



GOVERNMENT INDUSTRY DIALOGUE
BRIDGING THE DIVIDE

Path-Breaking Ideas for Economic Growth & Self Reliant India



7th Government Industry Dialogue REPORT 2020

भारत सरकार
GOVERNMENT OF INDIA

विज्ञान और प्रौद्योगिकी मंत्रालय
MINISTRY OF SCIENCE AND TECHNOLOGY



IGF Internet
Governance
Forum
Dynamic Coalition on 'Internet & Jobs'



NITI Aayog



आयुष मंत्रालय
Ministry of
AYUSH

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SUMMARY

7th Government Industry Dialogue

21st November 2020

The 7th Government Industry Dialogue was held virtually on 21st November 2020 considering the safety precautions in light of coronavirus disease (COVID-19). The primary concept of this dialogue as always has been to bridge the existing gap between the government and industry. The theme for this year's dialogue was "Path-Breaking Ideas for Economic Growth & Self-Reliant India". The focus was mainly on the sectors having a cascading impact on the economy, such as micro small and medium enterprises (MSME), agriculture, tourism, health, education, environment, science and technology, defence, information technology (IT), infrastructure, and cyber security.

The Government Industry Dialogue was hosted in association with NITI Aayog, the federal think tank headed by our Prime Minister, Shri Narendra Modi, Ministry of AYUSH, Department of Science and Technology, Government of India and Internet Governance Forum- Dynamic Coalition on Internet & Jobs. The speakers included senior most decision makers from the government, industry chief executive officers (CEOs), chairmen and managing directors from various sectors. The participants focused on real-time hurdles they encountered with their enterprises. The dialogue witnessed talks from the private and government sectors. The second half of the dialogue included a brainstorming session. Several recommendations were provided with an aim for future betterment.

MESSAGE

डॉ. राजीव कुमार
उपाध्यक्ष

DR. RAJIV KUMAR
VICE CHAIRMAN

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भारत सरकार
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Government of India
NATIONAL INSTITUTION FOR TRANSFORMING INDIA
NITI Aayog, Parliament Street
New Delhi-110 001

14th December, 2020

Dear Professor Rajendra Gupta,

It was indeed a privilege to be invited to the Government Industry Dialogue 2020 on 21st November. The theme was apt as per the current scenario due to COVID-19: "Path-breaking ideas for Economic Growth & Self-Reliant India".

2. I found the dialogue to be very interesting and noticed the diverse and wide participation. NITI Aayog, being a think-tank, looks forward to the ideas contributed by representatives from a wide range of sectors. I am sure these ideas will help us in shaping more robust policies for our Hon'ble Prime Minister's goal of creating an 'Atma Nirbhar' Bharat. The pandemic has impacted drastically our economic growth and the ideas shared will help in accelerating the economic recovery and sustaining it in the coming period.

3. Once again, I would like to thank the organizers for inviting me to such an august forum.

I look forward to reading the report.

Warm regards,

Yours sincerely,

(Rajiv Kumar)

Prof. Rajendra Pratap Gupta



एक कदम स्वच्छता की ओर

MESSAGE



सत्यमेव जयते

श्रीपाद नाईक
SHRIPAD NAIK

राज्य मंत्री (स्वतंत्र प्रभार)
आयुर्वेद, योग व प्राकृतिक चिकित्सा, यूनानी, सिद्ध,
सोवा-रिग्पा एवं होम्योपैथी-(आयुष) मंत्रालय एवं रक्षा राज्य मंत्री
भारत सरकार

MINISTER OF STATE (INDEPENDENT CHARGE) FOR
AYURVEDA, YOGA & NATUROPATHY, UNANI, SIDDHA,
SOWA-RIGPA, HOMOEOPATHY-(AYUSH) &
MINISTER OF STATE FOR DEFENCE
GOVERNMENT OF INDIA



15th, December, 2020

MESSAGE

It's my privilege to be invited to the Government Industry Dialogue 2020 on 21st November on the theme: "Path-breaking ideas for Economic Growth & Self-Reliant India".

This platform would help in providing ideas that would help the current government to understand the current scenario, and also to look at the various opportunities the industry experts are talking about.

I am sure the report that will come out based on the deliberations at the Government Industry Dialogue would be beneficial to all of us

Once again, I would like to thank you for inviting me to such a dialogue and it was a great experience.

I look forward to the report.


(Shripad Naik)

MESSAGE

MEMBER OF PARLIAMENT
(RAJYA SABHA)



K. J. ALPHONS, IAS (Rtd.)

Date: 15th December, 2020

Message

It was my privilege to be invited to the government Industry Dialogue 2020 on 21st November. This was the 2nd dialogue that I have attended. Like the previous dialogue, this too was very interesting and the theme: Path-breaking ideas for economic growth and self-reliant India, was suitable for the current situation of the world. COVID-19 has impacted our economic growth and we need full proof plans to level up our economy.

I thank my good friend, Rajendra for conducting such great dialogue and for inviting me again to witness such an august gathering and share my views.

MESSAGE

डा. अजय कुमार
रक्षा सचिव
Dr. Ajay Kumar
Defence Secretary



भारत सरकार
रक्षा मंत्रालय
Government of India
Ministry of Defence

Message

I am delighted to have participated in the Government - Industry Dialogue on the theme: "Path Breaking Ideas for economic growth and self-reliant India".

As we move on the path of Atma Nirbhar Bharat in Defence, the increasing role of industry is more than evident. MSMEs and start-ups have particularly an important role. To ensure that the efforts of industry are aligned with overall needs of Armed Forces, dialogue with industry is an essential requirement.

The Forum provided a great opportunity for such interaction with the stakeholders of Atma Nirbhar Bharat. The participation was diverse and knowledgeable and provided insights into issues which need to be worked upon. I compliment the organisers for the initiative.

"Jai Hind"



(Ajay Kumar)

New Delhi,
December 14, 2020.

MESSAGE



सत्यमेव जयते

प्रो. आशुतोष शर्मा
Prof. Ashutosh Sharma



एक कदम स्वच्छता की ओर



सचिव
भारत सरकार
विज्ञान एवं प्रौद्योगिकी मंत्रालय
विज्ञान एवं प्रौद्योगिकी विभाग
Secretary
Government of India
Ministry of Science and Technology
Department of Science and Technology



MESSAGE

It is an indeed privilege to have participated in the Government Industry Dialogue held on 21st [November 2020](#). I would like to thank the organisers for inviting me and giving an opportunity to share my views with such industry experts.

This platform provides a great opportunity for all to share their views and suggestions and breaking the working style of the private and government players of working in silos.

I look forward to the report that would be having all the innovative ideas shared by various stakeholders discussed during the dialogue.

Once again, thank you for inviting me at this dialogue.

(Ashutosh Sharma)

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MESSAGE

संजीव कौशिक, भा.प्र.से.
अपर सचिव

Sanjeev Kaushik, IAS
Additional Secretary



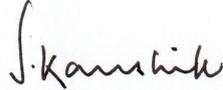
भारत सरकार
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December 14, 2020.

It is my pleasure to be invited to the Government Industry Dialogue on 21st November 2020.

The ideas provided by various stakeholders were interesting and actionable, and I hope the report will have some great inputs for us to consider. Overall, the quality of deliberations was outstanding and the format of Government Industry Dialogue is unique and such a platform is the need of the hour to bring private and public sectors together to achieve the goal of developed India.

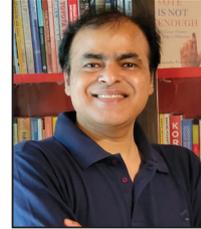
I look forward to the report and more such participation in future.


(SANJEEV KAUSHIK)

MESSAGE



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BRIDGING THE DIVIDE



MESSAGE FROM THE FOUNDER

Finally, the year 2020 is behind us, and it has shown that we can fight any challenge 'together'. As the Government Industry Dialogue nears completion of a decade, we realize now that our work has become more relevant and useful to the stakeholders than ever before. Our country under the exemplary leadership of Prime Minister Modi is in for a massive growth, and it calls for engagement and support from every stakeholder at all levels.

As we build the strong foundation for economic growth, we will need innovative ideas and so, we decided to host this year's Government Industry Dialogue on the finding Path-Breaking Ideas for Economic Growth & Self-Reliant India.

Due to the ongoing restrictions and guidelines due to COVID-19, for the first time we have conducted this dialogue online. Despite being online, we had witnessed the best participation of leaders from both the private and public sectors.

I thank the leaders for their valuable time and invaluable ideas. I am sure the report will help the government to consider the innovative ideas and solutions proposed by the leaders for the betterment of our nation.

Best wishes & warm regards,

Prof. Rajendra Pratap Gupta
Founder
Government Industry Dialogue

www.governmentindustrydialogue.org



MESSAGE



GOVERNMENT INDUSTRY DIALOGUE
BRIDGING THE DIVIDE



MESSAGE FROM VICE PRESIDENT

Wish you all a very happy, safe, and prosperous New Year 2021!

It was a pleasure to have such great dignitaries with us at Government Industry Dialogue 2020 held on 21st November. This year's theme was Path-Breaking Ideas for Economic Growth & Self-Reliant India. It was organized in association with NITI Aayog, Ministry of AYUSH, and Department of Science & Technology, Government of India and Internet Governance Forum-Dynamic Coalition on Internet & Jobs.

COVID-19 has forced all of us to accept technology and walk hand-in-hand with the technology.

I am hopeful that the ideas shared by all the participants at this dialogue would help our government to look at the ideas and incorporate them in the path of our economic growth.

I would like to thank each one of you for being with us and giving invaluable inputs. And I do hope that this year 2021 would be more productive for all of us and we will be able to say goodbye to COVID-19.

Thank you once again.

With warm regards,

Mevish P Vaishnav
Vice President
Government Industry Dialogue

www.governmentindustrydialogue.org



Impact of COVID 19 on the Indian Economy

The global economic growth for the year 2020 has comprehensively been influenced by the novel corona virus disease (Covid-19). The pandemic has instigated unthinkable challenging times. The global economy underwent turbulence in the wake of the pandemic as nations went to a standstill with lockdowns to curb the outbreak of the virus. The virus affected the financial system by impacting the production, supply chain, and the disruption of the market. With the International Monetary Fund (IMF) forecasting a global recession for the year 2020, which may be just like the downturn of the 2008 crisis; the delirious impact of the virus seems to be just unfolding.

The gross domestic product (GDP) growth of India was formerly facing the lowest in the third quarter of 2019-2020 in over six years. The Indian financial system was further afflicted by the virus, causing an added deceleration of the economy, affecting both consumption and investments. The economy of India lost pace from 6% (2018-2019) to 4.2% (2019-2020). The three main backers of GDP, i.e., private consumption, capital spending, and external trading, were all affected.

The Indian economy has always been propelled by service expansion, which has aided consistent progression in growth and development of the country. The current situation has largely disrupted human lives and economic activity in terms of supply side together with the demand side. All sectors were notably adversely affected due to the domestic demand and exports sectors that witnessed a drastic plunge where high financial growth was expected to observe.

The food and agriculture industries being the backbone of the country, along with the government are expected to have less impact in the usage of agro-inputs and primary agricultural productions because their movement was not completely restricted. The aviation and tourism sectors contribute approximately 2.4% and 9.2% to the GDP of the country, respectively. These sectors were affected substantially with critical cash flow disputes resulting in approximately 70% lay-offs in terms of workforce. It is estimated that roughly a loss of close to 85 billion rupees has been incurred due to imposed travel restrictions. However, the telecom industry of India provided essential services during the pandemic and saw a 10% increased demand. This contributed to 6.5% of the GDP and 4 million of employment in 2019. Yet, the industry is

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REPORT 2020



expected to witness a drastic drop in adding up of new subscribers. The pharmaceutical industry rocketed during the pandemic, with India being the largest global producer of generic drugs. The market was priced at 55 billion dollars at the beginning of this year. The market surged with the export of hydroxychloroquine to countries such as the United States, the United Kingdom, Canada, and the Middle East. However, the rise in importing raw materials from countries such as China has knocked the industry bitterly. The imposed prohibition on the export of equipment, such as personal protective equipment (PPE) kits and drugs, further pushed these industries to battle in order to ensure adequate supply to the country itself. The oil and gas industry saw a hit in terms of demand. Although the crude prices plummeted, the government raised the special excise and excise in order to balance the revenue loss.

The global scale of disruption caused by the novel coronavirus is apparent. Cutback on urban transactions has only led to a plummet in the consumption of non-essential goods and a further delay in investments due to fragile domestic consumption and consumers. The government has been collectively working by up taking policy actions, jointly and individually, thereby combating the economic crisis. The G-20 countries, including the Indian government, have been tackling the enormous impact of the virus by undertaking policy activities and reducing the repo rate to a historical low of 4.4% and introducing relief packages worth 1.74 lakh crore.



AGENDA

Saturday, 21st November, 2020

Virtual Meet

- 3.15 PM - 3.30 PM** : Arrival of Guests
- 3.30 PM - 3.35 PM** : Introduction Ms. Mevish P. Vaishnav, VP, Government Industry Dialogue
- 3.35 PM - 3.45 AM** : Opening Remarks - Prof. Rajendra Pratap Gupta, Founder & Co-Chair, Government Industry Dialogue
- 3.45 PM - 3.55 PM** : Prof. Ashutosh Sharma, Secretary, Department of Science & Technology, Government of India
- 3.55 PM - 4.05 PM** : Mr. Nikhil Taneja, Vice President & Managing Director, Radware India Pvt. Ltd.
- 4.05 PM - 4.15 PM** : Mr. Harkesh Kumar Mittal, Former Advisor & Member Secretary - National Science & Technology Entrepreneurship Development Board, Government of India
- 4.15 PM - 4.25 PM** : Dr. Ajay Kumar, Defence Secretary, Government of India
- 4.25 PM - 4.35 PM** : Mr. Krishan Girdhar, Managing Director, Presto Infosolutions Pvt. Ltd.
- 4.35 PM - 4.45 PM** : Dr. Yogesh Patil, Co-Founder, Biosense Technologies
- 4.45 PM - 4.55 PM** : Mr. K.J. Alphons, Member of Parliament (Rajya Sabha) & Former Union Minister, Government of India
- 4:55 PM - 5.05 PM** : Vishal Gondal, Founder, GOQii , Serial Entrepreneur & 'Gaming Guru'
- 5.05 PM - 5.15 PM** : Dr. Shirshendu Mukherjee, Mission Director, Grand Challenges India
- 5.15 PM - 5.25 PM** : Mr. Ashish Chauhan, MD & CEO, Bombay Stock Exchange
- 5.25 PM - 5.35 PM** : Mr. Arun Kumar Jha, Director General, National Productivity Council Department for Promotion of Industry and Internal Trade, Ministry of Commerce & Industry, Government of India
- 5.35 PM - 5.55 PM** : Guest of Honour - Mr. Shripad Naik, Union Minister of State for AYUSH (I/c) & Defence, Government of India
- 5.55 PM - 7.15 PM** : Brainstorming session with Key Sectoral Leaders & Policy Makers
- 7.15 PM - 7.30 PM** : Valedictory Address by the Co-Chair & Chief Guest - Dr. Rajiv Kumar, Vice-Chairman, NITI Aayog
- 7.30 PM** : Vote of Thanks & Close Prof. Rajendra Pratap Gupta, Founder & Co- Chair, Government Industry Dialogue



Deliberations at the Government Industry Dialogue-2020



Dr. Rajiv Kumar

Vice-Chairman

**NITI Aayog - Co-Chair and
Chief Guest of the Dialogue**

It is wonderful to know the kind of work the Government Industry Dialogue has been doing over the years. It is always interesting and a learning experience to listen to so many voices. This is part of the NITI Aayog's mandate. I think of NITI Aayog as a funnel with its mouth open towards our society, civil society, academia, and industry to receive ideas and to put them into the system for their implementation and follow-up with them. So therefore, I am only fulfilling my mandate by having attended this dialogue. There were very good ideas and remarkable thoughts put forth here. Thank you to all the participants who have taken so much interest. I want to assure everybody that number of these things are already in the works, in the pipeline. To give you one example, people mentioned in the beginning about the unrealistic conditions put out in the government tenders, which exclude our start-ups, because they are either asked for some experience or a net worth which they do not have. This is something which is under very active consideration. In fact, I have myself spoken to the Chief Executive Officer (CEO) of the Gem portal and I think he has already implemented this. Now you do

not have such conditions and qualifications that exclude our start-ups. In NITI Aayog, we realize and recognize that if start-ups are going to be a success, the government needs to be a principal procurement in this and we are committed to make that happen. The other example is that people spoke about the risk capital not being available. It is a fact, this is not readily available in India, but we need to point this out to our honorable Prime Minister

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Please do not hesitate to send us your suggestions. All that you will suggest will be looked at and I assure you that it will be taken seriously.

