Panel DiscussionsGEOIndia 2022

Topic: Decades ahead: Diversifying and Decarbonizing upstream (Session-1)

The first panel discussion of the 5th edition of South Asian Geosciences Conference and Exhibition – GEO India 2022 in Jaipur,saw experts' brain storming on the very relevant topic, "Decades ahead: Diversifying and decarbonizing upstream".

The panelists for the session were Dr. R K Srivastava, CMD, ONGC, Shri. A K Dwivedi, Former Director (Exploration), ONGC, Shri Anil Trigunayat, Former Ambassador, (Retd. IFS), Dr. Manas Kumar Sharma, Director (E&D), Oil India Limited, Shri. Sudhir Sharma, Former Director (Exploration), OVL, Dr. KalachandSain, Director-Wadia Institute of Himalayan Geology. The session was moderated by Shri Ashish Kulkarni, Partner AD, Center for Sustainable Earth, Climate and Sustainable PA, BCG.



Moderator Shri Ashish Kulkarni in talk with the experts.

The ball was set rolling by Shri. Kulkarni with the burning question on how to maintain climatic balance with low-carbon growth and development pace.

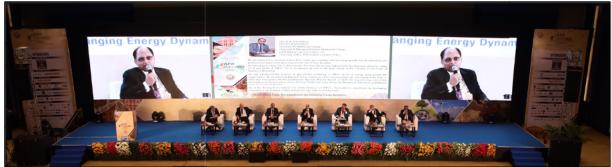
According to Shri. Sudhir Sharma, the transition to a low-carbon regime would take some time, but it can surely be accomplished by setting a net-zero goal for 2070. He highlighted the importance of the upstream sector in development and stressed on reduction of flaring by improving infrastructure. He asserted that the market has a significant impact on the entire gamut. The carbon capture and its storage must be taken on priority. Additionally, supporting government policies is a must to attain the goal. Dr. Manas Sharma drew attention to the paradoxical need for both green energy and increased energy requirements. Hence, shift in thought process comes first. A balance needs to be maintained in order to achieve low carbon emissions.CCS and CCUS as well as government-level afforestation drives become essential. In order to reduce dependency on imports, he underlined the need to focus on alternative energy sources like wind and solar.



Former D (E) OVL Shri Sudhir Sharmaexpressing his views on the topic.

Dr. R K Srivastava emphasized the urgent need for a change in energy management strategy, to be in line with the impending global energy paradigm.He added that developing a balancing strategy for an E&P companyis crucial as fossil fuels will continue to play a significant role in the energy spectrum in the years to come.Until recently, the main goal was to ensure the nation's energy security, and ONGC has been fairly succeeding. He further added that the government is assisting in the formulation ofstrategies to consolidate existing fields and open new basins. He said a full-scale global outreach program is underway and ExxonMobil, Chevron Oil, etc.are on board for discussion. They are assessing new areas withinshortened timelines. Additionally,ONGC is utilizing more and more carbon dioxide in EOR activities, and aCCS pilot project is in pipeline. Also,ONGC as a responsible E&P has already advanced its steps to sustainable and clean energy.

Shri Anil Trigunayat, highlighting the urgency of clean and green energy asserted that all sectors, including upstream&downstreamas well asmanufacturing sector, market along with the consumers, must be on the same side. To attain the goal of clean energy, he focused on the need of weaponization of banking, energy, agriculture, and all the relevant sectors. He held that technology is the most crucial tool for synchronizing Indian footprints with those of the rest of the globe.



CMD ONGC Dr. R K Srivastava pouring out thoughts on diversifying & changing energy dynamic.

Dr. KalachandSainpicturized the physical and economic risks of climate change. Exploration in challenging geographies can be a potential tool to reduce the risks with emphasis oneconomically viable and environmentally beneficialtechnology. He further added that research and development should be focused on identifying high emission industries and developing measures in response.



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In order to achieve the goal of clean energy, Shri A K Dwivedi stressed upon the necessity of cooperation between upstream companies and service sectors. He said that all the different sectors, such as transportation industry, civil construction, etc., must be included in a coordinated and aligned pattern.

Topic: Sustainability and energy future (Session-2)

The second panel discussion of the 5th edition of South Asian Geosciences Conference and Exhibition – GEO India 2022 in Jaipur, comprising of eminent international and national experts deliberated on the topic "Sustainability and energy future".

Shri Subhash Kumar, Former CMD, ONGC, Shri N K Verma, Former MD, OVL, Dr. John Tinnin, Senior Exploration Consultant, Baker Hughes, Shri Sunil Rai, Vice Chancellor, UPES, Dehradun, Dr Satyam Priyadarshi, Chief Data Scientist, Haliburton and Dr. Rabi Narayan Bastia, Global Head of Exploration, Lime Petroleum, Norway were the esteemed panelists for the discussion.



Moderator former MD OVL Shri N K Verma setting the tone of the discussion.

Shri N K Verma, moderator of the session, expressed confidence in the existence of hydrocarbon reserves for the next 100 years, and said hydrocarbons will play a significant role in the energy mix. In his opinion, the emission centers are likely to shift based on the economic inequality and the need of fossil fuels for development. According to him, agro-based economies need to be promoted as they contribute significantly to the CO2 fixation.

Dr. John Tinnin, emphasized the need of accelerated exploration and production pointed towards enhanced investment in technology. Fully aware of India's potential for hydrocarbon exploration and production, opined that funding for green fuel technologies is urgently needed to meet the net zero goal.



Dr. John Tinnin, Sr. Exploration Consultant, Baker Hughes expressing his thoughts on the topic.

Dr Ravi Bastia, cautioned that Climate change is a bigger problem than terrorism, and industrialization is one of the causative factors.He insisted that we must set goals for renewable energy sources with zero emissions and there is an urgent need to switch to a more effective fuel distribution system. He emphasized the need for alternative green energy sources, such as biogas-algae combo, solar energy, and green hydrogen, as well as efficient energy consumption.

According to Shri Subhash Kumar, technological advancement is the path to a cleaner fossil fuel option, and gas has a significant role to play in this. He stated that biogas should receive the same amount of support as ethanol and a sustainable fuel policy must be implemented.



Former CMD ONGC Shri Subhash Kumar sharing his thoughts with other panelists.

Dr Satyam Priyadarshi opined that artificial photosynthesis is more sustainable than solar energy.He claimed that in order to follow the road of green fuel, talent is necessary, and partnership between business and academia can secure a sustainable transition.

In Shri Sunil Rai's opinion, all forms of alternative energy, including initiatives at local level, should be encouraged. He added that recycling should be the norm as it will cut down the demand for energy. He called upon to follow the three mantras of *Sankalp*- Resolve to move towards transition, *Taknik* – To develop technique for clean energy, and *Karyanwayan*-Execution and effective implementation of the policies developed to achieve the goal of a sustainable energy future.



One for the album.

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