



Report: Workshop “Results establishment of a baseline for the fuel economy of light duty vehicles”

Organized by: CEGESTI, with the support of UN Environment, Centro Mario Molina Chile and the Ministry of Energy, Science, Technology and Public Utilities.

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Content



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1. INTRODUCTION

Under the framework of the project Cleaner and More Efficient Fuels and Vehicles of the Global Fuel Economy Initiative (GFEI), and as a follow-up to the project's opening workshop held on November 14 and 15, 2016, the workshop of Results of Establishing a Baseline for the Fuel Economy of Light Vehicles in Belize was held. This workshop was held on Monday, February 12, 2018 with the support of UN Environment, Centro Mario Molina Chile, CEGESTI, and the Ministry of Energy, Science, Technology & Public Utilities. The study was conducted by CEGESTI, and was held in the agricultural building conference room. This workshop was attended by 22 people from different institutions, such as Sol Belize Limited, Customs & Exercise Department, BCCI, Bravo Motors, BELTRAIDE, National Climate Change Office, Caribbean Motors, DPPD/EDC OPM, BEC, BBS Press Office, UCU, DOE, Energy Unit, Motor Solutions Ltd, UNDP, Ministry of Finance and MED

Objectives:

- Increase awareness of fuel economy, share best practices and support the development of appropriate national fuel economy policies
- Present the results of the baseline of carbon dioxide emissions and fuel efficiency for vehicles registered in Belize from the years 2013 to 2016, in order to promote the fuel economy for improvements in CO₂ emissions and other gases.
- Present projection scenarios to the year 2030 with the implementation of fuel economy policies in Belize.
- Provide recommendations to national authorities and other key stakeholders in relation to the results obtained from the baseline study.
- Identify together with the participants the steps to follow in Belize to improve the performance of vehicles.
- Identify future activities to work in Belize, together with involved institutions.

Resultados esperados

- Publicize the current situation in relation to carbon dioxide emissions and fuel efficiency of vehicles registered in Belize from the years 2013 to 2016 and their status in relation to other countries in the region and the world .
- Support in the adoption of cleaner and more efficient fuel and vehicle policies that contribute to improving air quality and reducing emissions from climate change.
- Identification of steps to follow in Belize to move towards a more efficient vehicle fleet.
- Identification of future activities to work in Belize, together with involved institutions.

2. OPENING OF THE EVENT

The workshop was opened by Ryan Cobb, Director of Energy Unit of the Ministry of Energy, Science, Technology and Public Utilities. The Director welcomed all the participants and thanked them for being able to count on their presence during the event. Ryann made a brief description of the project and presented the partners responsible for its preparation.

3. PRESENTATIONS

On behalf of UN Environment, Tatiana Romero, presented "Fuels and More Efficient Vehicles" in which she indicated the general objective, goals and function of the Air Quality and Mobility Unit of UN Environment in reducing emissions from the transport sector, as well as the progress in Latin America and the Caribbean in relation to this issue. Tatiana then introduced the existing mobility initiatives in UN Environment, focusing on



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the Global Fuel Saving Initiative (GFEI). In relation to the GFEI initiative, its importance in relation to climate change, air quality, and economic savings was emphasized. Going deeper into this initiative was mentioned the goal of improving the fuel economy in half in the global fleet of vehicles by 2050, the partners and specifically the objectives, products and results of the Cleaner and Efficient Fuels and Vehicles project. The current state of Belize was mentioned in terms of fuel quality, vehicle emission standards, refineries and used vehicle standards. She also mentioned the objective of the Cleaner and Efficient Fuels and Vehicles project for the country and the products and expected results.

On behalf of the Mario Molina Chile Center, Marcela Castillo, presented on "Regional and International Trends and Experiences". She reiterated the contribution of the transport sector to the total emissions of carbon dioxide globally, and specifically the emissions of road vehicles (light and heavy vehicles); focusing on the trends of the fleet of light vehicles in countries of Latin America and the Caribbean and how it is expected to triple by 2050. The GFEI was then discussed as a complement to what Tatiana explained, technically deepening fuel economy and its application, as well as the 50x50 campaign. Finally, Chile's experience in efficiency and emissions policies was exposed.

Ishmael Quirós, from the Department of Public- Private Dialogue made a presentation on "CNTMP Overview & Policy Recommendations: Energy Efficiency in the Transport Sector". The objectives of the project, demand modeling and forecasts, transport supply scenarios and evaluation were mentioned. Emphasis was placed on GHG emissions and energy efficiency and the strategy and policy guidelines. The short, medium and long term action plan for roads, public transport, ports and maritime, airports and aviation logistics and trade facilitation and environmental and energy were mentioned in detail.

Natalia Bonilla of CEGESTI exposed the baseline methodology of GFEI. In relation to the GFEI methodology, its objective was mentioned, general principles, minimum information required, steps for the establishment of the baseline and sources of information on the emission factor.