.....”

that our debt to gross domestic product (GDP) ratio, private debt to GDP ratio remains a mere 53%. Our equity capital does not get the attention as Mr. Ashish Chauhan pointed out

as it should. We are currently in the business of trying to work out as to how to improve the flow of capital to our start-ups, our angel capital, and venture capital and it is wonderful to know that the Bombay Stock Exchange (BSE) is already doing that. So, I think the red tape, more than 1200 laws have been removed from the statute books. The Prime Minister himself ordered a review of the entire compliance burden in every ministry. While it happened as I was making a presentation, because of the team lease data, we showed that there were about 56,000 compliance requirements if we put the entire stake in the central government

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Do not only suggest what needs to be done, but also tell us how to do it. What is the process that you have in mind by which we can achieve these things? I think that is much more useful.

.....”

regulation and compliance body together. He has ordered to try and see how to reduce it. Hopefully, this will reduce the red tape and the paperwork that goes with it. You know that the Know Your Customer (KYC) now between the three financial regulators – Securities and Exchange Board of India (SEBI), Reserve Bank of India (RBI) and Insurance Regulatory and Development Authority of India (IRDAI) have agreed for a common set of KYC. I have taken up

a meeting next week with the Chief Secretaries of the North Eastern States to again review the compliance burden. We know that we need to do this to make the investment environment more friendly and attractive. This is to assure you that this is a listening government, a government committed to developing the private sector. This is the government that recognizes upfront that the government alone cannot build the Indian economy and achieve our aspirations; cannot take us to a \$5 or a \$10 trillion economy. The private sector will have to play the leading role. The government's efforts are a supportive act – a crucial, but a supportive one. So therefore, please do not hesitate to send us your suggestions. All that you will suggest will be looked at and I assure you that it will be taken seriously. The only thing that I want to point out is that a large number of suggestions, even today unfortunately, are made at the level of 60,000 ft., in very general terms and made as if things can be done in a jiffy. That is not the case. It will be very useful for each one of us to look at the nitty-gritty of what we are suggesting. *Do not only suggest what needs to be done, but also tell us how to do it.* What is the process that you have in mind by which we can achieve these things? I think that is much more useful and when that is done, we can take it forward. We cannot succeed if we do not build the necessary trust-based relationship between the private and public sectors. The world is not a friendly place, but let me also add here that we cannot hope to build and grow our economy at the rate and levels by only confining ourselves to the domestic economy. There is no mathematics, statistics, estimates, or scenarios, which will tell you that you can grow at 7% or 8% per annum or you can grow your manufacturing rates to become a trillion dollars or without

being a player in the global economy. I think this was emphasized during the discussion as well, but India will have to quadruple, or probably quintuple many times its share in the world trade, both in manufacturing goods and services. Unless we do this, we cannot achieve the aspirations. If we want to be a player on the global economy, if we want to be among the leading economies for technology, innovation, and trade, the global economy is our stage. On this stage, we have to play together as partners – the private sector and the government with something based on trust. These two are crucial premises in my mind. One is that we should continue to think of ourselves in the global economy, self-reliance, and Atma Nirbharta. The Prime Minister has made it clear that it does not mean just self-sufficiency. We will have to continue to import, export, and that goes on. This trust-based relationship is critically dependent on honest and candid feedback without any fear or apprehension of what might be the consequences. As far as NITI Aayog is concerned, such feedback is welcome, it is required, and we will wait for it. I will mention five ideas rather quickly.

The other crucial premise is we need to rethink our urban strategy. Though growth will come with rapid but smart urbanization, we must build the capacity for urban planning and design. We have not done this so far and this is a huge challenge. The whole western model of urbanization is premised upon private transport and commuting. Now this is something out of the question for us. We must build our urbanization based on public transport, high-quality green public transport, using electric mobility. How do we do that? Where do we get the workers, housing etc. from? The entire urban space must completely be re-thought.

We have to move from 31% today to 60% in the next 30 years of urban population. We also need to completely re-think our sanitation and sewage systems. The Defence Research & Development Organisation (DRDO) has licensed a technology for bio-digesters, which do away with the need for sewer lines, sewage treatment plants, etc. because all of these can be done in situ. This is just one example that we need to look at. The whole urban space has to be re-thought.

“.....

It is for all of us now to come together, to rethink and jettison the usual business ideas and re-think fresh on how we will become a \$5 trillion economy and how can we double our GDP in the next 5-6 years. We can do it, but we must work hard and on new ways to achieve it.

.....”

Similarly, we need to re-think our healthcare. We have to focus much more on preventive care, immunity, social hygiene, on exercise. Unless we do that, I don't think we will get a healthy society. Curative health is not the answer. How do we bring it up front, middle, and center? Can we make innovations on making this into a social movement? But even

more important is that we need to think about mainstreaming our traditional medicine. I have set up a very high-powered committee for integrating the medical streams. China has done it with great effect. It is time for us to integrate our medical systems and think about integrated medical systems, both in terms of education and therapy.

We need to re-think about our financial sector. I am very happy with the way the Reserve Bank of India (RBI) has taken a major step forward to reverse the old socialist tendencies of keeping our corporate sector out, but the financial sector is still unable to perform the required functions in a growing start up, innovation, and entrepreneur-based economy.

Indian agriculture cannot continue in manner that it has come to today in the last 70 years. It is a lucky situation that we have achieved food security, but now we need to re-think about agriculture completely, because the industrial agricultural model based on the large-scale holdings or on increasing inputs of biochemical inputs onto the small holding are both unviable. A paper published in EPW by Prof. Runo Dorin proved with evidence that Indian agriculture cannot follow the route followed by Europe, North America, and China. We need to shift away from the industrial agricultural model to a natural farming model, where we do not use inorganic inputs, where we have zero chemical agriculture, and where natural

farming is the principle form of farming. This not only enables us to look at the nutritional sufficiency, but also looks after our climate in a major way. All of us must think through it.

Finally, we also need to rethink our export strategy and our engagement with the rest of the world. We need to focus and select our sectors in which we grow. We need to move the policies and from a so-called shotgun approach to a rifle approach. Select your target and area of interest and become world competitors. Unless we become world competitive in selected half a dozen or dozen sectors, areas, themes, and technology, it is not a good thing to say, but you have to remember that since independence, probably, India has not had more than half a dozen product innovations. The industry has to re-think this. Now, it is time for us to select our area between 2001 and 2020, out of the top five companies, only one has remained constant. We should make sure that in the next 20 years, there are some Indian companies in the top 20. This would require both the private and the government sectors to think innovatively, collaboratively, and in a trust-based partnership. It is for all of us now to come together, to rethink and jettison the usual business ideas and re-think fresh on how we will become a \$5 trillion economy and how can we double our GDP in the next 5-6 years. We can do it, but we must work hard and on new ways to achieve it.



Mr. Shripad Naik

**Union Minister of State for
AYUSH (I/C) & Defence,
Government of India.
(Guest of Honour)**

India has the unique distinction of having a health system comprising modern and traditional used medical systems, categorized as – Ayurveda, Yoga and Naturopathy, Unani, Siddha, Homeopathy. We have 732 colleges dedicated to this proliferation of AYUSH practices, as India has emerged as a world leader in this sector of medicine. AYUSH has huge importance to promote better health and positively impact the Indian economy. The government has also approved 100% foreign direct investment in AYUSH. I am happy to share with this august assembly that owing to the promotion of AYUSH through various awareness programs, it is witnessing a rise. In the 2019 Union Budget, the government increased the allocation to the Ministry of AYUSH by 15%. Valued at INR 300 billion in 2018, it is expected to reach 710.87 billion in 2024. Expanding at a compound annual growth rate of 16.06% during the forecast period, in 2018, approximately 74% of the market accounted for Ayurveda products, while the Ayurveda services segment held the remaining 27% of the market.

Out of 2984 AYUSH units in the country, 99.5% are controlled by non-government

bodies, and 0.5% units are in the government sector. Out of which, 59% of the licensed pharmacies are good manufacturing practice (GMP) compliant. It started with the computerization of the Indian industry that AYUSH is

“

Comparatively high demand for alternative medicine across developed, developing countries, and expanding the application of traditional medicine practice in Asia are two key driving factors of the market.

.....”

currently expected to grow to the US dollar 15 billion market by 2020. I am 100% sure that investment permitted in this sector has attracted many international and domestic

investors. Start-ups are also working on innovative ideas to develop this market. Customers are mainly in tier 2 cities, but also in the rural parts of India. They also have a heritage of large varieties of medicine and plant traditional knowledge associated with them. Vast network infrastructure is needed in proportion, testing, etc. Comparatively high demand for alternative medicine across developed, developing countries, and expanding the application of traditional medicine practice in Asia are two key driving factors of the market. China and India are the key contributors to the Asian-Pacific area, and are thus, offering

“.....
Let us all work beyond our boundaries for the benefit of mankind. Let us also focus on how we all can work together to achieve health for all, self-reliant India with the initiatives of Ministry of AYUSH.
.....”

significant momentum to revenue generation by providing complementary and alternative treatments. Amid the COVID-19 pandemic, health infrastructure and remedies have been vital to leverage across the country and the population is seeking quality medicine and service by the AYUSH system of medicine. To maintain a healthy lifestyle, consumers

increasingly prefer AYUSH medication. It is the need of the hour to showcase the potential of the AYUSH industry, and create resources befitting them. I will take this opportunity to mention that the traditional system of medicine should be integrated into the Indian Healthcare system. Issuance of the public advisory by the Ministry of AYUSH from January 2020 onwards, public acceptance of traditional ayurvedic medicine has increased to counter the COVID-19 pandemic. As a result, AYUSH medicine was augmented from procurable spices, such as black pepper, cinnamon, raw ginger, ghee, etc., to boost products for self-care and specifically preventive care. Not only visibility, but acceptability and demand of AYUSH have increased in the last 6-7 months and its trade dynamic.

When it comes to the Fast-moving consumer goods (FMCG) products, it is expected that Chyawanprash alone will be crossing 1000 crore in the FMCG market this year at 16%-20% of the market share among other health drinks. This year has been good as AYUSH has gained support from the PM and the government.

Import in ayurvedic medicine for respiratory immunity, such as krupanidhi ras, mahasudharshan khada, mahavimamla ras, and suvarnawali vasant, and those mentioned in the medicinal guidelines for practices have seen a volume of growth from 100%-300%. Without touching the technical aspect of Ayurveda, I would like to mention the intention and initiative in promoting AYUSH health as an integral part of healthcare. The government of India initiatives through National programs, backward integration of supply chains, setting up manufacturing plants, and investment

to the tune of 4000 crores will be spent. Export situation in COVID-19 has uplifted the demand for Ayurveda. Markets, such as Sri Lanka, Nepal, and the Association of South East Asian Nations (ASEAN) will enable export. Telemedicine has taken a leap and is in massive use in the Ayurveda sector in this pandemic. Urgent steps must be taken to use this opportunity. New Ayurveda colleges will also play a vital role in taking this forward. Recently, the ministry of AYUSH has met with major herbal industry bodies

to take measures to promote maximum cultivation of traditional medicine. We understand that opportunities are immense for the development and growth of AYUSH Healthcare. Looking forward to meaningful coordination and cooperation, we need to ensure that the benefits reach out to the entire global population. Let us all work beyond our boundaries for the benefit of mankind. Let us also focus on how we all can work together to achieve health for all, self-reliant India with the initiatives of Ministry of AYUSH.



Mr. K.J. Alphons

**Member of Parliament (R.S.)
Former Union Minister**

I am extremely happy to be here with you all on this occasion, the Government Industry Dialogue. I have been a huge proponent of the private sector of this country. We have repeatedly proved that we can do things. Now, for the first time in the history of India in 70 years, we have a government, which believes that government has no business to be in business, which believes in private individuals and corporates those who must be in the business. The government has just not spoken; it has consistently for the past six years changed the regulations, encouraged the government to put money into the RBI and to the financial institutions, brought down dramatically the interest rates and inflation, and made things much easier. The government of India has dramatically changed its attitude towards the industry. Now, we are in extremely difficult times, as globally the economy has collapsed. We have a second wave, a third wave striking the global economy. India has been hit badly in the first quarter of this financial year. In the second quarter, we have recovered quite a bit.

We had to shut down before things became worse, we had to ensure we had insulated the country, we needed time to create basic

infrastructure in the medical industry. So, we delayed the onset of COVID-19 in India by months by declaring a lockdown. We are manufacturing most of the COVID-19 kits necessary and ventilators, exporting a

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The government has gone a long way to make things easier, so, we have to make things easier for the government as well.
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lot of stuff to many countries. Many studies have shown that we saved millions of lives by declaring the lockdown. Government has poured around 30 lakh crores as COVID-19 stimulus from the past six months. We are now coming out with rules pertaining to the codes, to make sure that the laborers get fair treatment and that they have accurate security, medical care and that their work hours are not

in excess. Migrant laborers, the ones who work in an informal structure, are also part of the structure, which is a great thing the labor code has done. I do not think the industry needs to feel bad that new conditions are being imposed on us, and we need dignity for our laborers. Unless we provide them with dignity, we are not going to optimize their output.

