activity. But what is protecting us and what has protected us, Madam Speaker? It is the earth’s atmosphere, and it is clear that it is the physics and the chemistry of the earth’s atmosphere that largely determines our climate.

So, Madam Speaker, when you look—if you were outside and you look up to the heavens, you would think that the earth’s atmosphere is really a huge reservoir capable of absorbing almost limitless quantities of our industrial emissions. The earth’s atmosphere is really a thin film. Indeed, it is said that if the earth’s atmosphere was shrunk to the size of a grapefruit—if the earth was shrunk

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

to the size of a grapefruit, the atmosphere would be thinner than the skin of a grapefruit. So you understand the context of scale.

And in order to appreciate the impact of greenhouse gases, in order to appreciate the impact of the warming that is taking place, we need to find out and to build awareness as to the composition of the earth's atmosphere. In the lower atmosphere, Madam Speaker, when you look up, from the surface to about 11 kilometres altitude, this is what is called the troposphere. The temperature decreases with altitude. So you would have learnt, hon. Member for Diego Martin North/East, that in the troposphere, that for every 300 feet rise in altitude, you have a degree drop in temperature. And, of course, for those who live in Lady Chancellor, they will have a further lower degree drop in temperature. So the higher you go in the troposphere, the colder it gets. That is elementary, and you learnt that in geography—all of us—at high school.

This troposphere, Madam Speaker, is where dense, cold air operates on the basis of a warm, less dense air. It is therefore unstable. So it is from zero surface to 11 kilometres, and that is why you have turbulence when you are in the aircraft at certain levels. You would be below that level, or within that level. But this troposphere contains 99 per cent of the earth's atmosphere—99 per cent.

The second element is called the stratosphere. That is from 15 to 50 kilometres upwards beyond the troposphere, where temperature increases now with altitude resulting in a stable upper atmosphere which accounts for 1 per cent of the atmospheric mass. So from 15 to 50 kilometres, the stratosphere temperature decreases with altitude. Above that you have the mesosphere and the thermosphere. They have no effect on climate change. I am laying the scientific basis in order for us to appreciate that when we do the kind of carbon dioxide

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

production, what impacts upon this atmosphere. So, Madam Speaker, as a result of burning coal, oil and gas and clearing forests, human beings have greatly changed the chemical composition of the thin atmospheric layers, and that is what is called the greenhouse effect. So when you change the composition, then you create, what is called, the greenhouse effect. Greenhouse effect is the warming of the earth's surface and the air above it. It is caused by gases in the air that trap energy from the sun. These heat-trapping gases are called greenhouse gases.

I will now deal with the gaseous combination of the atmosphere. Madam Speaker, the earth's atmosphere, by volume, is 78.9 per cent nitrogen; oxygen, 20.95 per cent and argon, 0.93 per cent. However, it is the rare trace gases, that is, carbon dioxide, methane, carbon monoxide, nitrogen oxide, chlorofluorocarbons and the ozone and water vapour with its high variable abundance, have the greatest effect on our climate. It is these gases that influence the radiation or net heat balance of the earth.

So it is carbon dioxide, carbon monoxide, carbon dioxide, water vapour, ozone, that impact upon climate change—and methane. Because when they tell you, Madam Speaker, change your diet so that you must eat less beef or less animal products, it is because of the methane production by the cowherds. So these are the elements. And carbon dioxide, the level of emissions in Point Lisas makes us one of the highest per capita producers of carbon dioxide.

We are not saying that—and that therefore there is, as my colleague, the Member for Moruga/Tableland indicated, there is need for collective action, but there is need for leadership in that collective action so that we could take that carbon dioxide production and find a way to sequester it and therefore lower our carbon production. And that is our contribution to the global phenomenon of

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

warming.

So, Madam Speaker, when we look at what is happening and we explain this context, we now move to what is happening locally. I think my colleague spoke out the National Climate Change Policy which is a good document which was brought into place in 2011 under the People's Partnership administration. [*Desk thumping*] That is a matter of fact. Madam Speaker, a most recent publication entitled *Vulnerability and Capacity Assessment Report, Trinidad & Tobago*, January 2019—Madam Speaker, I will seek your leave—because this is a scientific document under 4410 to read liberally for purposes of the debate. Madam Speaker, this is a document done in conjunction with the Ministry of Planning and Development and it is really a first-class document because it deals with what is happening in Trinidad and Tobago today with respect to climate change. It deals with the—it went through a process of observation and scientific analysis.

At page 2, Madam Speaker, it says.

“The figure below presents a summary of the General Circulation Models (GCM) and Regional Climate Models...outputs from the climate modelling work recently conducted for Trinidad and Tobago, outlining some of the possible changes that can be expected to key variables of the local climate:”

Air Temperature: an increase between 2.4 to 3.6 degrees centigrade.

