## CGEE publishes a study about bioenergy and emission reduction at COP 23

## The initiative addresses, amongst other topics, the potential of cellulosic ethanol as an advanced, low-carbon fuel, to be used in transport and industry.

The Center for Strategic Studies and Management in Science Technology and Innovation (acronym in Portuguese CGEE) will release, on the 14<sup>th</sup> of November, the study "Second generation sugarcane bioenergy & biochemicals." The edition will be presented at Brasil Pavilion, during the 23<sup>rd</sup> Conference of the Parties of the United Nations on Climate Change (COP 23), which will take place in Bohn, Germany. This publication will be the follow-up of a report produced in 2015, and which has been recently resumed, bringing consolidation in the results and the recommendation of public policies. The CGEE, an institution connected to the Ministry of Science, Technology, Innovation and Communication (acronym in Portuguese MCTIC), conducts prospective studies and evaluation of ST&I policies and programs in Brazil.

The initiative highlights the production feasibility of bioenergy and biochemicals in Brazil (products that can replace oil based chemicals, such as acetone and plastic), so that the country can make the transition from an economy based on fossil fuels to one based on a modern bio-economy. The study is in compliance with the Sustainable Development Goals.

According to the study, the introduction of new advanced low-carbon technologies, with the addition of converted sugars form cellulosic materials and the development of high- biomass sugarcane, open a new agro-industrial path. With the emergence of energy cane, the perspective of improving the potential production yield of bioethanol to almost 25,000 liters per hectare is real. The production is currently at 7,000 liters per hectare.

"Considering that the projected global gasoline consumption is of 1.7 trillion liters in 2025, bioethanol based on energy cane can substitute 10% of the total amount of gasoline consumed in the world using less than 10 million hectare", claims Marcelo Poppe, head of the study.

Mr. Poppe also points out that the world would experience a significant decrease in CO2 emission in the transport area, which is responsible for 25% of total carbon emissions.

The study highlights that the trinity second generation bioethanol, high-biomass sugarcane (energy cane) and renewable (green) chemistry are being implemented in Brazil with a strong public-private partnership. In the publication, the CGEE explores, analyzes and prospects the impacts related to the development and costs of agro-industrial technology, the gains in land use and reduction in greenhouse gases of these enterprises.

"The situation in Brazil is a basic reference to evaluate technological scenarios, which will then extend to a global scale. Brazil is in a privileged position to promote these technologies which are of the interest of the world and, especially, other countries with similar climate and land availability", Mr. Poppe points out.

## For more information, please contact

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