The government has gone a long way to make things easier, so, we have to make things easier for the government as well. Many of the people borrow money from banks and institutions; we have to ensure that this money is used. Let us have a little more honesty in our sector. We have seen big-time corporate auditors succumbing to temptations. We can be committed, we

can do things, and Indians have brilliance and the ability. Understand now that the Prime Minister has put in so much faith in the corporate sector. We can certainly do it. It is just the question of speed. We have geniuses, technologies, people, fundings, we have everything! I think what the nation lacks—is just the will to do it. We need to cleanup our environment; we need to make our cities better. We Indians are innovative, and we are hardworking people. We need to change our attitude. Let us all get together and make our country great, I have heard that before, but we have great opportunities to do things. This is the time for the country to respond and prove our motto. Let us all work together in this.



Dr. Ajay Kumar

**Defence Secretary
Government of India**

I always feel there comes a time when a particular sector of the industry sees a transformation. Now, if you look at the telecom industry, this was when the telecom sector was opened. If you look at the civil aviation industry, it similarly opened for the private industry. I would like to say that this is one such transformational movement in this huge defence sector. When we are looking at the defence sector, I would like to say that it is not only for the demands for the Indian armed forces itself, but also, the global demand for the armed weapons and equipment is huge. The great opportunity that we have is to develop this industry based on our own demand. Until recently, we have been the largest importer of the defence equipment in the world. However, we need not be proud of this because off late, with growth in the defence segment, for the first time, we have become the second-largest importer in the world, which is definitely not a small improvement.

Make in India in the defence sector means manufacturing based on the transfer of technology or license production. It also means that there has been a premium of doing it. Most of the countries that transfer

the technologies had usually charged a hefty cost. As a result, whatever was made in India was sometimes 25%-50% more costly than importing; therefore, importing became an attractive proposition.

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*Indian start-ups
are being sought
after by the US defence
laboratories.*

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When we talk about Aatma Nirbhar Bharat, it is about developing our own technology and making sure that we have the capabilities to create our products. The advantage, which I don't have to say with our own technology, has led to lower the costs. Today it is about the latest technology. As for the licensed production, there were constraints and limitations imposed that we could only produce certain numbers. It is certain that only for a known production you are not allowed to export. Overall, the fact is that the doors of export have opened for using our own technology now.

Friends, the question that some people may ask is how confident are we to have our own technology for defence? Defence of course, has always been using the latest cutting-edge technology. It has been driving the frontier of technology for as long as history of mankind goes. Our experience in the last 2-3 years has been that Indian industry, start-ups, academia, and public sector institutions can produce cutting-edge technologies which are the best in the world.

Some of our start-ups today have come up as a part of our initiative to develop technology in India, and I'm proud to say that they are being sought after by the world's leading defence countries. Indian start-ups are being sought after by the US defence laboratories. Recently, one of our start-ups won the US-UK space leadership challenge pitch. We put this challenge to our defence Public Sector Undertaking(s) (PSU), and in the very first year, these PSU(s) produced nearly 800 new Internet protocols (IPs) for new technologies that were required for their own products. So, I think somewhere down the line, the point I wanted to make is that we have possibly not shown the confidence in our own talent in our industry. There is absolutely no doubt that our own technology-enabled products will start coming more and more. Today, we have the Light Combat Aircraft (LCA), a fighter jet, which is now being inducted in large scale. There is not a single ship that we are unable to make in India and induct for our navy. We have also increased our capability of manufacturing and designing different kind of artillery guns in the country. Last week, the Honorable Prime Minister actually wrote about an Indian designed tank, Arjun when it went to the Indian border in Rajasthan.

Lastly, friends let me talk briefly on various initiatives that the government has been taking and is currently taking in the last couple of years. Basic trust in this regard has been to increase the participation of the industry. Opening a sector, which was previously predominantly with the PSU(s) and the government organizations, is now being opened for industries and start-ups. As a part of this, the Defence Research & Development Organisation (DRDO) today has been increasingly working with the

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industry as design and development partner from the beginning. So, when they take up a project, they identify industry as design and development partner and work with them. DRDO has also made a policy where their technology is now available for any industry to produce the equipment free of cost. Their patent database has opened again for anyone who is working in this area free of cost. DRDO laboratories are now available for testing by any industry working in this area.



Prof. Ashutosh Sharma

**Secretary
Department of Science and
Technology (DST)**

Welcome to the wonders of the technology. In the last five years, Department of Science and Technology (DST) has not only made more incubators and start-ups, but also supported growth in other ways than in the last 50 years. Let me quickly come to the point of the Government Industry Dialogue.

The government-industry interface happens through policy, resources, purchase, human resources, infrastructural resources, and in all the steps that the government could bring in the arms into the industry. So, when we talk about the government and all the arms of the government, I would like to focus on the science and technology, research and development (R&D) and innovation arms of the government and how it interfaces with the industry. So, on a day-to-day basis, what does the industry needs? It needs access to data, information, knowledge, capital, and other resources. Some of it translates in terms of policy measures. Three policies under preparation, which are all converging by the end of this year, are:

1. Geospatial data policy: This industry offers unprecedented opportunities for deve-

lopment, planning, and governance. We need to have ease of access to geospatial data. There are several agencies of the government that have conducted surveys that create this kind of data. So, the point is there must be ease in acquiring and sharing such data and building an application on that. So, I am very

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It is the role of the government to interphase industry in dialogue and working together is indeed the most compelling factor going forward.
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happy to tell you that this indeed is an offering known as the democratization of data, at least for the Indian industry and Indian citizens.

2. Infrastructure policy: Government creates about more than 10,000 crores of Science and Technology infrastructures every

year. We want everybody to have access to resources and infrastructure. Science and technology infrastructure policy would indeed address that point very strongly. In other words, how would you create infrastructure, how do you have access to that, in particular, how the industry and emerging start-ups have access to that infrastructure.

3. Purchase policy: When the government is a buyer, it is always great if the product and technologies we need are projected in advance. This basically gives time to our industry, our start-ups to work on it with a clear purpose and a goal. So, when we go for the purchase, of course, assuming that it satisfies the technical requirements, it goes L1. The whole concept of L1 is basically cost to one arm of the government. If we generalize this concept and compute the cost to the nation, going from cost to a particular company or a particular organization when it is a buyer. If we were to integrate the cost, we were looking at the nation, then perhaps it could be a better concept. We have learnt many lessons during COVID-19 times, indeed six months ago, everything was imported. Today, we have the best quality, global quality products going all the way from diagnostics, ventilators, PPEs, N-95 masks, and even vaccines coming up. All this was possible because the government, industries, start-ups, academia, and R&D worked very well together. These are the triple elites, if you were to bring in the triple elites early in the direction and vision, like a light at the end of the tunnel from the beginning, then I am very certain that there's no product or technology that our scientists

could not develop. It is the role of the government to interphase industry in dialogue and working together is indeed the most compelling factor going forward.

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The industry can work very closely with academia and government and bring its problems, co-develop technologies and products, and clearly have access to all the resources, which are being created and are quite substantial.
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Finally, I would say, another policy coming up is the Science and Technology innovation policy of 2020. This mainly focuses on how government and industry can work together; in other words, what are the mechanisms, architecture, structure, and process by which the industry also sees the value of knowledge.

To conclude, the industry can work very closely with academia and government and bring its problems, co-develop technologies and products, and clearly have access to all the resources, which are being created and are quite substantial.



Mr. Sanjeev Kaushik

**Additional Secretary,
Ministry of Finance
Government of India**

I would like to draw the attention of this distinguished set of participants to a very important area of priority work that we are doing in the inclusive growth of the economy. As you know, financial inclusion is a flagship program of the government. Honorable Prime Minister launched the Pradhan Mantri Jan Dhan Yojana in 2014. Since then, we've made huge strides in providing access to financial services to the lowest rungs of the society—to the poorest of the poor. We have ensured that access to banking services, whether through bank branches or automated teller machines (ATMs) or bank mitras, banking correspondence is provided within a radius of 5 kilometers to every village, and we are nearing a hundred percent completion of that goal. We have opened more than 42 crores Jan Dhan accounts.

This proved to be a boon during the recent pandemic, because we were able to transfer a lot of solace, ex-gratia money cash transfers to the poor women. More than 20 crore women account holders were given money through this. We also transferred huge amounts of money through the PM Kisan program to farmers. Financial inclusion has been a very

important plank, and together with the Digital India Program, we have more than a billion Aadhar seeded accounts, Jan Dhan accounts

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We now need to move to the next version, to the higher version of financial inclusion, which can be called Jan Dhan 2.0. For the broader financial inclusion program, we are now targeting moving from financial inclusion to financial empowerment.

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into which we can direct the Direct Benefit Transfer (DBT) flows, empowering the poorest of the poor and making it an inclusive growth in the economy.

We now need to move to the next version, to the higher version of financial inclusion, which can be called Jan Dhan 2.0. For the broader financial inclusion program, we are now targeting moving from financial inclusion to financial empowerment. We are open to the ideas on how we can achieve this. Some of the thoughts could be how we insert the savings by people who have their basic accounts. The No-Frills accounts could direct them towards recurring deposits and fixed deposits. Some of their savings could be channelized towards life goals, milestones, such as a daughter's wedding or a golden savings program, so on and so forth. That is one side of encouraging savings. Another aspect of this could be to provide credit linkages not just to individuals through mudra loans, but also to self-help groups (SHGs). SHGs, both men and women, help increase the employment generation capacity of some of these groups through credit. One of the programs that we are recently piloting with the help of the Atal Innovation Mission of Niti Aayog is the Kashi project. Some of you might have heard about it, the cash over internet or Kashi program is championed and supported by the Prime Minister himself. Through this trying to target to provide small loans to beneficiaries, based on the DBT schemes they receive. Instead of the traditional appraisal that banks do, which includes so many yardsticks, we are basically trying to assess the repayment capacity of the individual using the cash flows that flow into the accounts through DBTs and other means, and then extend these loans in a totally digital format from sanction right up to disbursement. This entire loan would flow online and would be pre-approved on an online portal.

These credit and savings initiatives could be the next version of Jan Dhan as Jan Dhan 2.0. In this context, I would also like to mention that as a part of the self-reliant India Atmanirbhar program, our Prime Minister announced the Pradhan Mantri SVANIDHI scheme –the small loans for street vendors who have been suffering during the lockdown in the pandemic period. Through this, we've been targeting giving ₹10,000 rupees to street vendors across municipalities in the country. The reason this program is extremely important because it illustrates the point

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As a part of the self-reliant India Atmanirbhar program, our Prime Minister announced the Pradhan Mantri SVANIDHI scheme –the small loans for street vendors who have been suffering during the lockdown in the pandemic period.
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that we are talking about is that from the word go to college right from the time the application is submitted to sanction and then on to disbursement, everything is being done online across the country through different bank branches. There is an online portal and loans are sanctioned online centrally and then

finally, before the disbursement of this loan happens, the beneficiary is expected to be digitally on boarded by the banks. After this, a quick response (QR) code is generated. It is given in the expectation that the vendor would be able to carry the loan on his business, and then he will make the payments during the course of his business. The transactions that he can make would be through his mobile phone through various online payment methods. Then there is an incentive provided, such as cash-back schemes, built to encourage the payment made through online modes.

All these are ideas of which the proponent was the honorable Prime Minister himself, and he has egged us on to adopt the technology of digital platform and to think in this innovative way, which has really set the tone for the future in a way that financial services are going to be delivered. So, I just wanted to capture some of these thoughts and lay it before this house in the hope that some interesting ideas would be generated and we could benefit from that by incorporating them in some of the work that we are doing. Thank you.



Mr. Arun Kumar Jha

**Director General
National Productivity Council,
Dept. for Promotion of Industry
and Internal Trade Ministry of
Commerce and Industry.
Government of India**

We must be very concerned about productivity. In textiles, Bangladesh is more productive, and wet laboratory is almost 15%-20% more productive. In the IMD yearbook of competitiveness, we are at the 43rd position. Our main problem is basic infrastructure, what you call employment, business legislation. You have been asking about the path breaking ideas, let me tell you that we have hot 3000 plus clusters, which can accommodate large and small industries. Out of this, few are really good; not very good, you can even say only good. Of course, the Ministry of Commerce has been trying to rank them, and to rank them, they are studying them. We should focus on whether the quality of power is there or not, whether law and order or water is there or not.

We have brought out two tools. One of them is to know your productivity. Industries can assess themselves – what is their productivity, where do they stand. We have developed - Bharat 4.0 to assess the readiness of the industry’s digitization, whether they will be able to utilize technology. We need to empower MSMEs. India cannot be an economy

of 5 trillion and 1 trillion in the manufacturing industry sector. I can say that whatever we have, we must do it in a slightly professional manner. How do we break the inefficiency? In the COVID-19 pandemic, we have all seen how the private hospitals behaved, and even now they are working at 50% capacity.

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Somewhere, last mile productivity is missing, and we need to discuss this in the government industry dialogue and address the teething issues.

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Government medical professionals are working 24x7 hours. At the same time, we have to pinpoint and fine-tune some of our activities. We have all sorts of things within our hands where we need to have path-breaking ideas. There are innovations happening in Moradabad brass clusters. But

many innovations may not see the light of day as they are dying there, because nobody captures, nurtures, and promotes them. So we have to have a system of capturing those ideas as well. Why can't we make some industry associations? Council of Scientific &

Industrial Research (CSIR) has more than 700 new innovators in their hands, but it is not being commercialized. Somewhere, last mile productivity is missing, and we need to discuss this in the government industry dialogue and address the teething issues.



Mr. Harkesh Kumar Mittal

**Former Advisor & Member Secretary
National Science & Technology
Entrepreneurship Development Board,
Government of India**

In the present scenario, where we are hit by the COVID-19 pandemic, there are a lot of challenges to overcome. In the meantime, globally people are looking at futuristic technologies and India must draw its roadmap for futuristic technologies. A study conducted by The World Economic Forum, has selected the following top 10 futuristic innovations and technologies that would impact the planet:

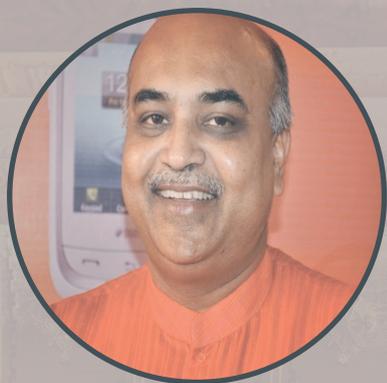
The first area listed is microneedles for painless injection and testing and today, this is what is needed. These needles have the thickness of our hair. They are painless when they are used. The second area is sun-powered chemistry. Here, the chemicals would be synthesized using solar power. The third area which is listed is virtual patients. You will have virtual patients instead of people physically coming inside the hospital. There will be sensors, artificial intelligence (AI), and apps which will be used, and the patient will be both diagnosed and treated virtually. Related to this, we have digital medicine with a similar concept. The next technology on the list is cooler power aviation, which is aimed at reducing greenhouse gas effects. The way we do business and live our lives is in for change, some of it that we are witnessing already. Some of these technologies are going to come in, and further

change our lives. And, I think we have seen some of the existing technologies that we have now started using. In the last year I have been talking to the computer screen. All meetings and classrooms follow the same scenario. We

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have even stopped going to the hospitals, because some of these innovations have been brought in for the convenience of the people to solve some of the initial problems. However, everything is not a COVID-related innovation.