Annual Rainfall: a drop in annual rainfall by some 22 to 30 per cent.

Monthly Rainfall: to minus 40 millimetres or an increase to 7 millimetres—these are the projections—

Sea Surface Temperature: to an increase of 0.9 degrees centigrade to 3.1 degrees centigrade.

Sea Level Rise: Between 75 to 126 centimetres.

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

Now, these are the projections of this study done in conjunction with the European Union, and they go on to indicate—and it is important we put this on the record.

“Sea level rise (SLR) of around 1.5 to 3 mm per year has been observed at tidal gauging stations around the Caribbean, although vertical land movements may sometimes exaggerate SLR. Model projections are currently very uncertain regarding future rates of sea level rise due to difficulties in predicting the melt rates of the Greenland and Antarctic ice sheets. IPCC projections range between 0.18 to 0.56 m by 2100 under emissions.

Storm surge heights will be increased by the underlying increases in sea-level. These increases are likely to be enhanced by any increases in hurricane and tropical storm intensity.”

So sea level rise; exposure, risk. Madam Speaker, next item on this study:

“Natural coastal and marine resources...

Coastal habitats are being threatened by both direct and indirect impacts. The former includes habitat loss or fragmentation, notably from land claim, land use change, mangrove harvest, as well as overfishing and destructive fishing, both of which can lead to major changes in ecosystem structure and function. Indirect impacts include many land-based activities that affect sediment, nutrient and pollutant levels in coastal waters.

Coastal ecosystems of Trinidad and Tobago are certainly vulnerable to the impacts of climate change. These impacts are expected to stem from rising temperature, decreased precipitation and sea level rise...”

Madam Speaker, and then they go on to deal with the extreme weather events like hurricane and so on.

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

“Agriculture and food security.”

But before I go on to agriculture and food security, you could recall last year, Madam Speaker, in Coromandel in Cedros in which there was a significant landslip. Five houses—the people had to be removed from that area, directly related to the changes in the sea level and also the undermining of the geography of that area. So it is happening. I think my colleague, the Member for Moruga/Tableland spoke of his own personal experience in Moruga/Tableland where he taught previously.

In the area of:

“Agriculture and food security...”

Projected climate change impacts are expected to negatively affect the agricultural sector nationwide, with anticipated more pronounced effects in the central to southern parts of Trinidad compared to other areas and Tobago. The vulnerability of agricultural systems and the continued reliance of Trinidad and Tobago on imports of staples such as wheat and maize coupled with the declines in domestic agriculture, is an important consideration for climate change planning.

It was determined that the highest risks from climate change are from sea level rise and storm surge with associated flooding and damage to fish landing sites and fisheries infrastructure.

The following communities were identified as those being most vulnerable to this risk:

- Salybia/Balandra.
- Blanchisseuse.
- Claxton Bay.

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

- Tobago – Charlotteville.
- Coastal and low-lying areas.”

And therefore there was need for intervention in that area.

Madam Speaker, “Water resources”—fresh water resources:

“There are 55 watersheds in Trinidad and 15 in Tobago. Largescale development of surface water has been limited to four rivers in Trinidad and Tobago. These are the Caroni and the Oropouche...in Trinidad’s Northern Basin; the Navet River in Trinidad’s Central Range; and the Hillsborough River in Tobago, which is the principal supply of Scarborough and southwest Tobago.

Projections suggest an increase in intense rainfall events over shorter periods that will result in lower surface water quality, reduction in the recharge of ground water as run off would be at a maximum; while increase in longer dry spells and drought events, coupled with warmer temperatures”—which— “would increase agricultural irrigation demands, affect crop scheduling, increased health impacts, coral bleaching and saline intrusion.

It was determined that the highest risks from climate change are from the variation in precipitation...resulting in more instances of water contamination as pollution control systems are not designed to deal with variations resulting in increased—pollution and sedimentation of water resources...The Technical Working Group determined that the following communities are at most vulnerable to this risk:

- Caroni River Basin (15 watersheds);
- South West Tobago.”

Madam Speaker, so when you recognize that there is a problem in this area, from

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

the statements of the Water and Sewerage Authority, the major reservoirs in Trinidad are below average, and we are in the month of November—almost finished—into December, and there is insufficient rainfall, then as any self-respecting administration you will need to put a contingency plan in place. The reservoir levels are so low that there should be alarm. But I get the impression, Madam Speaker, that the leaders of the Water and Sewerage Authority, they are praying for rain. That is their response. So the CEO, Mr. Poon King, went to tour the Hollis Reservoir and talked about its levels—22 per cent lower than ever. But they are praying for rain—praying for rain. And if rain does not come, what is the plan? What is the plan?

