

Summary & Key Recommendations

Emerging from the Seminar and Panel Discussions on

*'Hydrocarbon Prospects for India in
Latin America & Caribbean'*



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Summary Document from the Seminar on Hydrocarbon Sector Partnerships between India and Latin America & Caribbean

Latin America & Caribbean (LA&C) region holds immense potential for bilateral trade with India especially in the hydrocarbon sector. Although India has strong economic relations with the region, we need to further stimulate the growth of hydrocarbons trade to harness its full potential.

To delve on the new prospects, challenges, political risks and policy framework for catalyzing hydrocarbon sector bilateral cooperation, Petrofed organized a seminar on 'Opportunities in Hydrocarbon Sector in Latin America' on May 10, 2016 at India Habitat Centre, New Delhi.

The seminar witnessed presence of Sh. Dharmendra Pradhan, Hon'ble Union Minister of State (Independent Charge) for Petroleum & Natural Gas, Government of India and senior officials from MoP&NG, MEA, NSC and CEOs and Directors of Oil & Gas majors as well as service companies operating in LA&C region. The list of participants and few photographs are attached as Annexure I & II.

The Secretary, P&NG Shri K.D. Tripathi highlighted the contours of issues, while Shri Ashok Das, Joint Secretary (LA&C), MEA made a presentation on India's current relationship with LA&C countries. On the Indian hydrocarbon investments: LA&C Perspective, Shri Deepak Bhojwani, IFS retired share his enriching perspective.

A Panel comprising of Shri N. K. Verma, MD, OVL; Shri Biswajit Roy, Director (HR&BD), OIL; Shri D. Rajkumar, MD, BPRL; Shri Atul Chandra, Senior Advisor, RIL and Shri Sujit Kumar, MD, Schlumberger Asia Services Ltd. deliberated on LA&C economic environment and experience of Indian

companies. The panel chaired by Professor Abdul Nafey, Centre for Canadian, US & Latin American Studies, JNU deliberated on the opportunities and challenges prevailing in the region. Shri Sunjay Sudhir, Joint Secretary (IC), MoP&NG summed up the proceedings and underlined the need to overcome structural, regulatory and operational barriers in a timely manner to harness the collaborative growth opportunity.

Shri Dharmendra Pradhan, Hon'ble Union Minister of State (I/C) for Petroleum & Natural Gas, Govt. of India in his concluding remarks emphasized on the need to assiduously explore all the options and look at various regions including Middle East, Africa, Russia, LA&C etc. for securing India's energy future. Shri Pradhan added that as far as Latin America region is concerned, the relationships if harnessed based on the terms of mutual benefits will always be long lasting.

1. The highlights and brief summary of deliberations are presented hereunder:

i) India's Energy Demand to Grow Significantly

India with rapidly growing economy will take the centre stage of energy demand growth in the coming decades. To fuel its growing economy, it is essential for India to strengthen the diplomatic relations with world energy community.

- India's current oil product demand stood at 183 Million Metric Tonnes and is projected to reach 253 Million Metric Tonnes and 550 Million Metric Tonnes by 2030 & 2050 respectively.

- About 80% of India's crude oil demand is met through imports predominantly from Middle East and Africa. Out of total crude oil imports of about 200 Million Metric Tonnes, around 20% crude oil supplies are met through imports from the LA&C region primarily from Venezuela and Mexico.
- India's objective to secure future energy supplies requires nurturing of bilateral trade ties particularly in the hydrocarbon sector with LA&C region which holds large reserves of Oil and gas.

ii) Colossal Resource Potential of LA&C

LA&C houses colossal reservoirs of Oil & gas. The region has proven reserves of more than 300 billion barrels crude (~20% of global reserves) which account for ~13% of global production (half of which is exported) and 8 trillion cubic meters of natural gas (>4% of global reserves).