Some start-ups that I have interacted with are using this opportunity and bringing in new products to the market. Let us all use this time to bring in new innovations.



Dr. Shirshendu Mukherjee

**Mission Director
Grand Challenges India**

We have a billion problems and billion minds in India. We have challenges in healthcare, agriculture, food processing, education, and infrastructure. We need to work together to find the solutions. The Grand Challenges model for economic growth and self-reliant India has been a unique model. We have been working on this for almost six to seven years now. This has been jointly supported by the government and philanthropic foundations around the world, such as the Bill and Melinda Gates Foundation and the Wellcome Trust. This really supports the Atma Nirbhar Bharat initiative of the government. We work closely with Make in India and Stand up India. The model is to farm innovations and then hunt innovations, which are good to take to the next level. India has been an innovation country. We say we are very strong at the basic research platform and Dr. Harkesh Mittal is here in this dialogue, and has been a mentor to most of us on this platform for creating the innovation ecosystem. We really farm innovations to our various information systems and the challenge we look at, various challenges identified by talking to you, the group of people, policymakers,

innovators, and academics. Understanding all the challenges, we design a challenge protocol and then try to innovate to design a solution.

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Major key element of the Grand Challenges is that it should have a societal benefit.

If it benefits the common man, that forms the main key element of it. So, we should really create a team of academic research lab industry and society together.

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The Grand Challenge doesn't work single-mindedly; we need to have multiple policymakers who will give ideas and tell us about the gaps. You cannot work in silos. You need to create teams. In such teams, we need to bring everybody together. A basic

researcher needs to talk to a clinician, an engineer, or a software person to a regulator to define the business. We need to bring in a business team to really get an exit strategy for the problem. Multiple actions are required and multiple stakeholders are needed to define the challenge. It is not a one-person job, as we need to call it a 360-degree innovation where we really work together to work around the challenge.

We try to work across the country or ministries and the departments. There are no barriers crossed, and we complement each other on the challenge. As I said, it is not a single person or a single division within the departments that will solve that challenge; you need to work together and multiple stakeholders' collaboration is required to address these challenges.

When we look across the innovation ecosystem, academia works with research laboratories and industries as a key component. Major key element of the Grand Challenges is that it should have a societal benefit. If it benefits the common man, that forms the main key element of it. So, we should really create a team of academic research lab industry and society together.

We work across the innovation ecosystems, such as DBT, DHR, ICMR, and the CSIR. The branch is housed at BIRAC and it is the collaboration between the department of Biotechnology and Melinda Gates Foundation - Wellcome Trust, is hosted by BIRAC. Through the BIRAC ecosystem, we scale up this

challenge and work across multiple stake holders. This has helped us farm innovations, plug them, and take them to the next level.

We not only fund innovations, where funding is 50 to 60 percent but, 40% of the time in the Grand Challenges model or any commission model at BIRAC, we hand hold, to mentor and give them the necessary support to take the innovation to the next level and make it have a societal benefit.

In India, we have a couple of Grand Challenges, especially focused on maternal

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In India, we have a couple of Grand Challenges, especially focused on maternal and child health, agriculture, nutrition, sanitation, infectious diseases, medical technologies, and multiple cross-thematic grand challenges. We are also working on policy related issues in the Grand Challenges model.
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Mr. Ashish Kumar Chauhan

**MD & CEO,
Bombay Stock Exchange**

I think a few things I have learnt or seen is that China is a company in the guise of a country and Facebook or Google is a country in the guise of a company. So, how do we beat China or Facebook or Google? One way is to continue to cry, the other is to change our laws and make them cry. The third way would be to counter them smartly by developing a counter framework. It is good to cry, but that is not the only solution. I was told that wars in future will be fought by robots. If you can make robots, might as well make people who can help them, so that they can go and fight against our enemies. We will continue to hear a lot of noise about foreigners coming and helping us, and it is true. But if we don't learn how to hurt them, it will continue to be the story for years that foreigners will come and help us.

Bombay Stock Exchange (BSE) has thousands of attacks every day in our trading systems. We have nationally critical information infrastructure as devised by the Indian Computer Emergency Response System (CERT-IN) and the government of India. We also have a security operations center. Anyone wanting to look at the modern information

security framework should look at it, and we would be delighted to share our expertise on this.

In terms of what we have done in COVID-19, our job is basically to provide liquidity to Indian investors. We did not stop you even for a second. The entire country went into lockdown. But as soon as the Prime Minister

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*We are not using
our capital efficiently.*
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announced the lockdown, I wrote that BSE would remain open. Everyone was surprised and asked why? Because the government also said that as an essential service, you cannot close down. So, despite all the problems, we kept it open. This provided liquidity and confidence that anyone who required money could sell their shares. The market initially went down 40 percent across the world, but now they are pretty much above compared

to what they were in February or March 2020. Providing liquidity was an essential function of the stock markets actions in India, and it did a wonderful job. I am glad to say that BSE alone has helped Indian companies raise ₹10.45 lakh crore by way of equity, rights, bonds, and commercial papers over the last seven months. Basically, ₹10.45 lakh crores have been raised using BSE platforms and listed on BSE over the last seven months starting April 2020. This is one of the fastest-growing markets for raising funds.

In terms of what India can do out of this, India's gross domestic product (GDP) is around three trillion dollars. India saves almost 30% every year except for the COVID year being an exception. Every year we are going to save one trillion dollars. If you continue to grow at 7 percent over the next ten years, we will be saving fifteen trillion dollars. If you use a large portion of that in nation building, we may not even require foreign capital. Of course, it is very good if foreign capital comes in. We are not using our capital efficiently.

We need to create policies to ensure that more and more capital or savings come into the market. Vishal Gondal also mentioned that our youngsters do not get funding from our own people, making them go abroad. I think we need to create some incentives or ways to ensure that newer wealth that is created by Indians is going to remain in our hands going forward. Otherwise, Indians will create, like Vishal, a lot of wealth, but again it will be owned by foreigners making it counterproductive in some ways.

Currently, India's equity market capital is 2.3 trillion dollars. It is larger than the Indian

banking system. We give tremendous importance to banks, but we give very little importance to stock markets for the investment part. We are impressed by trading volumes which get you nowhere. What gets you somewhere as a country is job creation, creating industrial infrastructure, and creating industries. Creating anything is basically an investment. That's where I think these \$2.3 trillion is actually a testament to India's trust

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What gets you somewhere as a country is job creation, creating industrial infrastructure, and creating industries. Creating anything is basically an investment.

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in itself. Around 5.6 crore investors investing from India and abroad into Indian companies and it is basically the participation of people right? Trust in the Indian system is amazing. Being a third world country, \$2.3 trillion dollars is amongst the top 10 countries in the world in terms of the market capitalization. We need to utilize this infrastructure market for trading. BSE is trying to ensure we get large funds. Every day, literally, on average ₹10,000 crores is being raised by BSE for the large companies. We also have the small and medium enterprise (SME) segment. Even as a small company, if you want to raise ₹1 crore, we will raise ₹5 crores for you. We have a start-up

segment, so even if a company wants to raise ₹50 lakh today, many companies do not get angel funds, VCs. When you read newspapers, you think of a company having \$1 billion valuations as a start-up. However, it is not a start-up. It is what I call a win of marketing, win of dollars by spending money on newspapers, and they make you believe that a billion-dollar company - Flipkart is a start-up.

About 99.99% of start-ups do not get money from anyone. No angel. No VC. BSE has a start-up segment, and during the COVID-19 period, five to six companies have raised money there. BSE has also created an incubator with the Department of Science Technology in the BSE building and one in the Banaras Hindu University. BSE also has a mutual fund insurance distribution platform, which allows hundreds of thousands of agents to raise funds for India's growth. We are now trying to ensure that the technology and frameworks we have developed over the last 25 years are used in other areas, such as agriculture. We are now in the process of launching e-agri markets after the new laws that have come into place.

India is in a very sweet spot today geopolitically, because of the leadership that the honorable Prime Minister has shown. Considering China's negative activity, overall, India has actually landed in a great place. Of course, its demographics, frameworks are very nice. But, *we need to reform the administrative, judicial, labor, tax, and agriculture land customs etc.* We need to allow the companies to scale up for taking India as a market, but also as global players to become part of the global supply chain. No country makes anything, such as a refrigerator or microwave oven. Everything is not made in

China, some parts are made somewhere else, but the customs have to allow the movement of goods extremely fast without any hassles, and that is where India actually lacks. How do we ensure that we become a part of the global supply chain? Whatever needs to be done must be done here. If we try to manufacture everything, it is not going to be possible. Many components will come from different countries and components manufactured by us will go

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We need to reform the administrative, judicial, labor, tax, and agriculture land customs etc.

We need to allow the companies to scale up for taking India as a market, but also as global players to become part of the global supply chain.

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somewhere else and come back again. For me, considering *the top five things India can do is start with textiles*. Can we go from \$15 billion exports to \$150 billion? It is possible because China is actually doing \$160 billion and even Bangladesh is at \$35 billion. Similarly, with IT-BPO export, we can go from \$250 billion to \$1 trillion. In pharma sector, can we make application programming interfaces (APIs)

ourselves and go to \$1 trillion of export in the next 10 years. Medical professionals export similarly like IT, simply because the world now requires more medical professionals. India has proved beyond doubt that its medical professionals are really very good. Can we export them out to bring \$1 trillion from abroad and bring foreigners through medical tourism? The developed world is spending 20% of its GDP on pure medical frameworks. This goes up year after year and I think India can really do wonders. So, for me, these are the five things India can do to improve exports, and within that, we need to do reforms, spend on infra, and spend on energy systems and alternative energies.

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I think Biotech and chip manufacturing could be brought into India somehow with efforts made by the government.
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I think Biotech and chip manufacturing could be brought into India somehow with efforts made by the government. I believe we would be doing exceedingly well over the next 25-30 years.



Mr. Krishan K Girdhar

**Managing Director
Presto Info Solutions**

This form of virtual format is the new normal now, and I think it will continue for some more time. Coming to the theme of the event, lots that have to be done to bring back the economy and make India a self-reliant country. The current central government in the last six years has taken various initiatives that are very thoughtful, such as the Make in India, Skill India, Digital India, Invest India, Ayushman Bharath, Jan Dhan Yojana, National smart city mission, and many more. These initiatives are at various stages of implementation and have started yielding results to a limited extent. The diversity of our country brings about several challenges, including both geographical and political. However, we have obtained some benefits and are yet to reach the full potential of all these initiatives. Coming from the IT sector, I would like to bring the focus on Digital India, wherein the Honorable Prime Minister allocated a budget of almost 19 billion US dollars, As part of this initiative, around 1.5 lakh gram panchayats have already connected with the fiber. This fiber will be extended to 6 lakh villages in the next 1000 days. This is equivalent to a digital superhighway of more than 100 lanes reaching each village. This infrastructure

can contribute a big way to economic growth, not only from the digital or telecom sectors, but also the sectors utilizing digital platforms, such as banking, e-commerce, retail, logistics, and many more. For further utilization of this infrastructure, the government must use this to deliver education and health services through tele-education and telemedicine platforms.

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Although a lot of work has happened in the education sector, the challenge has always been with the connectivity.
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Now it's time to upgrade students with devices, such as tablets or laptops, to facilitate access to education content from their former school. Although a lot of work has happened in the education sector, the challenge has always been with the connectivity. This infrastructure would be helpful even in the current pandemic

period when most government schools are closed during this time. Students from the lower sections have no access to the gadgets or devices to continue their education (even in cities). The Digital India connectivity has to be taken further to the villagers' homes and other high-density points through last-mile technologies like Wi-Fi. This will enable students to obtain the education content through the gadgets. We all have seen the success of National Knowledge Network (NKN), which has already connected close to 1600 institutes, including universities and hospitals, with gigabit connectivity. This project was ahead of time and has been fully operational during the last decade. This particular initiative of taking the fiber to the last mile to the village level is very novel, and to add to this, I would say that it is still not done in the developed countries.

Coming to the health sector, in the current pandemic, we have seen the best use of technology. The doctors are treating patients remotely through tele-consultations and capturing basic vital information, such as temperature, pulse, and SpO2 levels to suggest a treatment. Everything has happened remotely. I would say this is the lowest level of telemedicine. Now, this enables us to rethink and push telemedicine services to deliver health services. We all know, 70% of the rural population is served by less than 3% of the doctors. In such a scenario, telemedicine seems to be the only solution to deliver healthcare to the rural population without losing any time and resources for at least 70% of the problems or diseases.

We have already seen the success of the pilot projects done in this space now, with the digital fiber infrastructure in place, which was

one of the limiting factors, I would say that we should connect all the primary healthcare centers, which can seamlessly communicate with the district hospitals, city hospitals, and the super-specialty hospitals and serve the entire rural population. As per some estimates, the enablement of these facilities

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As per some estimates, the enablement of these facilities with telemedicine equipment, paramedic staff itself required at these primary healthcare centers and doctors in the hospital 24/7 can be done at the cost of 12%-15% with the overall budget.
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with telemedicine equipment, paramedic staff itself required at these primary healthcare centers and doctors in the hospital 24/7 can be done at the cost of 12%-15% with the overall budget, which was allocated for the Digital India for a period of 5 years. This translates to approximately less than ₹40 per person per annum for the rural population.

A study by PGI, Chandigarh, a year back for the Ayushman Bharat Project defined the expenses hospitals incur. They suggested that the cost per person per year to provide healthcare services in North India comes to around ₹139 per annum.

Using this particular digital platform enabled by tele-education and telemedicine, we can have a better educated, skilled, and healthy India, which would take us to the next level. This particular area has been ignored, but with various initiatives and the Digital India initiative, we can get the rural Indian

population into the mainstream. I would like to conclude with a quote from our Honorable Prime Minister's speech that says cities in the past were built on the riverbanks, and now they are built along the highways, but in the future, they will be built based on the optical fiber network and next generation infrastructure.



Mr. Nikhil Taneja

**Vice President & Managing Director
Radware India Pvt. Ltd.**

In the past year, security strategies and practices have been tested like none other. Rapidly accelerated digital transformations, opportunistic phishing campaigns, distributed denial-of-service (DDoS) attacks, discontinuity of information security operations, and financial constraints are creating the perfect storm in a COVID-19-disrupted world. Organizations that understand these challenges and can pivot their security approaches can help themselves to emerge stronger.

Early in 2020, due to the COVID-19 pandemic, most businesses across the globe found they needed to shift quickly to remote work—some did so according to a plan, others reacted but not according to a plan, and still some others did not even had a plan. Remote work has a challenged enterprise security monitoring in numerous ways, from the platforms used for communication to the devices people are using and networks on which they transmit data. We have seen an increase in social engineering opportunities such as cyber espionage and cyber-criminal groups that attempt to take advantage of vulnerable employees unfamiliar with managing their technology environments. The worldwide economic and business

disruptions had put tremendous financial challenges on the businesses. Such challenges inevitably flow down to information security operation to maintain or increase the coverage under the tighter budgetary constraints.