Natalia Bonilla of CEGESTI was in charge of exposing the statistics and analysis of the vehicle fleet, as well as results and analysis of the baseline. The model year of imported vehicles in Belize from 2013 to 2016 was



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presented, as well as the origin of the vehicles during these same years, as well as an analysis of the brands registered in this period. A brief description of the European car segmentation for light vehicles was given (segments A, B, C, D, E, F, J, M and Pick up). In relation to these segments, the composition of the vehicles registered for the first time was shown, where SUVs predominate by almost 50%. Natalia then explained about the database provided by the Custom and Exercise Department, and the criteria used for the analysis and cleaning of the same, as well as the assumptions, challenges and limitations during the processing of the information. Finally, Natalia presented the results obtained from the study, the annual weighted average of the emissions in grams of CO₂ per kilometer, annual weighted average of the fuel consumption in liter of gasoline equivalent per 100 kilometers, and the annual harmonic performance average in miles per gallon. An analysis of these results was also made in relation to the other countries of the world that have applied the GFEI methodology. Average annual emissions were shown by vehicle type, where Pickups are the largest contributors to carbon dioxide emissions, followed by segment J.

After lunch, Ariadne Baskin from UN Environment with the support of Alex Koerner spoke about the "Electric Mobility Program", which highlighted the growth of the light vehicle fleet worldwide, and its projection to the year 2050, and the global commitments of the transport sector to achieve an 18% reduction in global emissions to achieve a 2-degree scenario. Background was given of the contribution of the transport sector to air pollution. The eMob initiative of the UN Environment was then presented to promote the adoption of electric mobility and its three pillars (two- and three-wheeled electric vehicles, light electric vehicles, electric buses). Ariadne delved into each of these pillars, their respective objectives, activities and current projects.

The consultant Natalia conducted an analysis of the scenarios with the FEPIT tool to assess the potential impacts of future policies on fuel economy. Here the projections with the tool were mentioned under three scenarios: assuming the country's goal for COP 21, assuming the implementation of 3 recommended policies, and without the implementation of policies. Finally, Natalia gave the conclusions obtained from the study.



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The last presentation was in charge of Marcela Castillo where she delved into "Recommendations: What are the next steps for the country, fiscal or non-fiscal incentives". Marcela cited the necessary steps to adopt incentives for fuel economy (1. Clean fuels, 2. Issuance standards, 3. Vehicle certification system, 4. Analyze incentives) and how fuels are a prerequisite for advanced technologies and emissions standards. Public policy options were presented to improve fuel economy (vehicle efficiency standard, fiscal measures, market-based measures and information measures) and international experiences with fiscal tools to reduce emissions from the transport sector and the design features of fiscal programs in different countries.

5. IMPORTANT NOTES

In the course of the workshop there were several debates in relation to the topics that were being exposed. Following are important aspects that were mentioned by the participants in the debates:

- Only importing new vehicles is an economic challenge and social impact for the country, because the second hand market is really big. People cannot achieved buying new vehicles. A cost-benefit analysis should be made.
- Is difficult for the citizen to afford a tax on second hand, and more inefficient vehicles.
- Is better to encourage new vehicles and discourage second hand.
- Vehicles in Belize come mostly from United States and are gasoline, and vehicles are then design for that region with low sulfur petrol.
- The country cannot moved towards fuel economy system (eco-labelling, feebate scheme, etc.) if it does not have fuel and emission standards.
- It was consulted how Chile made mandatory the vehicles labelling and how does it differ the information of the Chilean laboratory from the one of the manufacture.
- Which institution is going to be the one in charge of verifying that the fuel imported has the content of sulphur required?

- Agreement with other countries have to be made, so that the vehicles that come to Belize have been tested in a laboratory in United State, for example.
- There is no point of talking on emission standards if there is no standards in fuel. If all the fuel is imported, why not importing high quality fuel?
- The participants believe Belize will import good petrol and diesel when it has fuel economy standards. A query to Petrol Caribe can be made to see if the company can give them that type of fuel.
- The information recorded by the Customs Agency has too many errors, and they want help on how to improve the quality of the data.
- A conformance framework has to be made, to see which institution will be responsible for what. Once the regulations are being defined, it will also be defined which institution is responsible for what.
- There is no department in the government (in each ministry) in charge of the regulation, so there is no department that makes the technical regulations.
- Reason why small vehicle are not sold in Belize:
 1. Bad roads
 2. Pickups are cheaper because they have less duty/taxes (SUV's are considered luxurious)

6. RECOMENDATIONS AND STEPS TO FOLLOW

The recommendations given to the different entities, according to their order of priority, were the following:

1. Adoption of fuel quality standards
2. Adoption of vehicle emission standards
3. Improve new vehicle registration data
4. Restrict/ regulate imports of used vehicles
5. Continue to monitor baseline emissions of vehicle fleet
6. Development of a Certification or Homologation system



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7. Vehicle labelling schemes
8. Introduction of fiscal measure to promote cleaner vehicle

Among the steps to follow that were identified in a round table at the end of all exhibitions, the following stand out:

- First step: Improve the data of the new registrations, and with proper data see what policy can be implemented.
- Analyze testing results made by the entity that sells petrol and diesel, to make emission standard based on the results obtained.
- Work in a vehicle emission standard.
- Create a work group that will be led by the Ministry of Energy, Science, Technology and Public Utilities.
- Create a technical committee.
- Create capacity building.
- See other countries of the region experiences (countries with a reality more similar to Belize than Chilean reality) in terms of new vs second hand.
- Regulate used vehicles that are 90% of the importations, because new vehicles already have emission standards that can be sued by the country.
- Discourage the use of older vehicles with higher taxes (more than X years) and at the same time eco-label new vehicles.
- Educate people on the use of emission standards and fuel economy.
- Encourage the use of small vehicles.
- Implement an annual vehicular technical review

7. FUTURE ACTIVITIES

Some future activities to work with the counterpart where identified, these are shown in the following table:

Activity	Subactivities
1. Improving the quality of the information registered by Customs & Exercise Department in relation to the registration of new vehicles for the first time	1.1 Support in improving the quality of the information registered.
2. Creation of a framework for the importation of electric vehicles and cleaner technologies	2.1 Support in the technical designing of a framework on efficient vehicles.

8. CONCLUSIONS

The baseline results presentation workshop was very well received by the participants and a very good representativeness in the discussion of the topics related to cleaner and more efficient fuels and vehicles. The need to improve the fuel economy of the country was understood, and to encourage the improvement in the performance of vehicles imported into the country. It was understood that this is just one of the many pieces of the puzzle of the transport sector, which requires a comprehensive intervention with multiple fields of action.

The Ministry of Energy, Science, Technology and Public Utilities will continue with the coordination of the Advisory Committee, including other important sectors, and will follow up on all the recommendations and steps to be taken with all the institutions involved in cleaner fuels and more efficient vehicles, to give continuity to the project.

Also, Peter Allen, Chief Executive Officer of the Energy Unit, made the closing words of the workshop. He said the project met the needs of the government and the private sector. He emphasized in the intention of



the government of implementing policies in energy efficiency, and promote the framework for the importation of electric vehicles and cleaner technologies. There is political will, and the country wants to continue its vision as a green environmental friendly destiny, but it is really important to make synergies, because there are many initiatives and works scattered on the subject.



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ANEXO 1 Agenda del evento



PROJECT FUEL AND CLEANER AND MORE EFFICIENT VEHICLES

RESULTS BASELINE ESTABLISHMENT FOR THE FUEL ECONOMY OF LIGHT VEHICLES

Objective: Present the results of the baseline of carbon dioxide emissions and fuel efficiency for vehicles registered in Belize in the years 2013, 2014, 2015 and 2016, in order to promote the fuel economy for improvements in the emissions of CO₂ and other gases.



AGENDA		
08:15-8:30	Registration of participants	
Moderador: TBD		
08:30-08:45	Welcome	National Authorities
08:45-09:15	Summary of the GFEI project and opportunities	UN Environment
09:15-09:45	Regional and international trends and experiences	CMMCh
09:45-10:05	Debate and questions	
10:05-10:15	Break (group photo)	
National Situation		
10:25- 10:45	Belize energy efficiency in the transport sector: Current situation (policies/future scenarios)	Department of Public-Private Sector Dialogue, OPIM
10:45 -11:00	Baseline methodology	CEGESTI





11:00-11:30	Statistics and analysis of the vehicular park	CEGESTI
11:30-12:00	Results and baseline analysis	CEGESTI
12:00-12:20	Debate and questions	
12:20-13:20	Almuerzo	
13:20-13:50	Opportunities to promote electric mobility	UN Environment
13:50- 14:10	Analysis of scenarios with FEPIT tool Evaluate the potential fuel economy impacts of future policies	CEGESTI
14:10- 14:30	Recommendations: What are the next steps for the country, fiscal and non-fiscal incentives?	CMMCh
14:30-15:00	Discussion and steps to follow	
15:00-15:20	Summary and Conclusion	CMMCh/CEGESTI



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ANEXO 2

Lista de participantes



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ANEXO 3 Imágenes del evento



Ryan Cobb, Director of Energy Unit of the Ministry of Energy, Science, Technology and Public Utilities
giving the welcoming words



Natalia Bonilla from CEGESTI, in her presentation about Baseline Methodology.



Marcela Castillo from Centro Mario Molina Chile presenting “Regional and International Trends and Experience”



Group photo of the workshop participants.