- Among the key reserves of the region, Venezuela has world's largest proven oil reserves of about 299 billion barrels; however the crude is very heavy in nature and requires both below ground and sophisticated downstream processing facility to upgrade the oil.
- Brazil has proven conventional oil reserves of 15 billion barrels in addition to its significant deep-water, pre-salt reserves which are expected to reach 41 billion barrels by 2022.
- Apart from this, Mexico has 115 billion barrels conventional oil reserves, while Argentina's has more than 800 trillion cubic feet of shale gas resources and 27 billion barrels of shale oil resources (4th after US, Russia & China).

- On a positive note, majority of Indian refiners located on the west coast are capable to process the difficult crude from the region especially Venezuelan crude. During 2015, country's privately owned refiners Reliance and Essar Oil were one of the key customers of Venezuelan crude, consuming 500,000 barrels per day of the country's exports of about 2.4 million barrels per day.
- LA&C region accounting for India's ~20% crude oil import has further potential to cater to our growing energy needs.

iii) Trade ties & Opportunities

India's total trade with the LA&C region grew by more than nine-folds to USD 49 billion in 2014 from USD 5 billion in 2005.

- In the year 2014-15 the crude oil imports accounted for 46% share of the India's total trade of 43 billion with the LA&C region. Considering the size of respective economies, the amount of trade volumes remains miniscule and need to be further augmented through reinforcement of bilateral ties.
- While preferential trade agreement (PTA) with Mercosur (Brazil, Argentina, Paraguay, Uruguay and Venezuela) is already in place, the discussions are in progress for the amplification of PTA with Chile for launching FTA (free trade agreement).
- Resource nationalism has been a dominant phenomenon in the region; however the countries in region are now courting to spur bilateral economic engagements to seek foreign direct investment and technology to recover flagging oil production.

- While Indian refiners are importing crude oil from LA&C region, at the same time some of our refineries are exporting finished oil products including diesel fuels to the region. There is further potential for the increased oil products exports to cater the requirements of the region.
- These developments in turn brings opportunities for India which besides being a huge market for crude oil supply can also be a source of investment to bring regions resources to the production.

iv) Investments in LA&C Hydrocarbon Sector

Indian companies have invested in the upstream sector to secure oil equity. The Indian Public Sector Undertakings and Private Sector companies including OVL, BPRL, OIL, RIL, IOCL, Videocon etc. are already engaged in the E&P activities in the region.

- OVL invested about USD 4.2 billion during last 15 years in the region (USD 2.2 billion in Brazil, USD 1.2 billion in Colombia, USD 800 million in Venezuela and USD 120 million in Cuba) and its current production amounts to 35000 barrels of oil and oil equivalent gas.
- BPRL has presence through joint ventures in Brazil's 9 deep offshore blocks and 6 major discoveries have been attained; leading to likely crude production by 2017-18 and gas thereafter.
- Other companies like IOCL & OIL have also made their presence in the region through the joint ventures and have further investment plans to enhance their presence and contribute towards India's energy security. It is important to highlight that despite the

significant investments by Indian players in the region, they are yet to gain from the revenues.

v) LA&C Economic Landscape amidst Global Developments

The region has cumulative GDP of USD 6 trillion and in the past it had witnessed a strong growth in the economy. However, the recent slide of crude oil price and governance issues have impacted the regional economies and decline in the trade.

- During the year 2016, the region's GDP encountered a contraction of 0.5%. On a positive note in going forward, the economic growth rate is projected to climb to 4% as market balances.
- The recent plunge in the crude oil prices has led to deceleration of economic growth in key LA&C economies depending upon the share of Oil exports in GDP. The staggering economies in turn have impacted the investment plans by national oil companies in addition to shrinking investments.
- The low crude price scenario is indeed a good time for India in terms of acquisition opportunity and investments in the region at relatively lower cost. It is certainly the time to step forward through coordinated efforts to take advantage of current phase of downturn and develop ties for securing greater share of oil equity in the region.

vi) Political & Social Challenges

This decade has seen LA&C countries being assertive and independent in their foreign policy.