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Organizations should engage with business leaders to plan, prepare, and practice for greater cybersecurity resilience backed by the right resources and investments.
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Criminals will still work to monetize access to data or networks, perhaps more frequently than before, as the economy continues to be vulnerable. In such a climate and with organizations attempting to stabilize their current operations, organizations should put the right controls in place to create a safe and secure environment. Organizations should engage with business leaders to plan,

prepare, and practice for greater cybersecurity resilience backed by the right resources and investments.

This must be taken at the national level as a mission. Defensive methodology will keep on increasing cost, which is one of the motives of state-sponsored attackers, and these attackers are on the rise. The government must focus on the following:

1. To defend against surgical cyber strikes,
2. To encourage corporates in spreading cyber awareness and that investment may be given CSR category, and
3. Special recognition to government/private organizations who train and create a force of security professionals who can be utilized for national cyber missions.

Radware (HQ: Tel-Aviv, Israel) is the global leader in integrated application delivery solutions, assuring the full availability, maximum performance, and complete security of business critical applications for 10,000 enterprises and carriers worldwide. With Radware’s comprehensive and award-winning suite of products, companies in every industry can drive business productivity, improve profitability, and reduce IT operating and infrastructure costs by making their networks “business smart”.

Radware has recently setup a Cloud DDoS scrubbing centre and Cloud web application firewall (WAF) points of presence (PoPs) in India, keeping new upcoming Data Integrity Laws, which enables federal entities and banking/financial segment organizations to combat with multivector DDoS attacks and application layer attacks.

Indian government must enforce guidelines to use Hybrid Cloud Services to protect their

network and application infrastructures. Government can also use this Made in India Cloud DDoS/WAF scrubbing center with top-notch security features with industry’s best service-level agreement (SLA) by Radware to provide service to different organizations,

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Indian government must enforce guidelines to use Hybrid Cloud Services to protect their network and application infrastructures.
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which includes different state DCs, Accelerated Power Development and Reforms Programme (APDRPs), Smart Cities, etc. and monetize the same. This will help the government generate revenue with the State of Art Scrubbing Centre to eliminate sophisticated attacks on the Cloud itself, while protecting the data within Indian geographical boundaries. Most government organizations today are unable to take hybrid Cloud DDoS or WAF services as there are no strict guidelines to protect the data center network and applications on the Cloud.

The government should also encourage and enforce laws for the banking, financial services and insurance (BFSI) segment to use Hybrid Cloud services to protect their banking infrastructure, which is one of the most critical components in the Digital India initiative.

In the end, we would like to encourage the government to leverage Made in India Cloud DDOS and WAF scrubbing centers (superior technology and best SLA) of Radware to protect government organizations and the BFSI segment while protecting the data within India.



Vishal Gondal

Founder, GOQii

Serial Entrepreneur and
'Gaming Guru'

I started my first company when I was 16 and in school. It was a gaming company. I was lucky to raise venture capital at a time when venture capital or start-up was not even heard of. I am talking of the year 1999, when the first dot com wave started. We somehow survived the wave and built a successful company. I raised several rounds of capital from India and other investors, and then finally managed to sell that company in the year 2012 to Disney. This entire journey literally gave me first-hand experience of dealing with pain points of start-ups, whether it was addressing the market, getting the investor, dealing with the product and customer, or rules and regulations that were unclear then. After this I started the company GOQii. Our idea is to create wearable devices, which are then connected to big data analytics and then that data are shared by health coaches and doctors. Preventive healthcare is the key motive of GOQii. In the pandemic, everyone is given preventable advice, wash your hands, and improve your immunity. If you really look from a future perspective, the countries that are able to have stronger fitness and preventive health initiatives will be much

healthier.

But today, I want to talk about something different. I am sure all of you are already thinking about it, but I wanted to bring light to it. We all talk about how the East India Company and how the Britishers took the

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Chinese companies out here are subsidizing. They sell products at lower costs in India. This is because they are collecting data.
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wealth of India back to their country and how India was the richest country in the world at one point of time. Today, the same thing is happening, and we are completely unaware of it without realizing it. Today, data is the most expensive, most valuable resource in the world. Today, India is one of the biggest

users of technology; and the internet is the biggest repository, the biggest use of data. Companies like Google, Facebook, and Twitter are all colonizing on this data generated by Indians. Knowingly or unknowingly, this data is not only sent abroad, but even used in ways convenient to companies here. Moreover, companies do not even respect Indian laws, and I know you must be reading a lot about the Google anti-competition policy and what Facebook and Twitter are doing. According to their convenience, they block accounts and promote accounts. So, the entire information on technology and data revolution are completely controlled by foreigners at one end.

Lastly, I would like to share an example of manufacturing with all of you. Today, we manufacture all our devices in China. While we do want to manufacture them in India, the reality is that we do not have an ecosystem or a One-Stop shop that says, "Here, this is how we can solve your problem." I am currently talking to five different countries. *You have different states and five different people within this, but if somebody in the government just simply says, "Here are 20 products, which are made in China, and my target is to move 30% of that manufacturing in India, and I am the one-point contact for this category";* it will make things much easier. The intention is great, and we are working towards it, but I only wish that it was easier. Clearly, the Chinese companies out here are subsidizing. They sell products at lower costs in India. This is because they are collecting data openly and tell us that their business model is even though I am going to not make money, I'll collect all that data and then they are going to sell that. This is their open business model and who is one of the biggest purchasers of data, we need

to understand this!! They want to know the health of the country. The Chinese were very aware based on all the apps that they have. Clearly, they were doing a lot more rather than giving people only funny videos.

We are right now at a place where the Indian market is very big, we are all consuming the internet. We are all on over-the-top (OTT). We are all on e-commerce. We are all using services

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Data are set to become the next economic powerhouse. What oil was to the 20th century; similarly, data will be to the 21st century. The trend of data being generated in India, but taken out without any tax paid on the generated economic value is alarming.
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so we can now have a great opportunity to fix the plumbing and fix specially the rules of the game. I think COVID-19 has given us a wake-up call that, as a country, just how we leak drop Telecom. We went from no internet and no wired internet to directly Fuji in healthcare. Likewise, we can go from no health care to basic health care directly.

So, whether it is telemedicine, digital delivery, and manufacturing of medical devices that are giving you data, I think we can leave the opportunity to leapfrog and with all of the people out here.

Data are set to become the next economic powerhouse. What oil was to the 20th century; similarly, data will be to the 21st century. The trend of data being generated in India, but taken out without any tax paid on the generated economic value is alarming. An interesting example is WhatsApp seeing its valuation jump 100 times without any corresponding revenue growth. This is because of the increased data WhatsApp's user base is generating. WhatsApp's valuation grows by increasing access to Indian data, but the Indian Government does not receive any tax on the economic value generated from Indian data.

Apart from the loss to the exchequer, there are also significant national security concerns relating to data leaving the country. The strong industry regulation that involved banning hundreds of Chinese mobile applications over the last year has positively impacted our national security position. However, some work remains to be done. Wearable technology and mobile health applications which still remain accessible to millions of Indian consumers, are collecting this data and this, to me, is a serious concern. Moreover these brands lack requisite regulatory compliance from India's Central Drugs Standard Control Organization. Their ownership structures also show clear linkages to the Chinese government leadership.

Reports suggest that in 2017, Huami mobile

applications had amassed multi-dimensioned user data of 56.1 million registered users. A large percentage of these users are currently Indian. Huami does not even have a registered office in India, while it amasses huge troves of Indian personal healthcare data. Huami is the sole manufacturing and development partner for Xiaomi's wearable technology products. Xiaomi, in turn, is owned by a delegate of China's National People's Congress, the highest organ of state power in China.

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The national security implications of unregulated healthcare technology hardware have already been shown to be extremely pertinent.

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The national security implications of unregulated healthcare technology hardware have already been shown to be extremely pertinent. Strava, a wearable technology brand, had their data maliciously used by threat actors to identify the US military forward operating bases across the globe. Many members of the defence forces and their families use these devices and applications, potentially exposing data to hostile powers. Hence, this threat needs to be taken as significant in nature to be looked upon by the authorities and I do hope that the highest office in the country will take cognizance and appropriate action.



Dr. Yogesh Patil

Co-Founder

Biosense Technologies

I started my journey with medical devices in 2009. In the last 10 years, we have grown the company to 5-million dollars in venture capital funding and a major stake was acquired by PerkinElmer, a US based medical-device company through their Indian subsidiary Indian Tulip Diagnostics.

We undertook one of the challenges and were successful and manufactured the sample collection tubes required for COVID testing and reverse transcription- polymerase chain reaction (RT-PCR) testing. Every fourth sample collection kit was supplied by us, and we feel a lot of pride in this. Over the last nine months, we have been going through this pandemic. I have seen a terrific performance from the Indian healthcare industry players, not only in terms of materials, but also in record time and pricing. Today's pricing of RT-PCR testing in consumables and materials is even lower compared to what China is selling. From earlier being a start-up company and now being a 3-billion-dollar multinational company, I have been discussing in these forums that can the government be biased for good products from start-up companies. I think Dr. Ashutosh Sharma, Secretary of Ministry of Science and

Technology, has emphasized this fact. I believe that the development cost to the nation which he has mentioned is fantastic. If you look

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Now is the time to put more faith in this industry's ecosystem and probably give them a preference for all the national challenges, bigger challenges we are facing and that we should come up with a solution, and if the solution is technically up to the mark, then it will be implemented and purchased.

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at all our purchasing in medical devices or healthcare consumables these days, we are

still stuck at an age-old 3-year performance and positive net worth documentation. I feel that the government needs to rethink about this, as no start-up will have positive net worth until they are 7- or 10-years-old, because in the initial days, they had spent a huge cost on research and development. Coming back to the question, I want to ask this forum that if the government can open up defence for private to rely upon start-ups, then when will the government prioritize healthcare self-sufficiency, which otherwise is proven in this COVID-19 pandemic by different Indian players? When is the government going to take a leap of faith in the Indian healthcare industry? I know we have been discussing and there are certain policies, such as Start-up India and other policies that are proposed. But when you fill up a tender to participate, your Chinese counterpart or other foreign counterpart is trying to disqualify you because of 3-year experience or absence of the required positive net worth conditions. Despite you having a device or technology at par or the performance has proven that the

technology is at par to even the European counterparts of such devices or consumables. I think we are moving in the right direction with the COVID-19 pandemic situation. It has shown us that Indian healthcare and start-ups can produce reliable solutions in record time and deliver in days instead of weeks or months and at super affordable prices. I think now is the time to put more faith in this industry's ecosystem and probably give them a preference for all the national challenges, bigger challenges we are facing and that we should come up with a solution, and if the solution is technically up to the mark, then it will be implemented and purchased. In diseases such as diabetes, anemia, and sickle-cell disease, we are still struggling with a lot of healthcare tools. Of course, they are not as serious as the COVID-19 pandemic, but why not use this terrific performance experience to make sure that we can escalate this to other disease areas and achieve targets and Sustainable Development Goals (SDGs) even before what we promise the world.



Government Industry Dialogue 2020
21st November 2020
BRAINSTORMING SESSION

Ms. Tanya Spisbah

Director, Australia India Institute



The National Education Policy (NEP) has been very well received in Australia. There has been a great interest in this 21st century reform. I think this policy is the first in more than 20 years and I am well aware of Prof. Rajendra's impressive view in the field of education as well his involvement in the NEP. Australia is moving towards considering education in research as part of critical infrastructure, and I think when we look at the economy and its knowledge, it is important to consider not only how we boost, sensitize, and further innovate, including our knowledge systems as part of the education reforms, but on how we protect those systems of knowledge as part of the critical infrastructure. I think that's one thing to think about as we implement the NEP in our states over the coming years and think about who we partner with. Everyone would be aware that our Prime Minister enjoys a very strong relationship with the Indian Prime Minister. We had a virtual summit in June 2020, which included a comprehensive strategic session involving many sectors. We discussed cyber-enabled critical technology, critical minerals that would underwrite India's

ambition in electronic motor vehicles as well as becoming manufacturers in solar panels to underwrite its very impressive commitment already to solar energy, maritime in defence corporation that ties innately with a number of other presentations today, energy and environment and water, all of which are critical to our sustainable economy. The COVID-19 pandemic has affected us deeply this year and as many have already said, it will continue the next year as well. But, by no means it will be our only challenge in the 21st century. We need to avoid continuous interruptions in the economy, which gives a clear idea of how we can sustainably rebuild our economies. What we need is a bureaucratic bravery that allows us to cut through some of the existing foundations on which we have built our 20th century economies and really think differently for the 21st -century world. Non traditional security as I have mentioned, cyber security, environment, and pollution continue to be massive challenges.

I think the one thing India could do to boost the knowledge on preventative health would be to focus on quality and standards for greater exports in this area which would be very influential.

Ms. Mevish P Vaishnav

Vice President, Government Industry Dialogue



Let me take this liberty to express my views and since we have the Additional Secretary, Ministry of Finance- Mr. Sanjeev Kaushik with us today, I would like to put forward that giving loans will actually uptake our economy. But one hitch that many people would be facing is brother & sister applying for a joint loan. In our country, brothers are allowed to take loans and sisters as

well, but a brother & sister can't apply for a joint loan!

I am aware of 2-3 banks that provide loans to brother & sister i.e. Canara bank & LIC.

So, if this is taken into consideration, we will have an uptake of the economy and many would like to take joint loans.



I would like to give few recommendations, to propel the agricultural sector to a completely different platform. In the last two years, the government build up towards agri reforms is opening the agriculture economy. These are executable strategies and not high-ended strategies.

- The first level, I believe is education, which is really missing in the agricultural sector for the last 25 years. A complete blank out on real education and how techniques can be used - natural farming, organic farming, or new techniques and modern capabilities. Despite the agricultural university set up that we have been doing great work through the Krishi Vigyan Kendra (KVK)'s, there is a real need to get into education and reintroduce the educative system of agriculture right from the school level
- Secondly, agri business really needs to be propelled to a completely different level. We have very few agri business schools; however, some incubation centers are coming up
- The third aspect of the education sector is

mentorship. A robust system of mentorship needs to be created right across the district levels and that's how new agriculture is going to be propelled

- The fourth aspect is training on demand-based crop planning. There is cropping happening across the country with absolutely no planning except what has been pushed through the feedback system of Agricultural Product Market Committees (APMCs) and Mandis. Data analytics must be used very effectively through the structured systems of Follow on Public Offer (FPOs) and see how to create a demand-based crop planning, which requires lot more diversification that what we have had so far. Lastly, financing labor markets as well as regulatory system needs to be focusing on. "Diversification of food must be top priority for the government along with food forest and nutritional research". Twenty percent of India needs to go natural for the environment for the food to turn nutritious. Happiness and prosperity of the farmer must be considered. The focus should be on increasing input cost at every level including health.