Cape Town, Madam Speaker, the capital of South Africa, went on a water rationing programme this July. The people were without water. My colleague, the Member for Moruga/Tableland, talked about in the crisis there is opportunity. So we are facing a crisis, but you do not wait until the crisis comes. Let us deal and put together a plan, inform the public now as to what is your plan for the dry season of 2020. Nothing is happening. There is only lamentation. The rain is falling in places otherwise than where it is in the catchment area.

Madam Speaker, in the World Bank Study entitled “High and Dry: Climate Change, Water and the Economy”—a World Bank publication—Madam Speaker, at page 1 of this Executive Summary of this study, it states:

“The impacts of climate change will be channeled primarily through the water cycle, with consequences that could be large and uneven across the globe. Water-related climate risks cascade through food, energy, urban, and environmental systems. Growing populations, rising incomes and expanding cities will converge upon a world where the demand for water rises

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

exponentially, while supply becomes more erratic and uncertain. If current water management policies persist, and climate models prove correct, water scarcity will proliferate to regions where it currently does not exist, and will greatly worsen in regions where water is already scarce. Simultaneously, rainfall is projected to become more variable and less predictable, while warmer seas will fuel more violent floods and storm surges. Climate change will increase water-related shocks on top of already demanding trends in water use. Reduced freshwater availability and competition from other uses, such as energy and agriculture—could reduce water availability in cities by as much as two thirds by 2050, compared to 2015 levels.”

Madam Speaker, we do not have to wait for 2050 to see the reduction in levels and the variability of the water. It is happening to us in 2019 into 2020. And then they speak about, in this same article, Madam Speaker, that economic growth is impacted upon, and they indicate:

“Economic growth is a surprisingly thirsty business. Water is a vital factor of production, so diminishing water supplies can translate into slower growth that cloud economic prospects. Some regions could see their growth rates decline by as much as 6 percent of GDP by 2050...”

Madam Speaker: Hon. Member for Chaguanas West, your original speaking time is now spent. You have 15 more minutes to wind up your contribution. Might I ask if you are likely to go beyond 4.30?

Mr. G. Singh: I want to complete, if you wish—

Madam Speaker: Okay. So can I ask Members, it will take him just beyond the 4.30, is there agreement that we will sit at—[Assent indicated] Please proceed.

Mr. G. Singh: Thank you, Members and thank you for your—thank you very

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

much, Madam Speaker. So managing water, Madam Speaker, is an important point. Climate change coupled with human population growth and increasing water demand will create more challenges for managing water for beneficial human use. Managing water for human use has always been a challenging and expensive activity. Humans will need to adapt to increased flooding in some areas and increased drought in others.

But, Madam Speaker, just for purposes of our own indication here in Trinidad, the water managers— and I quote from *Climate Change: Causes, Effects, and Solutions* by John T. Hardy:

“Summary of recommendations for Water Managers from the American Water Works Association Public Advisory Committee.

- While water-management systems are often flexible, adaptation to new hydrologic conditions may come at a substantial economic costs. Water agencies should begin now to reexamine engineering design assumptions, operations rules, system optimization, and contingency planning for existing and planned water-management systems under a wider range of climatic conditions that traditionally used.
- Water agencies and providers should explore the vulnerability of both structural and nonstructural water systems to plausible future climate changes, not just past climatic variability.
- Governments at all levels should reevaluate legal, technical, and economic approaches to managing water resources in the light of possible climate changes.
- Water agencies should cooperate with leading scientific organization to facilitate the exchange of information on the state-of-the-art

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

thinking about climate change and its impact on water resources.”

Madam Speaker, nothing like that is happening in Trinidad. What the Water and Sewerage Authority is currently doing is praying for rain. They have become evangelical in their quest for rain.

“Human health”—and I go back to the *Vulnerability and Capacity Assessment Report*, “Human health”, and they speak about Chickungunya and Zika and the increase in that. What is the response of the Insect Vector Control of the Ministry of Health? They are very reactive, never proactive. Only when you have a Chickungunya or Zika taking place, they spray around the place. Now there has to be greater investment in that sector and therefore a much more proactive and leadership approach, and training that is necessary in that area. And they point out to the various areas that are vulnerable:

“Tunapuna-Piarco.

Penal Debe.

Couva Tabaquite Talparo.

Siparia.

Port-of-Spain.

Diego Martin.

Sangre Grande.

Tobago.”

Madam Speaker, and then they deal with the impacts on the financial areas. But, Madam Speaker, what is the world doing? How are they taking an approach to what is our really existentialist reality? They are taking an approach—and if I were to use the OECD and their most recent report: *Accelerating Climate Change, Refocusing Policies through a Well-being Lens* they are taking a different

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

approach. They are saying that now you need to have a different paradigm, that the approach to GDP—I think my colleague spoke about it, the hon. Member for Moruga/Tableland. He says that you need to take a different approach, that you cannot rape the environment and have production. They are saying you have to take a well-being approach and look through climate change and mitigation action and abatement action through the lens of well-being of the people.