- A number of LA&C countries announced regulatory reforms during last few years to attract foreign investors despite region's history of unsteady economic growth, political instability and diminished access to capital markets. For instance almost after 75 years resource rich Mexico has recently announced energy reforms for attracting foreign investors.
- As far as India is concerned, the region is on the periphery of its foreign policy and energy security agenda. There is further need to harness it through the organic relations so that LA&C can play a bigger role as a reliable and long term energy partner.
- India besides being a major trade partner for the region can also be a reliable credit partner, though anticipation and political preparedness are imperative to rekindle hydrocarbon business growth with the region.

vii) Operational Experience & Challenges

Indian companies despite their increased presence in the region during last decade have witnessed limited success due to complex regional regulatory frameworks.

- The region lacks uniform procedures for the contract management and has an inadequate availability of good contractors making project implementation difficult.
- Considering the difficulties encountered in Venezuela operations and regulatory, contractual, political, institutional, logistic & financial issues (taxation & multiple exchange rates in Venezuela) prevailing in the region, a bilateral cooperation at the government level will help

eliminating bureaucratic hassles and garner the support for Indian players.

- LA&C is very important from India's energy perspective as the reserves are available on equity participation basis (except Ecuador). However, it is essential to secure the investments of Indian companies in the region as these reserves are in difficult terrains (deep-water, pre-salt) and making the exploitation difficult and cost intensive with long gestation period.

2. Key recommendations

1. There is an inherent need to enhance India's image as a potential investor in the region and the same should be oriented through a proactive engagement at the political and diplomatic levels. As a next step in this direction, there can be another such Roundtable during Petrotech-2016 that would also have the participation of the national oil companies from that region.
2. It would be of immense value to organize visit of Ministerial delegation along with Oil Companies representation to key oil producing countries in the region to re-emphasize India's investments interest. There is certainly a strong need for political orientation and close collaboration with the region, where MEA & MoPNG can lead to establish Institutional arrangement during the proposed visit.
3. LA&C countries are technically advanced for conducting E&P activities in the difficult terrains, while India has technical skillset across the hydrocarbon value chain. As human resources are vital for any

developing economy, identifying areas for human resource development is another important area of cooperation.

4. India can also learn from bioenergy experience of LA&C countries especially from Brazil for conversion of bioenergy to biofuels. This in turn will boost the commercial appreciation of biomass for biofuels production in India. The business models and technological strengths of key biofuels players of the region should be studied to understand and embrace the same for Indian context and support 'Make in India' initiative.
5. Each country in the region has different set of challenges which requires a focused approach to better understand the regulatory, contractual, logistics, finance and taxation frameworks. It would be apt if diplomacy and commercial approach go hand in hand to attain the objective of business promotion in the region.
6. There is a compelling need for robust analysis and study of region's geology, seismic data before the asset acquisition. It is also required that the Indian companies are meticulous in understanding the crude price assumptions and market outlook.
7. For efficient and timely access to oil & gas reserve in the region, Indian companies should adopt innovative business model in partnership with competent multinational technology companies or service companies for E&P activities in the region.
8. In addition to an emerging demand center, India a refining hub has state of art refineries located on the west coast capable to process

the heavy crude from LA&C region. India should leverage its refining competence, where in exchange for the heavy crudes, India can exports refined oil products meeting stringent specification to the region. The resilient product demand outlook of LA&C economies and limited financial resources to set up new refineries will further add to the India's advantage.

Seminar on 'Hydrocarbon Prospects for India in Latin America and Caribbean (LA&C)' on May 10, 2016 at the Juniper Hall, India Habitat Centre, New Delhi

Speakers/Panelists		
1	MoP&NG	Shri Dharmendra Pradhan, Hon'ble Minister
2	MoP&NG	Shri K. D. Tripathi, Secretary
3	MoP&NG	Shri Sunjay Sudhir, JS (IC)
4	Ministry of External Affairs	Shri Ashok Das, Joint Secretary (LAC)
5	Former Consul General, Sao Paulo, Brazil	Shri Deepak Bhojwani
6	JNU	Prof. Abdul Nafey
7	ONGC Videsh Limited	Shri N. K. Verma
8	Oil India Limited	Shri Biswajit Roy
9	Bharat Petro Resources Limited	Shri D. Rajkumar
10	Reliance Industries Limited	Shri Atul Chandra
11	Schlumberger Asia Services Ltd.	Shri Sujit Kumar