Mr. Jeyaseelan Jeyaraj

Senior Director, Health Sciences, Oracle Corporation



If we really look at our National Health Programs, they have focused a lot on communicable diseases as well as non communicable diseases. But, we do not really have any national program for genetic diseases or disorders inherited from parents, or from a gene mutation today, we do not have any national repository of genome data. This is something that I want to make a submission to the honourable team here. Why don't we collect genetic data from birth to death, just like how we vaccinate children, we must also collect DNA sequence data. This will be a very vital source to look at how many people would be clinically significant for a specific disorder. This is something that I think would be very useful. Even in the context of COVID-19, at the end of the day, it is a mutation of a ribonucleic acid (RNA) disease. Just like how we are collecting clinical data, we should also collect the genome data and combine

that as a single source, which would help in policy interventions, evidence-based policy making using the available data. This is one specific observation I would like to make. Secondly, we are currently following a data model, where the data will be at source. We are really not moving any health data itself. Most of the National Legal chart systems kind of adapted a hybrid model, where they maintain a copy of the data at the central repository along with the data staying at the source as well. In the absence of this kind of repository, it is kind of hard to do any population health management or any specific set of research secondary use of data programs in our model. There is a need to change this a bit to help the government and policy makers need to look at the data. Today, a lot of health policies are doing it in a hypothetical manner which I would like to emphasize.

Dr. Prabhat Ranjan

Vice Chancellor, D.Y. Patil University



I would like to make two quick points. Firstly, the change we made in the ecosystem last year in my university in the computer sciences ring has impacted the whole country's curriculum this year. As a private university, the decision process was comparatively faster. Secondly, there is a major technological development happening in the nuclear fusion field, which I was trying to pursue from Delhi to have a road map. It has not happened so far, but we have gotten involved

with private universities in the US trying to support this. In the next 10-15 years, nuclear fusion may become commercialized, which will impact the whole economy. However, India does not have the plan to take up nuclear fusion in this energy road map. So, I request the policy makers to take this into account. There are lots of private investments in this field and I have gotten requests from investors to carry this task forward.



Over the last decade, we have evaluated 9000 plus companies and we know the grass root level problems that Indian entrepreneurs are facing. Key areas of focus are Defence, Aeronautics, Mobile Communication, Healthcare, and Logistics.

I have listed 14 ideas for karmic growth and self-reliance in India, which are as follows:

1. To create something equivalent to a small business administration. I do believe that we have a discussion along the lines of System for Assessment, Awareness and Training for Hospitality Industry (SAATHI). But we can go ahead and augment it a lot more in terms of help and hand holding for entrepreneurs. Small businesses generate higher employment rates.
2. Accrediting small businesses and one of the formulae used around the world is the Better Business Bureau (BBB) to accomplish this and helping them to get a critical mass and critical credibility.
3. Creation of paperwork reduction act should be emphasized. About 1166 pages had to be signed individually for a document for receiving funds from one of the agencies. Reducing paperwork is of utmost essence.
4. Penalties on frivolous litigation and time limits to resolution. Judicial reforms are very keen towards the success of India in the future. A lot of frivolous litigation goes around that wastes time and is lopsided against the poorer and smaller businesses.
5. Allow contingency fee-based litigation so that there is an incentive for lawyers to go ahead and fight cases that they are sure to win, but at the same time, not burdening the fee schedule on the entrepreneurs from the get go itself.
6. Class action lawsuits and removal of caps on civil penalties.
7. It would make eminent sense to create a central authority in India for fake news verification. Companies to go ahead with this agenda, so why not a government based one to control such news.
8. Nationwide digital protocol for healthcare results.
9. Syndicates of Indian Financial Institutions to provide funding to Indian funds that are based on the lead sponsor (either loan based, or insurance based).
10. Time based completion of due diligence with full transparency of reporting and single point of contact.
11. The 1000 talents program which is there out of China. China has built a relationship with a lot of their expats. We tend to have a disconnect between the entrepreneurs in the US (Indian Americans), who are more allied to the financial benefits that they are getting out of there rather than to bring the benefits here in India. Through the 1000 talents program, bring the best brains around the world and align their interests towards India would be good.
12. R & D clusters.
13. R & D tax benefits to be increased.
14. To potentially have a global land bank for India. As a country, we could use the money and buy some land around the world.

Mr. Sachin Deshpande

Co-Founder and CEO,
Erfinden Technologies Pvt. Ltd.



Inputs with Implementation Plan: Precision Agriculture with use of AI and Internet of Things (IoT). Brief Implementation Plan is as follows:

1. Real Life Use cases of Farmers, such as Identification of Plant Disease and Application of Pest, which will help both Farmer's Health and Consumer's Health with Drones and Artificial Intelligence (AI).

2. Crop Yield Management wherein Doubling of Farmers income can be achieved with precision agriculture with AI.

We are currently working with Maharashtra Agriculture Universities and Farmers on above very mission critical use-cases.

Mr. Shamik Talukder

CEO, Mera Amigo, Tourism sector



The biggest sector that has been affected because of COVID-19 is the Travel and Tourism sector. We must do a lot more to come out of it as travel resumes maybe sometime next year. At MeraAmigo, we are building a technology solution that integrates on ground services in India to make travel safe and convenient, enjoyable, and predictable for foreign as well as to a larger extent to domestic tourists. We are investing in both physical and digital infrastructure development to provide travelers in India last mile safety and connectivity resulting in a great experience. Our goal is to create a different value proposition, to ensure that tourists will choose India as their travel destination. We know that India receives far fewer leisure and affluent tourists than countries in South East Asia; thus, not realizing our full potential. There is of course a lack of digital connectivity of the last mile service operator to enhance their opportunity and delivery. The most affected

during COVID-19, amongst the tourism sector are the last mile service operators. A large part of the sector is unorganized and is led by last mile service operators. When the government plans a financial stimulus for the tourism sector, we need to look at what we need to do for the last mile operators that are not companies, but individuals. When we come out of COVID-19, presence of these last mile operators is essential to revive tourism in India. Along with this, if we can build a program where the last mile service operator is given part of the financial stimulus that the government plans to do through training, skill development using the government resources, we will have people surviving and would have enhanced their skill at a certain level. The government needs to deeply look into each sector, especially the tourism sector, and see what effect COVID-19 has in that particular sector, and then accordingly plan the necessary stimulus.

Mr. Pooran Chandra Pandey

Board Member, United Nations World Food Programme Trust
and Chevening Scholar, London School of Economics and
Political Science, London, United Kingdom



Health: Infrastructure, both physical and non-physical, an intermix of brick and mortar and international technology (artificial intelligence [AI], quantum computing, and 5G) need to be put on priority while establishing a single window clearance for investments in this area. Regional focus will help.

Education: A priority area for any nation, but more so for India. A robust infrastructure and a well-trained teacher's community focused on nurturing talents will go far in building nation's competitive advantage. National Education Policy (NEP)-2020 can play a decisive role in addressing identified issues, including attracting educational institutions from outside to set up their campuses here.

Manufacturing and agriculture: These two areas contribute substantially to economic growth and development and hence, cannot be ignored as they hedge the economy from

any unforeseen episodes. Enabling regulatory regime, public private partnerships, and creating investment opportunities for investors will help.

Trade, economy, and ease of doing business: India while focusing on its policies to deepen its economic heft, may focus on further improving its plan of action to import goods and services from friendly nations or through new free trade agreements (FTAs). This will also necessitate further doing away with archaic laws to attract large pool of investment, currently available overseas at very low interest rates.

Universal basic income policy: There is now a deeper realization about improvising welfare schemes. India has already taken lead in providing the poor with welfare schemes. Time now seems ripe for the government to consider a gradual launch and roll out of universal basic income policies.

Mr. Vaibhav Bhamoriya

Assistant Professor, IIM Kashipur



The Rural and Agribusiness sectors allowed Indian Economy to keep a huge mass of people engaged and proved their importance by absorbing the reverse migrants that sectors including charity and governments could not manage. This highlights the need to invest in rural and agriculture sectors, not just as backstops, but as important constituents of economic activity and growth. It is critical to differentiate the rural from agriculture and develop institutional capabilities, such as those of Self-Help Groups (SHGs) that enabled India to become the World's largest producer of Personal Protective Equipment (PPE). We need three tiers of Institutions similar to AMUL model filling institutional voids exposed by the pandemic.

Solutions must focus on the concept of "Net +ve Capital Inflow" into rural India, eliminating activities draining capital from rural areas. The government and private sectors should take lead investing in

building and maintenance of infrastructure and upgrading skill- competency for employability in the near future. These can be achieved by institutions enabling transactions promoting income-generating activities.

The three tiers of institutions should include grassroot institutions that have the flexibility to capitalize on emergent opportunities as shown by SHGs for PPE. The second layer of information and value-adding institutions need to function as go-between with market-faced institutions and function as business to business (B2B) traders of products for information about demand. The top layer of institutions ought to be consumer-focused marketing and sales organizations that transmit demand information that perform critical distribution and marketing tasks. This keeps rural producers and consumers connected with urban consumers and producers envisaging a new world role for middleman as peoples' institutions.

Mr. Amit Backliwal

CEO, PharmaRack



1. ESOPs for unlisted entities: Government needs to make the relaxation of norms from only select unlisted start-ups to all unlisted start-ups. It's a critical issue for all start-ups to attract talent. Also, for employees to pay tax on vesting, which could be huge cash flow and no confirmation if that start-up valuation would be higher or lower or even existing at a later date.
2. Remove taxes on vesting and all unlisted start-ups keep single unified tax, which is at time of selling the equity shares, either short- or long-term based on holding.
3. Role of trade unions: In all industries we have seen unions stifle growth and are only interested in their own interests or protectionist measures.
4. Role of trade unions should be focused on good practices, improving overall education, training, and regulations of how the supply chain participants behave, transparency, and use of technology. Instead current focus is commercial in nature and all-around protectionism.

Mr. Atantra Das Gupta

Director, Head of HME Business, Samsung Electronics



The current pandemic situation has created an atmosphere of fear and uncertainty among the people. People are apprehensive to visit hospitals and clinics for their medical problems. Identification and resolution of the challenges being faced by people is essential to achieve adequate public health preparedness. There is a necessity of innovation both in terms of technology and access at ground level.

There is a need of an ecosystem that coordinates and collaborates, till the last mile with access/exchange of information, regular data collection/repository, health-care awareness, and diagnosis.

Clinics and pathologies across the country are the first point of contact for people pertaining to their medical problems. It's very critical to connect them on a single platform.

The creation of such ecosystem would be a step towards achieving the objective of strengthening the public healthcare system of the country. Idea is to enable the task force created by the authorities with technological support to survey across the country, extensively covering geographies and identifying clinics pathologies. The collected data/information would be used as a foundation to create framework to connect these contact points.

Mr. Albertraj Balraj

Country Head, Ascensia, Diabetes Care



I would like to make just one recommendation. We all know that India is the diabetes capital of the world. The biggest concern is that almost 50% of the diabetic population is still undiagnosed. Our incidence rate is increasing every year. What started with one out of 10 persons has now become one out of seven. My recommendation is on two fronts. First recommendation is to focus on rural areas, where the undiagnosed prevalence is very high, consisting of mostly underprivileged or populated. The government is doing its level best by doing screening camps, such as diabetes mass screening/epidemiology screening. However, this will not suffice. We must go ahead with a focused approach, such as focusing on insulin-dependent

type 1 diabetes, gestational diabetes, and juvenile diabetes. These are all the high-critical areas. The second recommendation will be that while the awareness of diabetes is prevalent in urban areas, anybody being a diabetic will have no qualms in getting a blood glucose meter, but a very clear approach on what should be the protocol on testing frequency should exist. Though the healthcare/diabetic bodies in India are advocating, still it is not enough. We do not have a clear system that suggests if you are insulin dependent or you are on oral hypoglycemic agents, what should be the testing frequency to be followed and then accordingly take the informed decision. So can we have these two focused approaches? Thank you.



The government is doing a lot in terms of effort. However, there is a lack of translation of efforts into engagement. As an angel investor, I have invested in about 40 start-ups so far, out of which more than a dozen are in India. On the basis of empirical observation, two major areas require help; at an early stage of seed funding and angel funding, where the highest de-risking happens and the lowest amount of capital is available.

One of the big problems faced by start-ups is the lack of funds. Given the high failure rate of early stage companies, the companies in the first five years of formation, it is extremely difficult for them to get funds before a minimum viable product or service is demonstrably in place and in use.

The Indian government has done a lot by way of creating funds and making them available for distribution through recognized venture capitals (VCs) including Small Industries Development Bank of India (SIDBI). However, the number of start-ups that need funds, but fail to raise enough, or even any, is huge. Quite a few of these, we have seen coming up before several angel networks that have the potential for innovation, but yet there is no wherewithal in the ecosystem to fund all such start-ups.

While there is a need for funds at early stages of small and medium enterprises (SMEs), there is an enormous wealth sitting on the sidelines in the hands of upper middle class and high net worth

individuals (HNIs) in India, particularly in this low-interest/low-yield environment. Having said that the risk even for the relatively well-heeled is also huge, while investing in early stage start-ups given seven out of 10 start-ups on an average won't return funds. The question arises as to how we then bridge this chasm.

Many countries, such as UK, Israel, etc. have tax programs that encourages seed funders and early stage angels directly to invest in start-ups by providing these risk takers with tax relief. This has the twin benefit of HNI angels investing in start-ups as their risk is partially buffered and shared by the State, while innovative young start-ups are enabled with greater funding. The tax reliefs are variously provided in the form of income tax, capital gains tax, and loss relief. In this tax regime alone has provided billions of pounds to start-ups in UK making the country one of the best in technology innovation, not to speak of creating jobs.

Net-net, supply side help of this nature provided directly at the hands of early de-riskers (angels) and angel funds results in the following:

- Innovation
- Job creation
- A thriving business environment
- Wealth creation
- Higher revenues by way of taxes to the government

Dr. Jaijit Bhattacharya

President, Centre for Digital Economy Policy Research



The Reserve Bank of India's (RBI's) 2019 report of the High Level Committee on Deepening of Digital Payments show that the adoption of debit cards as a point of payment has seen tremendous growth with a compound annual growth rate (CAGR) of 53% over the past 4 years. Removing Goods and Services Tax (GST) on card payments will help in increasing the usage of debit cards in rural areas, issued as a part of Jan Dhan Yojana; thus, increasing digital payments in these areas. As a result, this would reduce the cost of transactions in the economy, whilst also bringing parity between card payments and quick response (QR) code payments.

Because the purpose and function of an intermediary is to facilitate transaction and/or transmission of data initiated by their users, the current safe harbor guidelines should aim to protect digital payment companies in the case that disputes occur between merchants and customers. Fintechs that are payment facilitators need to be treated as intermediaries and hence, in such cases these fintech companies should be protected under safe harbor regulations. This would help spread digital payments in rural areas and thus, lead to increase in e-commerce and growth.

Mr. Akarsh G Shroff

CEO, Grey Night Pvt. Ltd.