Madam Speaker, at page 19 of this report, Accelerating Climate Action - Refocusing Policies through a Well-being Lens, they look at heavy industry, they look at residential communities, they look at transport and they look at agriculture. Those are the areas that they look at and they focus on, because they are saying, worldwide and globally, 60 per cent of the greenhouse gases are created by these four or five areas.

And this is a woman I admire enormously, Madam Speaker, in the way she dealt with the terrorist matter. Her name is—the Prime Minister of New Zealand—Jacinda Ardern, who argued at World Economic Forum that well-being should be the metric used to gauge societal progress instead of GDP.

4.25 p.m.

On 30 May, 2019, New Zealand launched its well-being budget, explicitly contrasting this new approach with traditional measures of succession such as GDP. The budget required new governmental spending to be directed towards five social goals: mental health, improving child well-being, supporting the aspirations of indigenous people, building a productive nation, and transforming the economy including climate change mitigation. All new spending will be assessed against 61 indicators to measure well-being. The approach aims to foster cross-government cooperation to achieve these goals, while addressing fiscal sustainability,

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

infrastructure investment, and support for the economy. So while we speak in this island of a whole approach to Government, what you have there is really an integrated approach to governance and action on climate change.

Madam Speaker, look, what we are faced with is really a real threat, and what we are doing we are tinkering all through—tinkering—and nobody is willing to take on big business in Trinidad, for example, the beverage container. I know that it floundered because of the intervention of big business, and I was the Leader of Government Business. I know that it has been stymied, but we look forward to it coming forward. So we are all in this together, Madam Speaker, and that, therefore, we must appreciate that climate change is something that is enveloping all of us, and it targets all of us, and that we must all share in that responsibility so we do not all share in the suffering.

Greta Thunberg, a young lady, you have to admire her, look at what—she galvanized youth activism in this area. And whilst I looked at her and watched her operate and saw the energy, because there is a real fear amongst young people that the society that they will inherit will not be a society that they can have a sustainable future.

“In his 2015 speech, the Governor of the Bank of England, Mark Carney, famously highlighted a key challenge facing climate action, the ‘tragedy of the horizon’, in which ‘the catastrophic impacts of climate change will be felt beyond the traditional horizons of most actors—imposing a cost on future generations that the current generation has no direct incentive to fix’.” So you are replacing the stack that there is no immediate incentive to fix. It requires leadership involvement. So it requires some kind of collective action on our part. It requires a leadership—why is there not a joint select committee

Climate Control (cont'd)
Mr. Singh (cont'd)

2019.11.22

appointed to deal with action to deal with climate change in Trinidad and Tobago; or some blue ribbon committee to deal with it in order that we bring to bear the learning that is available, in order to bring to bear the fact of the matter that there is need for resolve and there is need for action in this area? But we have been to a large extent running round the mulberry bush.

Madam Speaker, as I conclude, I want to thank my colleague, the hon. Member for Caroni Central, for bringing this Motion [*Desk thumping*], but it is time we take action and there is need—There are a few matters in which all our minds meet together and this is one action that there is a meeting of the minds, but there is need for a mechanism and I suggest a committee or a joint select committee of the Government and the Opposition, and business, to deal with this matter. I thank you very much, Madam Speaker. [*Desk thumping*]

Madam Speaker: Hon. Members, it is now 4.29.38, so it is a convenient time. So I suggest we now take the suspension. We shall resume at 5.00 p.m.

4.29 p.m.: *Sitting suspended.*

5.00 p.m.: *Sitting resumed.*

[MR. DEPUTY SPEAKER *in the Chair*]

Mr. Deputy Speaker: As we resume after tea, I will recognize the Member for La Brea.

The Parliamentary Secretary in the Ministry of Energy and Energy Industries (Ms. Nicole Olivierre): Thank you, Mr. Deputy Speaker, for giving me the opportunity to speak on this Motion entitled—well, I will just break it down.

“Be it resolved that this House agree that the Government develop a holistic and sustainable national response to climate change inclusive of solutions to the perennial flooding in Trinidad and Tobago and the effective management

Climate Control (cont'd)
Ms. Olivierre (cont'd)

2019.11.22

of drought conditions and the impact of such disasters on the quality of human life.”

