WORKSHOP ON POLYMETALLIC NODULES RESOURCES CLASSIFICATION

13-17 October 2014

WELCOME REMARKS

His Excellency Mr. Odunton, Dr. Das, Dr. Naqvi, distinguished delegates to the workshop, my colleagues from the Ministry of Earth Sciences, from my own institution NCAOR as well as from the NIO, friends from the Media, ladies and gentlemen

On behalf of Dr. Shailesh Nayak, Secretary, Ministry of Earth Sciences, the National Centre for Antarctic and Ocean Research and on my very personal behalf, let me at the outset welcome you all to this important workshop. We are honored that the International Seabed Authority chose the state of Goa as the venue for this workshop. Nothing could be more befitting. Not because Goa is one of the more touristy places in India. But more so because the history of deep sea mineral exploration by India was kick-started from the shores of Goa. That was way back in 1981 when the vessel R. V. Gaveshani set sail from the shores of Goa and recovered the first nodules from he equatorial Indian Ocean under the leadership of NIO. The rest as they is history. India went on to attain a pioneer investor status, entered into an exploration contract with the ISA, developed considerable expertise in exploration of polymetallic nodules, Environmental Impact Assessment, metallurgical processes, demonstration of a flexible rising mining system concept etc.etc.

The story doesn't end here. A few years back, the Government of India decided to expand and build up on the country's expertise in deep water mineral exploration. Again it was Goa that served as the launching pad. Only the institute was different this time. The National Centre for Antarctic and Ocean Research, the Ministry's own R&D arm was identified as the lead agency. Based on the results of the geoscientific surveys carried out by us, an area of 10,000 sq.km in the Central and SW Indian Ridges was identified for submitting application to the Authority for grant of license for Hydrothermal exploration. We did so in March 2013 and on the 21st July 2014, the LTC recommended to the Council, approval of the plan of work for exploration

submitted by the Government of India through the Ministry of Earth Sciences.

As I mentioned before, it is only natural that Goa again finds a place in Today's meeting
The Workshop could not have been organized at a more appropriate time. Nearly half the contracts entered into by the Authority with the various stake holders would be expiring two to three years from now. While as I understand, the Contracts stipulate the kind of information and data that have to be submitted to the Seabed Authority on expiry, there is a need to develop internationally accepted standards and practices applicable to the assessment and reporting of mineral resources of the seabed and to sensitize all the stakeholders on these standards. This is vital for not only understanding whether the explored areas are indeed financial assets from a mining point of view but also for a seamless transition of a mining operation from exploration to exploitation.

Not only the policy aspects, but the technologies and our scientific knowledge have also had a quantum jump over the past four-odd decades since the first trial of a prototype nodule-mining system was carried out on the Blake Plateau. Previous studies had predicted that the incidence of hydrothermal venting would be extremely low on ultraslow-spreading ridges. But we know better now. Abundant hydrothermal venting has been documented from the Gakkel ridge of the Arctic, which is among the slowest spreading ridges (0.6–1.3 cm yr^{-1}). But I don't think I should be expounding on the objectives of this workshop or what is expected of it to you the experts who are assembled here today. Almost sacrilegious I should say. Like carrying coals to New Castle. Bur from India's point of view, as one of the pioneer investors registered with the Authority, the deliberations hold out enormous significance for the country in its endeavors at exploring for non-living resources of the deep ocean floor. There is a lot we can learn from each other and a lot we can share with each other as befits the ocean space. To quote Snelgove, we know more about the surface of the moon or about Mars than we do about the deep seafloor, despite the fact that we have yet to extract a gram of food or ore, a breath of oxygen or a drop of water from those bodies.

I hope you find the deliberations of the workshop and the ambience of the place equally exciting without one precluding or over-shadowing the other. Enjoy and relish your stay here. We realize that you have a rather heavy agenda before you over the next four days. Not withstanding that, we have also chalked out an itinerary for you beyond the four walls of this Hall including visits to the two Institutes NIO and NCAOR. I would take this opportunity to extend you a warm welcome to NCAOR in advance.

As I sign off this welcoming address, let me also take this opportunity to thank the people who have been on the forefront in organizing the workshop. I have with me a bunch of youngsters led by Dr. John Kurian who have been shouldering all the responsibilities related to organizing this workshop. Incidentally these are the people who would be carrying forward India's legacy of deep sea exploration. Thanks guys. My friends from the Ministry, Pratima Jauhari who has literally been flooding us with mails at least one a day ever since Goa was chosen as the venue for the workshop, my friends from the Press... Thank you all.