I am a BITS-Pilani computer science student. I founded my seed funded sustainability start-up a year ago, as a 19-year-old student. It has been my firm belief that a holistic approach to an economic growth can be adopted only with a focus in sustainability. We live in a world where climate change and environment are the most pressing issues. The current species extinction rate is 1000 times the natural extinction rate and these losses are clearly unsustainable. The technology changes, disruption technology, international competitive advantages, financial strength of enterprises, and disruptive growth that was spoken earlier today are relevant only if they are sustainable. As policy enthusiasts, policy makers, industrialists, entrepreneurs, and academicians, we have an obligation to promulgate the formulation of policies for sustainable development. At this juncture, it is extremely important to recollect the three pillars of sustainable growth – People, Planet, and Profit. Often, the second pillar, Planet is forgotten. This is exactly what my company does.

We are building a remote sensing-based system to procure data about wildlife migration patterns and the impact of the climate change on wildlife. We will help industries, such as petrochemical, mining, oil, and fisheries to adopt more sustainable business practices. Of course, there is no dearth of legislation on environmental protection in India; but the enforcement is not satisfactory. There is a need for effective enforcement of the constitutional mandate and other environmental legislation. One of the main reasons for this is that there is no independent regulatory body for environmental governance. This is looked after by the Ministry of Environment Forest and Climate Change. Due to the excessive interference by various governments, there is full implementation of environment law. It is imperative that the policy makers focus on improving environment laws and compliance structures in place to ensure economic growth that is truly sustainable. I would recommend setting up an independent regulatory body.



I want to speak about the opportunities the Indian Micro, Small and Medium Enterprises (MSMEs) have to enhance their exports in the global situation and strategies for Indian MSMEs, which is harmonized system (HS) code-based, which is the right way to find micro buyers across the world. Right now, when we compare India and China, most of the export platforms are owned by the Chinese. In fact, five of the world's top platform belongs to them. This is a dangerous situation in MSMEs, because they get data of the buyers and best products, which the Indian MSMEs produce. They can be replicated, and buyers can be shifted to China. So, it is very important that India has something of its own and because Indian MSMEs do not have the wherewithal to market directly in a global situation, having a group marketing platform would be something that can be a quick solution. By doing this, we can connect to a lot of micro buyers from across the world. It is a golden opportunity, but we need to act very fast and at SME level, maximum we have already worked with MSMEs with programs, such as Make in India, Sell in

America, and with Amazon global business selling to put Indian SMEs directly to foreign customers. What we are looking for with the government, is to launch this initiative of group marketing campaign for Indian MSMEs, so they connect with the last of the micro buyers in the West, who want to have a non-China option. This window of opportunity is there for Indian MSMEs for the next six months or so and if we do something at this point, we will be able to boost up our MSME exports to a large extent as well as make vital connections that will ensure continued business growth.

Digital Group Marketing Platform for MSMEs - At HS Code Level

Create Awareness, Promotion, and Lead generation at Harmonized System (HS) level - Objective to boost exports and promote business-to-business (B2B) technology collaborations.

By accessing the best global business practices and contractual opportunities Indian Small and Medium Enterprises (SMEs) can become Atmanirbhar and globally competitive.

Mr. Adrian Phillips

Partner, ASKD-We Resolve Legal Associates LLP.



There is a fantastic opportunity with digitization and data analytics. However, there is a big gap between that and what we currently have in the rural countryside in India at the moment, where the ordinary farmers and workers choose to be paid in cash. If not, this would mean that the whole day's wages or work would be lost if they have to go to the bank to collect money. There is a big gap between the fact that everyone here has a phone and internet is freely available, but not everyone has smart phones to be able to access the digital economy. In many ways digitalization is going forward. Rural economy is where lie India's hope for taking on the rest of the international world as far as moving up in this scale is concerned. However, unless we can plug these gaps, make things available to people here on the ground, we are going to face tremendous hardship during this phase to take that forward. This exists not only

in agriculture, but in medicine as well, in having ordinary outpatient departments (OPDs) available to people here. They'll rather go to a quack, because he is freely available 24 hours a day rather than go to the primary health center in the neighborhood. I also want to point out that if we are looking at the effects of COVID-19, one of those aspects would be in the legal sphere, where today a lot of hearings and court appearances are happening virtually. We should really ride on this opportunity provided to us to take things forward. One of the difficulties with litigation in India is the lack of availability of witnesses simply because being a witness in such a matter requires considerable amount of time with given the number of adjournments that happen in each case. If we have witnesses who can testify virtually from their home even in the countryside, then I think we could speed up trials and litigations and everything that goes with it.

Mr. Swetank Gupta

CEO, Ezeelo



There are lot of small businesses, professionals, and service providers who are affected by the change in the environment and disruptions that are displacing a larger number of people in the country. However, we do not have any plan of mid-term skill development or mid-term mooting. The time has come for the industry and government to seriously think about people, because we have been fascinated about start-ups that can address this issue. We have an age limit of 40 to register for a start-up or a newer business. So, if a person is from an unorganized sector, displaced by a bigger company or newer technologies, we are trying

to provide a newer opportunity of educational learning for those who are rendered jobless. They are not even aware that there is a cyclic downturn in their business, which they will overcome in another 2-3 years. But that will not happen in many of the cases. So, we as a society, government, and industry body at large should look at this as a future threat or an opportunity, wherein these many people can be used for the productive employment and service to the society, which will not only add to the benefit, but their rich experience can also help in the growth of the economy.



My suggestion is to have this dialogue on regular basis. COVID-19 has set an example that if government and industry work in conjunction, a lot can happen! It can be examined as a case study, wherein from the government side, the highest offices i.e., the PMO and NITI Aayog are regularly engaged in Feedback, Review, and Reporting. Further, in Pharma, Biotechnology, and Life Sciences Sectors, Government-Industry Dialogue has already advanced to a large extent for which timely policy of “Process Patent” helped the Indian Pharma industry three decades back. India emerged as a hub of cost-effective generics, followed by many biosimilars. Affordable human immunodeficiency virus (HIV) and tuberculosis (TB) drugs, and most childhood vaccines have made global impact, especially in Africa, Latin America, and Asia. Pursuing industry-friendly policies, government can be credited for establishing structures, such as Technology Development Board, National Science & Technology Board, Science and Engineering Research Board (SERB), Biotechnology Industry Research Assistance Council (BIRAC),

etc. pushing this dialogue further. Government has a large number of departments; and their autonomous institutions including in Defence, Agriculture, Textiles, Machine Tools, Infrastructure, etc. Yet few have been able in contributing towards Atma Nirbhar Bharat. Reasons: Reluctance to work complementarily; lack of trust; too much dependence on public sector laboratories for problem resolution; and technology obsolescence have remained main constraint for this G-I free flow. The hiccups are most profound at the lower and middle management rungs of bureaucracy that deter sharing information leading to delays and wasteful expenses. Mutual respect on idea sharing, defining pathways to problem solving, division of work; and having faith in each other's competence as experienced in solving issues of COVID-19 and earlier in H1N1 has to percolate in all sectors. India largely has remained importer of technology rather than generator of technology. I am optimistic that India will witness Atma Nirbhar Bharat in other crucial sectors, specially Defence, Transport, and Infrastructure.



Galvanizing the Rural Market

We are all aware of the lofty objectives of our PM to ramp up the income of our farmers.

Towards this end, creation of road network to connect villages to mandis has already been thought of and being implemented under the Pradhan Mantri Gram Sadak Yojana (PMGSY).

The next step is the actual movement of the product from farm to the mandi.

There are start-ups working on providing live information on mandi prices to farmers so that they can decide whether they want to move their produce on a particular day.

These need to be made available widely and in local languages to all farmers across the country.

Physical movement of product is still a challenge to the economically challenged farming community who don't own tractors and commercial vehicles.

Depending on their location and distance from the nearest mandi, they walk, use bullock carts, bicycles, and cycle vans or share space on commercial vehicles to carry their produce to the mandi. If the prices are low, they have to make distress sales or even throw away the produce on the roadside, as the cost or effort of carrying it back home (where too there is no market) makes little sense.

This proposal

- Provides very soft loans to small groups of unemployed youth in the villages (typical five persons) to buy a Small Commercial Vehicle (such as Tata Ace, Mahindra Jeeto, etc.)
- Give them training to drive the vehicles
- They are to publicize their mobile numbers in their nearby villages with the transport service offered by them for agri produce (hand bills, flyers, posters, etc.)

- Farmers would call and book their service, singly or jointly to move their produce on a day that they find the price remunerative at the mandi
- These vehicles would make multiple trips from village/farms to mandi to ferry produce of the farmers
- At the end of the day's trading at the mandi, the vehicles would make trips back to the villages with the farmers (along with purchases made by them at the mandi)
- On non-mandi days, the vehicles would be used by villagers/farmers to go to nearby outlets for buying agri inputs (fertilizers, pesticides, seeds, etc.) or to attend local markets for purchasing other consumer products or commodities for their household use
- The vehicles could also be used to transport farm animals (goats/cows/poultry) to animal mandis/animal fairs from the villages

Other economic benefits

- It will create employment for the rural youth who operate the vehicles
- It will help to open up service centers/repair centers/spare parts shops in the rural interiors, which will also create secondary employment
- It will increase the penetration of such vehicles in rural India in the hinterland areas and will give a boost to the commercial vehicle industry
- Availability of such transport would attract investment in food preservation (modern cold storage and silos) and food processing in the rural areas
- It will give a boost to horticulture produce marketing (fruits and vegetables, flowers etc.) too and not only grains



I have a couple of broad suggestions on improving the industrial environment and which could possibly be useful:

A) Developing the digital ecosystem with the help of capital markets

Objective: To have a thriving digital ecosystem where hi-tech loss-making companies can continuously raise capital through initial public offering (IPO), qualified institutional placements (QIPs), etc. This will have the following benefits:

(a) Most of the hi-tech companies in areas, such as e-commerce, AI, unmanned batteries, computer vision, drones, cyber security, and biotechnology make losses for up to 10-15 years (e.g., Amazon made losses for 20+ years, Google for 15+ years).

They need money to keep growing which they raise from venture capitals (VCs) in India. After a few years they have to sell out to foreign companies, such as Google, Facebook etc., because VCs as well as promoters want money/exit and these companies don't have an option of listing in India (only profitable companies can list in India). Hence, we don't have Indian promoters, such as Jack Ma etc., because all Indian promoters have to sell out. If they can raise money through an Indian exchange, the companies will remain in Indian hands.

Almost all the IPOs on the Nasdaq in the past few years are of loss making tech/bio tech companies.

(b) Within 10 years, we will then have 3-5 large Indian companies in areas, such as AI, fintech, batteries, drones etc., which will be very important for our national security.

Since Securities and Exchange Board of India (SEBI) is worried that small investors can get hurt by investing in such companies (because many of them can die early; although statistics show 80% of IPOs on NSE/BSE don't make money for investors), the following methods can be used:

- 1) A Nasdaq kind of exchange can be started
- 2) IPO should be of companies having minimum market cap of 1000 crores and at the IPO, 50% subscription has to be of institutions, such as VCs, foreign institutional investors (FIIs), and domestic institutional investors (DIIs)
- 3) Only high networks individuals (HNIs) and institutions should be allowed to trade in these exchanges OR allow small share holders, but with warnings that this is a dangerous investment

NSE or BSE can easily set-up such an exchange. It is very important to have almost similar kind of market structure as NSE in the new exchange with T+2 settlements, Futures and Options, etc. Efforts should not be made to curb speculative interest by bringing some other structure, because in the early stages without speculation, liquidity vanishes (as investors only buy when markets are cheap and not on all days) and without liquidity, institutions/FIIs will not participate and the exchange will be a non-starter.

BHARAT SOVEREIGN WEALTH & DEVELOPMENT FUND

A proposal by
Prof. Rajendra Pratap Gupta
Founder & Chair
Government Industry Dialogue

Bharat Sovereign Wealth & Development Fund - Why do we need it?

India is a country with a large population and growth and has resources that have been latent for a long time. We have to draw out a strategy to leverage these resources and grow them to meet our ever-increasing needs. We are currently doing a tight ropewalk to maintain the fiscal deficit and running the government, but we have not thought of long-term provisioning for India's needs. With each year passing, our asking rate of gross domestic product (GDP) growth per capita is increasing, slowly sliding the country into a potential long-term crisis and a possible downgrade. One path breaking idea for this year's budget could be to set up the Sovereign Wealth Fund (SWF), unique from any other SWF in the world. This SWF should catalyze India's growth, and become the new nucleus of India's growth story and dominance, and secure India's future in meeting future spending needs for development. I have worked on this document to give a sense of what and how India can leverage the SWF opportunity. More details can be discussed, if needed.

Sixty-five (65) countries have already established at least one SWF, and in the past decade, 34 new SWFs have been set up (Capape, Schena, Rose, & Lopez, 2019). More so, SWFs in the developing economies have a pivotal role in the country's financial architecture (Preqin, 2018). Also, SWFs play a crucial role in saving resource revenues and prudence around the intergenerational distribution of wealth and benefits. Thereby, addressing the demographically driven spending needs over the coming decades (Alsweilem, Cummine, Rietveld, & Tweedle, 2015). Imagine, if India had a SWF, it would have invested in vaccine research across the globe, catapulting India into a world leader for COVID-19 vaccine.

If we track the SWFs, the assets under the SWFs had increased from \$3 trillion in 2008 (Capape, Schena, Rose, & Lopez, 2019) to \$10.6 trillion by the end of 2014, and was expected to touch \$15 trillion by 2020 (Muysken, et al., 2020). However, this trend is likely to increase. India from being just amongst the top investment destinations for SWFs should have its SWF to invest in the top investment destinations.

I am putting the top 10 SWFs and the data on these countries' GDP and their population to give a sense of what the SWF can do to India. If we look at Norway, its GDP is just \$414 billion, but its assets under the management (AUM) of the SWF is three times the size of its GDP at approximately \$1.2 trillion. Similarly, if we add all the SWFs of China, the total AUM of the SWF is \$2.2 trillion (including the Hong Kong suspicious activity reports [SAR]). Similarly, Abu Dhabi has an AUM of \$579.62 billion, while its GDP is \$354 billion, and the same is the case of most of the countries where the AUM of the SWF exceeded the GDP of their nation.

There is a wonderful opportunity for India setting up its SWF. Countries, such as Kuwait set up their SWF a good 70 years ago (1950). In 2015, India set up The National Investment and Infrastructure Fund (NIIIF) with an investment of ₹20,000 crores for co-investing in domestic infrastructure projects. In my view, this was too late, too little, and is just an infrastructure investment fund and not what India could have leveraged from a SWF.