Mr. Deputy Speaker, firstly, I want to thank the Member for Caroni Central for bringing this Motion today. I really have to acknowledge his advocacy for climate change on the environment. In all my knowledge of his political career, he has been consistently advocating for sustainable development and the environment. So I really have to commend him for his persistence. It is a pity he is not at his seat because I would like to reassure him that, be not afraid, as long as there is a PNM Government in Trinidad and Tobago you all can rest assured that the environment is in good hands. [*Desk thumping*]

This Government is committed to the fight against climate change and ensuring a sustainable future for all our citizens. Yes, we know we are an oil and gas-based economy, but we have been working assiduously over the years to reduce our carbon footprint and being mindful of the impact that industry has on the environment because after the people, the environment is our most valuable resource. Member for Caroni Central, when he served as Minister of Planning and Sustainable Development, would have caused the development of a national climate change policy under that Ministry which addresses policy implementation and integration as well as mitigation and adaptation actions. So when the Member asked via this Motion for the Government to develop a holistic and sustainable national response to climate change, I can stand here confidentially and clearly state that, yes, Mr. Deputy Speaker, we are getting it done. [*Desk thumping*] You see, the national response to climate change is in our *Vision 2030* document of the five themes—Theme V—the five thematic areas. Theme V speaks to “Placing the Environment at the Centre of Social and Economic Development”, and this speaks

Climate Control (cont'd)
Ms. Olivierre (cont'd)

2019.11.22

directly to climate change and national resources management.

So perhaps he did not really study the *Vision 2030* update of projects that was submitted with the budget documents before making this Motion, but I will give him some time for him to go over that document so he can see exactly where we are making an impact in climate change. One of the long-term goals set out in Theme V is “Citizens are more environmentally aware”. Now, this goal is directly in alignment with an initiative that Trinidad and Tobago is embarking on with Caricom through the Ministry of Energy and Energy Industries. It is part of the mandate of something called Caricom Energy Month which is observed throughout the region, and quite coincidentally November is in fact Caricom Energy Month. So Caricom Energy Month, which is in its fourth year this year, is a seminal event on the calendar of energy stakeholders including academia, policymakers, with private sector, youth, and our developmental partners.

Caricom Energy Month is intended to engage a wide cross-section of society and stakeholders to ensure that individuals and organizations understand the impacts of and take action to respond to critical energy issues that result from the impacts of climate change; looking at the impact of disasters on the quality of human life; maintaining access to energy in the aftermath of a disaster is critical. Many of us would know how difficult it is in the aftermath of a disaster, when you lose power you feel as though you cannot function. It is as though you have lost all energy. So maintaining that access to energy in the aftermath of a disaster is an important part of looking at the quality of human life.

Other speakers, Chaguanas West would have indicated, as well as Moruga/Tableland, to look at the backdrop of the hurricanes that we had that hit the Caribbean in 2017—those devastating hurricanes—that caused extensive

Climate Control (cont'd)
Ms. Olivierre (cont'd)

2019.11.22

damage to electricity grids and disrupted networks, telecommunication networks, and other critical infrastructure. So coming out of those disasters in 2017, Caricom Energy Month in 2018 focused on building awareness on the climate and disaster resilience within the energy sector. For 2019, the focus for Caricom Energy Month is “Empowering People, Building Resilience”, and this is being done in Trinidad and Tobago through an art and video competition targeted at primary and secondary school students. So we are educating the next generation. So, Mr. Deputy Speaker, we are getting it done. [*Desk thumping*]

The focus of Caricom Energy Month 2019 throughout the region is focused on:

- “i.” highlighting—“...the opportunities that renewable energy can provide to residents and businesses;
- ii.” Increasing—“...the understanding of energy issues of the Region and the many solutions to achieve a transformation in the sustainable energy sector;
- iii. To educate the public and other identified target groups on the opportunities and risks to the energy sector as it relates to climate resilience;” and
- “iv. To improve collaboration amongst Regional stakeholders to strengthen efforts to address energy and climate resilience issues.”

In Trinidad and Tobago we have taken the action of taking that knowledge and that education to the next generation through our school system, and there are other ongoing initiatives that speak to preparing communities to become more resilient.

There is the CORE Programme under the ODPM—CORE standing for Communities Organized and Ready for Emergencies. Under this programme,

Climate Control (cont'd)
Ms. Olivierre (cont'd)

2019.11.22

communities are trained in a wide range of topics including information on measures to adopt before, during, and after the impacts of a natural disaster, and this initiative is in keeping with the key element of the ODPM's mission to implement proactive measures to mitigate the impact of hazards that threaten the people of Trinidad and Tobago. So this is another example, Mr. Deputy Speaker, of this Government where we are getting it done. [*Desk thumping*]

In the Ministry of Energy and Energy Industries we also have control over the National Oil Spill Contingency Plan. This plan delineates responsibilities for the operational response to significant oil spill incidents which can arise from adverse weather conditions which are happening more and more frequently with increase in severity. Now, this plan ensures a quick response to minimize or prevent damage to the land and marine environment. Mr. Deputy Speaker, this is just another example of this Government when I say we are getting it done. [*Desk thumping*]

All of these measures, and some of the measures that would have been indicated by Moruga/Tableland and other speakers, these measures speak to managing the impact of climate change, but we are an oil and gas economy and we cannot ignore our role in contributing to climate change. Member for Chaguanas West would have gone into great details to outline what climate change is. He spoke about greenhouse gas emissions, and he went at great length to outline the role that Trinidad and Tobago plays as the emitter of carbon dioxide. So yes, we emit 57 million metric tons of CO₂ equivalence annually.

