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8<sup>th</sup> BRICS STI Ministerial Meeting,

**1<sup>st</sup> Session (16.50 – 17:20): STI priorities and policies updates including STI development in the Post-COVID reality**

10Minutes

Excellencies

Thanks for granting me the privilege for addressing this learned and august audience.

1. We are all meeting virtually today in an era of unprecedented changes. These changed times have taught us all how to reorient ourselves and make path-breaking decisions. India too has geared up to meet the new set of challenges

that have arisen due to the pandemic outbreak and the economic crisis that has resulted from this. We have embarked upon a new education policy, we have announced massive economic packages to ensure our people don't suffer and we are in the process of formulating a new science, technology and innovation policy which will be an important determinant in India's transformation into a self-reliant global leader.

2. We all know how the COVID-19 pandemic has emerged as one of the greatest global challenges, requiring a strategized, collective global response. BRICS countries account for more than 25% of the world territory, more than 40% of the world population and play a vital role in the world economy. Since BRICS member nations form one of the most affected

population, it provides for greater cooperation opportunity among our countries to combat this pandemic.

3. India has initiated an integrated response to overcome this unprecedented COVID-19 pandemic. From the development of indigenous vaccines, novel point-of-care diagnostics and therapeutic formulations based on traditional knowledge, to establishing research resources and offering services, Indian R&D entities both public and private, are working relentlessly to develop effective interventions for combating the pandemic. Hundreds of projects are being supported. More than 100 startups have developed innovative products for COVID-19.

4. Our Government has announced a US Dollars 120 million grant for Covid-19 vaccine research. This is being provided for CovidSuraksha Mission (mission for protection from Covid) and is to be used purely for research and development in this field. The grant does not cover the actual cost of vaccine and its distribution expenses, which will be made separately as and when the vaccine is available.

In India, about 20 vaccines are in different stages of development. Two of them are in the most advanced stage of development - COVAXIN developed through ICMR-Bharat Biotech collaboration and COVISHIELD from the Serum Institute of India. Both are in Phase-III clinical trial stage. Our premier institution – the Indian Council of Medical Research - is involved in their trial executions. India is also hosting clinical trials for all the major vaccine

contenders. Serum Institute of India, the world's largest vaccine manufacturer, is conducting trials for the vaccine developed by Oxford University. One of our pharma giants, Dr Reddy's Laboratories, will distribute the Russian vaccine in India after conducting final-stage human trials and receiving regulatory approval.

5. India has successfully completed PAN-India 1000 SARS-CoV-2 genome sequencing and data is being analyzed to understand the virus. As many as 5 COVID19 Biorepositories have also been setup and have archived nearly 40,000 samples, which are available for biomedical researchers.

6. One of our institutions - Translational Health Science and Technology Institute- has been recognized by the Coalition for Epidemic

Preparedness Innovations (CEPI) as one of the six global network of laboratories for centralized assessment of COVID- 19 Vaccines

7. Technology has become pervasive in every sphere of life. To leverage technological innovations and applications for the well-being of our people and for greater economic growth, the Government of India has launched several flagship initiatives such the National Mission on Interdisciplinary Cyber Physical Systems(ICPS),Quantum Computing and Communication, the National Mission on Supercomputing .. and many others

8. India has an ambitious target for renewable energy and remains committed to pursue a greener path for sustainable development. A Mission Program on Methanol economy is being launched

for indigenous development of process, technology, catalysts for production and utilization of methanol.

9. I am very pleased to share that India has played a leading role in Mission Innovation. India co-leads in three challenges- Smart Grid, off-grid access and sustainable bio-fuel and is also an active member of all eight innovation challenges.

10. India is also working on “Electric Mobility” with focus on research and innovation to develop batteries with a longer life.

11. India has also pioneered the International Solar Alliance to synergize efforts in harnessing solar energy. India proposes to launch other similar alliances to find effective and sustainable solutions to meet sustainable development goals relating to water and sanitation.

12. Innovation is the key driver for enhancing productivity and prosperity. With 21 unicorns, India has emerged as third largest ecosystem for start ups...ahead of Britain and Israel.

13. India is also among the top 12 destinations for biotechnology in the world, with approximately 3% share in the global Biotechnology industry. With vibrant Biotech Startup ecosystem, India today has more than 2000 Startups, 50 Incubators and nearly 150 products in the market.

14. In order to inculcate scientific temper and culture of innovation among our youth, Government has implemented several schemes like, MANAK (Million Minds Augmenting National Aspiration and Knowledge); ATAL Tinkering Laboratories in schools, programs such as INSPIRE... etc. These are unique initiatives to broaden the base of the



innovation pyramid to produce future entrepreneurs in larger numbers.

15. We have other programs which welcome overseas researchers to Indian universities and our R&D laboratories to foster collaborations and promote co-guidance of research scholars. We welcome nominations of scientists from the BRICS nations to participate in this program called VAJRA.

16. We have recently also launched a scheme **‘SERB–POWER’ for Promoting Opportunities For Women in Exploratory Research ...** to encourage and support women researchers to undertake R&D activities in frontier areas of science and engineering. We may also propose networking of women scientists of BRICS member nations through a dedicated platform and mechanism. I shall welcome your valuable suggestions in this regard.

17. A 24X7 digital science channel has been launched. This 24x7 video platform is dedicated to science and technology knowledge dissemination, with a strong commitment to spreading scientific awareness especially with Indian perspective, ethos and cultural milieu.

18. I'm proud to state that India has been progressing well in recent years in terms of its overall performance and outcome in the area of science and technology. India today has attained the 3<sup>rd</sup> position globally in terms of number of publications. India's growth rate of publications in SCI journals is nearly 14% against the global average of 4%. India has attained the 11<sup>th</sup> spot in the number of patents filed.

19. Our premium institution – the Council of Scientific and Industrial Research - ranks 9<sup>th</sup> in the

world among the 1207 government institutions in the Scimago Institutions Ranking World Report 2017.

20. Excellencies,

The COVID-19 pandemic has been a test, demonstrating that multilateral cooperation is the key to overcoming such global challenges.

21. India looks forward to deepening the BRICS collaboration in the field of Science, Technology and Innovation. On behalf of my country, I thank Russia for hosting this excellent meeting despite so many challenges.

Thank you for granting me this privilege to place my thoughts before this learned forum.

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