Top 10 Sovereign Wealth Funds

	Country	Annual GDP	Population	Sovereign Wealth Fund (AUM)	Fund name
1	Norway	\$414.23 Billion*	5.4 Mn**	U.S. \$1.18 Trillion	Norway Government Pension Fund Global
2	China	\$16.49 Trillion*	1.43 Bn**	U.S.\$940.6 Billion	China Investment Corporation
3	Abu Dhabi	Approx. \$354 Bn.	1.48 Mn***	U.S.\$579.62 Billion	Abu Dhabi Investment Authority
4	Kuwait	\$116.13 Billion*	4.2 Mn**	U.S.\$533.65 Billion	Kuwait Investment Authority
5	Hong Kong - China	\$364.68 Billion*	7.4 Mn**	U.S.\$528.05 Billion	Hong Kong Monetary Authority
6	Singapore	\$362.52 Billion*	5.8 Mn**	U.S.\$453.2 Billion	GIC Private Limited
7	China	\$16.49 Trillion*	1.43 Bn**	U.S.\$417.84	SAFE Investment Company
8	Singapore	\$362.52 Billion*	5.8 Mn**	U.S.\$375.38 Billion	Temasek Holdings
9	Saudi Arabia	\$735.48 Billion*	34.81 Mn**	U.S.\$360 Billion	Public Investment Fund
10	China	\$16.49 Trillion*	1.43 Bn**	U.S.\$325 Billion	National Council for Social Security Fund

Source: Statista. July 2020.

*IMF Oct 2020 (GDP @Current Prices)

**2020 Worldometers

***World Population Review

The path India should take for its SWF



The Bharat Sovereign Wealth & Development Fund should have precise functions; one is to manage the money/wealth and grow it, and the second is to be an active investor. The structure should be vertically oriented.

On the wealth and money manager role, it should manage both the performing and non-performing assets and grow them; and on the investor side, it must invest in both existing and emerging sectors.

How to create the SWF?

Land Banks of Government / Government undertakings should be brought under this SWF

PSU holdings/ EPF should be transferred to the SWF

Large portion of the RBI profits should be parked into SWF leaving only the BOP and debt needs

1% of the tax receipts should be allocated to SWF

Foreign exchange reserves are not yielding much for India and a portion of the same may be parked in SWF*

Sick PSUs be handed over to the SWF turnaround team

Offset clause / capital of international deals be parked in the SWF

Set up Bi-lateral funds, JV funds with FIIs, family offices and other SWFs

*Keeping the reserves for short-term debt (due in one year) and forex needed for imports in one year, and the remaining forex reserves could be parked in the SWF

BOP, balance of payment; EPF, employees provident fund; FII, foreign institutional investors; JV, joint venture; PSU, public sector undertaking; RBI, Reserve Bank of India; SWF, Sovereign Wealth Fund

SWF can

Catalyze and become the nucleus of India's growth story

Be a Mid- & Long-term Investor and Long-term Wealth Manager

Assess, consolidate, and monetize the assets

Insulate the economy against shocks

Be a strategic global investor

Boost the domestic economy

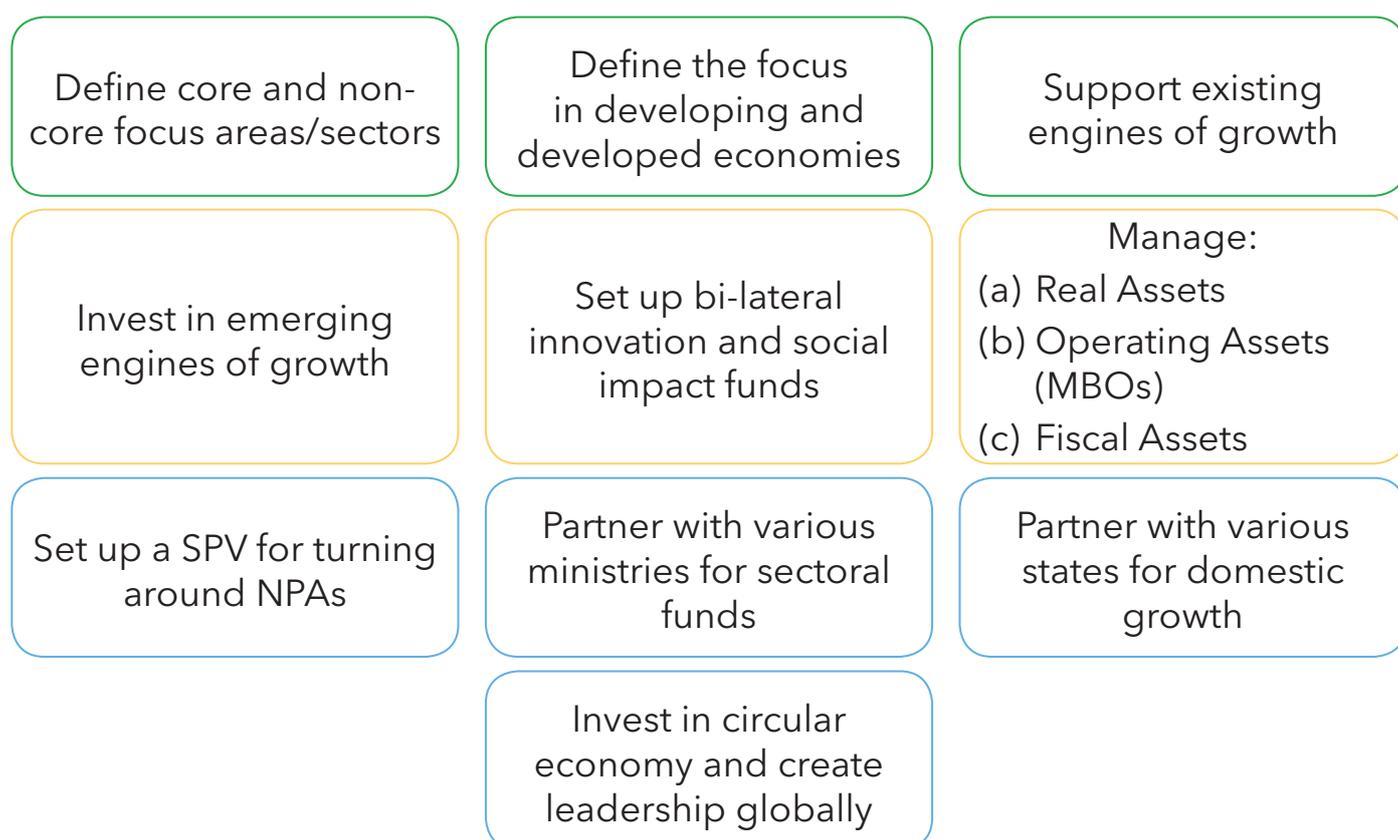
Create jobs

Support Development – socio-economic return - SDGs

Deliver a Minimum return of 10%. Definitely more than the cost of capital

1. SWF can leapfrog India's economy with a quantum jump, and that too, with multi-dimensional impact.
2. Grow India's stature as an economy and real power besides the soft power. I believe that if the SWF idea is executed well, India's SWF may be around \$3-5 trillion to start with, and it can become \$10 trillion in the next decade if it is managed properly.
3. India (SWF) can strategize the sectors and countries where it needs to invest and create sizeable holdings in key economies of the world and critical sectors.
4. When the SWF invests in companies across the world, it can push the organizations where it invests to start operations or office in India, thereby creating local jobs.
5. SWF can secure future generations and help make provision for India's needs for social security for its aging population and development needs.
6. Once this SWF grows big, it can help balance short-term fiscal positions for the government, insulate the budget and economy against volatility—generally commodity price fluctuations—serve as an additional policy tool for meeting government payment and foreign exchange.
7. Create long-term assets with social impact.
8. It can insulate the economy from shocks with its holdings.
9. SWF can balance private sector anti-competitive practices and monopolies.
10. Boost domestic companies with the risk and growth capital, and support India in creating \$3-5 trillion Indian corporations by 2035.

Strategy for the SWF



- The vision should be long-term investments in early and growth-stage companies and sectors
- Companies that have a scope for listing may deliver the highest return on their listing, and this could be a focus of the SWF
- SWF should look at real assets, operating assets, and fiscal assets. Essentially, considering risk, return, and diversification
- SWF should have a vertical approach for investment and AUM
- On the verticals, it could address the existing and new or emerging sectors. Like on the existing one, it could be aviation, agriculture, real estate, etc.; and on the new and emerging sectors, this could include AI, robotics, space exploration, etc. The sectoral and vertical focus could help to cross-subsidize
- Define the core and non-core areas. For the core areas, the holding and association should be more than strategic
- Hire subject matter experts (SMEs) for its sectoral investment and management filling a huge need gap for setting up strategic PSUs
- Set up bi-lateral funds with various institutions and governments
- Set up a special-purpose vehicle (SPV) for non-performing assets (NPAs) and taking sick units directly or from BIFR (Board of industrial and financial Reconstruction) and turning them around and then, either running them or divesting them to cash out
- Strategic investments clubbed with social impact investments can further geo-strategize political partnerships
- It might be useful to consider the SWF returns for the first 5-7 years, and then, only invests the 'return' saving the capital. But this would need more discussions based on the quality and quantity of assets under the SWF management

Governance of the SWF

- The SWF should be insulated from political interference, bureaucratic controls, and judicial interventions. The institutional structure and reporting should ring-fence it from bureaucracy and judiciary
- SWF should be run by the best professionals from around the globe
- SWF should have sector-specific mandates
- As a long-term strategic investor, its mandate should be approved by the select committee of public representatives (Parliament), who are capable of understanding and furthering the vision
- The SWF's performance report should be submitted to the Parliament every year and vetted by the national auditor with a team dedicated to audit the SWF. Though, the investment decisions of the SWF should not go beyond the internal investment committee defined by the board of directors

- The SWF board should have no serving or retired bureaucrat or judge or a government official
- All hiring decisions should be made by the SWF independently

Salary of the SWF Staff

- Pay for performance/outcomes: Market linked salaries be split into a fixed component and a variable component linked to the SWF's performance. So, if the SWF shows 15% growth in a year, the salaries of the key staff could be increased by 50% of the fund's annual growth, say 7.5% in this case. So, the team will work to maximize their return of the variable salary component and thereby, increasing the overall return for the SWF

Examples - Success Stories - Case Studies

- Saudi Aramco had 40 planes, and it formed a leasing company to monetize, and it also started hospitals. It is an interesting example of how assets can be monetized
- Mubadala was established in 2002, and is a global investment entity with a presence in 50 countries with a clear mandate for United Arab Emirates (UAE's) economic diversification and global integration. Today, 50.3% of Abu Dhabi's total GDP is not related to hydrocarbons. The story of Mubadala's success in transforming the nation is a success story of an SWF²
- Temasek contributed \$380 billion to the development of a more sustainable food system²
- Mubadala (Abu Dhabi) has invested \$12.5 billion in solar and wind power projects through its wholly-owned subsidiary Masdar²
- Masdar city has a population of 4000 with 600 companies now operating out of the city from global corporations to local enterprises. The city gets 10,000 visitors per month²
- Mubadala made a critical and strategic investment in the aerospace industry, which stimulated the aerospace sector from scratch and led to partnerships with aircraft makers, such as Boeing, Airbus, and GE. This SWF (Mubadala) is a part of the overall vision to diversify the economy beyond fossil fuels. It has generated hundreds of aerospace-related jobs for locals— Emirates²
- CIC (China) has acquired a 100% controlling stake in Cadent Gas in the UK²
- Ireland Strategic Investment Fund (ISIF) was founded in 2014 with a mandate to support economic activity and employment in the state²
- Khazanah (Malaysia)—SWF was founded in 1994 to manage the government's commercial assets and invest in strategic and high-technology sectors. The fund has grown significantly, and it has now started investing in other sectors and geographies and opened its offices in Beijing, Mumbai, Istanbul, San Francisco, and Shanghai²
- Ireland's National Treasury Management Agency in 2018 issued \$3 billion in climate bonds to finance green projects in Ireland²
- Singapore's Temasek has generated a 40-year total shareholder return of 18 percent: Malaysia's Khazanah has a 10-year internal rate of return of 13 percent. South Africa Public Investment Corporation has a 10-year internal rate of return of 16 percent⁶

- Private markets had the potential for higher returns than public markets (IFSWF, 2016). SWF allocation was 28.5% in domestic markets and 71.5% in foreign markets. According to a report, SWF allocation in developed markets was 92.5% and emerging markets was 7.5%⁶
- Real estate and infrastructure remain the most favored asset class for SWFs. Investments from SWFs in hedge funds have grown over the years⁵
- The Russian Direct Investment Fund's mandate is to act as a catalyst and attract \$25 billion of foreign direct investment (FDI) in Russia. In its first four years, this fund has already signed deals with 20 institutional investors⁴

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RECOMMENDATIONS

Healthcare

- To have a national repository of genome data
- Change of our Healthcare/ data governance model
- Nationwide digital protocol for healthcare results
- A focused approach on insulin-dependent type 1 diabetes, gestational diabetes, and juvenile diabetes
- Protocol on the home testing frequency for diabetes must be set
- Focus on preventive healthcare
- To propel growth of the AYUSH healthcare system, a vast network infrastructure entailing R&D, testing, manufacturing, and processing is needed in proportion to rising demand

Agriculture

- Promote natural farming, new farming techniques
- Focus on education and mentorship in the agri sector
- Training on demand-based crop planning
- Focus on pulses, oils, vegetables, and horticulture
- Technology infrastructure and supply system/chains must be focused on
- Diversification of food must be top priority for the government along with food forest and nutritional research

Rural development

- Data concerning the rural areas must be given importance
- Rural areas must be looked like a business model

Litigation

- Penalties on frivolous litigation and time limits to resolution must be focused on
- Allow contingency fee-based litigation
- Class action lawsuits and removal of caps on civil penalties

- Virtual testification for witnesses

Industries

- Emphasis on R&D clusters
- Increase of R&D tax benefits
- Employing the 1000 talents
- Incentivizing them to train people to be employed
- Group marketing campaign for Indian MSMEs
- Create Collaterals at HS Code Level featuring carefully selected representative MSMEs
- Out-bound Promotion Campaigns at HS Code Level for Lead Generation
- Internal request for proposal (RFP) process to submit proposals to leads
- Project managers to provide oversight and facilitation
- Policies that incentivize flow of corporate capital and savings as investments into the markets
- Regulatory leeway of say five years can be given to industries which fulfill all the pre-requisite conditions
- Change in the license era
- Simplifying the process for avenues of capitals raised in India
- One point of contact at the government level

Tourism

- Investing in both physical and digital infrastructure developments to provide travelers in India last mile safety and connectivity
- Skill development program for the last mile service operators
- Building a technology solution that integrates safe travels

Startups

- Early stage of seed funding and angel funding
- Incentivizing them to train people to be employed
- Change in governments requirement from start-ups to have a three-year performance and positive net worth documentation

Environment

- Focus on improving environmental laws and compliance structures in place to ensure economic growth that is truly sustainable
- An independent regulatory body needs to be established to attain sustainability

Education

- Policy makers need to consider Nuclear Fusion as a course
- Task force of engineers to contribute to cyber security and cyber attack

Funding for Long-term Growth needs of India

- Sovereign Wealth Fund

Finance sector

- Brother and sister joint housing loans should be allowed

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