On a per capita basis we are in the top two emitters per capita, but not in absolute value. So let us not confuse the per capita number with the total impact that we have on the global climate. But given that our per capita statistics are so

Climate Control (cont'd)
Ms. Olivierre (cont'd)

2019.11.22

high, it is imperative that we aim to reduce our greenhouse gas emissions notably from energy production, industry, and transport, as this is critical if we are to mitigate climate change and meet the target set out in the Paris Agreement to meet our very own nationally determined contributions which we committed that we would meet. Our targets: 10 per cent renewable energy by 2021, 15 per cent reduction in national emissions by 2030.

Now, one strategy in achieving this reduction in carbon emissions is the utilization of clean sources of energy and the promotion of renewable energy and energy efficiency throughout the country. So the Ministry of Energy and Energy Industries, we have been speaking—this Government has been speaking about our efforts at maintaining these targets, and the Ministry earlier this year would have put out an RFP for renewable energy power generation projects. We recently had a bid opening where we received 11 proposals that combined, offer a total of 130 megawatts of renewable energy by wind and/or solar PV, and the basis of the proposals were on a build-own-operate basis. Now, these bids are currently under evaluation and an announcement will be forthcoming.

Now, this project has been on the drawing board for some time. We would have spoken about it in successive years at the annual budget debates, but, Mr. Deputy Speaker, I can say conclusively this time that we will be making an announcement on who will be given the opportunities to partner with us in providing renewable energy. So again, Mr. Deputy Speaker, this is another example of we are getting it done. [*Desk thumping*]

Another project that has been on the drawing board for an even longer time is the waste-to-energy. Members for Caroni Central and Chaguanas West would have spoken about the initial work that they did in looking at our waste policy, and

Climate Control (cont'd)
Ms. Olivierre (cont'd)

2019.11.22

the concept of going into waste energy generation would have come out from the previous administration. I am pleased to say that we did go out initially with an expression of interest where we got numerous responses from many companies internationally with local partners, who were interested in developing waste to energy plants in Trinidad and Tobago. We have evaluated those expressions of interest and then invited all the players to submit bids in the RFP. I am pleased to say that when the RFP closed in August, we did in fact receive two bids which are currently being reviewed. So, yes, Members opposite started the idea when they were in Government, but again, Mr. Deputy Speaker, this is another project that I can clearly say we are getting it done. [*Desk thumping*]

There are other avenues that we are working on with our energy companies. So our major players in the energy sector are also our major emitters, and we are working with them and looking at the future transformation of our energy sector into a low-carbon energy future. The trend towards energy generation in the future could very well go into moving from carbon sources and moving into a hydrogen economy. So we are starting to do the early work in how we can transition the Trinidad and Tobago energy economy into a hydrogen economy. We already have facilities that could easily allow us to transition because ammonia is a medium for transporting hydrogen. So we anticipate a future where ammonia would no longer be primarily for fertilizer and agricultural base, but really an energy source as a source of hydrogen for power generation.

Now, we are exploring avenues in energy efficiency that are more than just changing light bulbs and turning off lights. We have to look at the way we work, our behaviours, and there are tremendous savings that can be obtained from just managing the way we operate. Cabinet recently developed an interministerial

Climate Control (cont'd)
Ms. Olivierre (cont'd)

2019.11.22

multidisciplinary energy efficiency committee led by the Ministry of Public Utilities with representations from the Ministry of Energy and Energy Industries, the Energy Chamber, NGC, Ministry of Planning and Development, and other major energy stakeholders, and they are working at coming up with our energy efficiency policy. The document has already been drafted. It is currently being reviewed by Cabinet, and when it is finalized this committee would then work out because the document also has an implementation plan. So we are moving from just policy and thoughts into an actual implementation plan whereby we will start moving ahead with significant energy efficiency projects being implemented.

Now, there are many ways in which energy companies—well, the oil and gas sector—can obtain greater efficiencies, and also in looking at reducing our greenhouse gas emissions. So, with some of our major E&P companies, we are looking at applications whereby we can reduce emissions of carbon compounds. We are looking at some platform modifications where it is possible we can rearrange how the platforms are designed, so that in cases where there is venting of methane you can probably replace that with flaring of the methane to carbon dioxide. Now, although carbon dioxide is the main culprit in greenhouse gas emission, methane molecules are 40 times more potent to greenhouse gas than carbon dioxide, and they are applications, there are situations in the natural gas industry where methane is vented into the atmosphere, and we have been working with all the gas companies to ensure that we minimize venting of methane as much as possible.

