

**Joint Statement between Minister of Petroleum and Natural Gas of India and
Minister of Mines and Energy of Brazil on Cooperation between India and Brazil
in the Energy Sector, Bioenergy and Biofuels**

New Delhi, 21 April 2022

1. The Minister of Mines and Energy of the Federative Republic of Brazil, H.E. Mr. Bento Albuquerque paid an official visit to the Republic of India on April 19th -22nd, 2022 on the invitation of the Minister of Petroleum & Natural Gas of the Republic of India, H.E. Mr. Hardeep Singh Puri. H.E. Minister Albuquerque was accompanied by a delegation of private sector leaders of the biofuels and automotive sectors.

2. The leaders reviewed the existing bilateral cooperation across the entire spectrum of the energy sector and committed to enhance the beneficial partnership between the countries, and in this context expressed satisfaction at the important role bilateral energy cooperation plays in deepening the strategic partnership between the two countries.

3. The two sides recognized the importance of the robust investment in the Brazilian oil and gas sector made by Indian companies and reaffirmed their commitment to safeguard existing investments, while encouraging further bilateral investments. The two sides highlighted the importance of the bilateral trade in oil and its by-products, and expressed their willingness to expand this mutually beneficial trade. The Indian side expressed interest for sourcing crude oil under long term special contracts.

4. The two sides acknowledged the immense potential for collaboration between the two countries to scale up international production and use of sustainable bioenergy and biofuels, as an important vertical of the global transition to a low carbon future. In this context, they agreed on the importance of strengthening the bilateral cooperation in bioenergy. To this end, the two sides agreed to work towards developing an Indian-Brazil Alliance for Bioenergy and Biofuels.

5. The two Ministers reviewed the long list of bilateral and international activities and initiatives undertaken in the biofuels sectors in recent years, including the exchange of technical visits, the two editions of the Brazil-India Ethanol Talks, Symposium on Aviation Biofuels, launching of the Joint Working Group on Bioenergy Cooperation, Roundtable on India-Brazil Collaboration in Biofuels in the automobile Sector etc. They also noted bilateral coordination within G-20 on Climate and Energy, BRICS Energy Ministerial, Biofuture Platform, Clean Energy Ministerial, Mission Innovation initiative and IBSA joint Working Group on energy, and the work carried out in the context of the United Nations High-Level Dialogue on Energy.

6. The Ministers took note of the conclusions of the Joint Working Group on Bioenergy Cooperation, whose first meeting happened on 6 August 2021, and identified priorities for further bilateral cooperation in nine key areas as follows under two broad focus zones:

I) Implementation and scaling up

- a. Technical aspects of vehicle use of E20 blends in current fleets,

- b. Technical aspects of higher blends of ethanol use in flex-fuel vehicles,
- c. Flex-fuel technologies – four-stroke and two-stroke engines (Otto Cycle),
- d. Biodiesel implementation,
- e. Biogas / Biomethane policy and incentives, and
- f. Efficient heat and power generation in sugar and ethanol plants.

II) Technology and future fuels

- a. Sustainable aviation fuels – policies, feedstocks and implementation steps,
- b. Second generation ethanol – policy and technologies, and
- c. Synthetic biology cooperation.

7. They committed themselves to hold, in the coming months, meetings of the Joint Working Group for Cooperation in Bioenergy, and with a view to promote exchanges and joint research between Indian and Brazilian agencies, companies and researchers in the development of an ethanol economy, encouraged deeper and more expanded engagements between the stakeholders of both countries. In this spirit, the Ministers welcomed the collaborative documents signed in their presence between the companies from both sides, including the announcement of the establishment of a virtual India-Brazil Center of Excellence on Ethanol.

8. The two Ministers stressed the importance of a constant engagement between the private and public stakeholders of both countries, in order to forge strong and dynamic cooperation in bioenergy and biofuels. In this context the two Ministers took note of the recommendations of companies of the two countries, based on their various interactions including the recently concluded Roundtable on India-Brazil Collaboration in Biofuels in the automobile Sector. Some of the recommendations included:

- a. establishing a public policy to use ethanol as gasoline substitute to reduce external dependence, increase octane number of Otto cycle fuels and reduce greenhouse gas emissions;
- b. using the Life Cycle Assessment from well-to-the-wheel to evaluate sustainable mobility, considering energy generation step;
- c. developing a roadmap to introduce flex-fuel and hybrid flex-fuel vehicles;
- d. joint development of ethanol and biomethane fuel cell vehicles; and
- e. collaboration between the two Countries to develop less water intensive and higher sugar yield crop.
- f. water, genetic management and biotechnology of energy crops leading to first, Second and third generation biofuels and development of biotechnology for liquid bio-fuels and valorization of agro industrial residues.

9. The Ministers also agreed that it is critical to reinforce the promotion of sustainable bioenergy and biofuels at the global level, which would diversify options for energy security, boost rural development, bring about technological and industrial innovation, and create jobs and opportunities while reducing local and global emissions.

10. They further agreed that a thriving international market for sustainable bioenergy and biofuels will be essential to the design of low-carbon global vehicle platforms, as well as to the development of new technologies and the establishment of economies of scale in the bioenergy sector.

11. To that effect, and under the spirit of the India-Brazil cooperation in bioenergy and biofuels, the Ministers agreed to, in coordination with the other competent national authorities, make a concerted effort to position sustainable bioenergy and biofuels as integral parts of the global energy transition, especially for transport, industry, and other difficult-to-decarbonize sectors, such as aviation and shipping.

12. Both Ministers stressed the importance of maintaining high-level reciprocal visits between India and Brazil, to strengthen the political dimension of the bilateral relationship. In this spirit, the Minister of Mines and Energy of Brazil invited the Minister of Petroleum and Natural Gas of India to visit Brazil at his earliest convenience.