Participants		
12	Ministry of Petroleum & Natural Gas	Shri Anant Kumar Singh
13	Ministry of Petroleum & Natural Gas	Shri Ashutosh Jindal
14	Ministry of Petroleum & Natural Gas	Dr. Praphullachandra Sharma
15	Ministry of External Affairs	Ms. D. Charandasi
16	Ministry of External Affairs	Shri Animesh Choudhary
17	Ministry of External Affairs	Ms. Renu Khandelwal
18	Bharat Petroleum Corp. Ltd.	Shri Saurabh Saha
19	Bharat Petro Resources Limited	Shri Mahesh Narain
20	Cairn India	Shri Mayank Ashar
21	Dynamic Offshore Drilling Ltd.	Shri G. D. Sharma
22	EIL	Shri Ajay Deshpande
23	EIL	Shri Vinita Kashyap Kanathia
24	Eye On	Shri Mickael Vogel
25	GAIL	Shri B. C. Tripathi
26	GAIL	Shri Sameer Chandawat
27	IDSA	Ms. Shebonti Ray Dadwal
28	IOCL	Shri D. Sen
29	IOCL	Shri R. K. Mittal
30	IOCL	Shri A. K. Srivastava
31	IOCL	Shri Debashis Roy

32	IOCL	Shri Ashok Kumar
33	IOCL	Shri H. Baidel
34	OIL	Shri Arvind Jaini
35	ONGC	Shri A. K. Dwivedi
36	OVL	Shri Sudhir Sharma
37	OVL	Shri S. P. Garg
38	OVL	Shri P. K. Rao
39	Petronet LNG Limited	Shri Prabhat Singh
40	former Chairman, IndianOil	Shri M. A. Pathan
41	former Chairman, IndianOil	Shri R. S. Butola
42	former Director (Operations), OVL	Shri S. Roychaudhury
43	JNU	Dr. Priti Singh
44	JNU	Dr. Aprajita Kashyap
45	JNU	Shri Nanda Kumar Janardhanan
46	JNU (Research Scholar)	Ujjwal Rabidas
47	JNU (Research Scholar)	Sanghamitra Kalita
48	JNU (Research Scholar)	Kavita Myles
49	JNU (Research Scholar)	Aparaajita Pandey
50	JNU (Research Scholar)	Jamini Buragohain

Organisers		
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52	PetroFed	Shri S. Rath
53	PetroFed	Shri N. K. Bansal
54	PetroFed	Shri Rajiv Bahl
55	PetroFed	Dr. Preeti Jain



Dr. R. K. Malhotra, Director General, PetroFed welcoming Shri Dharmendra Pradhan, Hon'ble Union Minister of State (I/C) for Petroleum & Natural Gas with a bouquet.



(L-R) Shri Sunjay Sudhir, Joint Secretary (IC), MoP&NG; Shri Anant Kumar Singh, AS&FA, MoP&NG ; Shri Dharmendra Pradhan, MoS, MoP&NG; Shri K. D. Tripathi, Secretary, MoP&NG; Deepak Bhojwani (Former Consul General, Sao Paulo, Brazil); Shri Ashok Das, Joint Secretary (LAC), MEA.



Shri K.D. Tripathi, Secretary, Ministry of Petroleum and Natural Gas delivering opening remarks.



Panel Discussion: (L-R) Shri Sujit Kumar, Managing Director, Schlumberger Asia Services Ltd; Shri Atul Chandra, Senior Advisor, Reliance Industries Limited; Professor Abdul Nafey, Centre for Canadian, US & Latin American Studies, JNU; Shri N. K. Verma, MD, ONGC Videsh Limited; Shri D. Rajkumar, Managing Director, BPRL; Shri Biswajit Roy, Director (HR&BD), Oil India Limited.



A section of the participants.



Shri Dharmendra Pradhan making the concluding remarks.



Shri Sunjay Sudhir, Joint Secretary (IC), Ministry of Petroleum and Natural Gas, Govt. of India delivering the Summary of the Proceedings



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