So options to minimize methane venting would include replacing the vent with a flare. So converting the methane into carbon dioxide significantly reduces the greenhouse gas potential of the gas that is emitted, and there are certain

Climate Control (cont'd)
Ms. Olivierre (cont'd)

2019.11.22

applications now—well, in pipeline operations when pigging operations are done there are sometimes venting of methane. So we are working with the National Gas Company in having portable flare devices that can be taken on location so we can burn that gas rather have it venting. So all these things we are working at are reducing our total CO₂ emissions in keeping with our obligations under the Paris Accord.

There are significant deficiencies that we can gain in power generation. There is co-generation technologies implementing steam or hydrogen, or at the basic combined cycle gas turbine power generation which would increase the output without additional carbon emissions, and I will have to—a good example of that would be the TGU power plant, in my constituency of La Brea, which has the highest efficiency of all the power plants within the country. So through these initiatives, I can clearly say that when it comes to tangible attempts at reducing our greenhouse gas emissions, Mr. Deputy Speaker, we are getting it done. [*Desk thumping*]

In looking at efficiencies in the transportation sector, in his budget presentation, the Minister of Finance would have spoken at length about the incentives we have for electric vehicles, for CNG vehicles, however, there are other initiatives that can be taken in place in the transportation sector in reducing emissions. When you look at the energy companies in their transportation needs for logistics in doing their operations, they can make decisions around choice of mode of transport, whether to use helicopters to access offshore platforms, or you use seagoing vessels, and when you use seagoing vessels, I mean, what fuel these seagoing vessels use. So if you are replacing the fuelled seagoing vessels from diesel fuel to cleaner burning fuels like LNG powered ships rather than diesel,

Climate Control (cont'd)
Ms. Olivierre (cont'd)

2019.11.22

these are clear actions in reducing our carbon emissions. So the mere fact that we are having these discussions with our partners in managing the logistics of their transportation to reduce their carbon emission, this shows, Mr. Deputy Speaker, another example that we are getting it done. [*Desk thumping*]

When you look at the large number of ships that call on our ports, now, many of these vessels are diesel vessels and when they come to shore they have to continue running, and these vessels have their own generation which would use their main fuel in most cases, diesel. But the provision of shore-based power to these vessels would reduce their consumption of diesel and thus reduce their emissions while they are berthed at our ports. So these are some of the initiatives that our main energy exporting companies are considering for providing shore-based power to the vessels that come to load product so that they will no longer have to burn their fuel that emits high carbon because all these emissions add up. When you look at the amount of vessels come to Point Lisas, come to Point Fortin, and the length of time they spend alongside, those emissions could add up. So by providing shore-based power we would eliminate that amount of emissions. So all these little initiatives, they all add up and, again, this is another example where, as a Government, we are working to get things done.

Madam Speaker, as a Government—sorry, Mr. Deputy Speaker. I apologize. Mr. Deputy Speaker, as a Government, we can implement any number of initiatives. We can come up with any number of policies, we can write and launch any number of books on sustainable development that we want, but the key requirement to our success in mitigating climate change is the minds of our people. Our behaviour is the rate determining step to determine our success at climate change mitigation. So our task, Mr. Deputy Speaker, as a Parliament, is to educate

Climate Control (cont'd)
Ms. Olivierre (cont'd)

2019.11.22

our people. And I wish to thank the Member for Caroni Central—now that he is here I can say it to your face. I want to thank you for bringing this Motion so we can have this discussion in Parliament because our people are watching. And I also have to thank the Member for Chaguanas West, again, because he went into great lengths to inform all our constituents, who are watching, on the theory on everything about climate change. So they understand now. So if they happened not to have known, they got a nice refresher course in what is climate change, what is a greenhouse gas, how the greenhouse effect takes place, and he went at length and explained the impact of the melting of the Greenland ice sheet. Well, I am not sure if that was Caroni Central or Chaguanas West—

Dr. Tewarie: Both of us mentioned it.

Ms. N. Olivierre:—and Moruga/Tableland as well. So persons—I mean, bringing this Motion here and giving us an opportunity to have this discussion on climate change was a good refresher for our people because it is our people who need to take action. So this really is a chance of us, as responsible parliamentarians, to let our population know that they have the single most critical role to play.

Mitigating climate change involves change of behaviour. We have to change our actions, we have to change our attitude towards energy consumption. Member for Chaguanas West spoke at length about water, water availability. I know he has a passion for water. I mean, being the Minister of Water Resources, every time he gets up to speak he talks about water. I understand that, but one of the areas that we have not placed enough emphasis and mention on, apart from water conservation, is a simple act of rainwater harvesting. Yes, he mentioned that he seems to think that WASA is currently praying for rain, but when rain does fall and we do have excessive amounts of rainfall, it pains me to see large buildings

with extensive guttering systems that direct that runoff water into the ground because as it goes into the ground for WASA to subsequently extract it from the ground and pipe back into your homes.

5.25 p.m.

That is extremely inefficient because it takes energy for WASA to get that water back to your homes. It takes all the infrastructure. So rainwater harvesting is something that we need to consider alongside with water conservation but when persons start doing rainwater harvesting, they will understand, they would appreciate even better the impact of all their daily activities on how you use water. So when we talk about water conservation, we should also include rainwater harvesting. But as I was saying, our residents, the people of Trinidad and Tobago, they are the ones that are the determinant in our success at mitigating climate change.

Now, in the residential sector, there are numerous initiatives, there are numerous actions that people, homeowners, everyone, residents can take to help us attain our Paris Accord commitments and mitigate climate change. Not just to change out to more efficient LED lightbulbs which would use less energy but we also want to look at the type of air-conditioning units that we have. So yes, the Member for Moruga/Tableland would have mentioned that the average temperature outside has significantly increased. Our maximum temperatures in Trinidad and Tobago have increased significantly. A day is easily 34 degrees outside and climbing. Our new normal minimum temperature seems to also be on the increase. So with that increasing heat, more and more homeowners are seeking to install air-conditioning units into their homes because some time aback, we moved away from the old colonial-style buildings where there were ventilation

Climate Control (cont'd)
Ms. Olivierre (cont'd)

2019.11.22

blocks built into your structure and we start closing up our homes and that prevents the influx of natural ventilation. [*Interruption*] Crime, crime. [*Laughter*]

So, with that reduction in natural ventilation entering our homes, the heat gets into our homes and the concrete maintains that heat so our homes are hotter, so more and more persons are installing air-conditioning units. But in deciding which air-conditioning unit to buy, I mean, there are various types but if we start thinking in terms of energy conservation, we would look at the inverter-type AC units which use less power. So that is another decision that homeowners can make in determining how to air-condition their homes. Builders in designing homes, we need to at least have provisions for higher level—some ventilation systems so that air can pass through your homes to reduce the requirement for air-conditioning. Not only as energy-saving implications but it has economic implications as well. [*Interruption*] Yes, well, I spoke about the LED bulb.

So people, the 1.3 or 1.4 million people that we have, I mean this is your responsibility. We sit here in Parliament and we would talk about it and we would enact the laws and put the incentives to encourage persons to be more responsible but it is the individual citizen who will determine Trinidad and Tobago's success in reducing our greenhouse gas emissions and our success in sustainable development.

Water heaters, many of us have electric water heaters but if we look at islands like Barbados where solar water heating is the norm. I mean, if we start incorporating some of that, we would be reducing our energy consumption. We would be significantly reducing our energy consumption, we would be significantly reducing our electricity bill. And while we are on the topic of electricity bill, I mean, sometimes it may be that more than just peer pressure, we

Climate Control (cont'd)
Ms. Olivierre (cont'd)

2019.11.22

may need economic incentives to encourage persons to be more responsible but I will leave that for the Minister of Finance to discuss on another day.

So, Mr. Deputy Speaker, I want to say that for Trinidad and Tobago to be sustainable, our people have to want this. It is all of us. It is we Trinidad and Tobago; it is we the Members of the Government; it is we the Members of the Opposition; it is we the citizens who have to collectively act to get this done. Mr. Deputy Speaker, we all have to work towards getting this done.

And with those few words, Mr. Deputy Speaker, I thank you. [*Desk thumping*]

[*Mrs. Robinson-Regis stands*]

Mr. Deputy Speaker: Leader of the House, you are on your legs, right?

Mrs. Robinson-Regis: I am, Sir. [*Laughter and crosstalk*]

Mr. Deputy Speaker: All right. I just needed to be sure because I was looking at Caroni Central. I recognize the Member for Arouca/Maloney.

Mrs. Robinson-Regis: “Doh recognize me, Sir. Doh recognize me.”

Mr. Deputy Speaker: Leader of the House.

ADJOURNMENT

The Minister of Planning and Development (Hon. Camille Robinson-Regis): Thank you very much. Thank you. Mr. Deputy Speaker, I beg to move that this House do now adjourn to Wednesday the 27th day of November at 1.30 p.m. At that time we will do the Bail (Amdt.) (No. 2) Bill, 2019.

Question put and agreed to.

House adjourned accordingly.

Adjourned at 5.31 p.m.